



KARNATAK UNIVERSITY, DHARWAD
ACADEMIC (S&T) SECTION

ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

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ದಿನಾಂಕ 1 AUG 2026

ಅಧಿಸೂಚನೆ

ವಿಷಯ: 2026-27ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಸ್ನಾತಕ ಪದವಿ-1, 2ನೇ ಹಾಗೂ 5, 6ನೇ ಸೆಮಿಸ್ಟರ್‌ಗಳಿಗೆ ಪಠ್ಯಕ್ರಮ ಅಳವಡಿಸಿರುವ ಕುರಿತು.

ಉಲ್ಲೇಖ: 1. ಎಲ್ಲ ನಿಖಾಯಗಳ ಸಭೆ ಜರುಗಿದ ದಿನಾಂಕ: 23 / 24 / 25.07.2026.

2. ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಅನುಮೋದನೆ ದಿನಾಂಕ: 20-07-2026.

ಮೇಲ್ಕಾಣಿಸಿದ ವಿಷಯ ಹಾಗೂ ಉಲ್ಲೇಖಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ, ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಅನುಮೋದನೆ ಮೇರೆಗೆ, ಸನ್ 2026-27ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯದ ಸ್ನಾತಕ ಪದವಿಗಳಾದ BA / B.Com / B.Sc / BCA / BBA ಮತ್ತು ಇನ್ನಿತರ ವೃತ್ತಿಯೇತರ / ವೃತ್ತಿಪರ ಕೋರ್ಸುಗಳಿಗೆ 1 ಮತ್ತು 2ನೇ ಸೆಮಿಸ್ಟರ್ ಹಾಗೂ 2026-27ನೇ ಸಾಲಿಗೆ 5 ಮತ್ತು 6ನೇ ಸೆಮಿಸ್ಟರ್‌ಗಳಿಗೆ ಪಠ್ಯಕ್ರಮವನ್ನು ಅಳವಡಿಸುವ ಕುರಿತು ಮುಂಬರುವ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ಸ್ಪೀಕರೀಕರಣಕ್ಕೊಳಪಟ್ಟು (Pending approval of Academic Council) ಅಧಿಸೂಚನೆ ಪ್ರಕಟಿಸಿದೆ. ಆದರಂತೆ, ಪಠ್ಯಕ್ರಮವನ್ನು ಕ.ವಿ.ವಿ. ಅಂತರ್ಜಾಲ www.kud.ac.in ದಲ್ಲಿ ಬಿತ್ತರಿಸಲಾಗಿದೆ. ಸದರ ಪಠ್ಯಕ್ರಮವನ್ನು ಕ.ವಿ.ವಿ. ಅಂತರ್ಜಾಲದಿಂದ ಡೌನ್‌ಲೋಡ್ ಮಾಡಿಕೊಳ್ಳಲು ಸೂಚಿಸುತ್ತ ವಿದ್ಯಾರ್ಥಿಗಳು ಹಾಗೂ ಸಂಬಂಧಿಸಿದ ಎಲ್ಲ ಬೋಧಕರ ಗಮನಕ್ಕೆ ತಂದು ಅದರಂತೆ ಕಾರ್ಯ ಪ್ರವೃತ್ತರಾಗಲು ಸೂಚಿಸಲಾಗಿದೆ.

N. Ramiah
ಕುಲಸಚಿವರು 31/7/26

ಅಡಕ: ಮೇಲಿನಂತೆ

ಗೆ,
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯದ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಬರುವ ಎಲ್ಲ ಅಧೀನ ಹಾಗೂ ಸಂಬಂಧ ಮಹಾವಿದ್ಯಾಲಯಗಳ ಪ್ರಾಚಾರ್ಯರುಗಳಿಗೆ. (ಕ.ವಿ.ವಿ. ಅಂತರ್ಜಾಲ ಹಾಗೂ ಮಿಂಚಂಚೆ ಮೂಲಕ ಬಿತ್ತರಿಸಲಾಗುವುದು)

ಪ್ರತಿ:

1. ನೋಡಲ್ ಅಧಿಕಾರಿಗಳು, UUCMS ಘಟಕ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
2. ನಿರ್ದೇಶಕರು, ಐ.ಟಿ. ಶಾಖೆ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
3. ಕುಲಪತಿಗಳ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
4. ಕುಲಸಚಿವರ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
5. ಕುಲಸಚಿವರು (ಮೌಲ್ಯಮಾಪನ) ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
6. ಅಧೀಕ್ಷಕರು, ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ / ಗೌಪ್ಯ / ಜಿ.ಎ.ಡಿ. / ವಿದ್ಯಾಂಡಳ (ಪಿ.ಜಿ.ಪಿ.ಎಚ್.ಡಿ) ವಿಭಾಗ, ಸಂಬಂಧಿಸಿದ ಕೋರ್ಸುಗಳ ವಿಭಾಗಗಳು ಪರೀಕ್ಷಾ ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.



KARNATAK UNIVERSITY, DHARWAD

Draft Regulations and Syllabus for I to VIII Semester for the

Integrated Teacher Education Programme

(ITEP) – BA.B.Ed./B.Sc.B.Ed

Middle Stage (Grades 6–8)

with effect from the **academic year 2025–26 and onwards.**

Draft Regulations and Syllabus for I to VIII Semester for the Integrated Teacher Education Programme (ITEP) – BA.B.Ed/BSc.B.Ed Middle Stage (Grades 6–8)

(Effective from Academic Session 2025–26 and onwards)

Preamble

The **Integrated Teacher Education Programme (ITEP)** is a flagship initiative under the **National Education Policy (NEP) 2020**, designed to restructure and strengthen teacher preparation in India. This Programme combines **disciplinary knowledge, education theory, pedagogy, school-based practice, and value education** into a unified four-year degree, replacing fragmented models of teacher education.

The Integrated Teacher Education Programme (ITEP) is a **four-year dual-major undergraduate degree** (BA.B.Ed./B.Sc.B.Ed.) designed to prepare professional and competent teachers for the **Middle Stage (Grades 6–8)**, as envisaged by **NEP 2020**. The Programme integrates disciplinary knowledge with pedagogical training and extensive school-based experience.

The present regulations define the framework for the **ITEP with Middle Stage Specialization (Grades 6–8)**. They aim to ensure uniformity in Programme structure across universities, while allowing contextual flexibility. These regulations are issued in line with the directions of the **National Council for Teacher Education (NCTE)**, with the approval of the Academic Council/Statutory Body of the University.

Short Title, Commencement, and Applicability

1.0 Short title

These regulations shall be called the “**Regulations and Syllabus for I to VIII Semester for the Integrated Teacher Education Programme (ITEP) – BA. B.Ed/ BSc.B.Ed Middle Stage (Grades 6–8), 2025–26**”.

They shall come into force with effect from the **academic year 2025–26 and onwards**.

They shall apply to all University College of Education (B.Ed), Institutions/Colleges of Education (B.Ed) affiliated Colleges offering the **ITEP (Middle Stage)** under the jurisdiction of this University.

1.1 Objectives

The objectives of these Regulations are to:

- ✎ Provide a **dual-major four-year undergraduate Programme** preparing teachers for Grades 6–8.
- ✎ Integrate **disciplinary knowledge with education and pedagogy**.
- ✎ Align teacher preparation with **NEP 2020 curricular structure (5+3+3+4)**.
- ✎ Develop **professional, inclusive, reflective, and socially responsive teachers**.
- ✎ Promote **multiple entry-exit options** in accordance with the National Higher Education Qualifications Framework (NHEQF).

1.2 Definitions

For the purpose of these Regulations:

- **ITEP** means the Integrated Teacher Education Programme leading to B.A. B.Ed., B.Sc. B.Ed. degrees.
- **Middle Stage** refers to **Grades 6–8 (ages 11–14)** in the school system as per NEP 2020.
- **Disciplinary Course** means a subject chosen from Humanities, Sciences, Commerce, or Interdisciplinary domains.
- **Pedagogy Course** refers to content-cum-methodology training specific to school subjects at the Middle Stage.
- **School Experience** refers to observation, practicum, peer-teaching, and internship components carried out in schools.
- **University** means the affiliating University/Institution empowered to award the degree that's Karnatak University, Dharwad.

1.3 Intake

The intake criteria shall be as per the NCTE Regulations governing the Integrated Teacher Education Programme (ITEP) and as per the intake granted to the institutions offering the Integrated Teacher Education Programme (ITEP).

1.4 Admission and Eligibility

- ✎ Admission shall be open to candidates who have completed **10+2 or equivalent examination** with at least **50% marks** for Unreserved (GM) candidates and 45% for reserved(SC, ST, C-I) categories or as per the government norms and university notification.
- ✎ Admission shall be through NTA NCET/CUET or an **appropriate entrance test/selection process** as prescribed by NCTE/University.
- ✎ Reservation policy of the Government shall be applicable.

1.5 Duration and Structure

The Programme shall be of **Four Years duration (Eight Semesters)**.

The **Multiple Entry–Exit framework** shall be available:

- After 1 year: Certificate in Education
- After 2 years: Diploma in Education
- After 3 years: B.A./B.Sc. in chosen discipline
- After 4 years: Dual Major Degree (B.A. B.Ed. / B.Sc. B.Ed.)

1.6 Medium of instruction and examination shall be **English and/or Regional Language** as approved by the University.

1.7 Dual Major Degree

One in **Education**, another in a chosen discipline (Humanities/Sciences/Commerce/Interdisciplinary).

1.8 Stage-Specific Specialization

Focus on Middle Stage pedagogy and child development.

1.9 Vertical Mobility

Eligible for Master's in Education or in chosen disciplinary subject.

1.10 Credit System

Minimum 15 hours of classroom instruction per credit; 30 hours for practicum.

2.0 Semester System

The Stage-Specific ITEP will be organized on the semester pattern with two semesters in an academic year. Each semester will consist of 15-16 weeks of teaching-learning activities, excluding end-semester examinations. A semester will consist of a minimum 96 working days, excluding end-semester examination days. Each working week will have a minimum of 40 hours of instructional/contact time.

2.1 Credit-hours for Courses of Study

Taught courses involving classroom teaching and structured interaction require a minimum of 15 hours of instructional/contact time per credit in a semester. Practicum requiring students to participate in an approved project or practical activity will require a minimum of 30 hours of student engagement per credit in a semester. This will be applicable to activities such as seminars, internships, lab-based activities, studio activities, workshop-based activities, field-based learning/projects and practices, community engagement and service, etc.

2.2 Graduate Attributes of ITEP (Middle Stage – Grades 6–8)

The **Integrated Teacher Education Programme (ITEP)** with **Middle Stage Specialization** seeks to develop in student-teachers a set of **knowledge, skills, capacities, and dispositions** that will enable them to become competent, reflective, and socially responsive educators. These attributes represent the **learning outcomes** expected of every graduate completing the Programme.

2.2.1 Knowledge and Understanding

Graduates of Middle Stage ITEP will demonstrate:

- ✎ A comprehensive understanding of the **aims of education, curricular goals, competencies, and learning outcomes** defined for **Grades 6–8**.
- ✎ In-depth knowledge of at least **two school subjects** (Major and Minor) taught at the Middle Stage, along with interdisciplinary linkages.
- ✎ Awareness of the **psychological, social, and cultural dimensions of early adolescence**, including the challenges faced by learners aged 11–14.
- ✎ Conceptual clarity of **pedagogical approaches** for activity-based, project-based, and experiential learning suited for Middle Stage.

2.2.2 Pedagogical and Professional Skills

Graduates will possess:

- ✎ Capacity to **design and deliver developmentally appropriate learning experiences** that promote physical, cognitive, socio-emotional, ethical, and creative growth of Middle Stage learners.
- ✎ Competence in **stage-specific pedagogy** for subjects such as Mathematics, Science, Social Sciences, Languages, Arts, Physical & Vocational Education.
- ✎ Ability to integrate **ICT tools, arts-based pedagogy, and sports-based pedagogy** in classroom practice.
- ✎ Skills in **developing and using teaching-learning materials (TLMs)** including low-cost, local, and digital resources.
- ✎ Proficiency in **assessment for, of, and as learning**, using multiple methods such as projects, rubrics, peer/self-assessment, and portfolios.
- ✎ Classroom management skills, including the ability to foster **collaborative learning, critical dialogue, and inclusive participation**.

2.2.3 Inclusive and Contextualized Practice

Graduates will demonstrate:

- ✎ Commitment to **inclusive education**, addressing the needs of children from diverse linguistic, cultural, socio-economic backgrounds, and those with disabilities or learning difficulties.
- ✎ Sensitivity towards **gender equity, social justice, and respect for diversity** in the classroom and community.
- ✎ Ability to engage with parents, caregivers, and community members to **mobilize support for adolescent learning and retention**.
- ✎ Skills to adapt pedagogy to **local contexts, indigenous knowledge systems, and community resources**.

2.2.4 Values and Dispositions

Graduates will embody:

- ✎ Respect for the **Constitutional values** of justice, liberty, equality, fraternity, secularism, and democratic citizenship.
- ✎ **Empathy, care, patience, and ethical responsibility** in dealing with adolescent learners.
- ✎ Positive attitudes towards **lifelong learning, reflective practice, and professional development**.
- ✎ Strong sense of **national identity and global outlook**, fostering cultural rootedness alongside openness to global knowledge.
- ✎ Commitment to **environmental sustainability and social responsibility**.

2.2.5 21st Century Competencies

ITEP graduates will be equipped with:

- ✎ **Critical thinking, problem-solving, and creativity**.

- ✎ **Digital literacy** and ability to use educational technology effectively.
- ✎ **Collaboration and teamwork** skills in professional and community contexts.
- ✎ Effective **oral, written, and multimodal communication**.
- ✎ Leadership readiness for contributing to school transformation and educational innovation.

2.2.6 Stage-Specific Competencies for Middle Stage (Grades 6–8)

Graduates will specifically demonstrate:

- ✎ Ability to **teach two school subjects effectively** with developmentally appropriate pedagogy.
- ✎ Skills in bridging the **transition from Preparatory Stage (Grades 3–5) to the analytical and disciplinary learning of the Secondary Stage (Grades 9–12)**.
- ✎ Competence in nurturing **curiosity, reasoning, scientific temper, and creativity** among adolescents.
- ✎ Capacity to guide students in areas of **career awareness, health, well-being, and value education** relevant to early adolescence.
- ✎ Ability to manage **peer interactions, identity formation, and socio-emotional challenges** typical of Middle Stage learners.

2.3 Curricular Thrusts of ITEP – Middle Stage (Grades 6–8)

The **Middle Stage (Grades 6–8; ages 11–14)** is a critical period of schooling, where learners move from **activity-based exploratory learning** of the Preparatory Stage to a more **analytical, disciplinary and abstract mode of learning**. The **Integrated Teacher Education Programme (ITEP)** at this stage aims to equip student-teachers with knowledge, skills, and values required to **nurture curiosity, reasoning, creativity and socio-emotional growth** of adolescents.

2.3.1 Holistic Development of Adolescents

- ✎ Curriculum designed to promote **physical, cognitive, socio-emotional, ethical and creative development**.
- ✎ Special attention to **identity formation, peer interaction, emotional well-being, and value education**.
- ✎ Integration of **arts, sports, yoga and vocational elements** into teaching-learning practices.

2.3.2 Strong Foundations in Disciplinary Knowledge

- ✎ Rigorous engagement with **core school subjects**: Languages, Mathematics, Science, Social Sciences, Arts and Physical/Vocational Education.
- ✎ **Interdisciplinary learning** that connects knowledge across subjects (e.g., environment and sustainability, Indian knowledge systems).
- ✎ Emphasis on **conceptual clarity and application** rather than rote learning.

2.3.3 Learner-Centered and Inclusive Pedagogy

- ✎ Adoption of **activity-based, project-based and experiential learning methods**.

- ✎ Classroom practices responsive to **diverse socio-economic, linguistic, and cultural contexts** of learners.
- ✎ Strategies for **inclusive education**, enabling participation of children with disabilities and those from disadvantaged groups.

2.3.4 Integration of Technology and Innovation

- ✎ Pedagogical use of **ICT, digital tools and e-resources** to enhance teaching-learning-assessment.
- ✎ Encouragement of **blended learning models** suited to adolescent learners.
- ✎ Use of **AI, data interpretation, simulations and gamification** where appropriate to develop 21st-century skills.

2.3.5 Development of Critical and Creative Thinking

- ✎ Curriculum designed to promote **logical reasoning, problem-solving, creativity and inquiry-based learning**.
- ✎ Opportunities for **scientific exploration, mathematical reasoning and historical/ethical reflection**.
- ✎ Integration of **debates, discussions and collaborative projects** to strengthen higher-order thinking skills.

2.3.6 School Experience and Field Engagement

- ✎ Progressive engagement with **real classroom settings** from observation to peer teaching and full internships.
- ✎ Reflection on school culture, learner diversity, classroom management, and community linkages.
- ✎ Opportunities for **action research and innovation projects** in partnership with schools.

2.3.7 Community Engagement

- ✎ Direct involvement of student-teachers in **local community initiatives, literacy missions and environmental campaigns**.
- ✎ Building awareness among adolescents on **health, nutrition, digital literacy, gender sensitivity and civic responsibility**.
- ✎ Promoting the idea of education as a **social service for nation-building and community development**.

2.3.8 Teacher as Mentor and Facilitator

- ✎ Preparation of teachers not merely as transmitters of knowledge, but as:
 - ✓ **Guides and counselors** for adolescent learners.
 - ✓ **Designers of meaningful learning experiences**.
 - ✓ **Leaders of innovation** in school contexts.
 - ✓ **Role models of Constitutional values, ethics and empathy**.

2.4 Curricular Structure

The curriculum is guided by NEP 2020 principles and includes:

2.4.1 Foundations of Education (Philosophical, Psychological, Sociological, Policy Perspectives).

2.4.2 Disciplinary / Interdisciplinary Studies (Major/Minor subject areas).

2.4.3 Stage-Specific Content-Cum-Pedagogy (Grades 6–8 curriculum, subject-specific pedagogy).

2.4.4 Ability Enhancement & Value-Added Courses (ICT, Indian Knowledge Systems, Gender Studies, Environmental Education).

2.4.5 School Experience & Internship (progressive practicum in Middle Schools).

2.4.6 Community Engagement (NSS, local initiatives, literacy, environmental awareness).

2.5 Semester-wise Progression

2.5.1 Semesters 1–2: Foundations, language enhancement, introductory pedagogy, induction programme.

2.5.2 Semesters 3–4: Disciplinary courses, child development, practicum in Grade 6 classrooms.

2.5.3 Semesters 5–6: Stage-specific pedagogy (Maths, Science, Social Science, Languages for Grades 6–8), short school internship.

2.5.4 Semesters 7–8: Full-time school internship in Middle Schools, action research, community engagement, preparation of teaching-learning material.

3.0 Course Structure and Credit Distribution

3.1 Semester-wise Summary ITEP BA B.Ed and BSc B.Ed

ITEP BA B.Ed (English & History) Middle Stage (Grades 6–8) Course & Credit Structure

Semester	I	II	III	IV	V	VI	VII	VIII	Total
DSC-Major	4	4	4	4	4	4 4 (Project)	--	--	48
		4	4	4	4 4 (Elective)	-	--		
DSC-Minor-1	4	4	4	4	--	--	--		16
DSC-Minor-2	4	4	4	4	--	--	--		16
Content-Cum Pedagogy	--	--	2 2	2 2	2 2	2 2	--	--	16
Foundation Courses	4	--	4	4	--	2 2	2 2	4 2 4 (Elective)	30
Ability Enhancement & Value- Added Courses	4 2 2	4 2 2	--	--	2	2	2 2	2 2	28
School Experience	--	--	--	--	2	2	2 10	2 2	20
Community Engagement	--	--	--	--	--	--	--	2	2
Total Credits	24	24	24	24	20	20	20	20	176
Total Marks	600	600	600	600	500	500	500	500	4400

ITEP BSc B.Ed (Mathematics & Physics) Middle Stage (Grades 6–8) Course & Credit Structure

Semester	I	II	III	IV	V	VI	VII	VIII	Total
DSC-Major 1	4+0=4	4+2=6	4+2=6	4+0=4 4+2=6	4+2=6 4+2=6	0+4=4 4+2=6	--	--	48
DSC-Minor-1	4+0=4	4+0=4	4+0=4	4+0=4	--	--	--	--	16
DSC-Minor-2	4+0=4	4+0=4	4+0=4	4+0=4					16
Content-Cum Pedagogy	--	--	2 2	2 2	2 2	2 2	--	--	16
Foundation Courses	4	--	4	4	--	2 2	2 2	4 2 4	30
Ability Enhancement & Value-Added Courses	4 2 2	4 2 2	--	--	2	2	2 2	2 2	28
School Experience	--	--	--	--	2	2	2 10	2 2	20
Community Engagement	--	--	--	--	--	--	--	2	2
Total Credits	24	22	22	26	20	22	20	20	176
Total Marks	600	550	550	650	500	550	500	500	4400

3.2 Credit Summary

- **Foundations of Education** – 30 Credits
- **Disciplinary courses** – 64 credits
- **Interdisciplinary courses** – 16 Credits
- **Stage-Specific Pedagogy (Middle Stage)** – 16 Credits
- **Ability Enhancement & Value-Added Courses** – 28 Credits
- **School Experience & Internship** – 20 Credits

- **Community Engagement & Service – 2 Credits**
- **Total – 176 Credits**

4.0 Assessment and Evaluation (60:40 Pattern)

Evaluation shall follow the **60:40 pattern**.

- **60% External Examination** (conducted by the University).
- **40% Internal Assessment** (conducted by the Department/College).

4.1 End-Semester Examination (60%)

- Conducted by the University.
- Written, practical, or viva-voce depending on the course.
- Tests knowledge, comprehension, application, analysis, and reflection.

4.2 Continuous Internal Assessment (40%)

- Conducted by teachers/departments.
- Components may include:
 - Written tests / quizzes
 - Assignments and projects
 - Seminar presentations
 - Lesson plans and micro-teaching
 - Reflective journals, portfolios
 - Peer/self-evaluation

4.3 Course-Wise Distribution

- **Theory Courses:** 60 External + 40 Internal
- **Practicum / Ability Enhancement Courses:** 30 External + 20 Internal = 50 Marks
- **School Internship:** 60 External (School/University evaluation) + 40 Internal (Mentor + Portfolio)
- **Community Engagement:** 50 Marks (based on reports, presentations, reflection)

4.4 Minimum Requirements for Passing Criteria:

- There shall be no minimum or separate passing marks for the IA examination. The candidate has to score minimum 50% in the semester-end examination (Ex: for 100 marks paper; 40 IA+60 semester-end exam and hence, minimum 30 marks for semester-end exam required). And also 50 percentage in aggregate including internals.
- If the course is having both theory & practical independently. If the candidate fails in practical and passes in theory examination, such candidate shall reappear for practical examination only and vice versa.
- In all cases of failure in particular course, IA marks shall be protected & carried forward; and the candidate need not to appear for IA examinations in such cases.

- On successful scoring of minimum 50% in all courses, the candidate shall be declared pass in the Programme in the semester.
- On successful scoring of minimum 50% in all courses and all the semesters, the candidates shall be declared pass in the entire Programme.
- **80% attendance** in theory, **90% attendance** in practicum/internship is mandatory.

4.5 Declaration of Results

Declaration of Results

- ✎ Results will be declared **semester-wise** on SGPA
- ✎ Cumulative Grade Point Average (CGPA) will be calculated across eight semesters.
- ✎ Final degree classification will be based on:
 - ✓ **CGPA Score** (in line with University/UGC norms).
 - ✓ Satisfactory completion of internship, community engagement, and practicum.

SGPA & CGPA System

Percentage and Grading Scale

Percentage	Grade Point (GP)	Grade
<50	<5.0	F
50	5.0	C
51-55	5.5	C+
56-60	6.0	B
61-65	6.5	B+
66-70	7.0	B++
71-75	7.5	B+++
76-80	8.0	A
81-85	8.5	A+
86-90	9.0	A++
91-95	9.5	A+++
96-100	10	O

Note: To pass a course, a student must secure at least **Grade P (4.0 GP, 40%)** separately in internal and external.

Calculation of SGPA

SGPA = $\frac{\text{Sum of credit points}}{\text{Sum of credit hours}}$

Sum of credit hours

Calculation of CGPA for VIII Sem

CGPA = $\frac{\text{Sum of all semester credit points}}{\text{Sum of all semester credit hours}}$

Sum of all semester credit hours

Question Paper Pattern

The University shall prescribe the following **Question Paper Pattern** for all theory and practicum courses under the Integrated Teacher Education Programme (ITEP – Middle Stage):

A. Theory Papers (100 Marks: 60 External + 40 Internal)

1. **Duration:** The duration of Theory Papers carrying 60 Marks will be **02 hours**.
2. The question paper of theory subjects will consist of two sections viz; Section-A and Section-B; Section-A comprising 08 questions of 04 marks each. The students are expected to answer any 05 questions of their choice among given questions in this section and Section-B comprising 08 questions of 08 marks each. The students are expected to answer any 05 questions of their choice among given questions in this section. The question paper setters are supposed to draft the items in the question paper by covering the content from the entire syllabus.
3. The **internal assessment** (40 marks) shall be awarded based on:
 - Class tests, assignments, presentations – 20 marks.
 - Lesson planning/micro-teaching/seminar participation – 10 marks.
 - Attendance/participation and reflective journal – 10 marks.

B. Practicum/Value-Added Courses (50 Marks: 30 External + 20 Internal) Duration: 01 hours.

1. The paper shall consist of **short notes and one long-answer/essay question**, scaled to 30 marks for external.
2. Internal assessment (20 marks) shall be awarded on the basis of:
 - Practical activities/assignments – 15 marks.
 - Attendance/participation – 05 marks.

C. School Experience & Internship

1. Internship courses shall be evaluated jointly by **university examiners and school mentors**.
2. Distribution of marks:
 - External evaluation (University appointed examiners): **60%**.
 - Internal evaluation (school mentors + faculty supervisors): **40%**.
3. Components include:
 - Preparation of lesson plans, delivery of lessons, use of ICT.
 - Maintenance of internship diary and reflective journal.
 - Community participation and interaction with school stakeholders.

D. Community Engagement / Extension Activities 50 Marks

1. External (30 marks) – assessed through reports, presentations, and viva-voce by University-appointed examiners.
2. Internal (20 marks) – based on participation, initiative, and reflective assignments assessed by faculty.

E. General Instructions to Paper Setters and Examiners

1. The question paper shall ensure **coverage of the entire syllabus**.
2. Questions shall be framed to test **understanding, application, critical thinking, and pedagogical insight**, not rote learning.
3. Language of the question paper shall be **English and/or Hindi**, as approved by the University.
4. Paper setters must indicate, wherever necessary, the **word limit or time guidance** for descriptive/essay-type questions.
5. For practicum-based courses, evaluation rubrics shall be strictly followed as prescribed by the University.

School Internship Programme (SIP) – ITEP Middle Stage (Grades 6–8)

Objectives of SIP

- To provide **hands-on professional experience** in real school settings.
- To integrate **theory with practice**.
- To develop **teaching, observation, reflection, assessment, classroom management, and community engagement** skills.
- To shape **professional dispositions** such as ethics, inclusivity, empathy, and leadership.
- Per day 04 hours X 02 weeks each trainee has to carry out the following activities.
 - School observation (infrastructure, timetables, records, culture)
 - Peer teaching & micro-teaching
 - Preparation of lesson plans
 - Reflective journal writing
 - Classroom teaching (8–10 lessons in two subjects)
 - Conduct of diagnostic tests
 - School-based research/action project
 - Observation of senior teachers
 - Teaching minimum **40–50 lessons** across two subjects in Grades 6–8
 - Preparation & use of TLMs, ICT integration
 - Classroom assessment & remedial teaching
 - Participation in co-curricular and school activities
 - Maintenance of reflective portfolio
 - Presentation of Internship Report
 - Sharing of experiences
 - Critical reflection seminars
 - Viva-voce based on portfolio

Total Internship Duration

- **26 weeks (approx. 130–140 working days)** across four semesters.
- Distribution: 4 + 4 + 16 + 2 weeks.

Evaluation Framework (60:40 Pattern)

- **External (60%):** University/External Examiners assess lesson delivery, teaching competencies, action research, portfolio viva.
- **Internal (40%):** School mentors & college supervisors assess planning, discipline, participation, reflective journals, peer interaction.
- **Tools:** Observation schedule, rubric, reflective portfolio, lesson record, attendance record, feedback reports.

Expected Learning Outcomes

By completion, the intern teacher should:

1. Plan and deliver **stage-appropriate lessons** using multiple pedagogies.
2. Integrate **ICT, TLMs and experiential learning**.
3. Demonstrate **classroom management, inclusivity and assessment skills**.
4. Engage in **community outreach, co-curricular participation and leadership**.
5. Reflect critically on teaching practices to become a **professional teacher**.

5.0 Re-assessment & Supplementary Exams

- ✎ Students failing in **theory courses** may reappear in supplementary examinations.
- ✎ Students failing in **practicum or internship** must **redo the component** in the following semester/year under supervision.

Award of Certificate, Diploma, and Degree – ITEP

Multiple Exit Options (As per NEP 2020)

A candidate admitted to the **04-Year ITEP** shall be eligible for the following awards on successful completion of the credits prescribed up to the stage of exit: **[To be given as per credit table]**

Exit Point	Duration	Minimum Credits Completed BA B.Ed	Minimum Credits Completed BSc B.Ed	Award/Certificate	Nomenclature
I & II Sem	2 Semesters	48	46	Certificate in Education Studies	Certificate
III & IV Sem	4 Semesters	48	48	Diploma in Education Studies	Diploma
V & VI Sem	6 Semesters	40	42	<i>Bachelor's Degree in [Discipline] without B.Ed.*</i>	Degree
VII & VIII Sem	8 Semesters	40	40	B.A. B.Ed. / B.Sc. B.Ed. (Middle Stage)	Integrated Dual Degree
Grand Total	8 Semesters	176 (Full Programme)	176 (Full Programme)		

*Discipline refers to the Major subject area opted by the student (e.g., English, Mathematics, Physics, History, etc.).

Award of Certificate / Diploma / Degree

The University shall award the **Certificate, Diploma, or Degree** under the seal of the University and signed by the **Vice-Chancellor, Registrar, and Controller of Examinations**.

✎ The nomenclature of the degree shall be:

- “*Bachelor of Arts – Bachelor of Education (B.A. B.Ed.) – Middle Stage*”
- “*Bachelor of Science – Bachelor of Education (B.Sc. B.Ed.) – Middle Stage*”
- “*Bachelor of Commerce – Bachelor of Education (B.Com. B.Ed.) – Middle Stage*”

✎ The **Provisional Certificate** shall be issued immediately after declaration of result by the **Controller of Examinations**.

Certificates for Practicum/Internship

- Students who successfully complete the **School Internship Programme (SIP)** shall be issued a **separate Internship Completion Certificate** by the concerned School, countersigned by the Head of the Institution and the Principal of the College.
- This certificate shall be **submitted to the University** and form part of the student's permanent record.

Convocation & Award

✎ The final **Degree shall be awarded in the University Convocation** held annually.

✎ Students unable to attend Convocation shall be conferred the degree **in absentia**, on payment of the prescribed fee.

5.1 Weightage for Different Course Types

- **Theory Courses (Foundations, Disciplinary, Pedagogy):**

- 60 Marks – End Semester Exam
- 40 Marks – Internal Assessment

5.2 Practicum & Ability Enhancement Courses (ICT, Arts, Yoga, Sports, Communication, Work Education):

- 50 Marks Total = 30 (Performance/Practical Exam) + 20 (Internal record, participation, assignments)

5.3 School Experience & Internship:

- Evaluated on **comprehensive rubrics**:
 - Preparation of Lesson/Unit Plans
 - Classroom Delivery & Management
 - Use of Teaching-Learning Materials (TLMs)
 - Assessment of Learners
 - Reflection & Self-Analysis
- Marks Distribution:
 - 60 Marks (External evaluation by school supervisor/University examiner)
 - 40 Marks (Internal evaluation by mentor faculty, portfolio, daily records)

5.4 Community Engagement & Service:

- 50 Marks based on participation, reports, presentations, and reflective diaries.

6.0 Academic Integrity

- Original work required in assignments and projects.
- Plagiarism or malpractice → disciplinary action as per university rules.

7.0 Conduct and Discipline

- Students must uphold **academic honesty, professional ethics, and Constitutional values**.
- Code of conduct in schools during internship must be observed strictly.

8.0 Continuous & Comprehensive Evaluation for school internship.

9.0 School Experience (Middle Stage)

- ✎ **9.1 Pre-Internship:** Observation of Grades 6–8, peer teaching, demo lessons.
- ✎ **9.2 Practice Teaching:** Assisted teaching in two curricular areas (e.g., Science & Mathematics / Social Science & Language).
- ✎ **9.3 Internship:** Independent teaching (min. 10 lessons per subject), classroom management, preparation of lesson/unit plans, development of TLMs, participation in school activities.

10.0 General Regulations

- ✎ **Attendance:** Minimum 80% in theory and 90% in practicum.
- ✎ **Academic Honesty & Conduct:** As per University/HEI rules.
- ✎ **Examination Rules:** Supplementary exams permitted; promotion requires passing all core pedagogy courses.

11.0 Conduct and Discipline

- ✎ Student-teachers shall uphold **academic integrity, professional ethics, and Constitutional values**.
- ✎ Malpractice in examinations or plagiarism in assignments shall invite disciplinary action.
- ✎ Attendance, dress code, and code of conduct in schools during practicum/internship shall be strictly observed.

12.0 Award of Degree

Candidates who successfully complete the prescribed programme requirements shall be awarded the degree of:

- ✓ **B.A. B.Ed. (Middle Stage), or**
- ✓ **B.Sc. B.Ed. (Middle Stage)**

Classification of results shall be based on CGPA in accordance with UGC/University norms.

13.0 Interpretation

- ✎ In case of any doubt or dispute in interpretation of these Regulations, the decision of the **Vice-Chancellor/Competent Authority** of the University shall be final.
- ✎ Matters not covered by these Regulations shall be governed by the rules of the University, NCTE, and UGC.



KARNATAK UNIVERSITY, DHARWAD

Syllabus for I to VIII Semester for the
Integrated Teacher Education Programme
(ITEP) – BA.B.Ed. English
Middle Stage (Grades 6–8)

with effect from the **academic year 2025–26 and onwards.**

ITEP B.A. B.Ed. (English) Middle Stage (Grades 6-8) Course & Credit Structure

B.A. B.Ed. (English)	I	II	III	IV	V	VI	VII	VIII	Total	Grand Total
English(Major)	4(Core)	4(Core)	4(Core)	4(Core)	4(Core)	Project/Internship/Field work	--	--	48	80
	--	4(Core)	4(Core)	4(Core)	4(Core)/4(Elective-1)	4(Elective 2)				
History (Indisciplinary-1)	4(Core)	4(Core)	4(Core)	4(Core)	--	--	--	--	16	80
Political Science- (Indisciplinary-2)	4(Core)	4(Core)	4(Core)	4(Core)	--	--	--	--	16	
Discipline Specific Total credits per Sem	12	16	16	16	12	08			80	
Pedagogy of sub 1 (English)	--	--	2	2	2	2	--	--	16	16
Pedagogy of sub 2 (Social Science)			2	2	2	2				
Credits from education (Other Major)	12	08	04	04	04	04	08	20		80
Total Credits Per Sem	24	24	24	24	20	20	20	20		176

I Semester
ITEP B.A. B.Ed. English

S.NO.	Course Type	Course Subjects	Credits	Marks		Total Marks
				Internal	Theory	
SIP- Two-week student Induction Programme						
Foundation Course of Education-FCE						
1	FCE-1	Evolution of Indian Education	4	40	60	100
Discipline Specific Course-DSC						
2.	DSC-1 (Major-1)	Introduction to Language, Linguistics, Literature and culture	4	40	60	100
3	DSC-2 (Minor-1)	History of India (From earliest to the shatavahana)-	4	40	60	100
4	DSC-3 (Minor-2)	Basic Concepts of Political Science	4	40	60	100
Ability Enhancement & Value-Added Courses- AE&VAC						
5	AE&VAC- 1	Language-I /English	4	40	60	100
6	AE&VAC- 2	A. Art Education (Performing & visual) and Creative Expressions- 1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making	2	20	30	50
7	AE&VAC -3	Understanding India Part-I (Indian Ethos & Knowledge systems)	2	20	30	50
Total Credits			24	240	360	600

I Semester
ITEP B.A. B.Ed. English

SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education- FCE		IBEN1EDC01T	1.1 Evolution of Indian Education
2	Discipline Specific Course- DSC	Major-1	IBEN1DSC01T	2.1 Introduction to Language, Linguistics, Literature and culture
		Minor-1	IBEN1DSC02T	2.2 History of India (From earliest to the shatavahana)
		Minor-2	IBEN1DSC03T	2.3 Basic Concepts of Political Science
3.	Ability Enhancement & Value-Added Courses - AE&VAC		IBEN1AB01T	3.1 Language-I /English
			IBEN1AB02T	3.2 A. Art Education (Performing & visual) and Creative Expressions-1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making
			IBEN1AB03T	3.3 Understanding India Part-I (Indian Ethos & Knowledge systems)

1. Foundation Course of Education- FCE

Course Title: 1.1 EVOLUTION OF INDIAN EDUCATION							
Course code: IBEN1EDC01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (English)	FCE-1	Theory	4	40	60	100

Course Outcomes:

After completion of this course, it is expected that the student teachers will be able to:

- discuss and understand the genesis, vision and evolution of education in India from ancient to contemporary times.
- critically revisit colonial education and its impact on the contemporary Indian education system.
- enable them to shape their educational perspective to act as an effective teacher.
- locate themselves in the larger system of education in India while discussing the contribution of Indian thinkers
- develop a road map for futuristic education system in India for addressing the need of local and global context.

UNIT-I

Ancient Indian Education: Vedic Period

- A. Vision, Objectives, and Salient Features of the Vedic Education System.
- B. Teaching and Learning Process during Vedic Period
- C. Development of Educational Institutions: Finances and Management.
- D. Famous Educational institutions and Guru-Shishya.
- E. Education at the time of Epics: Ramayana and Mahabharata.

UNIT-II

Ancient Indian Education: Buddhist and Jain Period

- A. Vision, objectives and salient features of Buddhist and Jain Education System.
- B. Teaching -Learning process
- C. Finance and Management of Educational Institutions.
- D. Contribution of Educational Institutions: Nalanda, Taxila, Vikramshila, Vallabhi.
- E. Famous Guru shishya

UNIT-III

Post-Gupta Period to Colonial Period

- A. Vision, objectives, brief historical development perspective as well as salient features of Education in India
- B. Teaching and Learning Process.
- C. Pedagogical Inquiry. Community and Its Interface.
Finance and Management of educational institutions.

UNIT IV

Modern Indian Education

- A. Colonial Education in India:
 - Woods Despatch, Macaulay Minutes and Westernization of Indian Education in India.
- B. Shiksha ka Bhartiyakaran (Indigenous Interventions in Education)
(Bird's eye view of their contribution)
 - Swadeshi and Nationalist attempts of educational reforms with special reference to general contribution of Indian thinkers – Savitribai and Jyotiba Phule, Rabindranath Tagore, Swami Vivekananda, Mahatma Gandhi, Sri Aurobindo, Gijubhai Badheka, Pt. Madanmohan Malaviya, Jiddu Krishnamurti and Dr. Bhima Rao Ambedkar others – to the education systems of India.
- C. Education in Independent India
 - Overview of Constitutional values and educational provisions.
 - Citizenship Education:
 - Qualities of a good citizen.
 - Education for fundamental rights and duties.
 - Overview of 20th Century Committees, Commissions and Policies.
 - UEE, RMSA, RTE Act 2009: Overview and impact.
 - NEP 2020: vision and implementation for a vibrant India

Practicum:

Following are the suggestive practicals and activities. The teachers may design more tasks based on classroom interactions and discussions.

1. Prepare a report highlighting the significance of educational reforms in School education in the light of NEP 2020.
2. Critically analyze the role of education in understanding the concept of citizenship for democracy.
3. Compare the vision, objectives, and salient features of education during different periods.

4. Working out a plan to develop awareness, attitude and practices related to Fundamental Rights or fundamental duties or democratic citizenship qualities, execute it in the class and write the details in form of a report.
5. Sharing of student experiences (in groups) related to Indian constitutional values, help them to reshape their concept and enable them to develop vision, mission and objectives for a school and their plan to accomplish the objectives in form of a group report.
6. Analyses of current educational strengths and weaknesses of one's own locality and work out a critical report.
7. Visit places of educational significance and value centers and develop a project report.
8. Observation of unity and diversity in a social locality and matching it with unity and diversity in the class and work out a plan for awareness for national-emotional integration for class to develop awareness, attitudes, skills and participatory values, execute it in the class and report the details.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia/PowerPoint presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussions, surveys, short-term project work, etc,
- Hands-on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Board, Karnatak University, Dharwad. from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

- Arora, P., & Gandhi, H.)2021(. National education policy 2020: Paving the ways for transformational reforms. Shipra Publications.

- Dash, B. N. (2009). Thoughts and theories of Indian educational thinkers. Dominant Publishers and Distributors.
- Desai, S. & Amaresh, D. (2011). Caste in the 21st century India: competing narratives. Economic and Political Weekly, Vol. 46, No. 11
- Dutt, M. N. (2008). Mahabharata: Santi parva (Vol. 7). Parimal Publications.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

2. Discipline Specific Course-(DSC)

Course Title: 2.1 INTRODUCTION TO LANGUAGE, LINGUISTICS, LITERATURE AND CULTURE							
Course code: IBEN1DSC01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (English)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- Get introduced to the concept of Language, Linguistics, Literature and culture
- Understand various forms and terms of Literature.
- Distinguish Literature and its relation to various disciplines
- Acquire knowledge of linguistics and origin of languages
- Discern cultural aspects in literature
- Comprehend forms and terms of literature
- Obtain basic knowledge of language, literature and culture

Unit	Title: Introduction to Language, Linguistics, Literature and Culture	75 hrs/ sem
Unit- I	Introduction to the Study of Language. What is language? Meaning, definitions and significance Characteristics of Language Origin and Development of Human Languages Language and Culture	15hrs
Unit- II	Introduction to Linguistics Meaning, Definitions, Scope, levels and branches of Linguistics Phonetics and Phonology, Speech Mechanism, Vowels and Consonants, Transcription of Words and Word Stress, Phoneme, allophones Morphology- morpheme, allomorphs, free morphemes and bound morphemes, affixes and word building Syntax- Types of Sentences, IC analysis, Clauses, phrases	15 hrs

	Semantics- Types of Meaning, hyponymy, synonymy, antonym, entailment	
Unit- III	Introduction to Literature What is literature? Why study literature? Literature and Life, Literature and Society Literary Forms Poetry: Lyric, Sonnet, Ballad, Epic, Elegy, Mock-Epic Prose: Novel, Novella, Short Story, Essay, Biography, Autobiography Drama: Comedy, Tragedy, Tragi-comedy, One-act-play, Literary Terms: Couplet, Allegory, Alliteration, Assonance, Refrain, aside, monologue, soliloquy, meta fiction, plot, character, setting, narrative technique, farce, simile, metaphor, personification, hyperbole, satire, prologue, epilogue. Art for Art's sake, Expressionism, Metre and Metrical Devices, Classicism, Romanticism, Realism, Naturalism, Canon,	15 hrs
Unit- IV	Introduction to Study of Culture Meaning of Culture, The idea of Culture, Culture and the Media 'Towards a Definition of Culture', in India and World Culture (New Delhi: Sahitya Academy, 1986). Media Culture and Cultural Studies – Pramod Nayar Key Concepts : Ideology, identity, Subaltern, Modernity, Representation	15 hrs
Unit- V	1. "A Different History" (Poem) Sujata Bhatt 2. I Too (Poem) – Langston Hughes 3. Shooting an Elephant – George Orwell 4. The Silent Rattle – Basu Bevinagidad 5. Spoken English and Broken English – G B Shaw	15 hrs

References:

1. Baldick, Chris. The Oxford Dictionary of Literary Terms, OUP, 2001.
2. Bate, Jonathan. English Literature : A Very Short Introduction, OUP.
3. Benett, Andrew. An Introduction to Literature, Criticism and Theory Routledge
4. Eagleton, Terry. How to Read Literature. Yale University Press
5. Eaglestone, Robert. Doing English; A guide for Literature Students, Routledge, 2000.
6. Hudson, William Henry. An Introduction to the Study of Literature New Delhi Atlantic, 2007.

7. Mehrotra, Arvind. Ed., An Illustrated History of Indian Literature in English, Orient Blackswan 2005.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2.2 HISTORY OF INDIA (FROM EARLIEST TO THE SATAVAHANA) Course Code: IBEN1DSC02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (English)	DSC-2 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- The Literary and Archaeological Sources and the influence of Geographical factors
- The development of Cultures; Towns, Trade and Economy, Religion and Literature.
- The rise and spread of Jainism and Buddhism and establishment of early dynasties and their contributions

Unit	Title: History of India (From Earliest to the Satavahana)	75 hrs/sem
Unit- I	Reconstructing Ancient Indian History	15hrs
	• Introduction-Understanding the History of India. • Geographical Features of India • Sources and tools of historical reconstruction- Archaeological & Literary.	
Unit- II	Pre-historic Period	15 hrs
	• Paleolithic Culture- sequence and distribution; stone industries and other technological developments. • Mesolithic Cultures- regional and chronological distribution; new developments in technology and economy; rock art. • Neolithic and Chalcolithic Cultures: The advent of food production Understanding the regional and chronological distribution of the Neolithic and Chalcolithic cultures.	
Unit-III	Expansion of Civilization & Culture	15hrs
	• The Harappan/Indus Valley Civilization- Extent of the Civilization, Different Phases, Towns & town planning, citadel; agricultural technologies; Bricks, Beads, Bones (craft productions) and trade, seals, script, weights, the end of the civilization. Problems of interpretation • Early Vedic Culture- Origin of the Aryans, and their settlements, contribution to literature, Polity, Economy, Society & Religion	

	• Later Vedic Culture and Cultural Contributions- literature, Polity, Economy, Society & Religion	
Unit-IV	State Formation in Ancient India • Pre- Mauryan History- Republics and 16 Mahajanapadas in Ancient India • Growth of Jainism & Buddhism- Life & teachings of Mahaveera & Gautama Buddha, Causes for the spread & Decline of Jainism & Buddhism • The Mauryan Empire- Origin- Early rulers- Chandra Gupta Maurya - Administration, Asoka-Kalinga War, Buddhism, Buddhist Council, Dhamma, Growth of Mauryan Art. Asokan inscriptions- Their contribution to Religion, Literature, Art and Architecture.	15hrs
Unit-V	Post Mauryan Period/ Changing political formations (circa 300 BCE to circa CE 300) • Kushanas- Political History-Kanishka and their cultural Contributions. • The Satavahanas- origin- Early rulers- Gautami Putra Sathakarni-their Contribution to Religion, Literature, Arts & Architecture. • Map Study: ➤ Mark the important towns of Harappan Civilization and write their historical importance ➤ Mark the important places of Ashokan Edicts found in India and write a short note about them.	15 hrs

References:

1. Thapar Romila : *History of India Vol-I*. Penguin Books India Pvt.Ltd., New Delhi-2000.
2. Majumdar R.C.: *Ancient India*. Motilal Banarsidas Delhi, Reprinted:2017
3. Lunia B.N. : *Evolution of Indian Culture*. Lakshmi Narayan Agarwal, Agra. 1960.
4. Jha D. N. : *Ancient India- An Introductory*. Rawat Publishers, Jaipur.1977
5. Khurana K.L: *Ancient India*. Lakshmi Narayan Agarwal, Agra. 2011.
6. Das S.K.: *The Economic History of Ancient India*. Vohra Publishers, Allahabad. 2007.
7. Sharma R.S.: *Material Culture and Social formations in Ancient India*. Macmillan India Ltd. Delhi. 2007.
8. Sharma R.S. : *India's Ancient Past*. Oxford University Press. New Delhi. 31st impression 2018.
9. Bashyam A.L. : *The wonder that was India, Vol-I*. Picador Pan Macmillan Publisher Ltd. London. 2004.
10. Bridget & Raymond Allchin : *The rise of Civilization in India and Pakistan*. Cambridge

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2.3 BASIC CONCEPTS OF POLITICAL SCIENCE							
Course Code: IBEN1DSC03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (English)	DSC-3 (Minor-2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- Understand fundamental Political theories and Ideologies.
- Analyze the structure and functions of Political Institutions
- Develop critical thinking about political processes and policies.
- Evaluate the role of government in society.
- Acquire basic knowledge about the Political Science.

Unit	Title: BASIC CONCEPTS IN POLITICAL SCIENCE	75 hrs/ Sem
Unit- I	Understanding Political Science. 1.1. Meaning, Nature, Scope and Importance of Political Science, Difference Between Political Science and Politics. 1.2. Approaches to the study of Political Science 1.3. Political Theory: Meaning, Nature, Scope and Significance.	15 hrs
Unit- II	State and Government. 1.1 Meaning, Definitions and Elements of State. 1.2 Theories of Origin of State: Divine Theory, Force Theory, Social Contract Theory, Historical Theory. 1.3. Government: Meaning, Nature, Types and Significance.	15 hrs
Unit- III	Democracy 1.1. Democracy: Origin, Growth, Meaning, Nature and Kinds of Democracy. 1.2. Essential Conditions for the successes of Democracy.	15 hrs

	1.3. Problems and Prospects of Democracy in India	
Unit- IV	Sovereignty 1.1. Meaning, Kinds and Characteristics of Sovereignty 1.2. Austin's Concept of Sovereignty and Pluralistic Sovereignty. 1.3. Challenges to the State Sovereignty in the age of Globalization.	15hrs
Unit- V	Liberty, Equality, Law and Justice. 1.1. Liberty: Meaning and Kinds. 1.2. Equality: Meaning and Kinds (Social, Economic and Political) 1.3. Law and Justice: Meaning, Kinds & Significance.	15hrs

References:

1. O.P Gauba : An Introduction to Political Theory, Macmillan Publication, New Delhi, 2002
2. S Ramaswamy: Political Theory: Ideas and Concepts, Macmillan Publication, New Delhi, 2002
3. A.C. Kapur: Principles of Political Science, S Chand and Co. New Delhi, 1977
4. S.P. Verma : Modern Political Theory, Vikas Publications New Delhi, 1983
5. V.D.Mahajan : Political Theory, S Chand and Company Ltd, New Delhi, 2011
6. E Barker : Principles of Social and Political Theory, Oxford University Press, London, 1976
7. R.T.Jangam, S.H.Patil, S.S. Patagundi: Political Analysis, Oxford and IBH Publishing Co. Pvt Ltd, New Delhi, 1997
8. R.C.Agarwal: Political Theory, S Chand and Co., New Delhi, 2016
9. B.K.Gokhale: Political Science (Theory and Governmental Machinery) Himalaya Publishing House, New Delhi, Bangalore, 2001

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

3. Ability Enhancement & Value-Added Courses- (AE&VAC)

Course Title: 3.1 LANGUAGE: ENGLISH- 1 ART VISION Course Code: IBEN1AB01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (English)	AE&VAC-1	Theory	4	40	60	100

Course Outcomes:

- At the end of the course students will be able to:
- Acquire the knowledge of English prose and poetry
- Acquire the knowledge of parts of speech
- Appreciate the nuances of English poetry and prose
- Use proper articles, prepositions and forms of verbs
- Use appropriate tense forms in sentences
- Acquire basic language skills

Unit	Title: English 1 Art Vision	60 hrs/sem
Unit-I Prose	1. The Secret of Work – Swami Vivekanand 2. Salta Pro Nobis – John Galsworthy 3. The Umbrella - Guy de Maupassant 4. The Gold Watch – Mulk Raj Anand 5. Florence Nightingale – Abrar Mohsin	15 hrs
Unit -II Poetry	1. Kublakhan – S. T. Coleridge 2. In the Bazaars of Hyderabad – Sarojini Naidu 3. Paper Boat- Rabindranath Tagore 4. Sonnet 18 – William Shakespeare 5. Refugee Mother and Child – Chinua Achebe	15 hrs
Unit- III Grammar	1. Parts of Speech (With special emphasis on Verbs, Adverbs, adjectives and Prepositions) 2. Use of Articles in English 3. Cloze Test	15 hrs

Unit- IV	1. Tenses – (Special emphasis on Simple Present, Present Continuous and Simple Past Tense) 2. Reading Skills – Meaning, Types , Techniques 3. Synonyms and Antonyms	15hrs

References:

1. **Text Books: Art Vision: An Anthology of Poetry and Prose**, ed Board of Editors, Ravindra Publications, Hyderabad
2. R. P. Singh's *Functional Skills in Language and Literature*, OUP
3. Murphy, Raymond. *Intermediate English Grammar*. Cambridge Univ. Press.
4. Wren and Martin. *High School English Grammar and Composition*.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 A. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 1. PUPPETRY Course Code: IBEN1AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (English)	AE&VAC-2	Theory	2	20	30	50

Puppetry:

Puppetry is an integrated art form, which takes into its fold everything from fine arts to performance. Puppetry is one of the oldest forms of performing art. Puppetry has evolved over the years into a sophisticated form of art. The journey was very interesting with a lot of ups and downs. There are thousands of forms of puppetry from simple finger puppets to highly complex puppets played by more than 3 people. Each country has a puppet form, why country, each area in a country has a puppet form. Hence, in India you will find many, many forms of puppetry. In puppetry there are two main aspects. One the designing and creating of puppets and the other playing or performing puppetry. These two skills are different. Designing will need a lot of thinking, visualization, and technical skills while performance will need high level communication skills. Hence, together they make a consolidated a high range of skills. In this course, students are exposed to different forms of puppets and puppetry. There will be a discussion around the forms and the aesthetic sense of puppetry. Later the students are encouraged to prepare, design and create puppets. They then prepare script and play the puppets. This creation of the puppets together in small groups with a lot of discussions and give and take helps the students develop working together skills and conceptual understanding.

Course Outcomes:

After completion of this course, student teachers will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of puppetry,
- design puppets,
- practice and create a short puppetry show.

UNIT – I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument

in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT – II

Designing Puppets (6 Sessions)

In this unit, students will learn about puppetry, its history and specifically about how puppets work. This unit will also discuss the imagination required to design puppets, visualize how puppets will be used and the technicalities of designing puppets. These will be learnt by designing puppets. Students will start with constructing finger puppets and move towards small shapes through papers, like Fish, birds, rat - then they will design masks, flat masks, and masks with dimensions. At the end they will design puppets with old newspaper. The puppets are designed with old newspapers and colour papers. They decorate it and design it in such a way that it can be played, performed. They prepare costumes and all other accessories.

UNIT – III

Performing the puppets (4 Sessions)

This unit will engage in performance of puppetry and the level of communication skills required to create a good engaging story and perform it with the help of puppets they have created. The performance will be expected to relate to some activity in the educational context. Students will perform the puppets they have designed. Initially each member will play their own puppets. Later they will play in pairs, later they will be formed into a small group and asked to prepare their own skits with the puppets. They conclude by performing in small groups. Their learning is consolidated and reflected.

Discussion is held on how different aspects of puppet making can be incorporated in class room processes of young children. Adapting the individual and group exercises done during the puppetry course will be discussed to be used in the classroom situation.

Pedagogy:

The Pedagogy is basically hand-on training. More emphasis is given to experiential learning. They do things and through doing learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colours, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms

Week wise break up of sessions			
Sl. no	Topics	Session flow	Remarks
	Aesthetics and art, art in everyday life.	Based on their experience	
	Importance of art. Appreciation of art.	Discussion	
	Art for art's sake. Art with social responsibility. art for social change	Debate	
	The world of puppetry. Different forms of puppetry.	Presentations	
	History of puppetry	Lecture	
	Preparation- finger puppets	Hands on	
	Preparation of masks	Hands on	
	Preparing puppets	Hands on	
	Performing individually	Practice	
	Performing in pairs	Practice	
	Performing in groups – 3, 4, 5.	Practice	
	Assignments	Written.	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
InternalAssessmentTest1	05
InternalAssessmentTest2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

Course Title: 3.2 B. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 2. THEATRE Course Code: IBEN1AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (English)	AE&VAC-2	Theory	2	20	30	50

Theatre:

Theatre is a collaborative art form, and it is inherently interdisciplinary in its nature. It comprises many facets and skills like acting, directing, writing, designing the sets and costumes, make-up, production, lights, sounds and music. All these elements and skill sets come together and are stitched in the form of a ‘play’ which is performed live, in front of an audience. In the Indian context, theatre has a deep-rooted history with its classical, folk, and other cultural forms until other contemporary forms of theatre evolved in recent times.

Theatre education for children can play a vital role in their individual, social, and emotional development. It teaches them the values of trust and interdependence, makes them confident to express themselves and helps them learn to work in a collaborative environment. It develops their ability to contextualize, critique and discuss certain questions and thoughts they encounter in everyday life. It further helps them imagine, explore, and create their own narratives.

In this course, we will briefly talk about the aesthetics of theatre and how theatre exists in different forms. The students will learn some basic theatre tools that will help them create and perform a narrative they collaboratively arrive at.

In simple terms one can say theatre has two major aspects i.e., creating the script and then performing it. Body is the primary instrument in any theatrical performance accompanied by text, material, visual and sound. This course will introduce students to these aspects of any theatre performance, in the form of direct experience by doing this themselves.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of theatre,
- learn basic theatre tools of improvisation, ideation, and creation of a script,
- create a short performance with educational possibilities.

UNIT - I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT - II

Introduction to Theatre, and Beginning with the body (3 Sessions)

We will discuss some core essentials in the aesthetics of theatre like the performance, the makers, the audience, and the context and how we relate this to the world around us, in everyday lives. In this unit, we will discuss examples of how theatre was used in social movements that have contributed to educating the larger population about important social issues. Additionally, we will also learn from practices and approaches of theatre groups like Budhan Theatre who work with denotified tribes, and Manalmagudi who work closely with physical nonverbal theatre. Exposing students to these approaches will lead to rich discussions on the role of theatre in pedagogy and practice.

In this unit, students will learn certain principles and awareness on how to use their body and voice in a given space and time, with respect to other bodies. There will be several games, exercises that will familiarise them with certain basics of movement, voice, acting and thereby create improvisations and images in a given context. The activities and tasks will be both in individuals and groups.

UNIT - III

Arriving at a script (3 Sessions)

We will engage in some theatre making processes to arrive at a script by the end of this unit. How to adapt or devise a script with actors? How can we borrow from everyday experiences of memory, sound and visuals, without a written text or spoken word? Plays, stories, poems, newspapers articles, will be shared to read, reflect, analyse, and re-create like “Why, why Girl” by Mahashweta Devi, “Ratna Pakshi” by K Ramaiah, “Beyond the land of Hattamala and Scandal in Fairyland” by Baadal Sircar, and songs of Kabir etc. The texts chosen will have a direct relation with topics from social studies, moral and political education.

Students will use their skills of improvisation they learned in Unit 2 to explore, ideate, create, and finally arrive at a script. What kind of stories, narratives, and characters they choose to perform will lead back to the discussion of aesthetics. Students will mostly work in groups to choose or create a text, concept, or an idea which they want to perform. Students will be encouraged to use their perspectives on the education system, in converting the text into a script.

UNIT - IV

Performing the script

This unit will engage in the actual making of the final piece they choose to make. Students will have to visualise the final text on stage and start rehearsing in their groups. Apart from using their bodies to play characters, the students will also have to think about design and other aesthetic elements like sets, props, costumes, lights, music and sounds they want to use in the performance.

Students will have to practice beyond the six classes as the class time will be utilised to discuss and provide feedback as the work progresses. The last two classes in this unit will be utilised for the final rehearsals and assessments. The final performance will take place in front of a small audience followed by a brief post-performance discussion. Students will engage in discussing and reflecting on the views, questions and comments shared by the audience.

Pedagogy:

The pedagogy is basically hands-on training. More emphasis is given to experiential learning. They do things and through doing, they learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colors, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

Week wise break up of sessions		
Week	Topics	Session flow
1	UNIT - I: Aesthetics and art, art in everyday life. Importance of art. Appreciation of art	Based on their experience
2	Art for art's sake. Art with social responsibility. Art for social change	Discussion
3	UNIT II: Aesthetics of Theatre	Discussion
4	Body work - Individual and group	Hands on
5	Body work – Improvisation	Hands on
6	UNIT - III: Adaptation of texts. Aesthetic choices.	Hands on, Discussion
7	Story making and devising	Hands on
8	Arriving at a text	Hands on

9	UNIT - IV: Visualizing the final piece. Thinking about design and aesthetic elements	Hands on, Discussion
10	Rehearsals and feedback	Hands on
11	Rehearsals and feedback	Hands on
12	Final rehearsals and assessment	
13	Final rehearsals and assessment	
14	Performance and audience discussion	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

Course Title: 3.2 C. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 3. COLLAGE- MAKING Course Code: IBEN1AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (English)	AE&VAC-2	Theory	2	20	30	50

Collage:

Collage as visual art medium A major aspect of college, and one that is sometimes overlooked, is the incredibly diverse array of materials and objects that can be used. Collecting interesting materials is an ongoing activity for artists and for those who teach college. But it is just as important for young people to hunt for and make decisions about materials they would like to incorporate into their work. All materials, and the alterations that artists make to them, are suggestive of ideas and concepts based on their surfaces, forms, textures, degree of transparency and opacity, colour, and other visual characteristics. Materials also connect us, through association and reference, to social and cultural worlds and places. What ideas might a scrap of newspaper, as a collage material, express? How might these meanings differ from those of, say, feathers? Or twigs? Or a thin piece of plastic cut out from a plastic bag?

Working with and creating artwork in Collage involves various aspects: selecting materials, manipulating materials, investigating materiality, closely observing materials, discovering possibilities, composing, designing the artwork, planning, finding solutions, applying solutions, thinking flexibility, decision-making, research, using imagination, expressing, taking creative risks, develop perseverance, and much more. Students will also be introduced to various aspects of art in education: The value of art and artmaking by itself, art's use as an instrument in education, social and moral dimensions of art, and the controversial perceptions around good art and bad art.

This course aims for students to understand the importance of aesthetics and art in education, the role art can play in education, and mainly to appreciate, understand and gain skills with the medium of collage and its techniques.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance and the role of aesthetics and art in education.
- understand the medium of collage and its versatility.
- design, plan, and create an expressive self-portrait collage by applying a variety of collage techniques.
- design and set up an interactive visual art exhibition to display their artworks.
- understand and appreciate art-based learning experiences.
- develop the ability to reflect and challenge their assumptions and beliefs around art and develop new understandings.

UNIT – I**Understand the importance of Aesthetics and Art in Education (2 Sessions)**

Students will be introduced to Aesthetics and Arts by engaging in experiences, discussions, and dialogues. Students will experience a session of ‘Visual thinking strategy’ (VTS) activity in which students will collectively view and engage in a series of artworks closely, share their observations, critically analyze their observations, listen to multiple perspectives from peers, suspend judgements, and draw their own understanding of the artwork. Students will recognize aesthetic and un-aesthetic experiences through compare and contrast. Through this activity and unpacking of the experience, students will start making connections and develop understandings around what aesthetics mean, aesthetic aspects of daily life, develop aesthetic judgment, and how arts evoke emotion and awaken.

UNIT – II**Exploring paper collage and its techniques (4 Sessions)**

Students will be introduced to the medium of collage and open their minds to the possibilities within this medium. Students will view and discuss examples of collage artworks, artist process and artist interview videos. Students will get a chance to compare and contrast various ways collage as a medium is used. Students will reflect upon their own past art educational experiences and observations and engage in dialogue and discussions. Students will analyze effective and ineffective ways of using the medium of collage in educational and other settings.

Through inquiry-based participatory demonstrations, students will investigate and discover a variety of ways to manipulate paper and create individual and unique two-dimensional compositions in the medium of paper Collage. They will understand and learn the techniques, artistic terminologies of the collage medium. Students will reflect on their experience and engage in facilitated discussions to deepen their understanding on the role of art medium exploration and how it can foster various learning skills.

Students then use their knowledge and experience from the previous sessions and explore collage as a medium further. Students will investigate, discover, and learn to create visual textures, physical textures, and create their own unique patterns. They will understand the difference between textures and patterns. Students will use a variety of techniques to create unique textures and patterns, analyze their findings, give each other feedback, work in groups to problem solve, etc. They will understand how art medium explorations can be used as a pedagogical tool in learning environments. Students will bring in various materials found around them like different kinds of paper, paper-based materials, natural materials, fabric, and explore these materials and use them as materials to create collage compositions.

Students will explore a wide range of techniques and discover their own ways to manipulate these found materials to create interesting textures and patterns. Students will work in groups, problem solve, investigate, develop solutions on their own, and share their findings with each other. Through discussions, students will reflect upon this exploration experience and understand how art making processes can develop skills and abilities in a learner.

UNIT - III

Ideating for an Expressive Self-Portrait (2 Sessions)

In this session students will further explore and discover possibilities in Collage as a medium. Students will learn a variety of ways to make paper stands and create interesting paper sculpture compositions using 3D techniques. Students will draw from their previous experiences of using paper for 2D explorations and add more interest to their unique 3D explorations. Students will share their findings with peers and widen their understanding about the possibilities.

Students will reflect on all the material exploration sessions thus far and participate in a facilitated dialogue around art making and education. Students will engage in a close observation sketching and drawing activity. Through a guided process, students will create a well observed self-portrait drawing. Students will engage in discussions and dialogue to unpack the self-portrait drawing experience, the learnings, discoveries, challenges and more. Through this activity students will also be able to challenge assumptions around talent and artmaking.

UNIT - IV

Creation of an Expressive Self-Portrait Collage (3 Sessions)

Students will engage in a step-by-step process involving sketching, ideating, planning, applying their discoveries of using paper as a collage material, and finally create a large expressive self-portrait using the medium of paper collage. Throughout the process students will problem-solve, critically think, push their imagination, find multiple solutions, make independent decisions, receive and give peer feedback, use resources effectively, draw from their own experiences, apply their learnings into creating this unique and expressive self-portrait piece.

UNIT - V

Designing and setting up an Exhibition (2 Sessions and Exhibition Day)

Students will collectively start designing and planning for the exhibition to put up their artworks for a general audience to view and engage with. Students will be planning the various aspects of a visual art exhibition: ways to display artworks, designing the layout of the exhibition space and how the audience will move within the space, design invitations, ways that the audience can engage with the artworks, various ways the artists can talk about their artmaking, and more. Students will divide the tasks among themselves, take on the various roles required, and set up the exhibition space.

Pedagogy:

- Students will engage in hands-on art making activities.
- Students will engage in discussions and dialogues with peers.
- Students will engage in giving and receiving peer feedback.
- Students will continually reflect on their learning through journaling.
- Students will work independently and collaboratively throughout the course.
- Students will receive reference materials and resources to broaden and deepen their understanding.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

References:

1. Works of Deborah Roberts, William Kentridge, Wangechi Mutu, etc
2. Marc, Cut paper collage artist - <https://www.youtube.com/watch?v=WgRZlWl-Oh0>
3. G. Subramanian: Collage art - <https://www.youtube.com/watch?v=ioRRi9R46a0>
4. Arturo Herrera, artist - https://www.youtube.com/watch?v=Oagx3_NZ5HU

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

Course Title: 3.3 UNDERSTANDING INDIA PART- I (INDIAN ETHOS AND KNOWLEDGE SYSTEMS) Course Code: IBEN1AB03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (English)	AE&VAC-3	Theory	2	20	30	50

Course Outcomes:

After the completion of the course, it is expected that the students will be able to:

- recognize the vast corpus of knowledge traditions of India, while developing an appreciation for it,
- apply their acquired research and critical thinking skills to multidisciplinary themes, and-appreciate the diverse belief systems and knowledge traditions in India.
- discuss the formation and evolution of knowledge of India through multidisciplinary lens.

UNIT-1

Introduction to the Knowledge of India

- Definition & Scope; Relevance of this Knowledge.
- Need to revisit our Ancient Knowledge, Traditions, and Culture.

UNIT-II

Culture-Art and Literature

- Fine Arts (Traditional Art Forms, Contemporary Arts, Arts and Spirituality, Arts Identity, and Art and Globalization)
- Performing Arts (Indian Dance Systems, Traditional Indian Pieces of Music, Visual Arts, Folk Arts, etc.,)
- Literature (Sanskrit Literature, Religious Literature, Indian Poetry, Folk Literature, Indian Fiction, Sangam Literature, Kannada, Malayalam Literature, Bengali Literature, etc.

UNIT-III

Polity and Law

- A. Kingship & Types of Government (Oligarchies, Republics); Local Administration (Village Administration);
- B. Basis of Law: Dharma & its sources; Criminal Justice: Police, and Punishments; Lessons from Chanakya Niti; Lessons for modern-day India: Towards a Tradition-Driven Equitable and Just Polity and Law System.

UNIT-IV

Economy

- A. Overview of the Indian Economy from the Stone Age to the Guptas: The new culture of Urbanization (including Castes, Guilds, and other Economic Institutions; Harappan Civilization Economy; Growth of Agriculture and Proliferation of New Occupations: Growth of Writing);
- B. Internal & External Trade and Commerce, including Trade Routes, Indo-Roman Contacts, and Maritime Trade of South India; Temple Economy.
- C. Land Ownership - Land Grants & Property Rights, Land Revenue Systems.
- D. Understanding Arthashastra: Ideas & Criticism; Locating Relevance of Ancient Indian Economic Thought in Modern-Day Indian Economy.

UNIT-V

Environment & Health

- A. Understanding Equilibrium between Society & Environment: Society's Perceptions Natural Resources like Forests, Land, Water, and Animals.
- B. Sustainable Architecture & Urban Planning; Solving Today's Environmental Challenges (Best Practices from Indigenous Knowledge, Tribes and Community-Led Efforts, etc.).
- C. India's Health Tradition: Ayurveda, Siddha, Ashtavaidya, Unani, and other Schools of Thought; Lessons from Sushruta Samhita and Charaka Samhita:
- D. Mental health in Ancient India: Towards Time-Tested Concepts of Mental Wellness (Concept of Mind, Dhyana, Mind-Body Relationship, Ayurveda, Yoga Darshan, Atman, etc.)

Practicum:

The modes of curriculum transaction will include lectures, Tutorials, and Practicum.

- Practicum will include organization of day trips that help student teachers watch events relating to visual and performing art; activities that enable student teachers to identify and record through photos, videos, etc. the elements of ancient architecture still existing in the city around them; organization of Individual and group presentations based on themes such as Polity, Law and Economy etc., organization of a 'Knowledge of India' day in the institution to celebrate the culture (food, clothes, etc.) that they would have been explored in lectures and tutorials; interactions with family members, elders,

neighbors, and other members of society about the evolution of local systems and economy etc.

Mode of Transaction:

- Lectures will include learner-driven participatory sessions, and Guest lectures through experts and practitioners, such as fine arts and performing arts practitioners along with contemporary poets & writers of Indian literature.
- Tutorials will include Screening of documentaries and films followed by a discussion; Learner-driven discussions in the form of focus group discussions (FGDs), Socratic Discussions, etc.; Debate/discussion can be organized to explain India's Vaad tradition; discuss on how some of the ancient methods of teaching are relevant in today's time; discussions that help Identify ethical dilemmas in daily lives and understanding the importance of ancient ethics and values to resolve them.

Mode of Assessment:

The approaches to learning assessment will include:

- Supporting the curiosity and interest of student teachers in the selected themes through a multi-modal approach, including regular assessments and actionable feedback that enable learners to outline and interpret the processes and events of the formation & evolution of knowledge of India through a multidisciplinary lens.
- Enabling the student teachers to demonstrate critical analysis and independent thinking of the processes and events in the formulation & evolution of different traditions that help student teachers evaluate the diverse traditions of India to distinguish its achievements and limitations.
- Use of first-hand or second-hand experiences that enable student-teachers to develop and articulate an ethics-based education rooted in Indian thought to their students in the classroom context.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Board, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

- Altekar, A.S. (2009). Education in Ancient India. New Delhi: Gyan Publishing House.(Originally published in 1944 by Osmania University.Nand Kishore & Bros.
- Dominik, W. (2001). The roots of ayurveda. Penguin Classics.

- Mahadevan, B., Bhat, R.V. & Nagendra, P.R.N. (2021). Introduction to Indian knowledge system: Concepts and applications. PHI Learning Pvt. Ltd.
- Nehru, J (1946). The Discovery of India. UK: Meridian Books. Reprinted (2008) by Penguin.
- Sinha, A. (1998). Design of settlements in the vastu shastras. Journal of Cultural Geography, 17(2), 27-41.
- Swami Suparnananda (2016). The Cultural Heritage of India (Vol. 2). The Rama Krishna Mission Institute of Culture.
- Tachikawa, M. (1971). A sixth-century manual of Indian logic: A translation of the Nyayapravesa. Journal of Indian Philosophy, 1(2), 111-145.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

II Semester

ITEP B.A. B.Ed. English

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Discipline Specific Course-DSC						
1	DSC -1 (Major- 1)	English Literature-Part 1 (From beginning to 1798)	4	40	60	100
2	DSC-2 (Major- 2)	English Literature –Part 2 (From 1798 to Modern Age)	4	40	60	100
3	DSC-3 (Minor-1)	History of India (From Guptas to 1206 A .D.)	4	40	60	100
4	DSC-4 (Minor-2)	Western and Indian Political Thinkers	4	40	60	100
Ability Enhancement & Value-Added Courses- AE&VAC						
5	AE&VAC-1	Language-II /Kannada/Hindi	4	40	60	100
6	AE&VAC-2	Understanding India Part-II (Indian Ethos & Knowledge systems)	2	20	30	50
7	AE&VAC-3	Teacher And Society	2	20	30	50
Total Credits			24	240	360	600

II Semester
ITEP B.A. B.Ed. English

SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Discipline Specific Course- (DSC)	(Major- 1)	IBEN2DSC01T	1.1 English Literature-Part 1 (From beginning to 1798)
		(Major- 2)	IBEN2DSC02T	1.2 English Literature –Part 2 (From 1798 to Modern Age)
		(Minor-1)	IBEN2DSC03T	1.3 History of India (From Guptas to 1206 A .D.)
		(Minor-2)	IBEN2DSC04T	1.4 Western and Indian Political Thinkers
2.	Ability Enhancement & Value-Added Courses (AE&VAC)		IBEN2AB01T	2.1 Language-II /Kannada/Hindi
			IBEN2AB02T	2.2 Understanding India Part-II (Indian Ethos & Knowledge systems)
			IBEN2AB03T	2.3 Teacher and Society

1. Discipline Specific Course- (DSC)

Course Title: 1.1 ENGLISH LITERATURE- PART- 1 (FROM BEGINNING TO 1798) Course code: IBEN2DSC01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (English)	DSC -1 (Major- 1)	Theory	4	40	60	100

Course Outcomes:

- At the end of the course students will be able to:
- Understand major trends and movements in English literature
- Comprehend the major works of representative writers from Chaucer to Dr Johnson
- Acquire Knowledge of English poetry, prose, novel and drama of prescribed ages
- Understand literary movements in English Literature
- Appreciate the contribution of English writers of prescribed period

Unit	Course Title: English Literature Part- 1 (From beginning to 1798)	75 Hours / Sem
Unit - I	HISTORY OF ENGLISH LITERATURE (UP TO 1798)	15 Hrs.
	Age of Chaucer, Renaissance, Elizabethan Poetry, Elizabethan Drama, Metaphysical Poetry, Restoration Drama, 18th Century Prose, Development of Novel in 18th Century, Neo-classical and Transitional Poetry Key Terms: Renaissance, Reformation, Comedy of Humor, Puritanism, Comedy of manners, Neo-classicism, periodical essay, picaresque novel, gothic novel	
Unit - II	Major Writers, Works and Trends:	15 Hrs.
	Francis Bacon, Christopher Marlowe, Ben Jonson, John Milton, John Dryden, Alexander Pope, Dr. Samuel Johnson, Oliver Goldsmith, John Bunyan, Aphra Behn, Margaret Cavendish, Elizabeth Cary, Anne Finch, Amelia Lanyer, Fanny Burney, Fairy Queene, As You Like It, Jonson's Alchemist, Paradise Lost, Absalom and Achitophel, Rape of the Lock, Pamela, Letters of Elizabeth Carte, Coverly Papers etc.	
Unit - III	Representative Texts:	15 Hrs.

	Poems Amoretti III: The Sovereign Beauty – Edmund Spenser To Celia – Ben Jonson On His Blindness - John Milton Sunne Rising - John Donne The Pulley – George Herbert My Luv is Like Red Red Rose Robert Burns	
Unit - IV	Essays Of Revenge - Francis Bacon Man in Black – Oliver Goldsmith Preface to Shakespeare – Dr Samuel Johnson	15 Hrs.
Unit-V	Play: Midsummer Night's Dream- William Shakespeare (Any edition)	15 hrs

References:

1. Andrew Sanders, English Literature, OUP, 2005
2. Edward Albert, History of English Literature, OUP, 2014
3. M. H. Abrams, A Glossary of Literary Terms, Cengage Publishers, New Delhi

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: ENGLISH LITERATURE- PART- 2 (FROM 1798 TO MODERN AGE) Course Code: IBEN2DSC02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (English)	DSC -2 (Major- 2)	Theory	4	40	60	100

Course Outcomes:

- At the end of the course students will be able to: Understand major trends and movements in English literature from 19th century to Modern Age
- Understand the major works of representative writers from Wordsworth to T S Eliot
- Acquire Knowledge of English poetry, prose, novel and drama of prescribed ages
- Acquaint themselves with the literary movements in English Literature
- Appreciate the contribution of English writers of prescribed period

Unit	Title: ENGLISH LITERATURE PART- 2 (From 1798 to Modern Age)	75 Hours / Sem
Unit - I	Background to Literature: Romantic Period –Poetry and Prose, Victorian Age- Poetry, Pre-Raphaelite Poetry, Oxford Movement, Victorian Novel, 19th century Prose, Modern Age: Major trends in Modern Poetry, Modern Novel, Modern Drama, Modern Prose. Key concepts : Modernism, Marxism, Stream of Consciousness, Poetic Drama, Irish Theatre Movement,	15 Hrs.
Unit- II	Major Writers, and Works S T Coleridge, P B Shelley, Jane Austen, Charles Lamb, William Hazlitt, Walter Scott, Alfred Tennyson, Matthew Arnold, John Ruskin, Thomas Carlyle, Bronte Sisters, Thomas Hardy, George Eliot, Charles Dickens, T. S. Eliot, W.B. Yeats, G. B. Shaw, Virginia Woolf, D. H. Lawrence, H G Wells, Somerset Maugham, John Galsworthy, E M Forster, George Orwell, W H Auden Hard Times, The Return of the Native, Unto This Last, The Murder in the Cathedral, Arms and the Man, Culture and Anarchy, Animal Farm, The Waste Land, Sons and Lovers,	15 Hrs.

Unit - III	Tintern Abbey – William Wordsworth Ozymandias – P B Shelley My Last Duchess – Robert Browning John Keats : Ode on Grecian Urn Matthew Arnold: Dover Beach W B Yeats : Easter 1916	15 Hrs.
Unit - IV	Novel: The Heart of Darkness – Joseph Conrad	15 Hrs.
Unit-V	Play: Justice : John Galsworthy	15 hrs

References:

1. Andrew Sanders, English Literature, OUP, 2005
2. Edward Albert, History of English Literature, OUP, 2014
3. M. H. Abrams, A Glossary of Literary Terms, Cengage Publishers, New Delhi

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 1.3 HISTORY OF INDIA (FROM GUPTAS TO 1206 A.D.) Course Code: IBEN2DSC03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (English)	DSC-3 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- The rule of Gupta and Vardhana empires and the consolidation various dynasties in South India
- The development of science, technology, literature and architecture of our ancient past.
- Foreign invasions on Northern India and rise of early Philosophies and Sects.

Unit	Title: HISTORY OF INDIA (From Guptas to 1206 A.D.)	75 hrs/sem
Unit- I	Establishment of Empire & Kingdoms:	15Hrs
	• Reconstructing the History of Medieval India- Sources - Archaeological & Literary • The Gupta Empire- Brief Political History with special reference to Samudra Gupta- Golden Age of the Guptas-Growth of Literature, Science, Art & Architecture • Vardhana Dyansty-Early Rulers-Achievements of Harshavardhana, Their Contribution to Religion, Literature, Art and Architecture.	
Unit- II	Early Dynasties in Karnataka:	15 Hrs
	• The Kadambas- Political History- Mayuravarma- Literature, Art, Architecture, The Chalukyas of Badami – Early Rulers-Pulakesi II – Their Contribution to Art & Architecture, Education and Literature • The Rashtrakutas- Early Rulers – Dhruva, Govinda-III, Amoghavarsha-I, Krishna-III, • Cultural Contributions of the Rashtrakuta - Religion, Education, Literature, Art and Architecture	
Unit-III	Dynasties in South India:	15Hrs
	• The Sangama Age-Literature and Society • The Pallava Political History- Mahendravarma-I, Narasimhavarma-I • The Art & Architecture of the features, Literature Pallavas- Temples, Caves- Salient	
Unit-IV	Expansion of Political Supremacy in South India:	15Hrs
	• The Cholas- Political History- Government. Rajaraja-I, Rajendra-I, Local Self- • The Art & Architecture of the Cholas- Salient features, Growth of Literature • Religious Developments in South India: Shaivism, Vaishnavism, Jainism Buddhism	

Unit-V	Invasion of Arabs and Indian Philosophy:	15Hrs
	• Arab conquest of Sindh: Causes and consequences of early Turkish invasions: Ghazni Mahmud and Ghori Mohmud invasions • Indian Philosophy-Dvaita philosophies-Shankara, Madhva and Ramanuja, Basaveshvara, Akkamahadevi, Shivasharanas • Map Study: ➤ Mark the empire of Samudra Gupta and write a note on his Conquests ➤ Mark the empire of Pulakesi- II and write a short note about his Conquests	

References:

1. Thapar Romila : *History of India Vol-I*. Penguin Books India Pvt. Ltd., New Delhi-2000.
2. Majumdar R.C.: *Ancient India*. Motilal Banarsidas Delhi, Reprinted:2017
3. Lunia B.N. : *Evolution of Indian Culture*. Lakshmi Narayan Agarwal, Agra. 1960.
4. Jha D. N.: *Ancient India- An Introductory*. Rawat Publishers, Jaipur.1977
5. Khurana K.L: *Ancient India*. Lakshmi Narayan Agarwal, Agra. 2011.
6. Das S.K.: *The Economic History of Ancient India*. Vohra Publishers, Allahabad. 2007.
7. Sharma R.S. : *Material Culture and Social formations in Ancient India*. Macmillan India Ltd. Delhi. 2007.
8. Sharma R.S.: *India's Ancient Past*. Oxford University Press. New Delhi. 31st Impression 2018.
9. Bashyam A.L.: *The Wonder that was India, Vol-I*. Picador Pan Macmillan, Publisher Ltd. London. 2004.
10. Nilkanta Sastri K.A.: *The Illustrated History of South India*. Oxford University Press , New Delhi.2009

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
<i>Formative Assessment as per guidelines.</i>	

Course Title: WESTERN AND INDIAN POLITICAL THINKERS Course Code: IBEN2DSC04T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (English)	DSC-4 (Minor-2)	Theory	4	40	60	100

Course Outcomes :

At the end of the course students will be able to:

- Understand key ideas and contributions of major political Thinkers.
- Analyze historical and cultural contexts of political theories.
- Compare and contrast different political philosophies.
- Understand the evolution of political thought over the period of time.
- Develop the ability to articulate and debate political ideas.

Unit	Title: WESTERN AND INDIAN POLITICAL THINKERS	75 hrs/ Sem
Unit- I	Western Political Thinkers 1.1. Features of Greek Political Thought 1.2. Plato –Ideal State, Theory of Justice and Philosopher King. 1.3. Aristotle – State, Classification of Governments, Theory of Revolution	15 hrs
Unit- II	Medieval Western Political Thinkers 1.1. Thomas Aquinas – Classification of Law 1.2. St. Augustine - Two Swords Theory 1.3. Machiavelli -Advice to the Prince, Separation of Politics from Ethics and Religion	15 hrs
Unit- III	Modern Western Political Thinkers 1.1. Hobbes – Theory of Absolute Sovereignty. John Locke –Theory of Social Contract. J.J. Rousseau – General Will. 1.2. J.S. Mill – Views on Liberty. 1.3. Karl Marx – Theory of Communism.	15 hrs

Unit- IV	. Ancient and Medieval Indian Political Thinkers. 1.1. Kautilya – Theory of Saptanga, Theory of Mandala. 1.2. Sabareeshwara- Political Philosophy of Sabareeshwara (Concept of Anubhav Mantapa, Humanism) 1.3. Gautama Buddha – Life and Teachings	15hrs
Unit-V	Modern Indian Political Thought 1.1. Mahatma Gandhi – Concept of Satyagraha, Techniques of Satyagraha, Truth and Non 1.2. Violence. 1.3. Dr. B.R. Ambedkar – Ideas on Social Justice and Democracy. 1.4. Ram Manohar Lohia – Socialism, Ideas on Four Pillar State, Jayaprakash Narayan – Total Revolution.	15 hrs

References:

1. Zelliott, E. (1986). 'The Social and Political Thought of B.R. Ambedkar', in Panthan, Th. & Deutsch, K. L.(eds.) Political Thought in Modern India. New Delhi: Sage,
2. C.L.Wayper: Political Thought, B.I.Publications Bombay, 1983
3. Mukharjee and Ramawsamy: History of Political Thought- Plato to Marx, Prentice-Hall, India, New Delhi, 1999
4. D.R.Bhandari: History of European Political Philosophy, Bangalore Printing and Publishing, Co Ltd., Banraglore, 1990
5. V.P.Varma: Modern Political Thought, Lakshmi Narain Agarwal Agra, 1991
6. K.S.Padhya : Indian Political Thought, PHI Leaming Pvt, Ltd, Delhi, 2014
7. H.R.Mukhi: Political Thought, SBD Publishers, Delhi
8. R.C. Gupta: Western Political Thought, Lakshmi Narain Agarwal Agra, 2002
9. R.C.Gupta: Great Political Thinkers East and West, Lakshmi Narain Agarwal, Agra, 2015
10. Sukhbir Singh: History of Political Thought, Vol-1 and 2 Rastogi Publications, Meerut, India, 2001

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
<i>Formative Assessment as per guidelines.</i>	

2. Ability Enhancement & Value-Added Courses –(AE&VAC)

Course Title: 2.1 LANGUAGE -II/ KANNADA: BELAGU -1 Course Code: IBEN2AB01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (English)	AE&VAC-1	Theory	4	40	60	100

Course Outcomes (COs):Attheend ofthecoursestudentswillbeableto:

CO1: ರಾಷ್ಟ್ರೀಯತೆ ಎಂಬ ಪರಿಕಲ್ಪನೆಯ ಕುರಿತು ಸ್ಪಷ್ಟತೆ ಒದಗುತ್ತದೆ.

CO2: ತಮ್ಮ ಭಾವಿಸುವ ಕ್ರಮದಿಂದ ಬಿಡುಗಡೆ

CO3: ಸಾಹಿತ್ಯ ಸಮಕಾಲೀನ ಸ್ಪಂದನೆ ಎನ್ನುವುದು ತಿಳಿಯುತ್ತದೆ.

CO4: ಕನ್ನಡತನ ಎನ್ನುವುದು ಕೇವಲ ಭಾವನಾತ್ಮಕತೆಯಲ್ಲ, ಅದು ಉಸಿರಿನಂಥ ವಾಸ್ತವ

CO5:ಕರ್ನಾಟಕ ಏಕೀಕರಣ ಚಳುವಳಿಯ ತಿಳಿವು ಲಭಿಸುತ್ತದೆ

CO6:ಭಾಷೆಗೂ-ವ್ಯಕ್ತಿಗೂ, ಭಾಷೆಗೂ-ಸಮುದಾಯಕ್ಕೂ ಇರುವ ಕರುಳು ಬಳ್ಳಿ ತಿಳಿಯುತ್ತದೆ

CO7:ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ನಾಗರಿಕ ಪ್ರಜ್ಞೆ ಅರಳುತ್ತದೆ.

Unit	Title: ಬೆಳಗು ೧ (ಕನ್ನಡ AECC)	60hrs/sem
UnitI	ರಾಷ್ಟ್ರೀಯತೆ ೧. ಭಾರತದಲ್ಲಿ ರಾಷ್ಟ್ರೀಯವಾದ - ರವಿಂದ್ರನಾಥ ಠಾಗೋರ್ ೨. ಕನ್ನಡಕ್ಕೂ ಒಂದು ರಾಷ್ಟ್ರೀಯತೆ - ದೇವನೂರ ಮಹಾದೇವ ೩. ಅಮೃತತ್ವ - ತತ್ವದ ಹಂಬಲದಲ್ಲಿ - ಚ. ಹ. ರಘುನಾಥ ೪. ರಾಷ್ಟ್ರೀಯತೆಯ ಆಚರಣೆಯ ಸುತ್ತ - ರಾಮಲಿಂಗಪ್ಪ ಟಿ. ಬೇಗೂರ	15 hrs
UnitII	ಸ್ವಾತಂತ್ರ್ಯದ ಪ್ರತಿಸ್ಪಂದನೆ ೧. ಗಾಂಧಿ (ಕವಿತೆ) - ಜಿ. ಎಸ್. ಶಿವರುದ್ರಪ್ಪ ೨. ಭಾರತಾಂಬೆಯ ರಥೋತ್ಸವ - ಡಿ. ಗೋವಿಂದ ದಾಸ ೩. ನಿರಾಶ್ರಿತ (ಕಥೆ)- ಎಚ್. ವಿ. ಸಾವಿತ್ರಮ್ಮ ೪. ಇಂದೇ ಸೀಮೋಲ್ಲಂಘನ - ಚೆನ್ನವೀರ ಕಣವಿ	15 hrs

UnitIII	ಕರ್ನಾಟಕತ್ವ ತಾತ್ವಿಕತೆ ೧. ಕನ್ನಡ ಡಿಂಡಿಮ ಕವಿತೆ ಮತ್ತು ಮುನ್ನುಡಿ - ಕುವೆಂಪು ೨. ನಾಡಿಗೂ ನುಡಿಗೂ ಸಂಬಂಧ - ದ. ರಾ. ಬೇಂದ್ರೆ ೩. ಜನಭಾಷೆ ಸ್ಥಿತಿ ಮತ್ತು ಗತಿ - ಚಂಪಾ ೪. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಎಂದರೇನು?- ರಹಮತ್ ತರೀಕೆರೆ	15 hrs
UnitIV	ಕರ್ನಾಟಕತ್ವ; ಸೃಜನಶೀಲ ಸ್ಪಂದನೆ ೧. ಕಾವೇರಿಯಿಂದಮಾ ಗೋದಾವರಿ.....- ಶ್ರೀವಿಜಯ ೨. ಉದಯವಾಗಲಿ ನಮ್ಮ ಚೆಲುವ ಕನ್ನಡ ನಾಡು - ಹುಯಿಲಗೋಳ ನಾರಾಯಣ ೩. ಆಯ್ದ ವಚನಗಳು - ಜಯದೇವಿ ತಾಯಿ ಲಿಗಾಡೆ ೪. ನಿತ್ಯೋತ್ಸವ - ಕೆ. ಎಸ್. ನಿಸಾರ್ ಅಹಮದ್	15hrs

Recommended books:

1. ನಿತ್ಯೋತ್ಸವ - ನಿಸಾರ್ ಅಹಮದ್
2. ಗರಿ - ದ. ರಾ. ಬೇಂದ್ರೆ
3. ಕವಿರಾಜಮಾರ್ಗ - ಶ್ರೀವಿಜಯ
4. ಪಂಪಭಾರತ - ಪಂಪ
5. ವಚನ ಸಂಪುಟಗಳು - ವ.ಸಾ.ಪ. ವಿಜಯಪುರ
6. ಸಾಲು ದೀಪಗಳು - ಕನ್ನಡ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.1 LANGUAGE-II /HINDI: KAVYA KAUMUDI AUR ANUVAD Course Code: IBHI2AB01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (English)	AE& VAC-2	Theory	4	40	60	100

Course Outcomes (COs):At the end of the course students will be able to:

- CO1: कविता में रुचि उत्पन्न करना
CO2: गति, लय, भावयुक्त वाचन की योग्यता उत्पन्न करना
CO3: कल्पना शक्ति को उत्पन्न करना
CO4: सौंदर्यानुभूति की क्षमता उत्पन्न करना
CO5: रस, छंद, अलंकार का ज्ञान कराना
CO6: विविध भावों से युक्त कविता को समीक्षात्मक अध्ययन के लिए प्रोत्साहित करना
CO7: छात्रों में अनुवाद कौशल का विकास होता है ।
CO8: अनुवाद कला द्वारा बेरोजगारी की समस्या से मुक्त हो सकते हैं ।

Unit	Title: KAVYA KAUMUDI AUR ANUVAD काव्य कौमुदी और अनुवाद	60hrs/ sem
Unit I	हिंदी काव्य का सामान्य परिचय	15hrs
Unit II	काव्य कौमुदी-सं. डॉ.एन.शाजी, डॉ. शीबा एम.आर, डॉ. मंजू ए. (राजपल एण्ड सन्स, दिल्ली) 1. किरण – जयशंकर प्रसाद 2. वह तोड़ती पत्थर – सूर्यकामत त्रीपाठी 'निराला' 3. मधुशाला – हरिवंशराय बच्चन 4. एकलव्य – कीर्ति चौधरी 5. मरने से नहीं डरता – चंद्रकांत देवताळे	15hrs

Unit III	6. मुक्ति – अरुण कमल 7. बेजगह – अनामिका 8. नालंदा के खंडहर – निर्मला गर्ग	1 hrs
Unit IV	अनुवाद कला कन्नड या अंग्रेजी से हिंदी में अनुवाद	15hrs

Recommended books:

1. काव्य कौमुदी-सं. डॉ.एन.शाजी, डॉ. शीबा एम.आर, डॉ. मंजू ए. राजपल एण्ड सन्स, दिल्ली
2. हिंदी कविता – सं. कण्ठूर विश्वविद्यालय, राधाकृष्ण प्रकाशन, जी-17, जगतपुरी, दिल्ली
3. नई कविता के प्रतिमान – लक्ष्मीकांत वर्मा, भारती प्रकाशन, इलाहाबाद
4. नई रचना और रचनाकार – डॉ. दयानंद शर्मा, अन्नपूर्णा प्रकाशन, कानपुर
5. नई कविता के सात अध्याय – डॉ. देवेश ठाकूर, संकल्प प्रकाशन, मुंबई
6. प्रयोजनमूलक हिंदी-डा-नरेश मिश्र, राजपाल एण्ड सन्स नई दिल्ली ।
7. प्रयोजनमूलक हिंदी-डा-बशीरुद्दीन मदरी, गीता प्रकाशन हैदराबाद
8. सरकारी कार्यालयों में हिंदी का प्रयोग-गोपिनाथ श्रीवास्तव, लोकभारती प्रकाशन।
9. प्रयोजनमूलक हिंदी- राष्ट्राभाषा प्रचार समिति, वर्धा।

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.2 UNDERSTANDING INDIA PART- II (INDIAN ETHOS AND KNOWLEDGE SYSTEMS) Course Code: IBEN2AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (English)	AE& VAC-2	Theory	2	20	30	50

Course Outcomes:

After the completion of the course, it is expected that the students will be able to:

- recognize the vast corpus of knowledge traditions of India, while developing an appreciation for it,
- apply their acquired research and critical thinking skills in multidisciplinary themes,
- summarize and pass on their learnings to their students of different Indian traditions in an easily digestible manner.

UNIT-I

Introduction of Knowledge of India

- Recap of the previous semester's definition and introduction.
- Recap of previous knowledge.

UNIT-II

Philosophy, Ethics & Values: Schools of Philosophy

- Vaisheshika, Nyaya, Samkhya, Yoga, Purva Mimamsa and Vedanta or Uttara Mimamsa (theory and the major thinkers) – and Jain, Buddhist, and Charvak traditions.
- Vedanta: philosophical systems (Advaita, Vishishtadvaita, Dvaita).
- Ethics, morality, and social dilemma (including self-leadership) and their relevance in today's time.
- How do Indians value spirituality? Spirituality and Social Responsibility; Importance of Spirituality in current times.
- Using ethics in a technologically volatile world: leading an ethical and modern life.
- Practical Vedanta for well-being (mindfulness, inter-connectedness, society-self relationship, etc.).

UNIT-III

Culture- Lifestyle

- Food (regional cuisines, ayurvedic diet, food and festival, vegetarianism, Jainism in food, food and hospitality, and globalization).
- Clothes (traditional Indian clothing, textile arts, religious costumes, clothing status, clothing, gender, globalization in clothing).
- Sports (traditional Indian sports, martial arts, sports, and gender, sports & globalization).
- The lifestyle of Yoga; adapting ancient lifestyle – A path towards longevity.

UNIT-IV
Science & Technology

- A. Arithmetic and logic.
- B. Natural sciences: math, physics, metallurgy, and chemistry.
- C. Astronomy: India's contributions to the world.
- D. Indian notions of time and space.
- E. Technology in the economy: agriculture, transportation, etc.

UNIT-V
Linguistic Traditions

- A. History of linguistics in India (conceptualizing ancient Indian linguistics, oral traditions, etc.).
- B. Language as Culture: Evolution of Languages over the years & language as building blocks to different cultures and society
- C. Language: Identity, culture, and History.

Practicum:

The modes of curriculum transaction will include lectures, Tutorials, and Practicum.

- Practicum will include organization of day trips that help student teachers watch events relating to visual and performing art; activities that enable student teachers to identify and record through photos, videos, etc. the elements of ancient architecture still existing in the city around them; organization of Individual and group presentations based on themes such as Polity, Law and Economy etc., organization of a 'Knowledge of India 'day in the institution to celebrate the culture (food, clothes, etc.) that they would have been explored in lectures and tutorials; interactions with family members, elders, neighbors, and other members of society about the evolution of local systems and economy etc.

Mode of Transaction:

Lectures will include learner-driven participatory sessions, and Guest lectures through experts and practitioners, such as fine arts and performing arts practitioners along with contemporary poets & writers of Indian literature.

Tutorials will include Screening of documentaries and films followed by a discussion; Learner-driven discussions in the form of focus group discussions (FGDs), Socratic Discussions, etc.; Debate/discussion can be organized to explain India's Vaad tradition; discuss on how some of the ancient methods of teaching are relevant in today's time; discussions that help Identify ethical dilemmas in daily lives and understanding the importance of ancient ethics and values to resolve them.

Mode of Assessment:

The approaches to learning assessment will include:

- Supporting the curiosity and interest of student teachers in the selected themes through a multi-modal approach, including regular assessments and actionable feedback that enable learners to outline and interpret the processes and events of the formation & evolution of knowledge of India through a multidisciplinary lens.
- Enabling the student teachers to demonstrate critical analysis and independent thinking of the processes and events in the formulation & evolution of different traditions that help student teachers evaluate the diverse traditions of India to distinguish its achievements and limitations.
- Use of first-hand or second-hand experiences that enable student-teachers to develop and articulate an ethics-based education rooted in Indian thought to their students in the classroom context.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Board, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Balasubramanian, R. (2000). Introduction. In Chattopadhyana, D. P. (Ed.), History of science, philosophy and culture in Indian civilization. Advaita Vedanta. [Vol. 2 (II)]. Centre for Studies in Civilizations.
2. Bhagat, G. (1990, April-June). Kautilya revisited and re-visioned. The Indian Journal of Political Science. 31(2), 186-212.
3. Bhattacharya, R. (2002). Carvaka fragments: A new collection. Journal of Indian Philosophy, 30, 597-640.
4. Dominik, W. (2001). The roots of ayurveda. Penguin Classics.
5. Sharma, S. (2023). Significance of ancient Indian sciences in contemporary education.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.3 TEACHER AND SOCIETY Course Code: IBEN2AB03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (English)	AE&VAC-3	Theory	2	20	30	50

Course Outcomes:

After completion of the course, it is expected that the student teachers will be able to:

- examine the relationship between teacher beliefs, values, character, social and cultural context, and teaching critically.
- conceptualize teacher agency, its individual, contextual, and structural dimensions, and how it gets impacted and in turn shapes education.
- explain the teacher's roles and characteristics; the personal and professional self, the reflective practitioner, and their significant role in shaping self, school, and society,
- differentiate between the narrow curricular aims of education and the broader educational aims and their role in shaping self, school and society,
- demonstrate an ability to develop positive classrooms through engaging in the ethic of care,
- demonstrate an ability to critically reflect on personal and collective practice so as to improve learning and teaching,
- conceptualize teacher agency, its individual, contextual, and structural dimensions and how it gets impacted and in turn shapes education.

UNIT-I

Understanding the Teacher: Exploring the Personal and Professional Teacher

- Exploring the wider Personal and General Social Context of Teacher: Life History, Teacher Beliefs, Values and Aspirations, Diverse Identities, Social Contexts and Commitment to Learning and Education.
- Exploring the Professional Teacher: Qualifications, Education in teaching, Attitude, Aptitude, Experience and Exposure.
- The Charismatic Teacher, the Communicator Teacher, The Missionary Teacher, The Competent Practitioner, The Reflective Practitioner, The Learning Teacher.
- Reflexive Practice: Nurturing the Professional Capital through collaborative and/or collective engagement with self, others, the social context.

UNIT-II

Nurturing the Teacher: A Dialogue Beyond the Curricular Goals, for Life and Posterity

- A. Teaching: One profession, many roles
- B. Teaching Character: Nurturing Teachers for Human Flourishing.
- C. Holistic Teacher Development: Nurturing the Panchakoshas.
- D. Teacher Values, Beliefs, and current Philosophy of Teaching: A Reflective Dialogue.
- E. Developing an Ethic of Care in Teacher Education: Nurturing Teachers towards a pedagogy of care.

UNIT-III

Understanding and Fostering Teacher Agency: Role in shaping Education Systems of Tomorrow

- A. Teacher Agency: What is it and why does it matter?
- B. Individual, Cultural and Structural Dimensions of Teacher Agency.
- C. Teacher discourses, Philosophy, Relationships, Networks and Professional Development: Shaping teacher agency and Creative insubordination.
- D. Challenges and Issues in fostering Teacher Agency: Performativity, Non-academic engagements, Systemic apathy, Policy and Practice gaps and others.
- E. Role of Teacher in shaping the educational policy, practice, and reforms

UNIT - IV

Teacher as an Architect of the New India: Shaping the Society of Tomorrow

- A. Engaging in Critical Education: Dialogues on power relations associated with Gender, Ethnicity, Culture, Disability, Class, Poverty, the reproduction of disadvantage and realizing the true human potential.
- B. Being a Critical Teacher: Raising debates around rapid technological advancement and impact on individual, family and social life; the growing isolation and impact on mental and social health and well-being, changing relationships between the 'state' and the 'market' and their impact on formal education; the conceptualization of teacher, teaching and teacher roles, 'globalization' and the reconstructed nationalism shaping the socio-political milieu and impact on social psyche, growing materialistic urge, sensory drives and the gradual deterioration of the individual and societal character.

Practicum:

- Take up a case study of any one teacher education Institution.
- Write a biography of any one of your favorite teachers/ Educationists.

Mode of Transaction:

Teacher and Society is a reflection-based course that invites teachers to re-think teachers and teaching. It awakens and inspires teachers to realize broader educational aims through an action and reflection cycle. The approach therefore would include a blend of lectures, in-class seminars, thinking exercises, critical reflections, group work, case-based approaches, and enquiry-based learning.

- Learners would also be exposed to case studies featuring teachers from a representative cross-section of Schools in India and critically analyse their exercise of agentic force in school improvement and the improvement of teaching practice.
- Situating themselves in the geo-political context, the learners will get to critically engage in some of the policy dialogues.
- Learners would reflect on their practice as pre-service interns, knowledge, skills, and understandings-and identify opportunities to apply course learnings to their school context.

Mode of Assessment:

The entire syllabus is based on practical exercises. Being a very thought-provoking course, the assessment would largely include critical thinking kind of assignments. The following are some exemplars.

- Write your current teaching philosophy based on your beliefs and values.
- Choose any one area of immediate societal concern like environmental degradation, increasing crime against women, cybercrimes, bullying or any other and draw an action plan that you as a teacher would undertake to mobilize self, school and society towards betterment.
- Critical Reflections on popular debates around power relations associated with Gender, Ethnicity, Culture, Disability, Class. Poverty, and others

These are just prototypes and institutes may choose either of these or think of other innovative assignments that would inculcate in future teachers a sense of belonging to society.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Board, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Ashton, K. (2021). Novice teacher agency in the multi-level language classroom. *Language, Culture and Curriculum*, 34(3), 242-256.
2. Axline, M.A. (2018). *Dibs: In Search of Self*. Lexington, Massachusetts: Plunkett Lake Press
3. Biesta, G., Priestley, M., & Robinson, S. (2015). The role of beliefs in teacher agency. *Teachers and Teaching: Theory and Practice*, 21(6), 624-640.
4. Dhanraj, S. (2023). In search of compassionate teachers. *Economic and Political Weekly*, Vol. 58, No. 40
5. Kumar, S. (2023, January). Reconceptualizing teacher education from an emancipatory perspective. *Journal of Educational Planning and Administration*. 37(1), 31-45.
6. Lasky, S. (2005). A sociocultural approach to understanding teacher identity, agency and professional vulnerability in a context of secondary school reform. *Teaching and Teacher Education*, 21(8), 899-916.
7. Motta, S. C., & Bennett, A. (2018). Pedagogies of care, care-full epistemological practice and 'other' caring subjectivities in enabling education. *Teaching in Higher Education*, 23(5), 631-646. <https://doi.org/10.1080/13562517.2018.1465911>
8. National Council for Teacher Education (2022). National professional standards for teachers.
9. Rajan, K. M. (1997, January-March). Teachers' role in three organizational models. *New Frontiers in Education*, 27(1), 63-68.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
<i>Formative Assessment as per guidelines.</i>	

III Semester
ITEP BA. B. Ed English

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Child development & Educational Psychology	4	40	60	100
Discipline Specific Course- DSC						
2.	DSC- 1 (Major-1)	Indian English Literature (from beginning to the Modern Age)	4	40	60	100
3	DSC-2 (Major-2)	Literary Criticism and Critical Theory	4	40	60	100
4	DSC- 3 (Minor-1)	History of India 1206 Ad to 1526	4	40	60	100
5	DSC-4 (Minor-2)	Public Administration	4	40	60	100
Stage Specific Content Cum Pedagogy- SSCCP						
6	SSCCP-1	Pedagogy of English-I	2	20	30	50
7	SSCCP-2	Pedagogy of Social Science-I	2	20	30	50
Total Credits			24	240	360	600

III Semester
ITEP BA. B. Ed English
SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education-FCE			1.1 Child development & Educational Psychology
2	Discipline Specific Course- DSC	(Major-1)		2.1 Indian English Literature (from beginning to the Modern Age)
		(Major-2)		2.2 Literary Criticism and Critical Theory
		(Minor-1)		2.3 History of India 1206 Ad to 1526 of Political Science
		(Minor-)		2.4 Public Administration
3.	Stage Specific Content Cum Pedagogy- SSCCP			3.1 Pedagogy of English-I
				3.2 Pedagogy of Social Science-I

1. Foundation Course of Education- (FCE)

Course Title: 1.1 CHILD DEVELOPMENT & EDUCATIONAL PSYCHOLOGY							
Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.A. B.Ed. (English)	FCE-1	Theory	4	40	60	100

Course Outcomes:

- After completion of this course, student teachers will be able to:
- describe the meaning, concept, characteristics, and factors affecting growth and development,
- use the knowledge of Indian concept of self,
- apply various problem solving and learning strategies in real classroom settings,
- identify the various approaches of the process of learning,
- explain group dynamics and apply strategies to facilitate group learning.

UNIT - I

Child Development

- A. Meaning and significance of understanding the process of Child Development
- Biological, cognitive, socio-emotional, and moral.
- B. Developmental characteristics of a child during:
- Infancy stage
 - Early Childhood stage
 - Middle to Late Childhood stage
 - Adolescence stage
- C. The Indian concept of self: Mind (मनस्), Intellect (बुद्धि), Memory (स्मृति). Panch-koshiya Vikas (पञ्चकोशीय विकास).
- D. Educational Implications.

UNIT - II

Developmental Process

A. Development across domains:

- Physical Development
- Cognitive Development
- Language Development
- Socio-Emotional Development
- Aesthetic Development
- Moral Development

During each of the above-mentioned developmental stages of a child.

B. Factors affecting development.

C. Individual differences:

- Children with special needs including developmental disorders.
- Tools and Techniques for Identifying Learner with different abilities.

D. Teachers' role and strategies to address the needs of learners with different learning abilities.

UNIT - III

Process of Learning

A. Conceptual Clarity and significance.

B. Approaches:

- Behaviorist
- Cognitivist
- Constructivist
- Developmental
- Information processing Model of learning
- Shri Aurobindo's Integral approach

C. Problem Solving and Learning Strategies: Inquiry and problem-based learning, Steps and Strategies in problem solving, Factors hindering problem solving.

D. How to Learn: Significance and Strategies

UNIT - IV

Motivation and Classroom Management

A. Motivation

- Conceptual clarity, nature, and significance
- Intrinsic and Extrinsic Motivation
- Strategies for Motivation

B. Classroom management

- Creating a positive learning environment
- Planning space for learning
- Managing behavioral problems

C. Group dynamics:

- Classroom as a social group
- Characteristics of group
- Understanding group interaction-sociometry
- Strategies to facilitate group learning.

Practicum:

1. Spending day with a child and preparing a report based on our observations of children for:
 - A day from different economic status (low and affluent)
 - Focus on various factors: Physical, emotional, social, language, cultural and religious influencing the child on daily basis.
2. Observing children to understand the styles of children learning process.
3. Identifying the Learning Difficulties of Students in Different learning areas and the Possible Reason for them- Case Study Report.
4. Preparing Personalized Intervention plan for Students with Learning Difficulties.
5. Plan to use advanced technology to encourage talented / gifted children.
6. Encouraging gifted / talented students beyond the general school curriculum.
7. Familiarization and Reporting of Individual Psychological Tests.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.

- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

- Bates. B. (2019). Learning Theories Simplified. Sage Publications Ltd.
- Berk. L. E. (2011). Child Development. (8th ed.). New Delhi: Pearson Prentice Hall.
- Cornelissen. M. & Misra, G.(2013). Foundations and Applications of Indian Psychology. Pearson Education
- Dehaene, S.(2021). How We Learn: The New Science of Education and The Brain, Penguin Publication
- Eggen, P. & Kauchak, D. (1999). Educational Psychology: Windows on Classrooms. (4th ed.). New Jersey : Prentice Hall

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

2. Discipline Specific Course- (DSC)

Course 2.1 Title: INDIAN ENGLISH LITERATURE							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.A. B.Ed. (English)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to

- ❖ Comprehend major trends and movements in Indian English literature from 19th century to Modern Age
- ❖ Understand the major works of representative writers of Pre-Independence and Post-Independence Period
- ❖ Gain Knowledge of Indian English poetry, prose, novel and drama of prescribed ages
- ❖ Acquaint themselves with the literary movements in Indian English Literature
- ❖ Appreciate the contribution of English writers of prescribed period

Unit	Title: Indian English Literature	75 hrs/sem
Unit- I	Background 1. The Nature and Scope of Indian English Literature; charges against Indian English Literature (Reference: M. K. Naik, A History of Indian English Literature (Chapters 1 and 6), New Delhi: Sahitya Akademi, 1980 2. Pre-Independence Indian English Poetry, Prose, Drama and Novel 3. Post-Independence Indian English Poetry, Prose, and Novel	15 hrs
Unit- II	Introducing authors/texts- Raja Ram Mohan Roy, Toru Dutt, Sri Aurobindo, Swami Vivekananda, Bankim Chandra Chattopadhyay, Mahatma Gandhi, Dr B R Ambedkar, Rabindranath Tagore, Sarojini Naidu, Nirad C Chaudhari, Henry Derozio, Manohar Malgaonkar, Kamala Das, Shashi Deshpande, Chaman Nahal, Amitav Ghosh, K. A. Abbas, Vikram Seth, Arun Joshi, G.V. Desani, Sunithi Namjoshi, Arun Kolatkar, T P Kailasam, Anita Desai, Manju Kapur, Arvind Adiga, Chitra Banerjee Divakaruni, Namitha Gokhale. Kiran Desai, Anita Nair, Mahesh	15 hrs

	Dattani, Salman Rushdie, Ruskin Bond	
Unit- III	Representative Texts: Poetry 1. Toru Dutt -- Our Casuarina Tree, 2. Sarojini Naidu – Bangle Sellers, 3. Kamala Das- My Grand Mother’s House, 4. A. K. Ramanujan – A River, 5. Nissim Ezekiel - Good bye Party to Miss Pushpa T. S. 6. Arun Kolatkar- An Old Woman	15 hrs
Unit- IV	Three Thousand Stitches: Ordinary People, Extraordinary Lives - Sudha Murthy	15hrs
Unit-V	Novel: Waiting for Mahatma – R K Narayan	15hrs

References:

1. Indian English Literature – M K Naik
2. Indian Writing in English – K R Srinivas Iyengar
3. Indian Poetry in English – Makarand Paranjape
4. Twice Born Fiction – Meenakshi Mukherjee
5. Makers of Indian English Literature- C D Narasimaiah

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 LITERARY CRITICISM AND CRITICAL THEORY							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.A. B.Ed. (English)	DSC-2 (Major-2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- ❖ Gain Knowledge of meaning and definitions of the literary criticism
- ❖ Obtain Knowledge of great critics from classicism to post modernism
- ❖ Distinguish various methods of criticism
- ❖ Understand the contributions of various Western and Indian Critics
- ❖ Acquire Knowledge of Indian rhetoric
- ❖ Acquire the skills of analyzing the work of art

Unit	Title: Literary Criticism and Theory	75 hrs/sem
Unit- I	Introduction to Criticism Literary Criticism- Meaning, Definitions, Functions, Methods Show your acquaintance with following critics: Philip Sydney ,John Dryden, Alexander Pope, Dr Samuel Johnson, P.B. Shelley, William Hazlitt, Mathew Arnold, Virginia Woolf, ,F R Leavis, Mary Wollstonecraft,	15 hrs
Unit- II	Romantic Criticism and Romantic Criticism What is Art? – Plato and Aristotle Aristotle’s Concept of Tragedy Coleridge’s Theory of Imagination (From Biographia Literaria Chapter IVX)	15 hrs
Unit- III	Modern Criticism Why the Novel Matters–D. H. Lawrence Tradition and Individual Talent –T.S. Eliot	15 hrs

Unit- IV	Marxist Criticism (Reference: Peter Barry, Beginning Theory (Chapter 8), New Delhi: Viva Books, 2012) Feminist Criticism (Reference: Peter Barry, Beginning Theory (Chapter 6), New Delhi: Viva Books, 2012) Post-colonial Theories (Reference: Peter Barry, Beginning Theory (Chapter 10), New Delhi: Viva Books, 2012) Eco-criticism (Reference: Peter Barry, Beginning Theory (Chapter 10), New Delhi: Viva Books, 2012)	15 hrs.
Unit-V	Indian Critical Tradition Bharata's Natya shatra Abhinava Gupta : Theory of Rasa Four of Kinds of Meaning–I.A.Richards	15 hrs.

References:

1. Nagarajan M S., English Literary Criticism and Theory, Hyderabad Orient Blackswan.
2. Abraham M H, and Harpham, Handbook of Literary Terms, New Delhi, Cengage
3. Barry, Peter., Beginning Theory, Manchester, MUP.
4. Adams, Hazard. Critical Theory Since Plato. New York, Harcourt Brace Jovanovich, 1971. Abrams, M. H. A Glossary of Literary Terms. (8th Edition) New Delhi: Akash Press, 2007. Baldick, Chris. The Oxford Dictionary of Literary Terms. Oxford: Oxford University Press, 2001
5. Barry, Peter. Beginning Theory: An Introduction to Literary and Cultural Theory. New Delhi: Viva Books, 2008.
6. Drabble, Margaret and Stringer, Jenny. The Concise Oxford Companion to English Literature.

Pedagogy:

Lectures, Seminar, Role play, Group discussion

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.3 HISTORY OF INDIA 1206 A.D. TO 1526 Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.A. B.Ed. (English)	DSC-3 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- ❖ The administration and reforms of Delhi Sultanates and their Socio-Economic and Cultural Contributions.
- ❖ The Administration, Trade and Commerce and Cultural Contributions of Vijayanagar empire.
- ❖ The administration and cultural contributions of Bahamani and Adilshahis dynasties and also the life and social philosophy of Bhakti and Sufi Saints.

Unit	Title: HISTORY OF INDIA 1206 A.D. TO 1526	75 hrs/sem
Unit- I	Interpreting the Delhi Sultanate: - Survey of sources: Archeological and Literary Sources. - Delhi Sultanate- Foundation, expansion and consolidation of the Sultanate of Delhi; The Slaves- Ku tub Din Aibak, Iltutmish, Iban, Raziya Sultan - The Khiljis: Alla- Ud Din Khilji- Conquests & Administration	15 hrs.
Unit- II	Tughluqs and Lodis: - The Tughluqs -Muhammad Bin Tughluqs, Ferozshah Tughluq- Their Conquests and Administration. - The Lodis: Conquest of Bahlul and Sikandar; Ibrahim Lodi and the First battle of Panipat - Theories of Kingship; Nobles, Sufis, Ulema and the political authority	15 hrs.
Unit-III	Society and Economy: - Administration of Delhi Sultanate Delhi - Economy, Trade and Commerce of the Delhi Sultanates. - Art and Architecture of Delhi Sultanate.	15 hrs.

Unit-IV	Emergence of Provincial Dynasties: • The Bahamanis- Early Rulers- their cultural Contributions, disintegration of Bahamani Kingdom • Mahmud Gawan and His Achievements • Adil Shahis of Bijapur-Early Sultans-Ibrahim-I, Ali Adil Shah-I- Ibrahim Adil Shah-II	15hrs
Unit-V	The Vijayanagara Empire and Reform Movements: • Early Rulers- Devaraya-II, Krishnadevaraya and Achievements – Battle of Talikote and Decline. • Sufi Movement-Principles of Sufis, Khwaja Moinuddin Chisti and Hazarat Nizamuddin Auliya. Bhakti movement-Principles- Kabir, Nanak, Vallabhacharya, Chaitanya, Meera Bai • Map Study: • Mark the empire of Alla –Ud Din Khilji conquests and write a short note on it. • Mark the empire of Krishnadevaraya and write a short note on it.	15hrs

References:

1. Habib Irfan: Medieval India. (1200-1750) Oxford University Press. New Delhi. 1998.
2. Chandara Satish: Medieval India from Sultanate to Mughals. Har Anand Publications.Delhi, 2007.
3. Khurana K.L: Medieval India. Lakshmi Narayan Agarwal, Agra. 2009.
4. Chandara Satish: History of Medieval India. Orient Black Swan Pvt.Ltd. Hyderabad, 2007.
5. Chandara Satish: Essays on Medieval Indian History, Oxford University Press. New Delhi.2003.
6. Sharma L.P.: History of Medieval India 1000-1740. Konark Publishers Pvt.Ltd. Dehli.1996.
7. Mahajan V.D.: History of Medieval India Saltanate period and Mughal period, S. Chand &

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.4 PUBLIC ADMINISTRATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.A. B.Ed. (English)	DSC-4 (Minor-2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- ❖ Understand the basic principles and theories of public administration.
Analyze the structure and functions of public sector organizations.
- ❖ Evaluate the role of public administration in policy-making and implementation.
- ❖ Develop skills in public management and organizational leadership.
- ❖ Assess the impact of public administration on society and governance.
- ❖ Examine the ethical and accountability issues in public service.
- ❖ Enhance knowledge of administrative processes and reforms in various contexts.

Unit	Title: PUBLIC ADMINISTRATION	75 hrs/sem
Unit- I	Introduction to Public Administration 1.1. Meaning, Nature, Scope and importance. 1.2 Difference between Public and Private Administration 1.3. Evolution of Public Administration as a Discipline.	15 hrs
Unit- II	Organisation 1.1. The meaning of the Organisation and Bases of Organisation 1.2. Principles of Organisations (Hierarchy, Unity of Command, Span of Control, Delegation of Authority, Centralisation and De-centralisation) 1.3. Relationship between Organization and Management.	15 hrs
Unit- III	Line, Staff and Auxiliary Agencies 1.1. Meaning and Functions of Line and Staff Agencies 1.2. Meaning and Functions of Auxiliary Agencies. 1.3. Distinction between Line, Staff and Auxiliary Agencies	15 hrs

Unit- IV	Personnel Administration 1.1 Recruitment - Meaning, Types and Importance. 1.2 Training - Meaning, Types and Importance. 1.3. Promotion, Discipline and Morale	15hrs
Unit-V	Theories of Administration 1.1 Classical Theory (Henry Fayol, Luther Gullick, and L. Urwick) 1.2. Scientific Management Theory (F.W. Taylor) 1.3. Human Relations Theory (Elton Mayo)	15 hrs

References:

1. Fadia, B. L., & Fadia Kuideep. (2024). Public Administration (17th ed.). India: Sahitya Bhavan.
2. Arora, Ramesh K., & Goyal, Rajni. (2022). Indian Public Administration: Institutions and Issues (4th ed.). New Delhi: New Age International Publisher.
3. Panel, A. (2020). Public Administration (2nd ed.). India: KBC Nano Publication.
4. Basu, Rumki. (2019). Public Administration: Concepts and Theories (5th ed.). New Delhi: Sterling Publications Private Limited.
5. Bhattacharya, Mohit. (2018). New Horizons of Public Administration (7th ed.). India: Jawahar Publishers & Distributors.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

3. Stage Specific Content Cum Pedagogy -(SSCCP)

Course Title: 3.1 PEDAGOGY OF ENGLISH-I Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.A. B.Ed. (English)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- define the historical and sociopolitical context that has influenced language teaching learning methodologies,
- demonstrate an understanding of the profound impact of language on shaping individual and collective identities,
- apply theoretical knowledge of language teaching methodologies to design effective and inclusive language lessons for middle-stage school children,
- analyze the power dynamics inherent in language use and its implications for learners from diverse backgrounds,
- synthesize various teaching strategies to adapt language instruction for different learning environments and cultural contexts,
- evaluate the effectiveness of language teaching methods in promoting students' language development and fostering inclusive classrooms.

UNIT – I: Nature and Scope of Language Education in Middle Stag

- A. Language Education: Concept, nature, and scope; language as a tool of empowerment or marginalization in different contexts; language as a medium for cultural symbols and identity expression in middle stage.
- B. Language as a Structured System: language as a structured and rule-governed system of communication, components of language— phonology, morphology, syntax, semantics, and pragmatics; viewing language as one of the semiotic systems for meaning-making, language's use of symbols and its role in shaping cultural representations.
- C. Challenges in Defining and Categorizing Languages: difficulties in drawing clear boundaries between languages and dialects; the impact of linguistic on language classification; language continuum and the blurred linguistic boundaries in multilingual regions.

- D. Aim and Objective of Language Teaching in Middle Stage: understanding the specific goals of language education at the middle stage in Indian schools; language as a tool for forming and maintaining social connections, the relationship between language and interpersonal relationships; the inseparable link between language and individual/group identity, language's role in preserving cultural heritage and shaping self-perception.

UNIT–II: Historical and Policy Perspective of Language Teaching

- A. Analyzing Constitutional Provisions for Language: analyzing relevant constitutional provisions related to language education in India, understanding the constitutional framework for language policies and provisions.
- B. Analyzing Policy Documents and Census Reports: analyzing language-related policy documents and their implications for language education with special reference to inclusive classroom; Understand language demographics in India and language inclusiveness.
- C. Language curriculum in the middle stage: importance of language education in multilingual context; understanding three language formula; analyzing the process of language learning and acquisition in the Indian context; identifying factors influencing language learning outcomes in diverse linguistic environments; NCFSE 2023 on language education in middle stage; suggestions of various committees on language education.
- D. Indian Multilingual Situation and Multilingualism: understanding the complex multilingual landscape of India, exploring bilingual and multilingual education models in Indian contexts; culturally responsive language teaching: developing culturally responsive language teaching strategies for middle-stage learners; NEP 2020 on cultural diversity and importance of language education.

UNIT - III: Pedagogical Aspects of Language Teaching

- A. Pedagogy of language teaching: approaches, methods, and techniques.
- B. Teaching Listening: Sub Skills of Listening: micro and macro listening skills, focusing on specific elements like recognizing phonetic features, stress, rhythm, and intonation; emphasizing comprehension of longer stretches of spoken language and overall meaning.
- C. Teaching Speaking: approaches to teaching speaking skills; fluency and accuracy; types of speaking activities: role-plays, debates and discussions, picture descriptions, storytelling, information gap activities, public speaking; fostering a positive and non-threatening classroom atmosphere for speaking practice.
- D. Teaching Reading: orthographic System; interactive models of reading; reading approaches; reading in the digital age: reading as a recursive practice; understanding the purposes and

benefits of silent and loud reading in language learning.

- E. Teaching Writing and Grammar: approaches of writing; skill of introducing, developing and transitioning ideas; collaborative writing, portfolio writing, controlled writing, guided writing, free writing; Explicit vs./and implicit instruction of grammar teaching; integrating grammar with other language skills.

Practicum :

1. Analyze language use in advertisements, news articles, or social media platforms to explore how language can perpetuate stereotypes and influence public perception.
2. Analyze policy documents and census reports to understand language demographics and educational provisions in India.
3. Create listening activities with pre-listening, while-listening, and post-listening stages.
4. Design activities that balance fluency and accuracy in speaking practice.
5. Facilitate free writing, guided writing, and code-meshing activities to foster creativity.
6. Design activities that connect grammar with reading, writing, and speaking.
7. Examine language policies in educational institutions and discuss their implications for language learning.

Mode of Transaction:

Interactive discussions, case studies, group projects, role-playing, peer teaching, microteaching, language labs observation, and reflection simulations, field visits, multimedia presentations, debates and discussions, language learning tasks, teaching demonstrations, community engagement

Mode of Assessment:

Quizzes and tests, performance assessments, portfolios, peer assessment, self-assessment, project-based assessments, authentic assessments, oral proficiency interviews, writing samples, peer feedback assessments, language journals, language tests for specific purposes, observations, online assessments, and rubrics.

References:

Teachers may also suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 3.2 PEDAGOGY OF SOCIAL SCIENCE-I Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.A. B.Ed. (English)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- define and discuss the concept and nature of Social Science,
- analyze critically the policies with reference to pedagogic, inclusive, and ethical issues,
- utilize innovative pedagogical skills to engage and foster critical thinking among students.

UNIT – I: Understanding the Concept of Social Sciences

- Concept, nature and scope of Social Science
- Perspectives of Social Sciences in daily life and the construction of:
 - social facts and opinions,
 - explanations and arguments; and
 - spatial and temporal contexts
- Linking Interdisciplinary and Multidisciplinary aspects of Social Sciences.

UNIT – II: Historical/ Policy Perspective of the Subject

- Emergence of Social Science from Environmental Sciences as a subject in the middle stage.
- A reflection of Social Sciences in Education Commission (1964-66), NEP 1986 and NPE 2020.
- The present position of Social Science as a subject in the school curriculum regarding NCF 2005 and NCFSE 2023 at the middle stage.

UNIT – III: Pedagogical Concerns of Social Science

- A. Meaning, nature, and scope of constructivist pedagogy with special reference to middle stage.
- B. Approach: Constructivist approach of collaborative learning.
- C. Method (Tool and Techniques): Narration (story-telling and recitation) cum discussion Elocution and Debates (soliloquy, monologue, and dialogue), Inductive- deductive (concept map and problem-solving method), Analytic-synthetic method.
- D. Activities: Brainstorming and concept mapping, Observation, introspection, and reflection (making of anecdotal records, observation schedule and reflective diaries) project work (problem, aesthetic, constructive and drill), dramatization (role play, mime, skit, dance-drama, Bal-Panchayat, street-play, theatre), Field Trip (Exhibits, museums, heritage, and archaeological sites, social- communal places as markets and railway stations).

Practicum:

1. Construction of analogic strategies for elaborating facts and opinions (promote elaboration, the cognitive process of constructing relations between what is already known, and what is new.)
2. Analysis of Policy (NEP 2020- pedagogy based on the principles of NEP 2020)
3. Field Trip and documentation.

Mode of Transaction:

Narration, Discussion, Demonstration, Project-method and problem-solving, Dramatization and Field-based experience

Mode of Assessment:

Assignment, Written-test, Performance test (classroom presentation of projects and field trips)

References:

1. MHRD. (2020). National Education Policy 2020. Ministry of Human Resource Development. Government of India. New Delhi. from https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf Retrieved
2. NCERT (2006). Teaching of Social Science. Position Paper- National Focus Group. NCERT
3. NCERT. (2005). National Curriculum Framework 2005. National Council of Educational Research and Training, New Delhi

4. NCERT. (2023). National Curriculum Framework for School Education 2023 (draft). National Council of Educational Research and Training, New Delhi. Retrieved from <https://ncert.nic.in/pdf/ncfse2023.pdf>

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

IV Semester
ITEP BA. B. Ed English

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE	Philosophical & Sociological Perspectives of Education -I	4	40	60	100
Discipline Specific Course- DSC						
2.	DSC-1 (Major- 1)	World Classics in Translation	4	40	60	100
3	DSC-2 (Major- 2)	History of English Language and ELT	4	40	60	100
4	DSC -3 (Minor – 1)	History of India 1526 A.D. to 1757	4	40	60	100
5	DSC -4 (Minor – 2)	Indian Government and Politics	4	40	60	100
Stage Specific Content Cum Pedagogy - SSCCP						
6	SSCCP-1	Pedagogy of English-II	2	20	30	50
7	SSCCP-2	Pedagogy of Social Science-II	2	20	30	50
Total Credits			24	240	360	600

IV Semester
ITEP BA. B. Ed English
SYLLABUS

S.NO.	Type of Course		Courses	Course Title
1	Foundation Course of Education- FCE			1.1 Philosophical & Sociological Perspectives of Education -I
2	Discipline Specific Course- DSC	(Major- 1)		2.1 World Classics in Translation
		(Major- 2)		2.2 History of English Language and ELT
		(Minor – 1)		2.3 History of India 1526 A.D. to 1757
		(Minor – 2)		2.4 Indian Government and Politics
3.	Stage Specific Content Cum Pedagogy- SSCCP			3.1 Pedagogy of English-II
				3.2 Pedagogy of Social Science-II

1. Foundation Course of Education- (FCE)

Course Title: 1.1 PHILOSOPHICAL & SOCIOLOGICAL PERSPECTIVES OF EDUCATION -I							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.A. B.Ed. (English)	FCE-1	Theory	4	40	60	100

Course Outcomes:

- To encourage students to explore the nature of knowledge, the nature of human beings, the nature of society and its aims and the educational implications of these understandings.
- To engage the prospective teachers to read and acquaint themselves with the meaning of terms like Vidya, Avidya, Shiksha, Education etc. and to facilitate them to understand and differentiate them through reflections on these terms on the basis of ancient Indian texts.
- To facilitate prospective teachers to engage themselves in peer groups for sharing of their real-life reflective experiences regarding socio-cultural and philosophical living and facilitate them to conceptualize the meaning of terms like philosophical, social and cultural traditions in Indian educational context.
- To orient and engage prospective teachers to read, observe and understand the vision of some great Indian and global educators and categorically reflect on vision/aim, process of education and the contemporary relevance.

UNIT – I: Education and Philosophy

- A. Conceptual clarity, nature and relationships.
- B. Aims of studying philosophical perspective of education.
- C. Branches of Philosophy and their educational implications: Metaphysics, Epistemology, Axiology
- D. Understanding Indian Perspective of Education
 - Meaning, nature and aims of education with special reference to Vedic, Buddhist, Jain, Sikh and Islamic traditions.
 - Understanding the terms Darshana, Para and Apra Vidya, Avidya, Shiksha, Samvaad, Panchkosha, Gurukulam, Acharya, Guru, Shishya, Upadhyaya, Jigyasa, Swadhyaya.
- E. Understanding Western Perspective of Education

- Meaning, Nature and aims of education with reference to Cognitive, Behaviorist and Developmental theories of Education.

UNIT – II: Philosophical Schools and Education

A. Conceptual Clarity of the following schools of thoughts with their implications for educational practices:

- Bharatiya: Samakhya, Yoga, Nyaya, Vaisheshika, Mimamsa, Vedanta
- Western: Idealism, Naturalism, Pragmatism, Progressivism.

UNIT - III: Educational Thinkers

A. Deliberations on aims, process and educational institutions developed on thoughts of following thinkers and practitioners:

- Bharatiya: Swami Vivekananda, Sri Aurobindo Ghosh, Gurudev Rabindra Nath Tagore, J. Krishnamurti, Mahatma Madan Mohan Malaviya, Mahatma Gandhi, Gijubhai Badheka.
- Western: J. Rousseau, Maria Montessori, Friedrich Froebel, John Dewey.

UNIT - IV: Value Education

- Conceptual Clarity, Significance and Types of Values.
- Indian Traditional Values.
- Guru-Shishya-Parampara and Educational Values.
- Convocation message in Taittiriya Upanishad.
- Values enshrined in Indian Constitution.
- NEP, 2020 and Values with special reference to 21st Century.
- Pedagogical Issues.

Practicum:

1. Individual/group assignments/tasks in various forms like writing small paragraphs/brief notes, conceptualizations on specific terms etc.
2. Institutional visits in small groups in coordination to institutions related to different thinker/s and preparation of a report followed by individual/group presentation.
3. Sharing of student experiences (in groups) related to readings on great thinkers help them to reshape their concept and enable them to develop vision, mission and objectives for a school and their plan to accomplish the objectives in form of a group report.

4. Identification and reporting of Indian perspective related to educational aims, student-teacher characteristics, methods, evaluation procedure, convocation etc. based on critical study of life and thoughts of thinkers.

Mode of Transaction:

The course content transaction will include the following:

- Organized lectures using variety of media.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, engagement of in reading of primary or secondary sources of literature (Original texts, reference books etc.) related to different aspects of life and education of Great Educators, case studies, short term project work etc.
- Critically examining their experiences to carve out their world and life view and further analyze them from philosophical point of view to reshape their perspective. They will engage prospective teachers in the development of comparative educational charts related to vision, aims, process, institution etc. They will also lead to reading-based interactions and critical reflections related to process and significance of entry/admission rituals, convocation system etc.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

2. Discipline Specific Course- (DSC)

Course Title: 2.1 WORLD CLASSICS IN TRANSLATION Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.A. B.Ed. (English)	DSC-1 (Major- 1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- ❖ Understand what world classic is and literature
- ❖ Acquire knowledge of world classics
- ❖ Acquire knowledge of famous writers of the world from ancient to modern period
- ❖ Comprehend different literary movements in the world
- ❖ Acquaint with world famous writers and their books
- ❖ Understand the concept of World as one

Unit	Title: WORLD CLASSICS IN TRANSLATION	75 hrs/ sem
Unit- I	1. Rabindranath Tagore's "Vishva Sahitya" 2. T S Eliot's "What is a Classic" 3. Johann Wolfgang von Goethe's Concept of World Literature	15 hrs
Unit- II	Show Your Acquaintance on the famous writers of the World Kalidas, Sophocles, Homer, Virgil, Ranna, Pampa, Basavanna, Tagore, Aurabindo, Tolstoy, Maxim Gorky, Ernest Hemmingway, Gustave Flaubert, Premchand, Kaleel Gibran, Rumi, Chinua Achebe, Dostovesky, Luigi Pirandello, Guy de Maupassant	15 hrs

Unit- III	Show You Acquaintance on the following works 1. The Aeneid 2. The Ramayana 3. The Arabian Nights 4. The Mahabharata 5. Don Quixote 6. Shakuntala 7. The Cherry Orchard 8. Mrichchakatika 9. War and Peace 10. Parallel Lives 11. Crime and Punishment 12. The Republic 13. The Divine Comedy 14. Things Fall Apart 15. Oedipus the King 16. Mudrarakshasa 17. The Frogs 18. Chammeen 19. Madame Bovary 20. Godan 21. Odyssey 22. Devdas 23. Iliad 24. Siddhartha	15 hrs
Unit- IV	Novel Madam Bovary - Gustave Flaubert	15hrs
Unit-V	Play Mrichchhakatika -Sudraka	15 hrs

References:

1. Richardson, William Lee and Jesse M. Owen. Literature of the World: An Introductory Study. Sagwan Press, New York, 2018.
2. D'haen Theo. The Routledge Concise History of World Literature. Routledge, India, 2011. D'haen Theo, et al. World Literature: A Reader. Routledge, India, 2012
3. Das, Sisir Kumar and Sukanta Chaudhuri (eds.). Selected Writings on Literature and
4. Language: Rabindranath Tagore. Das Gupta & Co. Pvt. Ltd., Kolkata, 2001.

Pedagogy:

Lectures, Seminar, Role play, Group discussion

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 HISTORY OF ENGLISH LANGUAGE AND ELT Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.A. B.Ed. (English)	DSC-2 (Major- 2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to acquire

- ❖ Knowledge of history of English language
- ❖ Information about various landmarks Influences on English
 - ❖ Knowledge of basic concepts of ELT and ELT Terms
 - ❖ Skills of Teaching Prose, poetry and novel

Unit	TITLE: HISTORY OF ENGLISH LANGUAGE AND ELT	75 hrs/sem
Unit- I	Origin and Development of English Language Indo-European Family of Languages Landmarks in the development of English Language General Characteristics of English Language	15 hrs
Unit- II	Influences on English Language Latin Influence Greek Influence French Influence Indian and Arab words in English Makers of English Language Bible Translators, William Shakespeare, John Milton, acqui	15 hrs
Unit- III	Development of English Language English as World Language; Varieties of English; Influence of Radio and Television on the English language; Influence of cinema and Pop Culture on the English language; Influence of social media on the English language	15 hrs
Unit- IV	Introduction to ELT English Language Teaching in India- Past and Present Methods of Teaching English Techniques of Teaching Prose, Poetry and Drama	15hrs

Unit-V	ELT Terms Acquisition vs learning, bilingual, competence, first language, fossilization, generalization, interference vs facilitation, interlanguage, learning, mistake, noticing, performance, communicative competence, context, speech act, audio-visual aids, CLT, direct method, grammar translation method, collocation, code mixing, code switching	15 hrs

References:

1. Wrenn C. L. The English Language. Vikas Publishing, India, 2022. Baugh A. C. A
2. History of English Language. Routledge, India, 2012.
3. Emerson and Oliver Farrar. An Outline History of the English Language. MacMillan, New York, 1906.
4. Crystal David. English as a Global Language. Cambridge University Press, New York, 1997.

Pedagogy:

Lectures, Seminar, Role-play, Group discussion

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.3 HISTORY OF INDIA 1526 A. D. to 1757 Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.A. B.Ed. (English)	DSC-3 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- ❖ The Mughal empire and their administration, extension policies and cultural contributions
- ❖ The Maratha Empire and their Administration and contribution.
- ❖ The changes and continuities in the field of culture, especially with regard to art, architecture,

Unit	Title: History of India 1526 A. D. to 1757	75 hrs/ sem
Unit- I	Establishment of Mughal Rule in India - Reconstruction of Mughal History: Archaeological and Literary Sources - Foundation of the Mughal Empire in India-Babur and Humayun. - Shershah – His Conquests and administration.	15hrs
Unit- II	Consolidation of Mughal Empire - Akbar-His Conquests- Internal Policy-Relationship with Rajputs, Religious Policy - Jahangir and administration and Shahajahan – Their Achievements. - Aurangzeb-His Conquests- internal policy, Religious Policy and Deccan Policy	15 hrs
Unit-III	Mughal Administration and Art - Mughal Administration - Mughal Trade, Commerce and Industry - Art and Architecture of the Mughals	15hrs

Unit-IV	Maratha Regime under Shivaji • Shivaji and His Conquests • Administration of Shivaji • Successors of Shivaji	15hrs
Unit-V	Map Study: ➤ Mark the places conquered by Akbar & write a short note on it ➤ Mark the places conquered by Shivaji & write a short note on it	15hrs

References:

1. Habib Irfan: Medieval India. (1200-1750) Oxford University Press. New Delhi. 1998.
2. Chandara Satish: Medieval India from Sultanate to Mughals. Har Anand Publications. Delhi, 2007.
3. Mehta J.L.: Advance study in the History of Medieval India. Vol- 2 Mughal Empire (1526-1707). Sterling Publishers Pvt. Ltd. New Delhi. 2009.
4. Athar Ali M.: The Mughal Nobility under Aurangzeb. People's Publishing House, Delhi. 1992
5. Chandara Satish: History of Medieval India. Orient Black Swan Pvt.Ltd. Hyderabad, 2007.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.4 INDIAN GOVERNMENT AND POLITICS							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.A. B.Ed. (English)	DSC-4 (Minor-2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- ❖ Gain knowledge about the structure and functioning of key political institutions in India,
- ❖ Explore the electoral process, political parties, and the dynamics of coalition politics in India.
- ❖ Study the Indian Constitution, its key features, amendments, and its role in shaping the political system of the country.
- ❖ Discuss current political challenges and issues facing India,
- ❖ Enhance skills in analyzing political events, debates, and policies critically.
- ❖ Develop the ability to evaluate different perspectives on political issues.

Unit	Title: INDIAN GOVERNMENT AND POLITICS	75 hrs/ Sem
Unit- I	Historical Background and Constitutional Framework 1.1. Freedom Movement and Constitutional Development. 1.2. Constituent Assembly: Adoption of the Constitution: Preamble, Features of the Indian Constitution, 1.3. Fundamental Rights, Fundamental duties and Directive Principles of State Policy, Amendment Procedure in India	15 hrs
Unit- II	Political Institutions and Governance-I 1.1. Union Executive: President, Prime Minister and Council of Ministers: Power and Functions. 1.2. Union Legislature: Parliament-Loka Sabha Rajyasabha-Composition, Power and Functions. 1.3. Union Judiciary: Supreme Court- Composition, Power and Functions.	15 hrs

Unit- III	Political Institutions and Governance-II 1.1 State Executive: Governor, Chief Minister and Council of Ministers: Powers and Functions. 1.2 State Legislature: State Legislative Assembly, State Legislative Council- Composition, Power and Functions. 1.3 State Judiciary: High Court- Composition, Power and Functions, its Jurisdiction.	15 hrs
Unit- IV	Federalism and Decentralization 1.1. Federal System: Features, Center State relations. 1.2. Decentralization: Meaning, Importance, 1.3. Challenges to Indian Democracy.	15 hrs
Unit- V	Electoral System and Political Parties. 1.1. Election Commission: Structure, Powers, and Functions 1.2. Party System and Political Parties in India: Meaning Nature and their role. 1.3. Coalition Governments in India: Features and its impact.	15hrs

References:

1. Abbas, H., Kumar, R. & Alam, M. A. (2011) Indian Government and Politics. New Delhi: Pearson, 2011.
2. Chandhoke, N. & Priyadarshi, P. (eds.) (2009) Contemporary India: Economy, Society, Politics. New Delhi: Pearson.
3. Chakravarty, B. & Pandey, K. P. (2006) Indian Government and Politics. New Delhi: Sage.
4. Chandra, B., Mukherjee, A. & Mukherjee, M. (2010) India After Independence. New Delhi: Penguin.
5. Singh, M.P. & Saxena, R. (2008) Indian Politics: Contemporary Issues and Concerns. New Delhi: PHI Learning.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

3. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 3.1 PEDAGOGY OF ENGLISH-II							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.A. B.Ed. (English)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- enlist resources for Language teaching,
- classify different types of teaching aids,
- select appropriate teaching material for Language teaching,
- develop suitable teaching aids relevant to the topic,
- justify the use of multimedia in Language teaching,
- critically evaluate the Language textbooks prescribed for middle stage.

UNIT - I: Teaching Learning Aids / Materials

- A. Teaching Learning Aids/Materials: concept, definition, role, and importance of teaching aids/ materials in language teaching in middle stage; historical perspective of using teaching aids; teaching aids in ancient Indian teaching with special reference to Language teaching.
- B. Types of Teaching Learning Aids/ Materials: print, non-print and digital media for offline as well as online classroom teaching learning; print and digital materials for Language teaching in middle stage like reflective journals, charts, 2-D and 3-D models, games, toys, flash cards, worksheets, multimedia; virtual classroom presentation.
- C. Identification of eco-friendly components for developing teaching learning materials for language teaching; strategies of improvisation in using teaching materials in diverse context; feasibility analysis of environmentally friendly materials for developing teaching learning materials; approaches of using teaching aids/ teaching learning materials in multilingual classrooms.
- D. Strategies for making, choosing, and using teaching learning material for multicultural classroom;

fostering inclusiveness through using teaching learning materials in Language classroom.

UNIT – II: Learning Resources in Subject

- A. Identification and Using strategies of Learning Resources from the Environment, textbook, teachers' manual/ handbook, laboratory manual and other places in Language classroom.
- B. Non-Print and Digital Resources – radio, tv, websites, animations, audios, videos, images, simulations, digital repository, augmented reality, virtual reality and AI based digital resources.
- C. Language Laboratory – types, design, management and practices; virtual laboratories. Use of language laboratory for promoting Language proficiency.
- D. Language teaching learning kits, language clubs, folk fairs, folk exhibitions, excursions, community resources and pooling of resources; use of local dialect as learning resource in Language teaching in middle stage.

UNIT – III: Textbook Analysis and Planning for Teaching the Subject

- A. Understanding the Language Textbook; Analyzing Language content from the Pedagogical Content Knowledge (PCK) perspective; analyzing relative weightage of content in the Language textbooks, strategies for distributing and selecting the content for teaching, identifying concepts, organizing, and planning appropriate learning strategies and learning experiences.
- B. Unit plan and lesson plan: concept, types, need and importance; models of lesson plan; steps of designing language teaching plan; devising Language content distribution plan for unit plan and lesson plan.
- C. Developing unit plans and lesson plans based on Language learning outcomes and experiential learning.
- D. Developing ICT integrated Language lesson plans for online teaching using digital resources and multimedia.

Practicum:

- Develop a reflective journal, chart, 2-D or 3-D model, flashcards, or multimedia presentation for a specific concept from Language textbook.
- Identify suitable teaching learning aids or materials from the environment and use it to enhance the Language teaching-learning process in middle stage.
- Analyze a selected Language textbook and identify strengths, weaknesses, alignment with learning outcomes, and propose improvements or modifications.

- Demonstrate an ICT-integrated lesson plan for online teaching by utilizing digital resources, multimedia, and interactive elements to engage learners effectively.
- Developing specific teaching learning material using locally available resources for effective Language teaching.

Mode of Transaction:

Lecture-cum-discussion/demonstration, hands on activities, project approach, inquiry approach, experimentation, problem solving, experiential learning, art and environment integrated learning, sport integrated learning etc.

Mode of Assessment:

Written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester examination.

References:

1. MHRD. (2020). National education policy 2020. Govt. of India.
2. National Curriculum Framework 2005; Position Paper, National Focus Group on Teaching of English: NCERT, 2006.
3. Programme of Action (1992). Department of Education, Ministry of Human Resource Development: New Delhi. Retrieved http://mhrd.gov.in/sites/upload_files/mhrd/files/document-reports/POA_1992.pdf.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 3.2 PEDAGOGY OF SOCIAL SCIENCE-II							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.A. B.Ed. (English)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teacher will be able to:

- list teaching learning materials appropriate for the lessons,
- utilize the local specific resources for effective teaching learning of Social Science,
- analyze the Social Science textbooks and develop unit plan and lesson plan accordingly,
- analyze middle school Social Science curriculum and textbook.

UNIT – I: Teaching Learning Aids / Materials

- Textual/reference: magazines, newspapers, journals, reports, documents, records and gazettes, dictionaries, and encyclopedias.
- Visual References: atlas, map, globe, map book, timeline, historical map, table, diagram, graph, chart, picture, photograph, model, satellite imagery and aerial photograph, digital imagery.
- Contrived Reference: Documentaries and Films, Bal-Panchayat, Mock-Parliament, Plays (Musical and non-musical) and Theatre.
- Direct Experience: Laboratory and simulated environments.

UNIT- II: Learning Resources in Subject

- Resource Room: Teaching of the specific about a particular content area
- TED Talks and YouTube channels: There are numerous TED Talks and YouTube channels dedicated to social science topics. These platforms often feature engaging and thought-provoking talks by leading researchers and experts in their respective fields.
- Podcasts: Many podcasts focus on social science subjects, featuring interviews with scholars, discussions on current events, and explorations of various social issues.

- D. Documentaries and Films: Watching documentaries and films related to social science can provide a visual and engaging way to learn about different cultures, historical events, and social phenomena.
- E. Museums and Exhibits: Visiting museums and exhibits related to anthropology, history, and sociology can provide a hands-on and immersive learning experience.
- F. Society and social issues and society as a laboratory.

UNIT- III: Textbook Analysis and Planning for Teaching the Subject

- A. Analysis of Social Science textbooks, concept, organization, state and national perspectives and pedagogical concerns in Social Science textbooks.
- B. Introduction to skills of teaching-learning: induction, illustration, explanation, stimulation (verbal- nonverbal) and closure.
- C. Development of year plan, unit plan and lesson plan, 5 E and ICON Model.

Practicum:

1. Make a collection of teaching-learning aids.
2. Take an example of a TED talk and develop its motivational aspects.
3. Textbook analysis and reflection of concurrent and sequential concept arrangement.
4. Identify learning objectives, outcomes, learning points and develop to practice the delivery of lesson plans.

Mode of Transaction:

Narration, Demonstration, Field-based experience, discussions, discussion forums, and observation.

Mode of Assessment:

Written test, classroom presentations and workshops.

References:

1. MHRD. (2020). National Education Policy 2020. Ministry of Human Resource Development. Government of India. New Delhi. Retrieved from https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
2. NCERT (2017). Learning Outcomes at the Elementary Stage. NCERT, New Delhi
3. NCERT (2022). Toy- Based Pedagogy- A Handbook (Learning for Fun, Joy and Holistic Development) Part- I. MOE, Govt. of India
4. NCERT. (2023). National Curriculum Framework for School Education 2023 (draft). National Council of Educational Research and Training, New Delhi. Retrieved from <https://ncert.nic.in/pdf/ncfse2023.pdf>

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

V Semester

ITEP B A. B. Ed English

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Discipline Specific Course- DSC						
1.	DSC-1 (Major- 1)	Postcolonial Studies	4	40	60	100
2	DSC-2 (Major- 2)	Communication Skills in English	4	40	60	100
3	DSC-3 (Major- 3) (Elective)	Translation Theory and Practice (Elective)	4	40	60	100
Stage Specific Content Cum Pedagogy- SSCCP						
4	SSCCP-1	Pedagogy of English-III	2	20	30	50
5	SSCCP-2	Pedagogy of Social Science-III	2	20	30	50
Ability Enhancement & Value-added Course- AE&VAC						
6	AE&VAC-1	ICT / AI in Education	2	20	30	50
School Experience- SE						
7	SE-1	Pre-Internship Practice (Demonstration lessons)	2	20	30	50
Total Credits			20	200	300	500

V Semester
ITEP BA. B. Ed English
SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Discipline Specific Course-DSC	(Major- 1)		1.1 Postcolonial Studies
		(Major- 2)		1.2 Communication Skills in English
		(Major- 3)		1.3 Translation Theory and Practice (Elective)
2	Stage Specific Content Cum Pedagogy - SSCCP			2.1 Pedagogy of English-III
				2.2 Pedagogy of Social Science-III
3	Ability Enhancement & Value-added Course- AE&VAC			3.1 ICT / AI in Education
4	School Experience- SE			4.1 Pre-Internship Practice (Demonstration lessons)

1. Discipline Specific Course- (DSC)

Course Title: 1.1 POSTCOLONIAL STUDIES Course Code:							
Course	Semester	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
B.A. B.Ed. (English)	V	DSC-1 (Major- 1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to acquire:

- ❖ Knowledge of concept of postcolonial theory
- ❖ Knowledge of postcolonial literary texts
- ❖ knowledge of essays on postcolonial theory
- ❖ Acquaintance of Postcolonial texts and their interpretation
- ❖ Knowledge of postcolonial novel and short story

Unit	Title: POSTCOLONIAL STUDIES	75 hrs/sem
Unit- I	Introduction to Postcolonial Studies Key concepts: Anti-colonialism, Colonial Discourse, Colonialism, Decolonization, , Euro-centrism, Hegemony, Hybridity, Orientalism, Post colonialism, Subaltern,	15 hrs
Unit- II	Essays on Postcolonial Studies: 1. “The Beginnings of English Literary Study” in British India – Gauri Vishwanathan 2. “On National Culture ”in the Wretched of the Earth-Frantz Fanon(Source: Literature in The Modern World: Critical Essays and Documents Edited by Dennis Walder) 3. Introduction to The Empire Writes Back–Bill Ashcroft ,Gareth Griffiths and Helen Tiffin	15 hrs

Unit-III	Text: 1. The Danger of a Single Story–Chimamanda Adichie (TED Talk, Transcript) 2. Godzilla V/s Post Colonial – Thomas King 3. Toba Tek Singh(short story)-Saadat Hasan Manto 4. The Garden Party (Short Story) – Cathereen Mansfield 5. An African Elegy (Poem) – Ben Okri 6. For New England – (Poem) Judith Wright	15 hrs
Unit IV	Things Fall Apart- Chinua Achebe	15hrs
Unit-V	The Trail of Dedan Kimathi – Ngugi wa Thiong’O	15hrs

Pedagogy:

Lectures, Seminar, Role-play, Group discussion

References:

- 1.Abrams M H, and Harpham.AGlossaryofLiteraryTerms.CengageLearning,NewDelhi,2014.
- 2.Barry,Peter.Beginningtheory:Anintroductiontoliteraryandculturaltheory.MUP,Manc
hest er,2017.
- 3.VincentB.,etal.,TheNortonAnthologyofTheoryandCriticism,WWNortonandCompany,London,
2018.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title:1.2 COMMUNICATION SKILLS IN ENGLISH							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.A. B.Ed. (English)	DSC-2 (Major- 2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to acquire:

- ❖ Knowledge of communication skills
- ❖ Skills of Spoken English for everyday transaction
- ❖ Interview Skills
- ❖ Soft skills required for a job
- ❖ Knowledge of English in job market

Unit	Title: COMMUNICATION SKILLS IN ENGLISH	45 hrs/sem
Unit -I	What is communication? Meaning and Types of Communication Verbal and Non- verbal communication Barriers to Communication	15 hrs
Unit- II	Speaking Skills Stress and Intonation in English Inter-personal skills	15 hrs
Unit-III	Resume Writing/Job Application Writing Interview Skills Telephone Conversation Group Discussion Art of Public Speaking News Report Writing E-Correspondence	15 hrs

References:

1. Krishna Mohan and N. P. Singh, Speaking English Effectively (Macmillan)
2. Grant Taylor, English Conversation Practice
3. Mohan and Banarjee, Developing Communication Skills, Macmillan
4. Kandula Nirupa Rani and others, Speak Well, Orient Blackswan Hyder

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 1.3 TRANSLATION THEORY AND PRACTICE (Elective)							
Course Code:							
Course	Semester	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
B.A. B.Ed. (English)	V	DSC-3 (Major- 3)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to acquire:

- ❖ Knowledge of meaning, methods and theories of translation
Techniques of translation
- ❖ Experience of translating different texts
- ❖ Knowledge of translation of poetry, prose and technical texts
- ❖ Information of careers in translation

Unit	Title: TRANSLATION THEORY AND PRACTICE	45 hrs/sem
Unit- I	Translation- Meaning, Significance, Scope and methods. Role of Translation in Global Harmony Problems and challenges of Translation Source Language and Target Language	15 hrs
Unit- II	Translating of poetry and prose, Technical translation, Computer aided Translation	15 hrs
Unit- III	Translation in Practice (Practice five passages from Kannada to English and Five passages from English to Kannada) Translation for competitive examination (PSI, RRB, IBPS, LIC etc)	15 hrs

References:

1. Bassnett-McGuire, S. Translation Studies. London and New York: Methuen, 1980.
2. Bassnett, S. and H. Trivedi. (eds.). Postcolonial Translation Theory. Routledge, London and New York, 1998.

3. Venuti, L. *The Translation Studies Reader*. London and New York, Routledge, 2000.
4. Baker, Mona (ed.). *The Routledge Encyclopedia of Translation Studies*. Routledge, London and New York, 1998.
5. Baker, M. *In Other Words: A Coursebook on Translation*. Routledge, London and New York, 1992.
6. Gentzler, E. *Contemporary Translation Theories*. Routledge, London and New York, 1993. Newmark, P. A. *Textbook of Translation*. Hemel Hempstead, England: Prentice Hall,

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

2. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 2.1 PEDAGOGY OF ENGLISH-III							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.A. B.Ed. (English)	SSCCP-1	Theory	2	20	30	50

Course Outcomes :

After completion of this course, student teachers will be able to:

- explain the concept of assessment for Language,
- classify different modalities of assessment,
- find out the assessment techniques suitable for Language skills,
- justify the assessment of language skills in the different context of first and second Language learning,
- design assessment rubrics efficiently,
- design joyful classroom activities for better learning outcomes,
- use ICT based assessment tools to evaluate Language learning outcomes,
- creating Language classrooms into inclusive learning spaces for joyful and engaged learning.

UNIT -I

Language Teaching: Assessment of Learning Outcome

- A. Assessment and Evaluation: concept, nature, scope and importance; differentiating assessment and evaluation; qualitative and quantitative paradigm; aims of assessment and evaluation in language teaching learning at middle stage.
- B. Assessment of Language Learning Outcomes: strategies specific to language teaching learning in using – school-based assessment, formative and summative assessment, 360 degree assessment; continuous and comprehensive assessment (CCA); importance of group assessment and peer assessment in language teaching.
- C. Assessment of Language Skills/Competencies: assessment of four language skills (techniques and tools), constructivist approach to assessment: rubric, portfolio, journal writing & open-ended test; language lab, group activities, soft skill presentation.
- D. Construction of achievement test: typology of questions based on lower order and higher order thinking process; construction of blue print and table of specification; devising feedback mechanism; adaptation of evaluation instruments for inclusive classroom; Error analysis, diagnostic tests and enrichment measures.

UNIT- II

Activity oriented Language Classroom

- A. Activity oriented Language Classroom: need, importance, and scope; strategies for designing activity-based language learning classroom.
- B. Language classroom activity: psychological and sociological thrust areas to be addressed in preparation and use of activities at middle stage.
- C. Planning and administration of activities: discussion; debate; recitation; story telling; puppetry; role play; framing questions; reading and writing competitions; spelling memory game; elocution; brainstorming.
- D. Mechanism for skill assessment: task-based assessment; pair work and group work assessment and evaluation; collaborative and cooperative work; project; peer assessment; language skill development strategies for inclusive setting.

UNIT – III

ICT integration in Language Learning

- A. ICT: concept and purpose of use in language teaching learning process; components of ICT: ICT, audio-visual materials, internet, animations, audio, T.V., Films, mobile apps, e resources, AI based resources.
- B. Strategies for developing integration skills of using ICT in language teaching; recent trends in ICT for language teaching: artificial intelligence (AI), smart boards, block chain.
- C. Exploration of assistive devices for inclusive classroom.
- D. Basic model for developing e-content in language; open educational resources (OER) and digital ethics and knowledge of national portals like Diksha, Swayam etc.

Practicum:

- 1. Write a report on current practices of assessment and evaluation at the middle Stage.
- 2. Analyze and reframe previous year language question papers.
- 3. Develop a test in language to assess all aspects of language learning.
- 4. Design and develop at least two classroom activities specifying the skills it boosts, using norms and assessment strategies.
- 5. Prepare a ICT integrated plan of language teaching and assessment for learning at middle stage (assuming availability of smart boards and internet connectivity in the classroom).

6. Enlist and elaborate different ICT tools and mobile applications to be used for assessment of language skills.
7. Case study of inclusive Language teaching classroom.

Mode of Transaction:

Lecture-cum-discussion/demonstration for the basic conceptual parts of different units. Hands-on activities, project approach, inquiry approach, experimentation, problem solving, experiential learning, art and environment integrated learning, sport integrated learning etc. can be used for teaching skill development and ICT integration.

Mode of Assessment:

Written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester examination

References:

1. National Curriculum Framework for School Education (2023). National steering committee for national curriculum framework. NCERT.

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 PEDAGOGY OF SOCIAL SCIENCE -III							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.A. B.Ed. (English)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teacher will be able to:

- differentiate different modes of assessment in Social Science,
- develop test items based upon the content of the textbook and context of the learners,
- plan and implement activity-oriented classrooms, hands-on learning for active student participation,
- integrate ICT tools and technology to enhance instructional delivery and engage students effectively.

Unit- I

Assessment and Evaluation

- Importance of assessment in Social Sciences and assessment for, of and as.
- Quantitative and qualitative tools and techniques in Social Sciences (checklist, questionnaire, scale, anecdotal records, observation schedule, sociometry, rating scale, rubrics, and portfolio).
- Construction of tests: questions for testing cognitive and co-cognitive areas of learning: questions for testing cognitive and co-cognitive areas of learning.

Unit-II

Activity Oriented Classrooms

- Interactive and critical pedagogy in Social Sciences
- Designing Engaging Social Science Activities
 - Project-Based Learning in Social Science
 - Role-Playing and Simulations
- Incorporating Technology in Activity-Oriented Social Science Lessons
 - Digital Mapping and Data Visualization
 - Virtual Field Trips and Cultural Experiences
- Facilitating Activity-Oriented Social Science Lessons
 - Discussion Techniques using peer teaching and team-teaching.

Unit -III

ICT Integration in Social Sciences

- A. Overview of ICT tools and their potential benefits in the social science classroom.
- B. Digital literacy and information fluency (Building digital literacy skills among educators and students, Teaching students to critically evaluate online information sources).
- C. Use of ICT in the Classroom: Artificial intelligence, interactive presentations, and multimedia content creation, utilizing presentation software to design visually appealing and interactive lessons.
- D. Virtual field trips and online research: Exploring virtual field trip opportunities, leveraging virtual reality and online resources to take students on virtual field trips to historical sites, cultural landmarks, and global locations.
- E. Conducting online research in social sciences: (Enhancing global awareness and cross-cultural understanding, teaching effective research skills and techniques using digital libraries, academic databases, and search engines, data analysis and visualization, Geographic Information Systems (GIS) in social sciences, creating interactive maps to explore spatial patterns and relationships).
- F. Popular Apps.
- G. Use of Tools and Platforms along with the National Teachers Portal, DIKSHA SWAYAM.

Practicum:

1. Sessions of hands-on practice using ICT tools and software.
2. Design and delivery of multimedia projects and interactive lessons.
3. Online forums and reflective journals on ICT integration in the Social Sciences.

Mode of Transaction:

Narration, Demonstration, Field-based experience, Discussions.

Mode of Assessment:

Creating authentic assessment tasks that mirror real-world applications of Social Science concepts. Evaluating student performance based on real-world scenarios and problem-solving skills.

References:

1. NCERT (2019). Continuous and Comprehensive Evaluation Guidelines. NCERT
2. NCERT (2022). Toy- Based Pedagogy- A Handbook (Learning for Fun, Joy and Holistic Development) Part- I. MOE, Govt. of India.

3. NCERT (2023). Draft- National Curriculum Framework for School Education (2023).

National Steering Committee for National Curriculum Frameworks.

Teachers may also suggest books/readings as per the need of the learners and learning content

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

3. Ability Enhancement & Value-Added Course-(AE&VAC)

Course Title : 3.1 ICT / AI IN EDUCATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.A. B.Ed. (English)	AE&VAC-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- Understand Educational Technology and ICT
- Analyse ICT and Instructional Design
- Understand emerging technologies in Education
- Analyse ICT in Teaching Learning
- Work on Subject specific ICT tools and for Assessment

Unit	Content	75 hrs/sem
Unit -I	Introduction to ICT in Education: Meaning, Nature, importance of Information Technology, Communication Technology & Information and Communication Technology (ICT) and Instructional Technology- Educational Technology and ICT in Education (Difference, Scope of ICT- Teaching, learning, Research & Publication Educational Administration and Assessment)-	15Hrs
Unit- II	Emerging Technologies in Education: E-learning Concept, methods, and media (LMS, Virtual Universities, Massive Open Online Course (MOOCs), Indian MOOCs, Types of MOOCs: cMOOCs, xMOOCs & LMOOCs)- Open Education Resources (Creative Commons, Concept, and application)- Augmented reality, Virtual reality, Artificial intelligence, Mixed Reality & Gamification in education (Meaning, history, importance, tools and uses)- Cloud Computing & Internet of Things - Meaning, importance and uses- Ethical issues & safety in ICT- (Teaching, Learning and Research, Cyberbullying, Cyber security literacy & data protection, Online identity and privacy)	15 Hrs

Unit-III	Possibilities of AI Technology and AI Ethics: Possibilities: AI Possibilities in Health, AI possibilities in technology, AI Possibilities for customer experience, For Vehicles, Media, AI Ethics: Ethical Concerns of AI, Bias, Components of good AI policy, AI	15 Hrs

Activities/ Internal Assessment Tasks:

1. Prepare a report on the trends and developments in Educational Technology
2. Prepare an instructional design script following any of the instructional design models.
3. Explore any one online platform for MOOCs and prepare a report highlighting its structure and courses.
4. Prepare an assessment tool on any one chapter of the textbook.
5. Create an Image using **Gemini** AI App
6. Solving math problem using **math.now** AI Tool
7. Generating Presentation or PPT using **Presentation.AI** Tool
8. Preparing Notes using **Notebook LLM** AI Tool
9. Drafting a letter using **ChatGPT** AI Tool

References:

1. Bharihoke Deepak. (2000). Fundamentals of Information Technology, Pentagon Press: New Delhi
2. Conrad, Keri (2001). Instructional Design for Web based Training. HRD Press
3. Crumlish Christian (1999). The Internet No Experience Required. BPB Publications: New Delhi
4. Evant, M: The International Encyclopedia of Educational Technology.
5. Jain Amit; Sharma Samart; & Banerji Saurab (2002). Microsoft Word for Beginners. NISCOM, CSIR: New Delhi.
6. A short history of educational technology – Teaching in a Digital Age – Second Edition (bccampus.ca)
7. Education - Open Educational Resources (OER) - Library Guides at Iowa State University (libguides.com)
8. Learning Theories: Understanding How People Learn – Instruction in Libraries and Information Centers (illinois.edu)
9. Introduction – Everyday Instructional Design (pressbooks.pub)
10. Models of Design – Instructional Designer's Handbook (unizin.org)

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

4. School Experience- (SE)

Course Title: 4.1 PRE-INTERNSHIP PRACTICE (DEMONSTRATION LESSONS)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.A. B.Ed. (English)	SE-1	Practical	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

1. describe the prerequisites of the internship,
2. demonstrate knowledge of pedagogic practices, classroom management skills, assessment tools and learning standards,
3. develop lessons plans and relevant Teaching Learning Materials (TLMs),
4. develop readiness to take up an internship programme.

Mode of Transaction:

- Demonstration lesson (minimum 1 in each pedagogical subject)
- Peer Group teaching and peer observation (minimum 5 in each pedagogical subject)
- Observation of lessons by teacher educators during peer group teaching
- Reflective group discussions/workshops/seminars
- Preparation and presentation of the video content illustrating best classroom practices.

Content:

The pre-internship will include activities relating to the stage-specific pedagogy courses, ability enhancement and value-added courses and foundation courses transacted during previous semesters. It will also include knowledge of pedagogy, formats of lesson plans, different ICT tools, schooling systems in India, principles of classroom management, assessment, and other relevant content.

Activities:

- Orientation of student teachers to different pedagogic practices like experiential learning, inter-relationship amongst different subjects, integration of Indian Knowledge Systems (IKS) and values in school subjects, and classroom management skills
- Observation of the lesson demonstrated by teacher educators/experts in the institute.
- Designing guided activities for each class/subject based on learning outcomes.
- Study Middle Stage Learning Standards in the NCF
- Content analysis and development of the unit plan, concept map and lesson plan.
- Discussion on unit plan and lesson plan with teacher educators/experts
- Preparation of a Portfolio (for self-work) that the student-teacher will use to keep all her/his work.
- Participate in discussions/reflective sessions for conceptualizing teaching-learning practices.
- Exploring available learning resources and educational videos
- Developing local, low-cost, and innovative TLMs
- Reading and reflecting on inspiring books on pedagogic practices

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Classroom teaching skills and assessment tools (including learning standards)	Simulated Presentation	Teacher-Educator	1
Reflective group discussions/workshop	Observations	Teacher-Educator	0.5
Artefacts (Lesson Plans, TLM, Curated Videos) and action research procedures.	Evaluation	Teacher-Educator	0.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

VI Semester

ITEP BA. B. Ed English

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Assessment & Evaluation	2	20	30	50
2	FCE-2	Inclusive Education	2	20	30	50
Discipline Specific Course- DSC						
3	DSC-1 (Major-1)	Soft skills in English	4	40	60	100
4	DSC-2 (Major-2)	Project/Dissertation	4	40	60	100
Stage Specific Content Cum Pedagogy - SSCCP						
4	SSCCP-1	Pedagogy of English-IV	2	20	30	50
5	SSCCP-2	Pedagogy of Social Science-IV	2	20	30	50
Ability Enhancement & Value-added Course- AE&VAC						
6	AE&VAC-1	Mathematical & Quantitative Reasoning	2	20	30	50
School Experience- SE						
7	SE-1	School Observation (Field Practice)	2	20	30	50
Total Credits			20	200	300	500

VI Semester
ITEP BA. B. Ed English
SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education- FCE			1.1 Assessment & Evaluation
				1.2 Inclusive Education
2	Discipline Specific Course- DSC	(Major-1)		2.1 Soft skills in English
		(Major-2)		2.2 Project/Dissertation
3.	Stage Specific Content Cum Pedagogy - SSCCP			3.1 Pedagogy of English-IV
				3.2 Pedagogy of Social Science-IV
4	Ability Enhancement & Value-Added Courses- AE&VAC			4.1 Mathematical & Quantitative Reasoning
5	School Experience- SE			5.1 School Observation (Field Practice)

1. Foundation Course of Education- (FCE)

Course Title: 1.1 ASSESSMENT & EVALUATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (English)	FCE-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- use different approaches to assess and evaluate of student performance such as time constrained examinations; closed/open-book tests; problem-based assignments; practical assignment reports; observation of practical skills; individual and group project reports; oral presentations; viva voce interviews; computerized adaptive testing; peer and self-assessment etc.,
- develop and use informal and formal diagnostic, formative, and summative assessment strategies to monitor student learning levels and help the teacher continuously revise teaching-learning processes to optimize learning and development for all students,
- develop an understanding among student teachers of the approaches to provide timely, effective, and appropriate feedback to students about their performance relative to the expected learning outcomes and organizing learning enhancement initiatives that are required to bridge the gap in student learning levels,
- present report on student achievement, making use of accurate and reliable records etc.
- develop assessment “as”, “of”, and “for” learning that are aligned to the expected learning outcomes,
- design the progress card of students based on school-based assessment to make it a holistic, 360-degree, multidimensional report that reflects the progress as well as the performance of learners assessed through self-assessment and peer assessment, project based and inquiry-based learning, quizzes, role plays, group work, portfolios, etc., along with teacher assessment that would provide students with valuable information on their strengths, areas of interest, and needed areas of improvement.

UNIT - I

Assessment and Education

A. Assessment and Evaluation

- Meaning and significance of assessment and evaluation in educational field.
- Conceptual Clarity and purpose of Measurement, Assessment, Examination, Appraisal and Evaluation in Education.
- Learning outcomes across the stages and assessment.
- Taxonomy of Objectives (Revised in 2001) and Implications.

B. Forms of Assessment

- Formative, Summative, diagnostic, prognostic.
- Internal and External assessment.
- Assessment For learning, of learning and as learning.
- Authentic Assessment; Online Assessment.

C. Improving Assessment and Evaluation in Schools: Brief Historical Review (1975, 1988, 2000, 2005, 2020)

UNIT - II

Process of Assessment and Evaluation

A. Formative and Summative Assessment: Concept and Characteristics.

B. Approaches to assess and evaluate student performance such as time-constrained examinations; closed/open-book tests; problem-based assignments; practical assignment reports; observation of practical skills; individual and group project reports; oral presentations; viva-voce interviews; computerized adaptive testing; peer and self-assessment etc.

C. Assessing Higher Order Thinking Abilities: Problem solving, critical thinking, creative thinking, communication skills, judgement and decision making, ethical and moral reasoning.

D. Tools and Techniques

- Observation, rating scale, check list, anecdotes, interviews.
- Assessment of attitudes and interests.
- Socio-metric techniques.
- Criteria for assessment of social and personal behaviour.
- Self-assessment and Peer Assessment.

UNIT - III

Analysis and Interpretation

- A. Analysis of students' performance and scores: credit and grading
- B. Graphical representation (Histogram, Frequency Curves)
- C. Interpretation of student's performance based on the analysis and their further uses in improving learner's performance: credit and grading, constructive feedback.
- D. Reporting student's performance: 360-degree progress reports, cumulative records and their uses, portfolios, PTA meetings, qualitative reporting based on the observations, descriptive indicators in report-cards.

Practicum:

1. Review of various education commission, Policies and reports and NCF 2005 to get a brief view of the recommendations on Assessment and Evaluation.
2. Constructing a unit test using table of specifications.
3. Construction of any one of the tools (rating scale, check list, observation schedule, etc.) and administering it to group of students or using it to observe the school and classroom environment and interpreting it.
4. Analysis of question papers of various Boards.
5. Analysis of report cards - State and Central (CBSE)
6. Preparing format of 360-degree report Card.
7. Review of learning outcomes by NCERT in different subject areas.
8. Interviews with teachers and students to study the assessment practices, issues and problems related to it followed by presentation.
9. Reviewing Assessment Discussions in NPE (2020).

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 1.2 INCLUSIVE EDUCATION Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (English)	FCE-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- ensure inclusion and equal participation in education of children with disabilities in the regular schooling process that allows students with and without disabilities learn together, ensuring their retention in the school system, and enabling them to achieve the defined learning outcomes,
- adapt teaching and learning process to meet the learning needs of different students with disabilities, including providing education and opportunities for participating in arts, sports, and vocation-related activities, making school buildings and compounds as well as other facilities barrier free and accessible for children with disabilities, supporting activities that help the provision of individualized learning environment and learning activities/resources, making available assistive devices and appropriate technology-based tools, as well as adequate and language-appropriate teaching-learning materials (e.g., textbooks in accessible formats such as large print and Braille) to help children with disabilities integrate more easily into classrooms and engage with teachers and their peers, using appropriate modes and means of communication, detecting specific learning disabilities in children at the earliest and taking appropriate measures to overcome them, monitoring completion of education and learning levels of students with disabilities etc.

UNIT - I

Inclusion and Education

- A. Conceptual Clarity, relation, and significance with special reference to:
- UNCRPD, 2006,
 - RPWD Act, 2016,
- With special reference to Indian Context.
- B. Clarity of various terms and phrases associated with Inclusive Education: Integrated Education, Special Education, Impairment and Disability, Assessment and Evaluation, Curriculum, adaptation, modification and differentiation, universal design of learning
- C. Shifting from Disability to the Inclusive view.
- D. Shifting Paradigms from Bio centric to Human Rights.
- E. Introductory reference of Policies/Acts with reference to educational implications for Children with Disabilities: Right to Education Act, 2009/ 2012, RPWD Act, 2016, UNCRPD, National Trust Act, 1999, National Educational Policy, 2020.

UNIT – II

Children with Disabilities and Marginalized Groups

- A. Nature and needs of children with sensory impairments: cognitive impairments and intellectual disability, physical disabilities, cerebral palsy, multiple disabilities.
- B. Specific needs of children with behavioral, emotional learning disabilities
- C. Health Problems.
- D. Educational needs of children belonging to Marginalized Groups.

UNIT - III

Pedagogical Issues

- A. Conceptual clarity and significance.
- B. Meeting the specific needs of Children with Disabilities with special reference to:
- education and opportunities for participating in arts, sports, and vocation-related activities,
 - making school buildings and compounds as well as another facilities barrier free and accessible
 - supporting the learning activities and resources for individualized learning environment making available assistive devices and appropriate technology-based tools,
 - language-appropriate teaching-learning materials (e.g., textbooks in accessible formats such as large print and Braille)
 - assessing strategies

C. Designing strategies assessment for inclusive classrooms.

Practicum:

1. Developing a checklist for identifying the various needs of children with disabilities.
2. Visiting schools of different categories and talking to parents, teachers, and Children with and without disabilities and list the problems faced by these children and the families at the local level in gaining access to education.
3. Analyzing RPWD Act 2016 and list its implications for CWD in inclusive settings.
4. Outlining the problems faced by children with Visual Disabilities while learning mathematics and EVS.
5. Giving a few exemplary adaptations based on the Preparatory Level textbooks.
6. Outlining the problems faced by children with hearing impairments while learning language. Give a few exemplar adaptations based on the primary level textbooks.
7. Students work in small groups of 10 or so to prepare a street play highlighting the meaning and provisions of inclusive education.
8. Analyzing the Context of NPE 2020 in the light of Inclusive Education.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools

Mode of Assessment:

The assessment will be based on the tests and assignments.

Reference:

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

2. Discipline Specific Course- (DSC)

Course Title: 2.1 SOFT SKILLS IN ENGLISH							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (English)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course, students will be able to:

- ❖ Develop confidence in field training
- ❖ Get Knowledge of work culture
- ❖ Acquire skills of writing for media
- ❖ Get acquainted with Skills of teaching
- ❖ Get Practical experience in the classroom teaching List of the Expedients, each will have 4rs / Week (Minimum 12 experiments)
- ❖ Verbal and non-verbal communication
- ❖ Barriers to Communication – experiment
- ❖ Role Play on common situations – introducing, describing, convincing, problem solving etc
- ❖ Teaching in Primary and Higher Primary schools
- ❖ English in Corporate Firms
- ❖ English in Tourism and Hospitality Management
- ❖ Role Play in the classroom
- ❖ Group Discussion
- ❖ Mock Interview
- ❖ Practicing Call Center English
- ❖ English in Digital Platform
- ❖ Telephone Conversation
- ❖ Art of Narration
- ❖ Elocution, debating and anchoring

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 PROJECT/DISSERTATION Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (English)	DSC-2 (Major-1)	Practical	4	40	60	100

Course Outcomes:

At the end of the course, the student teachers will:

- present contextual problems, an appropriate research design and the plan of action for undertaking research project,
- demonstrate the tools and techniques used for the collection of relevant data,
- summarize the analyze data used to identify the causes,
- demonstrate the interventions used for addressing the problems,
- present the effectiveness of the intervention(s),
- share research experiences through reports and presentation.

Mode of Transaction:

The following strategies will be used during the project:

- Discussions with teacher educator, school head, mentors, and peers for identification of problem and development of intervention(s).
- Finalize the research project proposal outline through discussion with mentor teachers/teacher educators.
- Document analysis, interaction with all stakeholders, and field visits.
- Sharing and presentation of the outcomes of research project.

Content:

The student teachers during previous semesters have studied different courses in Foundations of Education, Disciplinary Courses, Stage-specific pedagogy courses, Ability Enhancement and Value-Added Courses. The required knowledge of action research and case study includes- the concept and importance of action research/case study, the steps of conducting action research/case study (objectives, methods, research design, design tools, data collection, and data analysis) and report writing. The research problem will be taken from the day-to-day teaching-learning process of the school. Some of the significant areas may cover:

- Learning progress and outcomes in different subjects
- assessment

- Learners' diversity and inclusion
- Participation in arts, games, sports

Mode of Assessment:

The assessment of the project will be continuous. The teacher educators, as well as mentors, will be involved in the assessment of the activities. The following rating scale may be used to assess the student teachers:

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Observation during the execution of action research	Observations	Teacher Educator	1.5
Research Report	Presentation of Report	Teacher-Educators (panel of three experts)	2.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

3. Stage Specific Content Cum Pedagogy – (SSCCP)

Course Code: 3.1 PEDAGOGY OF ENGLISH-IV							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (English)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- state meaning and educational implications of learning to learn,
- describe need and scope of innovations in teaching learning of Languages,
- classify different modalities of professional development,
- plan and implement suitable modes of professional development for Language teachers,
- plan, design and accomplish action research.

UNIT – I

Learning about How to Learn

- A. Learning to learn concept, educational implication and development of self-regulated learning skills for languages; ways of management of time and information; organization of knowledge; techniques of learning to learn.
- B. How the languages are learned: strategies to learn a new language; basic language learning strategies (cognitive and meta-cognitive language learning strategy).
- C. Philosophical and Psycho-Social context of teaching and learning a language: learning styles; factors affecting language learning.
- D. Role of a Teacher: as a leader in classroom; as facilitator; as creator of appropriate democratic and constructivist learning environment.

UNIT – II

Innovative Practices

- A. Innovative practices: meaning, need and scope of innovation and teaching as innovative practice; challenges in innovation in language teaching.
- B. Qualities of an Innovative Language Teacher in the Context of National Professional Standards for Teachers (NPST) and National Mentoring Mission (NMM).

- C. Learner's autonomy: ICT based innovations in language teaching; Web 2.0 tool.
- D. Effective Communication with Special Reference to the Language to be used in the Classroom in Multilingual Context, Transformative Pedagogical Practices in context of language teaching.

UNIT – III

Continuous Professional Development of Teacher

- A. Professional Development of Language Teachers: need for updating content and pedagogical competencies; role of In-service courses in developing professional competencies.
- B. Professional Development Activities: seminars, conferences, orientation Programmes, workshops, online and offline courses, teacher exchange programmes (National and International), competitions, publications, development of teaching portfolio, capacity building programmes.
- C. Developing Professional Competencies in Dealing with Gender Issues in language education; equity and inclusion in language class; ethical Issues in language teaching; incorporating environmental issues, human health, population, human rights, etc. in language teaching and learning.
- D. Action Research in language teaching, reflection and evidence-based practices in language teaching, importance of self-directed professional development.

Practicum:

1. Write a report on learning and how to learn.
2. Design a PowerPoint presentation on innovative practices.
3. Formulate professional development activities for the continuous growth and development of a teacher.
4. Prepare multimedia based innovative practices of Language learning and teaching for online mode of teaching.

Mode of Transaction:

Lecture-cum-discussion/demonstration and interactive instructions for the basic conceptual parts of different units. Organizing various activities, project approach, inquiry approach, experimentation, problem solving, experiential learning, art and environment integrated learning, sport integrated learning etc. for teaching skill development.

Mode of Assessment:

Through written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester end examination.

Reference:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Code: 3.2 PEDAGOGY OF SOCIAL SCIENCE-IV							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (English)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

At the end of the course students will be able to acquire:

- describe the process of “learning how to learn”,
- outline principles, for fostering students’ metacognitive abilities and lifelong learning skills,
- describe the features of innovative teaching practices that cultivate creativity, critical thinking, and problem-solving among students,
- list different strategies for continuous professional development of teachers of Social Science.

UNIT – I: Learning About How to Learn

- Role of motivation and mind set aptitude and attitude in processing the multidisciplinary nature of social sciences.
- An overview of Multiple Intelligence and how it shapes learning style and preference of studying social sciences.
- Information Processing and time management focus on building social schema:
 - Chunking and Spacing
 - Active Recall and Interleaving
 - Mnemonics and Visualization

UNIT - II : Innovative Practices

- Nature and operationalization of Innovative Practices.
- Global Collaborative Project-Based Learning (PBL) in context community.
- Social science laboratory, society as a laboratory and virtual laboratory.
- Pluralinguistic Exposures, Field notes and reflective diary.

UNIT - III: Continuous Professional Development of Teacher

- A. Role of NPST and NMM as indicators of professionalism with special reference to qualities of an innovative teacher.
- B. Professional development activities: seminars, conferences, workshops, online and offline courses, flipped learning and blended learning courses, orientation and refresher programmes, teacher exchange programmes, capacity building programmes publications, and development of teaching portfolio.
- C. Emphasizing the importance of inclusive practices in the classroom and strategies for creating a supportive and equitable learning environment.
- D. Role of Teacher appraisal in enhancing professionalism in teachers.

Practicum :

- 1. Connecting with community issues and writing case reports
- 2. Report writing on multi-disciplinary and school-oriented practices.
- 3. Reflection and Evidence-Based Practices in the form of reflective diary.

Mode of Transaction:

Discussions, Demonstration, Field-based Experience

Mode of Assessment:

Internal-external assessment as per the requirement of the system. Rating-Scale, Rubrics and Portfolio.

References:

- 1. National Curriculum Framework for School Education, 2023
- 2. National Education Policy 2020, MOE, Government of India

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

4. Ability Enhancement & Value-added Course- (AE&VAC)

Course Title: 4.1 MATHEMATICAL & QUANTITATIVE REASONING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (English)	AE&VAC-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- adapt mathematical reasoning to solve problems in the real world and explain some fundamental ideas and tenets in this field,
- analyze and interpret quantitative data,
- interpret & deduce the right conclusions from numerical representations like formulas, graphs, or tables,
- demonstrate critical thinking and problem-solving skills using mathematical and quantitative reasoning methods,
- evaluate operational matrix,
- analyze educational data and create educational model & use them in decision making,
- analyze and evaluate mathematical and quantitative reasoning problems and solutions.

UNIT - I

Introduction to mathematical and quantitative reasoning

- A. Meaning, nature and scope of mathematical and quantitative reasoning.
- B. Importance of mathematical and quantitative reasoning in various fields.
- C. Types of quantitative reasoning.
- D. Usage of mathematical and quantitative reasoning.
- E. Concept of mathematization.

UNIT – II

Introduction to data in Education

- A. Data requirement, different sources of data
- B. School enrolment: gross enrolment ratios, net enrolment ratios, educational progression: dropout rate, literacy: measures of literacy
- C. Indian censuses, details of different items on which Indian censuses collect data.
- D. Nationwide sample surveys, National family health survey, District level household survey, UDISE

UNIT - III

Data Analysis & Interpretation

- A. Concept of data interpretation (equation, diagram, graph, tables)
- B. Statistical analysis of data in educational context and its applications (measures of central tendency, measures of variability, percentile)
- C. Visual and numerical representation of data and its application (bar diagram, histogram, pie charts)
- D. Learning analytics: concept, significance, types, levels, and its applications in educational context.

Practicum:

1. Take last 5 years of UDISE data and analyze various indicators related to schools, teachers, and students.

Mode of Transaction:

The approaches to curriculum transaction will focus on developing the analytical and critical thinking skills of students, as well as their ability to apply mathematical and quantitative reasoning in real-life situations. Some of the approaches to curriculum transaction will include the following:

- Active Learning which involves active participation of student teachers in problem-solving situations, group discussions, and hands-on activities that help student teachers engage with the material and apply mathematical thinking and reasoning to solve problems.
- Real-World Applications involving the use of real-world examples to demonstrate the practical applications of mathematical concepts that help student teachers see the relevance of what they are learning and how it can be applied in various fields.
- Collaborative learning encourages student teachers to work together in small groups, where they can share ideas and help each other learn. This fosters a sense of community in the classroom and helps students develop teamwork and communication skills.
- Technology Integration involves the incorporation of technology tools such as calculators, spreadsheets, and interactive software to help student teachers visualize and solve mathematical problems more easily.
- Overall, a pedagogy that combines active learning, real-world applications, collaborative learning, technology integration, and effective assessment strategies that help student teachers develop a strong foundation in mathematical and quantitative reasoning.

Mode of Assessment:

Use of a variety of assessment methods such as quizzes, exams, group projects, and presentations to evaluate student learning. Providing timely feedback and offering opportunities for students to revise their work and improve their understanding.

References:

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

5. School Experience- (SE)

Course Title: 5. 1 SCHOOL OBSERVATION (FIELD PRACTICE)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (English)	SE-1	Practical	2	20	30	50

Course Outcomes:

Student teachers will be able to:

- Describe various schooling systems,
- Describe the processes, practices, and overall environment of the school,
- Establish rapport with the stakeholders of the school system state the process of conducting different activities in the school,
- Describe the available school infrastructure (classrooms, libraries, laboratories, playground, sanitation, drinking water facility, mid-day meal facility, inclusive facilities, safety and security, rainwater harvesting),
- Describe the availability and usage of ICT and TLMs,
- Summarize the available documents in both physical and digital modes, including UDISE data,
- Reflect upon relationships among the stakeholders,
- Analyze various assessment processes adopted in different types of schools,
- Prepare and present a comprehensive profile of the schools observed (including classroom processes).

Mode of Transaction:

- Observation
- Interaction
- Discussion
- Reviewing the available literature on the different schooling system
- Collection of relevant documents and data

Preparation for school observation:

- Orientation on the school observation process
- Development of the observation formats/tools

School Observation (minimum three types of schools):

- Student teachers will go for school observation in small groups to observe and collect data by using the developed formats/tools.
- Analysis of the collected data
- Preparing a comprehensive profile of the schools observed

Post-school observation session:

- Group-wise presentation of the school profile
- Discussion and Feedback
- Reflection on the understanding of various types of schooling systems.

Content:

The school observation as a field-based activity will cover observation of school and classroom processes. The student teachers under the mentorship of teacher educators will visit schools, interact with teachers and students and other stakeholders, and relate the observation with the courses studied during the previous semesters, i.e. Foundations of Education, Disciplinary Courses, Pedagogy courses and Ability Enhancement & Value-Added Courses.

- Meaning and Nature of school observation process
- Difference between monitoring and observation
- Theory and practices of school observation components such as:
 1. Schooling system
 2. Rapport with all the stakeholders
 3. Office management procedures of different types of schools
 4. School environment in all perspectives
 5. Process of conducting curricular activities in the schooling process
 6. Existing infrastructure available in the school
 7. Utility of ICT and TLM facilities
 8. Interpersonal relationships among the stakeholders
 9. Various assessment processes adopted in different types of schools.
 10. Engagement of parents and other community members in school activities.

Activities:

- Visit three types of middle schools with observation formats developed in the institute and get acquainted with various schooling systems. Establish rapport with all stakeholders.

- Collect information about the demography of students in classes VI to VIII and understand the linkage of the middle stage with the secondary and preparatory stages through interaction with teachers, students, and staff.
- Observe school processes and curriculum transactions through experiential learning and prepare a report.
- Interact with teachers and students and report on implementing ten bag-less days and skill development courses.
- Reflect on effective classroom teaching learning strategies.
- Observe integration of IKS, values, local resources in teaching learning process
- Observe practice and assessment of vocational education in the school.
- Observe the availability and usage of library resources, laboratories (General Science, Mathematics, Languages, Social Science, Computer), sports facilities, and art and music learning facilities.
- Study the provision of other student support services- guidance and counselling, scouts and guides, and health and wellness programme.

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Involvement and active participation during the school visit	Observations	Teacher Educator	0.5
Comprehensive school profile	Presentation & reflection	Teacher-Educator	1.5

Components for school observation report:

- School information (Context, Vision and Mission, Association with the Board)
- School Infrastructure
- Provision for CWSN/Divyang Children
- Inclusiveness at all levels
- Teacher-Student Ratio
- Teaching-Learning process
 - Academic plan
 - Classroom Activities
 - Assessment

- School Development Plan (SDP)
- Academic Calendar
- Administrative processes
 - Maintenance of students records
 - Maintenance of teachers records
- Cultural activities
- Sports activities
- Annual Day
- National and Social functions
- School Management
- School Discipline
- Interpersonal Relationships
- Understanding different types (socio-economic status, ability) of students and their needs
- Development of ICT and TLMs Engagement of parents and community members in the school activity
- Office Management
- The assessment process includes provision and practices for 360-degree holistic assessment.
- The overall progress of the school (planning, organizing, staffing, directing, motivating and controlling)
- Challenges faced and overcoming them.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

VII Semester

ITEP BA. B. Ed English

S.NO.	Course Types	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Perspectives on School Leadership & Management	2	20	30	50
2	FCE-2	Curriculum Planning Development (Textbook & material Development)	2	20	30	50
Ability Enhancement & Value-Added Course- AE&VAC						
3	AE&VAC-1	A. Art Education (Performing & visual) and Creative Expressions- 1. Puppetry or B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre or C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making	2	20	30	50
4	AE&VAC-2	Sports, Nutrition & Fitness	2	20	30	50
School Experience- SE						
5	SE-1	School-Based Research Projects	2	20	30	50
6	SE-1	Internship in Teaching	10	100	150	250
Total Credits			20	200	300	500

VII Semester
BA. B. Ed (English)

SYLLABUS

S.NO.	Type of Course	Course Code	Course Title
1	Foundation Course of Education- FCE		1.1 Perspectives on School Leadership & Management
			1.2 Curriculum Planning Development (Textbook & Material Development)
2	Ability Enhancement & Value-Added Courses- AE&VAC		2.1 A. Art Education (Performing & visual) and Creative Expressions- 1. Puppetry or B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre or C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making
			2.2 Sports, Nutrition & Fitness
3	School Experience- SE		3.1 School-Based Research Projects
			3.2 Internship in Teaching

1. Foundation Course of Education- (FCE)

Course Title: 1.1 PERSPECTIVES ON SCHOOL LEADERSHIP & MANAGEMENT							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (English)	FCE-1	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- describe the diversity of schools in India, its structure, its governance, issues, challenges, and school leadership needs,
- critically examine the different leadership theories and practices and its relationship with the governance structures, the autonomy and accountability mechanisms and the larger educational policy context,
- critically think in relation to education leadership and its potential application to different contexts,
- reflect critically on school-based data for reflection and improvement,
- develop a culture of cooperation collaboration and teamwork,
- synthesize effectively to develop coherent and compelling arguments in the area of study,
- develop school vision, mission, goals, and School Development Plans.

UNIT - I

Understanding Indian School System

- A. School as a normative organization vis-a-vis school as a socio-emotional-cultural space for learning.
- B. Studying the diversity of schools in India; their structure, governance, socio-political and cultural context, funding, management, autonomy and accountability mechanisms, support systems.
- C. Relationship between school leadership and school diversity issues, challenges, and needs.
- D. Engagement with diversity discourses, educational policies, reforms and practices and role in developing inclusive schools.

UNIT - II

Understanding School Leadership

- A. School Leadership: concept as defined, and concept as practiced.
- B. Being a School Leader: exploring the multiple roles and responsibilities, issues and challenges of school leadership in the Indian context.
- C. What works in schools: sharing National and International best practices on School leadership.

UNIT - III

Schools as Learning Organizations: Role of School Leadership

- A. Schools as motivating learning spaces: Developing inspiring school ethos.
- B. Schools as learning organization: promoting personal mastery, examining mental models, and developing a shared vision, team learning and a system's thinking perspective.
- C. Development of a shared vision and shaping of the school culture.
- D. Use of data for school improvement focused on students' learning, addressing equity challenges, and building an equitable school culture that promotes excellence for all.
- E. Nurturing school belongingness: engaging students, teachers, staff, parents, SMC, and community in the formulation of a whole school development plan.
- F. Designing professional and collaborative learning opportunities for self and others (teachers, parents, and SMC members) and improving teaching and learning.

Mode of Transaction:

Perspectives on school leadership and management is a practitioner-centric course and aims to enable future teachers to be efficient school leaders. The approach to curriculum transaction therefore would include a blend of lectures, tutorials, group-work, case-based approaches, and enquiry-based learning.

- Student teachers would engage in case-based learning on topics like improving student learning, classroom observation and feedback, planning and budgeting for school improvement, leadership in diversified school contexts and such others.
- Exposure of student teachers to virtual case studies featuring leaders from a representative cross-section of Schools in India and analyze their experiences, insights, and best practices.
- Learning activities that help student teachers to understand the entire structure and functioning of school organization through interactive lectures and panel discussion with education officers who hold leadership positions at different levels from schools to cluster, block, and district and state levels and understand their leadership issues, challenges and needs and thus get a perspective of the school ecosystem.

- Learners would reflect on their practice as pre-service interns, knowledge, skills, and understandings—and identify opportunities to apply course learnings to their school context.

Mode of Assessment:

Being a practitioner centric course, the assessment would largely include application-based tasks. This includes exploring the work and life of a school principal and writing a detailed report on the observations and the learning. The following are some exemplars. The institutes may choose either of these or think of other innovative assignment that would enhance the leadership learning experience:

- Preparing school vision, mission, goals, and school development plan.
- Shadowing school principals: a critical observation of the principal's daily work life.
- A critical examination of the diversity of schools; their governance structure, leadership, autonomy and accountability mechanisms, issues and challenges and work life of the school principal

References:

Teachers may suggest books/readings as per the need of the learners and learning content

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 1.2 CURRICULUM PLANNING DEVELOPMENT (TEXTBOOK & MATERIAL DEVELOPMENT)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (English)	FCE-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- discuss aims of education,
- identify and formulate of desirable values and dispositions,
- explain capacities and knowledge,
- outline curricular areas,
- demonstrate teaching-learning assessment processes and
- practice the relevance in terms of achieving the aims of school education.

UNIT - I

Education and Curriculum

- A. Meaning, need, relationship and significance.
- B. Types of Curriculums: subject-centered, activity-centered, environmental centered, community-centered
- C. Relationship and difference between curriculum, curriculum framework, syllabus and textbooks.

UNIT – II

Developing the Curriculum

- A. Basic principles of Curriculum Development
- B. Concerns for developing the Curriculum - aims to be achieved, structure and nature of discipline, different perspectives on learning and their implications to curriculum development, socio-cultural aspects and aspirations of society, value transitions, social efficiency and needs, environmental concerns, gender concerns, inclusiveness, technological advancement.
- C. Impact of Globalization.

UNIT - III

Approaches, Planning, and Implementation

- A. Approaches to Curriculum Development: Learner and activity centered, Constructivist, Knowledge Construction
- B. Curriculum planning as a cyclic process.
- C. Curriculum Implementation: Operationalizing curriculum into learning situations, Converting curriculum into syllabus, Curriculum engagement activities, Role of school at Regional, State and National level for implementation.
- D. Role of teachers in operationalizing and evaluating the curriculum with special reference to: textbooks and teachers handbooks, source books, workbooks and manuals, other learning material such as kits, AV and software materials, library, laboratory, playground, neighborhood etc.

Practicum:

- 1. Arranging discussion on:
 - Basis of National curriculum frame works (1975, 1988, 2000, and 2005).
 - Document: Learning without burden” by Prof. Yashpal
- 2. Preparing of Report based on observation of:
 - Facilities and infrastructure to implement the present curriculum.
- 3. Interviewing teachers to understand their role in:
 - Implementing and assessment of the curriculum.
- 4. Analysis of the following in the context of principles of developing the Curriculum:
 - Guidelines of NEP, 2020.
 - Curriculum of 4 Years B.Ed. Integrated Programme
 - Learning without Burden, MHRD, and India.
 - Position paper (2006). National Focus Group on ‘Curriculum, Syllabus, Textbooks’, NCERT.
 - NCERT (1988) National Curriculum for Elementary and Secondary Education: A framework.
 - NCERT (2000) National Curriculum Framework for school Education.
 - NCERT (2005) National Curriculum Framework. NCERT publications.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

2. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 2. 1 A. ART EDUCATION (PERFORMING & VISUAL) AND CREATIVE EXPRESSIONS-1. PUPPETRY							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (English)	AE&VAC-1	Theory	2	20	30	50

Puppetry:

Puppetry is an integrated art form, which takes into its fold everything from fine arts to performance. Puppetry is one of the oldest forms of performing art. Puppetry has evolved over the years into a sophisticated form of art. The journey was very interesting with a lot of ups and downs. There are thousands of forms of puppetry from simple finger puppets to highly complex puppets played by more than 3 people. Each country has a puppet form, why country, each area in a country has a puppet form. Hence, in India you will find many, many forms of puppetry. In puppetry there are two main aspects. One the designing and creating of puppets and the other playing or performing puppetry. These two skills are different. Designing will need a lot of thinking, visualization, and technical skills while performance will need high level communication skills. Hence, together they make a consolidated a high range of skills. In this course, students are exposed to different forms of puppets and puppetry. There will be a discussion around the forms and the aesthetic sense of puppetry. Later the students are encouraged to prepare, design and create puppets. They then prepare script and play the puppets. This creation of the puppets together in small groups with a lot of discussions and give and take helps the students develop working together skills and conceptual understanding.

Course Outcomes:

After completion of this course, student teachers will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of puppetry,
- design puppets,
- practice and create a short puppetry show.

UNIT – I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT – II

Designing Puppets (6 Sessions)

In this unit, students will learn about puppetry, its history and specifically about how puppets work. This unit will also discuss the imagination required to design puppets, visualize how puppets will be used and the technicalities of designing puppets. These will be learnt by designing puppets. Students will start with constructing finger puppets and move towards small shapes through papers, like Fish, birds, rat - then they will design masks, flat masks, and masks with dimensions. At the end they will design puppets with old newspaper. The puppets are designed with old newspapers and colour papers. They decorate it and design it in such a way that it can be played, performed. They prepare costumes and all other accessories.

UNIT – III

Performing the puppets (4 Sessions)

This unit will engage in performance of puppetry and the level of communication skills required to create a good engaging story and perform it with the help of puppets they have created. The performance will be expected to relate to some activity in the educational context. Students will perform the puppets they have designed. Initially each member will play their own puppets. Later they will play in pairs, later they will be formed into a small group and asked to prepare their own skits with the puppets. They conclude by performing in small groups. Their learning is consolidated and reflected.

Discussion is held on how different aspects of puppet making can be incorporated in class room processes of young children. Adapting the individual and group exercises done during the puppetry course will be discussed to be used in the classroom situation.

Pedagogy:

The Pedagogy is basically hand-on training. More emphasis is given to experiential learning. They do things and through doing learn about art and its connection to education. The process takes you through different

forms of art- fine arts, playing with colours, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms

Week wise break up of sessions			
Sl. no	Topics	Session flow	Remarks
	Aesthetics and art, art in everyday life.	Based on their experience	
	Importance of art. Appreciation of art.	Discussion	
	Art for art's sake. Art with social responsibility. art for social change	Debate	
	The world of puppetry. Different forms of puppetry.	Presentations	
	History of puppetry	Lecture	
	Preparation- finger puppets	Hands on	
	Preparation of masks	Hands on	
	Preparing puppets	Hands on	
	Performing individually	Practice	
	Performing in pairs	Practice	
	Performing in groups – 3, 4, 5.	Practice	
	Assignments	Written.	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.1 B. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 2. THEATRE							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (English)	AE&VAC-1	Theory	2	20	30	50

Theatre:

Theatre is a collaborative art form, and it is inherently interdisciplinary in its nature. It comprises many facets and skills like acting, directing, writing, designing the sets and costumes, make-up, production, lights, sounds and music. All these elements and skill sets come together and are stitched in the form of a ‘play’ which is performed live, in front of an audience. In the Indian context, theatre has a deep-rooted history with its classical, folk, and other cultural forms until other contemporary forms of theatre evolved in recent times.

Theatre education for children can play a vital role in their individual, social, and emotional development. It teaches them the values of trust and interdependence, makes them confident to express themselves and helps them learn to work in a collaborative environment. It develops their ability to contextualize, critique and discuss certain questions and thoughts they encounter in everyday life. It further helps them imagine, explore, and create their own narratives.

In this course, we will briefly talk about the aesthetics of theatre and how theatre exists in different forms. The students will learn some basic theatre tools that will help them create and perform a narrative they collaboratively arrive at.

In simple terms one can say theatre has two major aspects i.e., creating the script and then performing it. Body is the primary instrument in any theatrical performance accompanied by text, material, visual and sound. This course will introduce students to these aspects of any theatre performance, in the form of direct experience by doing this themselves.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of theatre,
- learn basic theatre tools of improvisation, ideation, and creation of a script,
- create a short performance with educational possibilities.

UNIT - I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT - II

Introduction to Theatre, and Beginning with the body (3 Sessions)

We will discuss some core essentials in the aesthetics of theatre like the performance, the makers, the audience, and the context and how we relate this to the world around us, in everyday lives. In this unit, we will discuss examples of how theatre was used in social movements that have contributed to educating the larger population about important social issues. Additionally, we will also learn from practices and approaches of theatre groups like Budhan Theatre who work with denotified tribes, and Manalmagudi who work closely with physical nonverbal theatre. Exposing students to these approaches will lead to rich discussions on the role of theatre in pedagogy and practice.

In this unit, students will learn certain principles and awareness on how to use their body and voice in a given space and time, with respect to other bodies. There will be several games, exercises that will familiarise them with certain basics of movement, voice, acting and thereby create improvisations and images in a given context. The activities and tasks will be both in individuals and groups.

UNIT - III

Arriving at a script (3 Sessions)

We will engage in some theatre making processes to arrive at a script by the end of this unit. How to adapt or devise a script with actors? How can we borrow from everyday experiences of memory, sound and visuals, without a written text or spoken word? Plays, stories, poems, newspapers articles, will be shared to read, reflect, analyse, and re-create like “Why, why Girl” by Mahashweta Devi, “Ratna Pakshi” by K Ramaiah, “Beyond the land of Hattamala and Scandal in Fairyland” by Baadal Sircar, and songs of Kabir etc. The texts chosen will have a direct relation with topics from social studies, moral and political education.

Students will use their skills of improvisation they learned in Unit 2 to explore, ideate, create, and finally arrive at a script. What kind of stories, narratives, and characters they choose to perform will lead back to the discussion of aesthetics. Students will mostly work in groups to choose or create a text, concept, or an

idea which they want to perform. Students will be encouraged to use their perspectives on the education system, in converting the text into a script.

UNIT - IV

Performing the script

This unit will engage in the actual making of the final piece they choose to make. Students will have to visualize the final text on stage and start rehearsing in their groups. Apart from using their bodies to play characters, the students will also have to think about design and other aesthetic elements like sets, props, costumes, lights, music and sounds they want to use in the performance.

Students will have to practice beyond the six classes as the class time will be utilized to discuss and provide feedback as the work progresses. The last two classes in this unit will be utilized for the final rehearsals and assessments. The final performance will take place in front of a small audience followed by a brief post-performance discussion. Students will engage in discussing and reflecting on the views, questions and comments shared by the audience.

Pedagogy:

The pedagogy is basically hands-on training. More emphasis is given to experiential learning. They do things and through doing, they learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colors, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

Week wise break up of sessions		
Week	Topics	Session flow
1	UNIT - I: Aesthetics and art, art in everyday life. Importance of art. Appreciation of art	Based on their experience
2	Art for art's sake. Art with social responsibility. Art for social change	Discussion
3	UNIT- II: Aesthetics of Theatre	Discussion
4	Body work - Individual and group	Hands on
5	Body work – Improvisation	Hands on
6	UNIT - III: Adaptation of texts. Aesthetic choices.	Hands on, Discussion
7	Story making and devising	Hands on
8	Arriving at a text	Hands on
9	UNIT - IV: Visualizing the final piece. Thinking about design and aesthetic elements	Hands on, Discussion

10	Rehearsals and feedback	Hands on
11	Rehearsals and feedback	Hands on
12	Final rehearsals and assessment	
13	Final rehearsals and assessment	
14	Performance and audience discussion	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Course Title: 2.1 C. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 3. COLLAGE-MAKING Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (English)	AE&VAC-1	Theory	2	20	30	50

Collage:

Collage as visual art medium A major aspect of college, and one that is sometimes overlooked, is the incredibly diverse array of materials and objects that can be used. Collecting interesting materials is an ongoing activity for artists and for those who teach college. But it is just as important for young people to hunt for and make decisions about materials they would like to incorporate into their work. All materials, and the alterations that artists make to them, are suggestive of ideas and concepts based on their surfaces, forms, textures, degree of transparency and opacity, colour, and other visual characteristics. Materials also connect us, through association and reference, to social and cultural worlds and places. What ideas might a scrap of newspaper, as a collage material, express? How might these meanings differ from those of, say, feathers? Or twigs? Or a thin piece of plastic cut out from a plastic bag?

Working with and creating artwork in Collage involves various aspects: selecting materials, manipulating materials, investigating materiality, closely observing materials, discovering possibilities, composing, designing the artwork, planning, finding solutions, applying solutions, thinking flexibility, decision-making, research, using imagination, expressing, taking creative risks, develop perseverance, and much more. Students will also be introduced to various aspects of art in education: The value of art and artmaking by itself, art's use as an instrument in education, social and moral dimensions of art, and the controversial perceptions around good art and bad art.

This course aims for students to understand the importance of aesthetics and art in education, the role art can play in education, and mainly to appreciate, understand and gain skills with the medium of collage and its techniques.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance and the role of aesthetics and art in education.
- understand the medium of collage and its versatility.
- design, plan, and create an expressive self-portrait collage by applying a variety of collage techniques.
- design and set up an interactive visual art exhibition to display their artworks.

- understand and appreciate art-based learning experiences.
- develop the ability to reflect and challenge their assumptions and beliefs around art and develop new understandings.

UNIT – I

Understand the importance of Aesthetics and Art in Education (2 Sessions)

Students will be introduced to Aesthetics and Arts by engaging in experiences, discussions, and dialogues. Students will experience a session of ‘Visual thinking strategy’ (VTS) activity in which students will collectively view and engage in a series of artworks closely, share their observations, critically analyze their observations, listen to multiple perspectives from peers, suspend judgements, and draw their own understanding of the artwork. Students will recognize aesthetic and un-aesthetic experiences through compare and contrast. Through this activity and unpacking of the experience, students will start making connections and develop understandings around what aesthetics mean, aesthetic aspects of daily life, develop aesthetic judgment, and how arts evoke emotion and awaken.

UNIT – II

Exploring paper collage and its techniques (4 Sessions)

Students will be introduced to the medium of collage and open their minds to the possibilities within this medium. Students will view and discuss examples of collage artworks, artist process and artist interview videos. Students will get a chance to compare and contrast various ways collage as a medium is used. Students will reflect upon their own past art educational experiences and observations and engage in dialogue and discussions. Students will analyze effective and ineffective ways of using the medium of collage in educational and other settings.

Through inquiry-based participatory demonstrations, students will investigate and discover a variety of ways to manipulate paper and create individual and unique two-dimensional compositions in the medium of paper Collage. They will understand and learn the techniques, artistic terminologies of the collage medium. Students will reflect on their experience and engage in facilitated discussions to deepen their understanding on the role of art medium exploration and how it can foster various learning skills.

Students then use their knowledge and experience from the previous sessions and explore collage as a medium further. Students will investigate, discover, and learn to create visual textures, physical textures, and create their own unique patterns. They will understand the difference between textures and patterns. Students will use a variety of techniques to create unique textures and patterns, analyze their findings, give each other feedback, work in groups to problem solve, etc. They will understand how art medium explorations can be used as a pedagogical tool in learning environments. Students will bring in various materials found around

them like different kinds of paper, paper-based materials, natural materials, fabric, and explore these materials and use them as materials to create collage compositions.

Students will explore a wide range of techniques and discover their own ways to manipulate these found materials to create interesting textures and patterns. Students will work in groups, problem solve, investigate, develop solutions on their own, and share their findings with each other. Through discussions, students will reflect upon this exploration experience and understand how art making processes can develop skills and abilities in a learner.

UNIT - III

Ideating for an Expressive Self-Portrait (2 Sessions)

In this session students will further explore and discover possibilities in Collage as a medium. Students will learn a variety of ways to make paper stands and create interesting paper sculpture compositions using 3D techniques. Students will draw from their previous experiences of using paper for 2D explorations and add more interest to their unique 3D explorations. Students will share their findings with peers and widen their understanding about the possibilities.

Students will reflect on all the material exploration sessions thus far and participate in a facilitated dialogue around art making and education. Students will engage in a close observation sketching and drawing activity. Through a guided process, students will create a well observed self-portrait drawing. Students will engage in discussions and dialogue to unpack the self-portrait drawing experience, the learnings, discoveries, challenges and more. Through this activity students will also be able to challenge assumptions around talent and artmaking.

UNIT - IV

Creation of an Expressive Self-Portrait Collage (3 Sessions)

Students will engage in a step-by-step process involving sketching, ideating, planning, applying their discoveries of using paper as a collage material, and finally create a large expressive self portrait using the medium of paper collage. Throughout the process students will problem-solve, critically think, push their imagination, find multiple solutions, make independent decisions, receive and give peer feedback, use resources effectively, draw from their own experiences, apply their learnings into creating this unique and expressive self-portrait piece.

UNIT - V

Designing and setting up an Exhibition (2 Sessions and Exhibition Day)

Students will collectively start designing and planning for the exhibition to put up their artworks for a general audience to view and engage with. Students will be planning the various aspects of a visual art exhibition: ways to display artworks, designing the layout of the exhibition space and how the audience will move within the space, design invitations, ways that the audience can engage with the artworks, various ways the artists can talk about their artmaking, and more. Students will divide the tasks among themselves, take on the various roles required, and set up the exhibition space.

Pedagogy:

- Students will engage in hands-on art making activities.
- Students will engage in discussions and dialogues with peers.
- Students will engage in giving and receiving peer feedback.
- Students will continually reflect on their learning through journaling.
- Students will work independently and collaboratively throughout the course.
- Students will receive reference materials and resources to broaden and deepen their understanding.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

References:

5. Works of Deborah Roberts, William Kentridge, Wangechi Mutu, etc
6. Marc, Cut paper collage artist - <https://www.youtube.com/watch?v=WgRZlWl-Oh0>
7. G. Subramanian: Collage art - <https://www.youtube.com/watch?v=ioRRi9R46a0>
8. Amber Fletschock, Collage artist - <https://www.youtube.com/watch?v=aa7p1vYqUc4>
9. Arturo Herrera, artist - https://www.youtube.com/watch?v=Oagx3_NZ5HU

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.2 SPORTS, NUTRITION & FITNESS							
Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (English)	AE&VAC-2	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- explain the importance of sports, and the need and impact of sport for maintaining,
- discuss physical fitness, and the methods of teaching and organization of different types of sports,
- explain the importance of physical fitness, describe different components of physical fitness, and identify activities that help maintain physical fitness,
- Recognize the importance of basic health and nutrition and healthy lifestyles and identify food items that help maintain basic health and nutrition among children of different age groups.

UNIT - I

Sports

- A. Meaning of sports, importance of sports, types of sports.
- B. Different stages of sports (primary and secondary).
- C. Psychology of sports, methods of teaching different sports (indoor, outdoor, team and individual), different sports activities (individual and team games).
- D. Sports for children with disabilities and inclusion.

UNIT - II

Physical Fitness

- A. Meaning and importance of Physical fitness, components of physical fitness, Muscular Strength, Endurance, Flexibility, Body Composition, Cardiovascular Endurance, importance of healthy lifestyle.
- B. Coordination of Health and Fitness

UNIT – III

Nutrition

- A. Meaning of nutrition, types of nutrition, importance of nutrition, need of nutrition, methods for teaching nutrition,
- B. Nutrition for different age groups, nutritious food for sports personalities and common individuals, nutrition and health, nutrition and fitness, nutritious food in schools (midday meals), hostels.

Practicum:

Reflective Reading of different Sports Personalities. Collections of different types of games (Indoor, Outdoor, Individual, Team); Organizing different games (Play) for different age-groups, Organizing Group Games for cooperation, Organizing fitness programmes, Exercises at various levels. Collection of different nutritious items food. (Charts, Things, Objects, Models). Programmes organized to promote the use of nutritious food.

Mode of Transaction:

The mode of transaction should be designed to ensure that should provide a balance between theoretical knowledge and practical skills. The approaches to curriculum transaction may include the following:

- Active learning encourages student teachers to participate in discussions, brainstorming sessions, and problem-solving activities that help them develop critical thinking and problem-solving skills.
- Collaborative learning involves group projects and tasks that encourage student teachers to work collaboratively and learn from each other.

Mode of Assessment:

Assessment of theoretical aspects and Practicum.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. Agashe, S.R. (2013). Introduction to health education. New Delhi, India: Khel Sahitya Kedra.
2. Agashe, S.R. (2013). Introduction to physical education, fitness & sports. New Delhi, India: Khel Sahitya Kedra.

3. Chelladurai. P. (2001). Managing organizations for sport and physical activity: A systems perspective. Scottsdale, Ariz.: Holcomb Hathaway Publishers.
4. Gupta, M.C. (2012). Physical fitness and health. New Delhi, India: Khel Sahitya Kedra. Human Kinetics (2012). Introduction to recreation and leisure (2nd Ed). Champaign, IL: Human Kinetics.
5. Jackson, A.W. (2003). Physical activity for health and fitness. Champaign, : Human Kinetics.
6. Kilander, H.E. (1971). School health education. New York McMillian Company.
Mudambi. S. R. and Rajagopal. M. V. (2001). Fundamentals of foods and nutrition. New Age International Private L.td. New Delhi.
7. Navdeve. B.K. (2013) Health education and recreation in physical education. New Delhi. India: Khel Sahitya Kendra.
8. NCERT (2016). Text book of home science (Human Ecology and Family Science). Textbook for Class XI and XII. NCERT. New Delhi.
9. Rawson, Eric S. Branch, J. David & Stephenson. Tammy J. (2020). Willians' Nutrition for Health. Fitness & Sport, Tivelfih Edition, McGraw-Hill Education, 2 Penn Plaza, Newyork

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

3. School Experience- (SE)

Course Title: 3.1 School Based Research Projects							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (English)	SE-1	Practical	2	20	30	50

Course Outcomes:

At the end of the course the student teachers will:

- present contextual problems, an appropriate research design and the plan of action for undertaking school-based research,
- demonstrate the tools and techniques used for the collection of relevant data,
- summarize the analyze data used to identify the causes,
- demonstrate the interventions used for addressing the problems,
- present the effectiveness of the intervention(s),
- share school-based research experiences through reports and presentation.

Mode of Transaction:

The following strategies will be used during the school-based research project:

- Discussions with teacher educator, school head, mentors, and peers for identification of problem and development of intervention(s).
- Finalize the school-based research project proposal outline through discussion with mentor teachers/teacher educators.
- Document analysis, interaction with all stakeholders, and field visits.
- Sharing and presentation of the outcomes of school-based research.

Content:

The student teachers during previous semesters have studied different courses in Foundations of Education, Disciplinary Courses, Stage-specific pedagogy courses, Ability Enhancement and Value-Added Courses. The required knowledge of action research and case study includes- the concept and importance of action research/case study, the steps of conducting action research/case study (objectives, methods, research design, design tools, data collection, and data analysis) and report writing. The research problem will be taken from the day-to-day teaching-learning process of the school. Some of the significant areas may cover:

- Learning progress and outcomes in different subjects

- School-based assessment
- Learners' diversity and inclusion
- Participation in arts, games, sports

Mode of Assessment:

The assessment of the school-based research project will be continuous. The teacher educators, as well as mentors, will be involved in the assessment of the activities. The following rating scale may be used to assess the student teachers:

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Observation during the execution of action research	Observations	Teacher Educator	0.5
Research Report	Presentation of Report	Teacher-Educators (panel of three experts)	1.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 3.2 INTERNSHIP IN TEACHING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (English)	SE-2	Practical	10	100	150	250

Course Outcomes:

On completion of the internship, student teachers will be able to:

- Explain the overall functioning of the school.
- Describe and appreciate the different roles played by a teacher in the school.
- Develop age-appropriate pedagogic skills.
- Use different pedagogies learnt in real-life classrooms.
- Create appropriate teaching-learning materials.
- Create rapport with the stakeholders and understand their roles in the school system.
- Create student portfolios and comprehensive 360-degree (holistic) progress reports.
- Develop research aptitude and ability to conduct action research for the situations/problems faced during their school internship experience.

Mode of Transaction:

- Observation
- Interaction
- Discussion
- Teaching in the classroom
- Analysis and reporting
- Collection of relevant documents and data

Content:

- Pedagogies' different methods and strategies
- Scheme of lessons
- Peer lesson observation
- Management of substitute classes
- Various TLMs (including ICT tools) and their uses in teaching-learning.
- Achievement test
- Diagnostic tests

- Analysis of the result of the achievement test
- Assembly activities
- Action research and case studies.

Activities:

1. Meet the subject-based mentors, collect timetables of classes VI to VIII and develop a scheme of lessons from the syllabus to be covered during the internship.
2. Get acquainted with the school within 2-3 days. Observe classroom teaching of school teachers.
3. Plan and transact minimum 80 lessons (40+40), including 4 stray lessons (2+2). Stray lessons are class appropriate lessons on any topic(s) to be transacted by student teachers as per their convenience to build up confidence gradually. The last 5 lessons in each pedagogy course may be transacted using lesson notes.
 - Lesson plans should include activities to promote creativity, inquiry, inquisitiveness, experimentation, exploration, analytical thinking, synthesis to understand the coherent whole, problem-solving, and application of knowledge in real-life situations.
 - Lesson plans must promote education for sustainability, including equity, environment, global citizenship, pride and rootedness in Indian culture and character building.
4. Participate in post-lesson discussions with peers, mentor(s) and teacher educators.
5. Observe peer lessons and discuss with the group.
6. Conduct laboratory activities (Atal Tinkering Lab, Science, Mathematics, Languages, Social Science, Computer), sports, and arts and crafts activities.
7. Participate in student support services- guidance and counselling, NCC, health and wellness programme.
8. Create teaching-learning materials, including ICT tools for opted pedagogic courses.
9. Plan assessment, prepare material and formative and summative assessment tools, and analyze the results.
10. Prepare and conduct diagnostic tests to identify learning difficulties, analyze data and prepare learning enhancement plan.
11. Experience classes as a substitute teacher.
12. Participate in library functioning and literary activities.
13. Participate in teacher development and training activities.
14. Organize school assemblies and other events (cultural, sports, yoga, and other development activities).
15. Attend Parents-Teachers Association (PTA) meetings if held during the internship.
16. Attend School Management Committee (SMC) meeting if held during the internship.
17. Study the process of parent and community engagement for the school development programme.
18. Conduct action research /case study.
19. Prepare a sample student portfolio, 20. Write a reflective diary daily and prepare a report of each activity.

Mode of Assessment:

The activities conducted / skills acquired during the internship by the student teachers will be assessed as per the following scheme.

Competence/Artifact	Method of assessment	Assessed By	Credits
Observation of Classroom Practices	• Observation of a Minimum of 6 lessons of School Teachers (3+3) • Observation of a Minimum of 10 lessons of Peers (5+5)	Teacher-Educator	Non-evaluative
Unit planning, Lesson Planning & Transaction	40 lessons transaction for each pedagogical subject * Unit plans and lesson plans * Minimum 2 Innovative lesson plans in each pedagogy subject (Eg: Storytelling, Drama based, Arts and crafts, Use of Technology)	Teacher-Educator, School Mentor	6.0
Assessment Planning and Execution	Preparation of report on assessment plan in each lesson transacted i.e., within lesson transaction and lesson end activities. Preparation of a Blue Print (For one/two Pedagogical course/s) and preparation of Assessment tools Conduct of Unit Test & analysis of results (for both Pedagogical course/s) Development of plan for learning enhancement of students related to subjects (for both Pedagogical course/s)	Teacher-Educator, School- Mentor	1.5
Preparation of Logbook /Teachers diary Min 5 lessons for each pedagogical method	Observation & Interaction	School Mentor	0.5
Overall feedback on student-teacher performance by School Head	Review	Teacher-Educator, School Mentor	0.5
Test lesson (one in each pedagogical method)	Observation and Interaction	School Head	0.5
Preparation of Logbook /Teachers diary Min 5 lessons for each pedagogical method	Presentation	Teacher-Educator	1.0

Stakeholders Responsibilities:**Role of Head of ITEP Institution:**

- Identification of the adequate number of internship schools
- Signing the MoU with the schools 1.0
- Sharing of mutual expectations of ITEP institutions and the participating schools
- Identification of the internship programme coordinator
- Monitor the progress of the entire School Experience Programme

Role of Teacher-Educators of the ITEP Institution:

- Guide the student teachers in preparing lessons and activities, assessment, observation of lessons on peer teaching, action research, and case studies conducting school activities preparation and report writing on Teaching Learning Materials.
- Conduct pre- and post-lesson discussions regularly.
- Assess the transaction of lessons for the complete duration of the lesson in the rating proforma developed by the teacher education institute and give feedback/remarks to the student teachers for lesson improvement.
- Submission of monitoring and supervision reports to the institute in time.
- Discuss with the student teachers frequently and organize a phase-end meeting of the student teachers and mentors to assess the progress and performance of the student teachers.

Role of School Head:

- To introduce the student teachers to the students and staff of the school in the assembly on the first day.
- To facilitate student teachers to take classes as per stage requirements- Foundational, Preparatory, Middle, and Secondary.
- Ensure the alignment of the timetable, scheme of lessons and plan of activities/ assignments of the student teachers to be carried out during the programme in the school.
- Countersign on the attendance register maintained by the group leader/ mentor of the school.
- Ensure that all facilities and provisions are available to the student teachers to teach their lessons and carry out their assignments smoothly.
- grant of leave applications of the student teachers in exceptional circumstances.
- Involve student teachers in different activities of the school.
- Facilitate phase-end meetings of the student teachers and the mentors to assess the progress and removal of difficulties.

- Countersign/ certify the report/ documents of the activities/ assignments conducted by the student teachers towards the end of the internship programme.
- Provide input about student-teacher performance.
- Provide suggestions for improvement of the programme to the ITEP institution.

Role of Mentors:

- Guide student teachers to prepare detailed lesson plans, brief lesson notes and plans of activities/ assignments to be conducted by them in school.
- Review the lesson plan before a student-teacher transacts the lesson in the class.
- Observe the classes of student teachers.
- Assess each lesson on the prescribed proforma and write remarks in the lesson plan book provided by the student teachers.
- Give feedback continuously to the student teachers for their improvement in their teaching and other curricular activities.
- Conduct post-lesson discussions regularly.
- Countersign in the peer-teaching observation schedules after their observations in the classroom.
- Organize frequent meetings with the student teachers and supervisors to discuss the progress, difficulties faced, and experience gained by student teachers.

Role of Student-Teacher:

- Report to the school head of the participating school at least one day before the start of the internship placement.
- Seek information about the classes, timetable, and topics to teach in stage-specific pedagogic courses from the mentors on the first day of the internship programme.
- Mark your attendance as per the school practice.
- Plan all the assignments/ activities with the help of the mentor/ supervisors.
- Seek cooperation from mentors and supervisors in case of difficulty.
- Prepare the lesson plan and get approval from the mentor/ supervisor before transacting every lesson.
- Take classes according to the timetable of the participating school.
- Take substitute classes and participate in other school duties assigned by the school.
- Follow the conduct and dress code of the participating school.
- Get prior leave approval from the head of the participating school in case of emergency.

- Maintain a diary and regularly list all the innovations, challenges faced and reflections for improvement.
- Check with your mentor before attempting learning activities that depart from routine classroom procedures.
- Carry out the activities you plan for school students according to your approved plans.
- Maintain cordial relationships with the students and staff of the school.
- Refrain from making negative comments about the school or the school's personnel, especially when talking with fellow student teachers.
- Submit student teaching profiles, one each, to the supervisor and mentor who supervises your teaching.
- Before the completion of the internship programme, make sure to return all textbooks and materials to the school.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	40
Internal Assessment Test 2	40
Assignment	20
Total	100 Marks
Formative Assessment as per guidelines.	

VIII Semester

BA. B. Ed (English)

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Philosophical & Sociological Foundations of Education-II	4	40	60	100
2	FCE-2	Education Policy Analysis	2	20	30	50
3	FCE-3 (Elective)	Elective (Anyone From below) 1. Adolescence Education 2. Education for Mental Health 3. Education For Sustainable Development 4. Gender Education 5. Guidance & Counselling	4	40	60	100
Ability Enhancement & Value-Added Course- AE&VAC						
4	AE&VAC-1	Yoga & Understanding Self	2	20	30	50
5	AE&VAC-2	Citizenship Education Sustainability & Environmental Education	2	20	30	50
School Experience- SE						
6	SE-1	Post-Internship (Review and Analysis)	2	20	30	50
7	SE-2	Creating Teaching-Learning Material/Work Experience	2	20	30	50
Community Engagement & Services- CE&S						
8	CE&S	Community Engagement & Services (Participating in NSS-related activity, New India Literacy Programme etc.)	2	20	30	50
Total Credits			20	200	300	500

VIII Semester
ITEP BA. B. Ed English
SYLLABUS

S.NO.	Type of Course	Course Code	Course Title
1	Foundation Course of Education- FCE		1.1 Philosophical & Sociological Foundations of Education-II
			1.2 Education Policy Analysis
			1.3 Elective (Anyone From below) 1. Adolescence Education 2. Education for Mental Health 3. Education For Sustainable Development 4. Gender Education 5. Guidance & Counselling
2.	Ability Enhancement & Value-Added Courses - AE&VAC		2.1 Yoga & Understanding Self
			2.2 Citizenship Education Sustainability & Environmental Education
3	School Experience- SE		3.1 Post-Internship (Review and Analysis)
			3.2 Creating Teaching-Learning Material/Work Experience
4	Community Engagement & Services- CE&S		4.1 Community Engagement & Services (Participating in NSS-related activity, New India Literacy Programme etc.)

1. Foundation Course of Education- (FCE)

Course Title: 1.1 PHILOSOPHICAL & SOCIOLOGICAL FOUNDATIONS OF EDUCATION-II							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (English)	FCE-1	Theory	4	40	60	100

Course Outcomes:

After completion of this course, student teachers will be able to:

- ❖ recognize the social context of education,
- ❖ outline the meaning, nature, and scope of educational sociology,
- ❖ establish the link between education and socialization,
- ❖ analyze the main agents of socialization, such as family, school, community and peer groups,
- ❖ analyze the impact of culture on education through a study of dimensions of culture and their importance to education practices,
- ❖ recognize the different aspects of social stratification,
- ❖ identify the close relationship between education and modernization, the role of education in Modernization, and factors and constraints to social change.

UNIT - I: Education and Society

- A. Conceptual clarity, relationship, significance and aims of studying relationship between these two.
- B. Educational sociology and social perspective of education: meaning and functions.
- C. Education as a Social System.
- D. Conceptual clarity of the following terms: society, social behavior, status, institution, ideology, system, sub-system, socialization, social system, social values and norms, conflict, modernization.
- E. Understanding the relation between individual and group behavior with special reference to purpose of education.

UNIT - II: Education and Social Change

- A. Meaning, relation, and dimensions of Social Change.
- B. Factors affecting Education and Social Change: technology, social and educational movements, curricular innovations, value conflict, legal provisions.
- C. Constitution of India and Education.

- D. Education and Modernity.
- E. E. Role of education with reference to social change.

UNIT - III: Education, Culture and Socialization

- A. Relationship between Education and Culture.
- B. Education as a process of Socialization.
- C. Impact of following on Culture and Educational Process: Social Welfare, Social Reform Movements, Legal interventions on Child Marriage and child labor Act, Educational Policies and Acts, Adult Literacy, New Technology of communication, Equality.
- D. Constitutional Provisions and Education with special reference to Social Equality and Equity.

UNIT - IV: Education and Values

- A. Conceptual Clarity, Relationship and Significance.
- B. Types of Values.
- C. Constitutional Values and its impact on our Education.
- D. Human Rights and Values.
- E. Environment and Education.
- F. Pedagogical issues.

Practicum :

1. Critical/Reflective study of contemporary aims of education and their social determinants.
2. Observation and critical study on how textbooks determine every activity of teacher and learner in the school.
3. A critique of textbook culture in school.
4. Observing the process of knowledge construction by children in structured and unstructured environments to appreciate their learning processes and nature.
5. A critical analysis of Constitution of India in the context of process of Education in India/ Educational Policies / Educational Commissions)
6. Critically observing nearby society/ locality in groups of 4-5 students and sharing observations related to cultural/ social influences on educational practice.
7. Analyzing social purpose of NEP, 2020.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.2 EDUCATION POLICY ANALYSIS							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (English)	FCE-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- discuss knowledge and capacity to engage in education policy analysis and evaluate their effectiveness,
- explain processes involved in policy analysis including undertaking situation analysis and research.
- To identify possible policy options,
- Describing these possible options,
- Comparing the potential policy options,
- Ranking the possible policy options and
- Choosing the most effective option that could address issues and problems confronting school education.

UNIT - I

Planning an Educational Policy

- A. Meaning and significance of 'Policy on Education'.
- B. Purpose and Dimensions of an Educational Policy at local and Global level.
- C. Philosophical and Sociological Perspective of planning an Educational Policy.
- D. Historical development of Educational Policies in India.
- E. Basic steps involved in planning.
- F. Constitutional provision for Policy on Education.
- G. Fundamental principles for analyzing an Educational Policy.

UNIT - II

Educational Policies in India

- A. Critical analysis of Policies on Education since Independence: 1968, 1986 (Modified in 1992), 2020 in the context of: need and significance, goals and frameworks of educational policies, content of policies, issues raised in policies, constitutional provisions, special stress, modification of policies, implementation strategies.
- B. Issue of modifying an Educational Policy.

UNIT - III

Implementation of an Educational Policy

- A. Meaning, need and significance.
- B. Mechanism of Policy Implementation.
- C. Strategies to Implement an Educational Policy.
- D. Programme of action and implementation: conceptual clarification and significance.
- E. Role of different Organization / Groups: Legislature/ Judiciary/ Political Will and Parties/ Voluntary Organizations/ Non-governmental organizations (NGOs)/ Pressure Groups/ Public.
- F. Challenges for Implementation.

Practicum:

1. Reviewing and presenting report on NEP, 2020 in reference to Policy Implementation.
2. To present a critical review of the Programme of Action (1987).
3. Preparing a list of challenges to implement the present new National Education Policy, 2020 in our States.
4. Preparing a list of Measures to be taken or taken to implement National Education Policy, 2020 in our State.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children and schools

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. Adams, Paul (2014). Policy und Education. Foundations of Education Studies Series: Routledge-Taylor & Francis Group. London.
2. Handbook of Education Policy Studies, ISBN: 978-981-13-8342-7 Handbook of Education Policy Studies: School/university, Curriculum. and Assessment, Volume 21 SpringerLink <https://ink.springer.com/book/IO.1007/978-981-13-8347->
3. Henry L. (1987). "Education as a Public and Private Good". Journal of Policy Analysis and Management, summer.
4. Kumar, Krishna (1990)., Raj Samaj aur Shiksha, 2nd edn., Raj Kamal, New Delhi. (in Hindi).

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective /1. ADOLESCENCE EDUCATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (English)	FCE-3 (Elective -1)	Theory	4	40	60	100

Course Outcomes:

After the completion of this course students will be able to:

- develop sensitivity, understanding and knowledge about Adolescence and Adolescence Education,
- know the historical development of Adolescent Educational Programme in India,
- know the role of local as well as international agencies towards Adolescent Educational Programme,
- develop a positive attitude towards the importance of Adolescence Education Programmes at the school level,
- develop knowledge and sensitivity on matters related to reproductive health, sex and sexuality and communicate effectively on these issues,
- develop understanding about intellectual, emotional, physiological, socio-cultural, and interpersonal issues related to the processes of growing-up,
- inculcate a healthy attitude towards sex and sexuality, respect for the opposite gender and an understanding of responsible sexual behavior,
- develop an understanding about the desired life skills,
- acquire pedagogical related skills for Adolescence Education Programmes.

UNIT - I

Adolescence and Adolescence Education

- A. Understanding Adolescence: intellectual, emotional, social, and physiological aspects of Adolescence, issues and challenges during Adolescence, myths and realities.
- B. Adolescence Education: concept, nature, and significance of Adolescence Education in Indian context, aims and objectives of Adolescence Education.
- C. Role of school, family, media, and community as social agencies in Adolescence Education. Challenges of Adolescence Education.

UNIT - II

Life Skills and Adolescence Education

- A. Concept, nature, and significance of Life Skills for Adolescence Education
- B. Relationship between Life Skills and Adolescence Education.
- C. Core Life Skills and their significance.
- D. Understanding sexual and reproductive health.
- E. STIs and HIV/AIDS: causes, prevention, cure, and skills of coping.

UNIT – III

Adolescence Education Programme in India (AEP)

- A. Historical Development of Adolescence Education Programme in India.
- B. Goals and Significance of Adolescence Education Programme in India.
- C. Role of Teachers in Adolescence Education in India (AEP).
- D. Challenges to Educational Programmes in India.
- E. Myths / Misconceptions

UNIT – IV

Pedagogical Issues

- A. Meaning, goals and significance.
- B. Challenges of teaching adolescence education: understanding student's behavior, dealing with personal self-constraints, socio- cultural issues, class-room issues and challenges, material production, methodology
- C. Preparation of teachers
- D. Approaches to adolescence education: case studies and critical incidents, brainstorming, role-playing, gaming, value clarifications, question box, discussions and debates, puppet shows, role reversal, video shows.

Practicum:

- 1. Study of Case studies and Critical Incidents. a) Field visit/s
- 2. Review and analysis of the work done by Government and Non-Government.
- 3. Study of Organizations (NGO) at national and international level.
- 4. A research study or detailed case study: Adolescents' behavior in different socio economic settings, a study on child abuse victims, adolescents in drug rehabilitation centers, adolescents residing in the precincts of industrial areas and factory establishments, adolescents in the educational regions showing either higher or lower drop-out rate, adolescents belonging to communities in which social evils affecting

them are manifested like child marriages, conducting Adolescence Education sessions in School.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed the Examination Branch. Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings and learning content as per the needs of the learners.

- Arnett, J. G, Hall's Adolescence: Brilliance and Nonsense. Hist Psychol. 2006 Aug;9(3): I 86-197. doi: 10.1037/1093-4510.9.3I86. PMID: 17153143.
- Berk, L. E. (2011). Child Development. (8th ed.). New Delhi: Pearson Prentice Hall.
- Choudhary, G.B. (2014) Adolescence Education, Delhi: PHI
- Cobb, N. (2011). Adolescence. 7th ed. Sunderland. MA: Sinauer.
- Department of Education & State AIDS Control Society (2005) YUVA- School Adolescence Education Programme- Handbook for Teachers. Delhi.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 2. EDUCATION FOR MENTAL HEALTH							
Course Code							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (English)	FCE-3 Elective -2	Theory	4	40	60	100

Course Outcomes:

After studying this course, student teachers will be able to:

- express the meaning and significance of mental health,
- describe social and psychological determinants of mental health,
- analyze the causes of stress and process of stress management,
- analyze the significance of adjustment in life,
- analyze the needs and importance of global mental health education programme,
- explain the special role of teachers and parents to maintain the good mental health of children,
- suggest prevention and promotional measures to maintain good mental health of society,
- express the need for health policies globally.

UNIT – I **Mental Health**

- A. Meaning and determinants of Mental Health.
- B. Mental Health Vs Mental Hygiene.
- C. Mental disorders: Characteristics and Types.
- D. Causes of poor Mental Health.
- E. Myths Vs Facts about Mental Health.
- F. Legal perspectives of Mental Health in India.
- G. Concept of Healthy Personality

Unit-II **Stress, Stress Management and Adjustment**

- A. Stress: meaning, nature and symptoms, types of stress, social and psychological perspectives, remedial measures.
- B. Stress management and adjustment: meaning and significance of stress management and adjustment, prevention and promotion, role of parents, peer group and teachers.

UNIT – III

Mental Health Education Programme

- A. Meaning and significance of Mental Health Education Programme.
- B. Dimensions of Mental Health Education Programme in India.
- C. Historical development of Mental Health Education Programmes in India.
- D. Local and Global Perspective of Mental Health Education Programme.
- E. Organizations at local and international level.
- F. Characteristics of a good Mental Health Education Programme.
- G. Role of Educational Institutions.

UNIT - IV

Challenges to Pedagogical Issues

- A. Home Vs. school
 - Diverse school and home contexts
 - Lifestyles of teachers and parents
 - Stereo-type roles
 - Mental health concerns of teachers and parents
- B. Material availability/ production
- C. Guidance and Counselling Programme:
 - Concept, need and techniques.
 - Teacher as a counsellor
- D. Designing and evaluating Mental Health Programmes

Practicum:

- 1. Visiting of Mental hospital and preparing list of four cases admitted in Hospital.
- 2. Preparation of two case histories on causes of abnormal behavior.
- 3. Critical analysis of laws and Public Health Policies.
- 4. Critical analysis of National Educational Policy, 2020 in the context of Health of children at school.
- 5. Critical analysis of Legal perspectives Mental Health Education in India.
- 6. Preparing comprehensive report on Mental Health Education Programme in India.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.

- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings and learning contents as per the needs of the learners.

- Agochiya. D. (2010). Life Competencies for Adolescents: Training Manual for Facilitators. Teachers and Parents. New Delhi: Sage.
- Aris, S., Garraway. H. Gilbert, H. (2021). Mental Health. Spirituality and Well-being. Pavilion Publishing and Media Limited
- Brady, G. (2021) Anxiety and Depression. How to help. understand and support children and young people, Pavilion Publishing and Media Limited
- Baron, Robert. (2000). Psychology. (3rd ed.). New Delhi: Prentice Hall.

Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 3. EDUCATION FOR SUSTAINABLE DEVELOPMENT Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (English)	FCE-3 (Elective -3)	Theory	4	40	60	100

Course Outcomes:

After studying this course, student teachers will be able to:

- clarify the meaning and significance of sustainable development,
- explore the relationship among education, development and environment,
- appreciate the relation between education and sustainable development,
- describe the characteristics of ESD,
- explain the role of education in sustainable development,
- critically analyze the meaning and importance of education in the context of sustainable development.,
- explain the role of education to achieve sustainable development,
- analyze the pedagogical issues related to ESD.

UNIT - I

Education and Sustainable Development

- Meaning, relationship, goals, and significance.
- Characteristics of ESD
- Education for Sustainable Development: Historical Perspective
- Philosophical, Sociological and Psychological Perspective.
- Role of Education for Sustainable Development.
- Decolonizing Knowledge for Sustainable Development.
- Challenges of Education for Sustainable Development.

UNIT - II

Sustainable Development Goals (SDGs)

- Meaning, nature and significance of SDGs.
- 17 Sustainable Development Goals (SDGs): UNESCO agenda.
- SDGs and Social Transformation as Universal Commitment.
- Education as a Human Right to achieve Sustainable Development.
- Sustainable Development and Peace.

- F. Role of Educational Institutions and Challenges to achieve SDGs.

UNIT - III

SD Goal-4: Quality Education for All

- A. Meaning, Nature, and Significance.
- NEP, 2020 on SDG-4: Sustainable lifestyle, Gender equality, Promotion of peace & non-violence, Global citizenship, Good mental health & wellbeing, Justice in society.
- B. Pedagogical issues for SDG-4.

UNIT - IV

Sustainable Development: Politics and Policies

- A. Understanding the Policy-Making Process.
- B. Policy Analysis.
- C. Democratizing Science and Technology.
- D. Globalization and the Environment: Capitalism, Ecology and Power.
- E. Perspectives, Methods, and Skills.
- F. Innovation for Sustainability.
- G. Key Issues from an International perspective.
- H. Critical issues involved in sustainability.

Practicum:

1. To present critical review on NEP, 2020 in the context of SDGs.
2. Critical study of Delors Commission Report, 1996: Learning: The Treasure within with reference to SDGs.
3. To review and present a critical report on legal perspective on SDGs.
4. To prepare Toolkit for Educations for Sustainable Development.
5. To organize discussions/ seminars of Teachers of all streams to present their views on SDGs and to present Action Plan for this.
6. To prepare and present a short Video/film to promote SDGs.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field

engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.

- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

- Chew-lung Chang, Gilian Kidman, et al. (2021) Issues in Teaching and Learning of Education for Sustainability: Theory into Practice (Routledge Research in Education) .
- Devaki, N. (2019) Education for Sustainable Development
- IGNOU (2024). Role of Education in Sustainable Development [UNIT 10] (pp 150-158)
- Kothari, R. (1982), Environment and Development in Asia and the Pacific: Experiences and Prospects. UNEP.
- NCERT (2024). Environment and Sustainable Development, New Delhi: NCERT [Chapter 9] (pp 162-178) Additional Readings

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 4. GENDER EDUCATION Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (English)	FCE-3 (Elective -4)	Theory	4	40	60	100

Course Outcomes:

After completion of this course the students will be able to:

- clarify key concepts like gender, transgender, gender bias, gender stereotype, empowerment, gender parity, equity and equality and patriarchy,
- explain the shifting from women studies to gender studies,
- clarify gender issues in school, curriculum, and textual materials across disciplines, pedagogical processes and its intersection with class, caste, religion, and region,
- examine school environment, curriculum, and pedagogy with reference to gender related issues,
- address issues related to sexuality, sexual violence, and abuse,
- draw framework for gender sensitized classroom and school environment.

UNIT - I

Gender and Education

- Meaning, relationship, and significance of studying.
- Conceptual clarity of related terms: Gender, gender perspective, sexuality, patriarchy, masculinity, feminist, gender bias, transgender, gender stereotyping and empowerment.
- Gender as the basis in school education.
- Constitutional Provisions with special reference to equity and equality, rights of girls.
- Education and women's empowerment. F. Shifting from women's studies to Gender Studies.

UNIT – II

Learning Gender Roles

- Social and Cultural Perspectives of Gender Identity: role of family and school, media, and other formal and informal organizations/ agencies
- Socialization and learning gender roles.
- Gender stereotyping/Role models.
- Preventing Measures: role of school and home

UNIT - III
Gender, Sexuality, Sexual Violence and Abuse

- A. Development of sexuality and its impact on children with reference to gender, body image, role-models.
- B. Sexual violence in formal and informal institutions.
- C. Child sexual abuse from pre-primary stage to secondary stage: providing accurate information on child sexual abuse, helping, and identifying signs of sexual abuse in children.
- D. Providing dos and don'ts about sexual abuse.
- E. Legal perspective: Laws for safety and Security of girls and women, Implementation of the POCSO Act.

UNIT – IV
Pedagogical Issues

- A. Analyzing classroom practices.
- B. Creating gender friendly classrooms and school environment.
- C. Analyzing Curriculum from gender perspective: learning outcomes, textual material, teaching-learning processes, language used, teaching aids, assessment strategies.
- D. ICT pedagogy for gender sensitive school curriculum.
- E. Challenges for pedagogical issues.

Practicum:

1. Preparing a Report on National Educational Policies, (1986/1992 and 2020) in the context of gender issues in Education.
2. Preparation of projects on:
 - Analysis of textual materials from the gender perspective for identifying gender bias and gender stereotype in textual materials.
 - Recommendations of commissions and policies on education to empower girls/women.
 - Mahila Samakhya Programme.
 - Women Role Models in various fields with emphasis on women in unconventional roles.
 - Video clipping on portrayal of women.

- Folklores reflecting socialization process.
 - How students perceive sexuality and their own body images.
3. Field visits to schools to observe the schooling processes from a gender perspective.
 4. Preparing Analytical Report on portrayal of men and women in print and electronic media.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University, from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

- Bhog, D., & Ghose, M. (2014). Writing Gender in Reflections on Writing middle-school political science textbooks in India. *Gender & Development*, 22(1), 49-62.
- Blumberg, R. L. (2008). The invisible obstacle to educational equality: Gender bias in textbooks. *Prospects*. 38. 345-36 I.
- Butler, J. (2014). Excerpt from Gender Trouble. In *Feminist Social Thought* pp. 112-128. Routledge.
- Butler, J. (2022). Selection From Gender Trouble: Feminism and the Subversion of Identity. *Transgender Studies Reader Remix* pp. 191-201: Routledge.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 5. GUIDANCE & COUNSELLING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (English)	FCE-3 (Elective -5)	Theory	4	40	60	100

Course Outcomes:

After completion of this course the students will be able to:

- explain the basic meaning, need and significance of Guidance and Counselling in the context of education,
- differentiate between Guidance and Counselling with special reference to the purpose and strategies,
- clarify the general social, psychological, and historical perspective of Guidance and Counselling,
- describe the basic features of Guidance and Counselling with reference to students needs at school level,
- explain the basic principles of Guidance and Counselling,
- organize guidance program,
- analyze the reports of educational commission and educational policies with reference to Guidance and Counselling.

UNIT - I **Guidance**

- A. Meaning, need, nature and scope of Guidance.
- B. Brief historical background of Guidance movement in India.
- C. Individual and Group Guidance.
- D. Basic assumptions and principles of Guidance.
- E. Need to understand the needs of the individual and group in the context of Guidance.
- F. Essential information for Effective Guidance.
- G. Vocational Guidance and Role of teachers.

UNIT - II

Counselling

- A. Meaning, importance, areas, and types of Counselling.
- B. Approaches to Counselling: directive, non-directive and eclectic, behaviourally, and cognitively oriented.
- C. Process of Counselling: initiating counselling, preparation, and intake procedures, establishing rapport, termination of and response to initial interview.
- D. Establishing Structure: attending behaviour, observation, non-verbal behaviour, listening, verbal patterning and communication responses, silence, use of questions. transference and countertransference. regarding and respect in counseling relationships. involuntary clients, client expectation.
- E. Role of family and community.

UNIT - III

Tools and Techniques to Collect Data

- A. Psychological Testing and Diagnosis: Need and Nature.
- B. Test use and interpretation, appraisal techniques.
- C. Counselling Interview: Essential aspects, basis procedures, problems, and their handling.
- D. Personality Assessment: Historical perspective
- E. Material administration, scoring, interpretation, and evaluation of frequently used personality inventories/ questionnaire and projective tests. Personal Orientation Tests and Rating Scales: Type a behaviour, Locus of Control, Attitude scale, ST AI etc., and other clinical rating scales.
- F. Case Study: Need and Importance.

UNIT – IV

Issues Related to Guidance and Counselling

- A. Factors affecting Guidance and Counselling.
- B. Ethical issues in Guidance and Counselling.
- C. Limitation of diagnosis with special reference to Counselling.
- D. Challenges to organize Guidance and Counselling programmes in schools.
- E. Counselling and Guidance of persons with learning disabilities, visual and hearing impairment.
- F. Challenges related to counselling services in schools.

Practicum:

1. Prepare a case study on students with learning difficulties.
2. Prepare a report on challenges of organizing guidance and counselling programmes in school.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

1. Aiken, L. R. (2009). Psychological testing and assessment. Pearson Education India.
2. Crow. L. and Crow. A.(1962) Introduction to Guidance. New Delhi: Eurasia.
3. Guidance and School Counselling (2020). A Brief History of School Guidance and Counselling in the United States- Counsellors, Students, and Education. Retrieved from <https://education,staletuniversity.compages2023/Guidance>

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

2. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 2.1 YOGA & UNDERSTANDING SELF Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (English)	AE&VAC-1	Theory	2	20	30	50

Course Outcomes:

After completion of the course, the student teachers will be able to

- explain the importance of Yoga and how it helps an individual in understanding Self,
- describe the importance of practicing Yoga Asana,
- practice basic Yoga Asanas/ Kriyas.

UNIT - I

Philosophy and Historical Perspective of Yoga

- A. Concept and Meaning of Yoga, Philosophy of Yoga,
- B. Brief history and development of Yoga (Classical Yoga, Post Classical Yoga and Modern Period)
- C. Importance of Yoga for healthy living, Yoga and its relevance in the modern times, Traditions in Yoga.

UNIT - II

Schools of Yoga

- A. Different streams \schools of Yoga (Gnana, Bhakthi, Karma).
- B. Construction of Yoga Practice for all round development.
- C. Principals of Yoga: - Ahimsa, Satya, Asteya, Brachmacharya, Aparigraha, Shoucha, Santhosha, Tapas, swadyaya and Isvara Paridhana.

UNIT – III

Modern Principles of Yoga and Meditation

- A. Modern Principles: Human Body is a holistic entity, Individuals and their need are Dhāraṇa & Dhyāna, etc, meditation and reflective practices, and the importance of these

aspects in becoming an effective teacher, unique Self-empowering, the quality and state of an individual mind is crucial to healing.

- B. Meditation: - its Importance, Types, and Process, Pranayama: its importance, types and process, Yoga as a Way of life for Peace, Harmony, Health love and happiness. Yoga in Indian philosophy for understanding Self.

Practicum:

1. Practice of Basic Yoga Asanas/ Kriyas.

Mode of Transaction:

Reflective reading of different Yoga practicing Personalities, learning by doing, Relaxation Techniques for imparting concentration, Understanding Self, and personality development.

Mode of Assessment:

Assessment of practicum; Assessment of practice of basic Yoga Asanas/ Kriyas; Assessment of Reflective level Readings

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

- Alter. Joseph S. (2004). Yoga in Modern India: The Body between Science and Philosophy. Princeton. NJ: Princeton university Press.
- Bronkhorst. Johannes (1993). The Two Traditions of Meditation in Ancient India. Delhi: Motilal Banarsidass.
- Cleary, Thomas, Tr. (1995). Buddhist Yoga, A Comprehensive Course. Boston and London: Shambhala.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.2 CITIZENSHIP EDUCATION SUSTAINABILITY & ENVIRONMENTAL EDUCATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (English)	AE&VAC-2	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- explain the concept of citizenship and citizenship education,
- describe the aims of and approaches to citizenship education,
- explain the concept and aims of Global Citizenship and Global Citizenship Education,
- describe the aims of and approaches to global citizenship education,
- explain the concept of ‘Sustainability’ in all fields of human activities, and approaches to achieving sustainable development in its three dimensions – economic, social and environmental – in a balanced manner,
- demonstrate an awareness of environmental issues, and actions required for mitigating the effects of climate change, environmental degradation and pollution, and initiatives required for effective waste management, conservation of biological diversity, management of biological/natural resources, forest and wildlife conservation, and sustainable development and living.

UNIT – I

Citizenship Education

- Concept of citizenship and citizenship education.
- Aims of and approaches to citizenship education.
- Concept of Global Citizenship and Global Citizenship Education.
- Aims of and approaches to global citizenship education.
- Concept of Vasudhaiva Kutumbakam, its importance in development of a holistic perspective towards local and global communities.

UNIT – II

Sustainability

- A. Concept of ‘Sustainability’ in all fields of human activities.
- B. Approaches to achieving sustainable development in its three dimensions – economic, social, and environmental.
- C. Sustainable development goals.
- D. Sustainable management of natural resources.
- E. School- and community-based activities.
- F. Education for sustainable development

UNIT – III

Environmental Education

- A. Environmental issues.
- B. Actions required for mitigating the effects of climate change, reducing environmental degradation, pollution etc.
- C. Initiatives required for effective waste management, conservation of biological diversity, management of biological/natural resources, forest and wildlife conservation, and sustainable development and living.
- D. Approaches to delivering Environmental Education
- E. Role of Mass Media and Technology in delivering environmental education.
- F. Roles Governmental and Non-Governmental Organizations in promoting Environmental Education.
- G. School and community-based environmental education activities.

Practicum:

1. Write a report on the roles of governmental and non-governmental organizations in promoting Environmental Education.

Mode of Transaction:

Lecture-cum- discussion, Focus Group discussions, in-class seminars, Library Work, Assignments, Project Work, Lesson Plan Development, Interaction with different stakeholders, ICT based educational materials, Group Work, critical reflections, group-work, case-based approaches, and enquiry-based learning.

Mode of Assessment:

Assessment of practicum and assessment of reflective level readings.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the examination Branch, Karnatak University Dharwad. from time to time.

References:

- "Vasudhaiva Kutumbakam: Relevance of India's Ancient Thinking to Contemporary Strategic Reality" (1st ed.). (2020), New Delhi. India: Aryan Books International.
- Bhamra, T., & Lofthouse, V. (2016). Design for sustainability: a practical approach. Routledge.
- Dalal-Clayton, B. & Bass. S. (2012). Sustainable development strategies: a resource boak. Routledge.
- Davies, I., Grammes, T. & Kuno. H. (2017). Citizenship education and character education. JSSE-Journal of Social Science Education.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

3.School Experience- (SE)

Course Title: 3.1 POST-INTERNSHIP (REVIEW AND ANALYSIS) Course Code:							
Course	Semester	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (English)	SE-1	Practical	2	20	30	50

Course Outcomes:

The student teachers will be able to:

- demonstrate/Exhibit/Manifest comprehensive understanding of the school ecosystem.
- reflect on school internship experiences in a report.
- share their learning from school internship with peers and teacher educators.

Mode of Transaction:

- Discussion
- Presentation, Gallery walks and Exhibition.
- Report Writing

Activities:

Experience Sharing and Reflective Learning:

- Presentation of reflective journal summary
 - My Learning Journey: by each student-teacher Gallery walks (Exhibition): TLMs, display of participation in school activities (photos/stories) and other artefacts created during the internship by student teachers.
- Sharing of best practices (PPTs, Videos.)
- Survey and collect the local stories and rhymes from the parents and community (in the context of the foundational stage)
- Holding a training workshop for the parents and community and encouraging them to act as volunteers.
- Awareness and advocacy programme in FLN for parents and community: Role play with parents and community on conducting specific FLN activities.
- Organizing a parents /community mela/fair on homemade TLM for FS children

Submission of Internship Report:

- Reflective Journal
- Lesson Plans and TLMs
- Observation records (Teacher Educator, Mentor, school heads, Teachers, Parents)
- Assessment records and Student Portfolio
- Action research report/case study
- Comprehensive internship report.

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Artefacts created during the internship. My Learning Journey	Exhibition & Presentation	Teacher-Educator	1
Comprehensive Internship Report	Review	Teacher-Educator	1

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 3.2 CREATING TEACHING-LEARNING MATERIAL/WORK EXPERIENCE Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (English)	SE-2	Practical	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- ❖ Assess the need for Teaching Learning Materials and prepare innovative TLM,
- ❖ Develop an understanding of the importance of work experience and competencies of a local crafts person, artisans and entrepreneurs,
- ❖ demonstrate the use of TLM for enhanced learning,
- ❖ explain the importance of work experience and competencies of local crafts person.

Mode of transaction:

- Workshop
- Group discussion
- Field visits and interaction
- Analysis of existing local-specific learning resources, toys
- Exhibition of TLM and presentation of reflective reports on the use of learning resources, including toys.

Content:

- Understanding how students learn at different stages.
- Knowledge of toys and other TLMs from different parts of the countries
- Knowledge of relevant TLMs for specific groups of children- CWSN, kinesthetic learners, visual learners, auditory learners addressing individual differences.

Activities:

- Orientation workshop on work experience and development of learning resources
- Field visit for interaction with local artisans, craftspeople, and entrepreneurs.
- Observe Traditional work practices and their integration into Local Technologies and Ideas.
- Analysis of available local specific, indigenous learning resources, including toys and their use in the learning-teaching process

- Development of at least two low-cost learning resources as per the local contexts (foundational/preparatory/middle/secondary) and presentation/exhibition
- Prepare the manual of TLM highlighting the objectives that will be achieved by its use, the material used, the process of its development and its use during classroom transaction.

Mode of Assessment:

Assessment			
Competence/Artifact	Method of assessment	Assessed By	Credits
TLM developed	Presentation /Exhibition	Teacher Educators (panel of three experts including an external expert)	1.5
Manual	Presentation	Teacher Educator	0.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

4. Community Engagement & Services –(CE&S)

Course Title : 4.1 COMMUNITY ENGAGEMENT & SERVICES (PARTICIPATING IN NSS-RELATED ACTIVITY, NEW INDIA LITERACY PROGRAMME ETC.)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (English)	CE&S-1	Practical	2	20	30	50

Course Outcomes:

On successful completion of the ‘Community Engagement and Service’ programme, the student teacher should be able to:

- recognize the socio-economic issues in the community and identify initiatives that could help solve problems faced by the community,
- demonstrate an awareness of the functions of the community, and the measures required for enlisting community participation in school-related activities,
- undertake initiatives that are required to make the community aware of the importance of education, issues associated with schooling, gender inequity, health & wellness of children, illiteracy among youth and adults in the community etc.,
- suggest actions in collaboration with community members to address the social, cultural and educational problems in the community,
- organize activities such as street plays, advocacy activities, door-to-door campaigns, and prabhat-pheris etc. to mobilize community participation in development initiatives,
- demonstrate social leadership quality through community services,
- organize interactions between schools and local communities for generating solutions to problems such as dropout and learning deficits,
- facilitate partnerships between local communities to enhance participation of the community in school-related activities such as PTA meetings,
- recognize the fault lines of the society, such as casteism, social taboos and superstitions etc. and work towards bridging them to establish harmony in the society,
- demonstrate positive feelings towards the local community and appreciate traditional knowledge and practices,
- Recognize the values of public service and active citizenship.

Approach to Curriculum Transaction:

The student teachers will be provided opportunities to have exposure to community life for ten days in total, two days in Preparation for Community Engagement & Service in the institution, seven days working with the community, and the last day in the institution for sharing their experiences and reflections. The activities may be conducted in groups or individually as appropriate.

Days 1-2: Preparation for community services (In the institution)

- Orientation of student teachers on Community Engagement & Services through discussion and group activities.
- Workshop for developing tools for different activities during the programme.

Days 3-9: Engagement with the community (Mandatory onsite stay with the community) Students will be divided into smaller groups; They would participate in the planned activities with defined roles for seven days on a rotation basis. These activities include:

- participation of student teachers in activities undertaken under the National Service Scheme (NSS), New India Literacy Programme, Student mentoring initiatives, etc.
- Survey of community resources for supporting school activities.
- Study of the situation regarding school dropout and the reason thereof (Stage wise).
- Survey of specific settlement to assess the situation about non-literates in the settlement, including identification of 4-5 non-literate youth and adults who will be supported by student teachers to become literate,
- Training of local youth in First Aid and other relevant interventions,
- Assessment of the situation about Health and wellness of children in a locality,
- Creating awareness of the importance of sustainable development, and making the community members aware of the need to support initiatives to ensure environmental protection, creating awareness of rainwater harvesting, mentoring school students with learning deficits, guidance and counselling to school students etc.)
- Visit and interact with local artisans and craftsperson.
- The above activities typically will include working with the community, collecting data, playing local games, community awareness programmes like nukkad natak, rallies, organizing and participating in the cultural programmes with the community members etc.

The student teachers shall conduct different pre-scheduled activities throughout the day. Morning sessions will be used for activities with the community and data collection. The afternoon session will be devoted to data

analysis and preparation of the report, and participation in games & sports activities. Evening session will involve cultural activities with community members.

Day 10: Feedback session and Reflection (: In the Institution)

- Sharing experiences and discussion on activities carried out.
- Presentation and submission of report of the activities carried out.
- Evaluation of the activities by collecting feedback on the effectiveness of the campaign from the mentor and the students.
- Reflection of experience (individual/group) of organizing community service

Assessment components and weightage:

- Involvement and active participation in activities relating to Community Engagement and Service: (Assessment method: Observation by teacher educator, teacher, and community members); Weightage: 75%; Assessed by the teacher educator, teacher, and community members),
- Group Report & Reflections: Method of assessment: Presentation by student teachers); Weightage: 25% (Assessed by Teacher Educator)

Reference:

- Ministry of Education (2021). Vidyanjali: Guidelines for Promoting Community and Voluntary Participation for Enhancing Quality School Education, Government of India. https://vidyanjali.education.gov.in/assets/pdf/Final_Guidelines_Vidyanjali_%20December.pdf
- RIE Bhubaneswar (2020). Handbook on Field Engagement in Pre-service Teacher Education, Bhubaneswar, Regional Institute of Education.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	



KARNATAK UNIVERSITY, DHARWAD

Syllabus for I to VIII Semester for the
Integrated Teacher Education Programme
(ITEP) – BA.B.Ed. History
Middle Stage (Grades 6–8)

with effect from the **academic year 2025–26 and onwards.**

ITEP B.A. B.Ed. (History) Middle Stage (Grades 6-8) Course & Credit Structure

B.A. B.Ed. (History)	I	II	III	IV	V	VI	VII	VIII	Total	Grand Total
History (Major)	4(Core)	4(Core)	4(Core)	4(core)	4(Core)	Project/Inter nship/Field work	--	--	48	80
	--	4(Core)	4(Core)	4(Core)	4(Core)/ 4(Elective-1)	4(Elective 2)				
English (Indisciplinary-1)	4(Core)	4(Core)	4(Core)	4(Core)	--	--	--	--	16	
Geography (Indisciplinary-2)	4(Core)	4(Core)	4(Core)	4(Core)	--	--	--	--	16	
Discipline Specific Total credits per Sem	12	16	16	16	12	08			80	
Pedagogy of sub 1 (History)	--	--	2	2	2	2	--	--	16	16
Pedagogy of sub 2 (Social Science)			2	2	2	2				
Credits from education (Other Major)	12	08	04	04	04	04	08	20		80
Total Credits Per Sem	24	24	24	24	20	20	20	20		176

I Semester

ITEP B.A. B.Ed. History

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
SIP- Two-week student Induction Programme						
Foundation Course of Education- FCE						
1	FCE-1	Evolution of Indian Education	4	40	60	100
Discipline Specific Course- DSC						
2.	DSC-Major-1	History of India (From Earliest to the Satavahana)	4	40	60	100
3	DSC-Minor-1	Introduction to Language, Linguistics, Literature and Culture	4	40	60	100
4	DSC-Minor-2	Principles of Geomorphology	4	40	60	100
Ability Enhancement & Value-Added Courses- AE&VAC						
5	AE&VAC- 1	Language-I /English	4	40	60	100
6	AE&VAC- 2	A. Art Education (Performing & visual) and Creative Expressions- 1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making	2	20	30	50
7	AE&VAC- 3	Understanding India Part-I (Indian Ethos & Knowledge systems)	2	20	30	50
Total Credits			24	240	360	600

I Semester
ITEP B.A. B.Ed. History
SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education- FCE		IBHI1EDC01T	1.1 Evolution of Indian Education
2	Discipline Specific Course- DSC	Major-1	IBHI1DSC01T	2.1 History of India (From Earliest to the Satavahana)
		Minor-1	IBHI1DSC02T	2.2 Introduction to Language, Linguistics, Literature and Culture
		Minor-2	IBHI1DSC03T	2.3 Principles of Geomorphology
3.	Ability Enhancement & Value-Added Courses – AE&VAC		IBHI1AB01T	3.1 Language-I /English
			IBHI1AB02T	3.2 A. Art Education (Performing & visual) and Creative Expressions-1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making
			IBHI1AB03T	3.3 Understanding India Part-I (Indian Ethos & Knowledge systems)

1. Foundation Course of Education- (FCE)

Course Title: 1.1 EVOLUTION OF INDIAN EDUCATION Course code: IBEN1EDC01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (History)	FCE-1	Theory	4	40	60	100

Course Outcomes:

After completion of this course, it is expected that the student teachers will be able to:

- discuss and understand the genesis, vision and evolution of education in India from ancient to contemporary times.
- critically revisit colonial education and its impact on the contemporary Indian education system.
- enable them to shape their educational perspective to act as an effective teacher.
- locate themselves in the larger system of education in India while discussing the contribution of Indian thinkers
- develop a road map for futuristic education system in India for addressing the need of local and global context.

UNIT-I

Ancient Indian Education: Vedic Period

- A. Vision, Objectives, and Salient Features of the Vedic Education System.
- B. Teaching and Learning Process during Vedic Period
- C. Development of Educational Institutions: Finances and Management.
- D. Famous Educational institutions and Guru-Shishya.
- E. Education at the time of Epics: Ramayana and Mahabharata.

UNIT-II

Ancient Indian Education: Buddhist and Jain Period

- A. Vision, objectives and salient features of Buddhist and Jain Education System.
- B. Teaching -Learning process
- C. Finance and Management of Educational Institutions.
- D. Contribution of Educational Institutions: Nalanda, Taxila, Vikramshila, Vallabhi.
- E. Famous Guru shishya

UNIT-III

Post-Gupta Period to Colonial Period

- A. Vision, objectives, brief historical development perspective as well as salient features of Education in India
- B. Teaching and Learning Process.
- C. Pedagogical Inquiry. Community and Its Interface.
Finance and Management of educational institutions.

UNIT- IV

Modern Indian Education

- A. Colonial Education in India:
 - Woods Despatch, Macaulay Minutes and Westernization of Indian Education in India.
- B. Shiksha ka Bhartiya Karan (Indigenous Interventions in Education)
(Bird's eye view of their contribution)
 - Swadeshi and Nationalist attempts of educational reforms with special reference to general contribution of Indian thinkers – Savitribai and Jyotiba Phule, Rabindranath Tagore, Swami Vivekananda, Mahatma Gandhi, Sri Aurobindo, Gijubhai Badheka, Pt. Madanmohan Malaviya, Jiddu Krishnamurti and Dr. Bhima Rao Ambedkar others – to the education systems of India.
- C. Education in Independent India
 - Overview of Constitutional values and educational provisions.
 - Citizenship Education:
 - Qualities of a good citizen.
 - Education for fundamental rights and duties.
 - Overview of 20th Century Committees, Commissions and Policies.
 - UEE, RMSA, RTE Act 2009: Overview and impact.
 - NEP 2020: vision and implementation for a vibrant

Practicum:

Following are the suggestive practicals and activities. The teachers may design more tasks based on classroom interactions and discussions.

1. Prepare a report highlighting the significance of educational reforms in School education in the light of NEP 2020.
2. Critically analyze the role of education in understanding the concept of citizenship for democracy.
3. Compare the vision, objectives, and salient features of education during different periods.
4. Working out a plan to develop awareness, attitude and practices related to Fundamental Rights or fundamental duties or democratic citizenship qualities, execute it in the class and write the details in form of a report.
5. Sharing of student experiences (in groups) related to Indian constitutional values, help them to reshape their concept and enable them to develop vision, mission and objectives for a school and their plan to accomplish the objectives in form of a group report.
6. Analyses of current educational strengths and weaknesses of one's own locality and work out a critical report.
7. Visit places of educational significance and value centers and develop a project report.
8. Observation of unity and diversity in a social locality and matching it with unity and diversity in the class and work out a plan for awareness for national-emotional integration for class to develop awareness, attitudes, skills and participatory values, execute it in the class and report the details.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia/PowerPoint presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussions, surveys, short-term project work, etc,
- Hands-on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Board, Karnatak University, Dharwad. from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

- Arora, P., & Gandhi, H.)2021(. National education policy 2020: Paving the ways for transformational reforms. Shipra Publications.
- Dash, B. N. (2009). Thoughts and theories of Indian educational thinkers. Dominant Publishers and Distributors.
- Desai, S. & Amaresh, D. (2011). Caste in the 21st century India: competing narratives. Economic and Political Weekly, Vol. 46, No. 11
- Dutt, M. N. (2008). Mahabharata: Santi parva (Vol. 7). Parimal Publications.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

2. Discipline Specific Course: (DSC)

Course Title: 2.1 HISTORY OF INDIA (FROM EARLIEST TO THE SATAVAHANA) Course code IBHI1DSC01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (History)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- The Literary and Archaeological Sources and the influence of Geographical factors
- The development of Cultures; Towns, Trade and Economy, Religion and Literature.
- The rise and spread of Jainism and Buddhism and establishment of early dynasties and their contributions

Unit	Title: HISTORY OF INDIA (From Earliest to the Satavahana)	75 hrs/ sem
Unit- I	Reconstructing Ancient Indian History • Introduction-Understanding the History of India. • Geographical Features of India • Sources and tools of historical reconstruction- Archaeological & Literary.	15Hrs
Unit- II	Pre-historic Period • Paleolithic Culture- sequence and distribution; stone industries and other technological developments. • Mesolithic Cultures- regional and chronological distribution; new developments in technology and economy; rock art. • Neolithic and Chalcolithic Cultures: The advent of food production Understanding the regional and chronological distribution of the Neolithic and Chalcolithic cultures.	15 Hrs
Unit-III	Expansion of Civilization & Culture • The Harappan/Indus Valley Civilization- Extent of the Civilization, Different Phases, Towns & town planning, citadel; agricultural technologies; Bricks, Beads, Bones (craft productions) and trade,	15 Hrs

	seals, script, weights, the end of the civilization. Problems of interpretation • Early Vedic Culture- Origin of the Aryans, and their settlements, contribution to literature, Polity, Economy, Society & Religion • Later Vedic Culture and Cultural Contributions- literature, Polity, Economy, Society & Religion	
Unit-IV	State Formation in Ancient India • Pre- Mauryan History- Republics and 16 Mahajanapadas in Ancient India • Growth of Jainism & Buddhism- Life & teachings of Mahaveera & Gautama Buddha, Causes for the spread & Decline of Jainism & Buddhism • The Mauryan Empire- Origin- Early rulers- Chandra Gupta Maurya - Administration, Asoka-Kalinga War, Buddhism, Buddhist Council, Dhamma, Growth of Mauryan Art. Asokan inscriptions- Their contribution to Religion, Literature, Art and Architecture.	15 Hrs
Unit-V	Post Mauryan Period/ Changing political formations (circa 300 BCE to circa CE 300): • Kushanas- Political History-Kanishka and their cultural Contributions. • The Satavahanas- origin- Early rulers- Gautami Putra Sathakarni-their Contribution to Religion, Literature, Arts & Architecture. • Map Study: ➤ Mark the important towns of Harappan Civilization and write their historical importance ➤ Mark the important places of Ashokan Edicts found in India and write a short note about them.	15Hrs

References:

1. Thapar Romila : History of India Vol-I. Penguin Books India Pvt.Ltd., New Delhi-2000.
2. Majumdar R.C.: Ancient India. Motilal Banarsidas Delhi, Reprinted:2017
3. Lunia B.N. : Evolution of Indian Culture. Lakshmi Narayan Agarwal, Agra. 1960.
4. Jha D. N. : Ancient India- An Introductory. Rawat Publishers, Jaipur.1977
5. Khurana K.L: Ancient India. Lakshmi Narayan Agarwal, Agra. 2011.

6. Das S.K.: The Economic History of Ancient India. Vohra Publishers, Allahabad. 2007.
7. Sharma R.S.: Material Culture and Social formations in Ancient India. Macmillan India Ltd. Delhi. 2007.
8. Sharma R.S. : India's Ancient Past. Oxford University Press. New Delhi. 31st impression 2018.
9. Bashyam A.L. : The wonder that was India, Vol-I. Picador Pan Macmillan Publisher Ltd. London. 2004.
10. Bridget & Raymond Allchin : The rise of Civilization in India and Pakistan. Cambridge University Press. Foundation books Delhi, First South Asia Edition 2011.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2.2 INTRODUCTION TO LANGUAGE, LINGUISTICS, LITERATURE AND CULTURE							
Course Code: IBHI1DSC02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (History)	DSC-2 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- Get introduced to the concept of Language, Linguistics, Literature and culture
- Understand various forms and terms of Literature.
- Distinguish Literature and its relation to various disciplines
- Acquire knowledge of linguistics and origin of languages
- Discern cultural aspects in literature
- Comprehend forms and terms of literature
- Obtain basic knowledge of language, literature and culture

Unit	Course Title: Introduction to Language, Linguistics, Literature and Culture	75 hrs/sem
Unit- I	Introduction to the Study of Language. What is language? Meaning, definitions and significance Characteristics of Language Origin and Development of Human Languages Language and Culture	15hrs
Unit-II	Introduction to Linguistics Meaning, Definitions, Scope, levels and branches of Linguistics Phonetics and Phonology, Speech Mechanism, Vowels and Consonants, Transcription of Words and Word Stress, Phoneme, allophones Morphology- morpheme, allomorphs, free morphemes and bound morphemes, affixes and word building Syntax- Types of Sentences, IC analysis, Clauses, phrases Semantics- Types of Meaning, hyponymy, synonymy, antonym, entailment	15 hrs

Unit- III	Introduction to Literature What is literature? Why study literature? Literature and Life, Literature and Society Literary Forms Poetry: Lyric, Sonnet, Ballad, Epic, Elegy, Mock-Epic Prose: Novel, Novella, Short Story, Essay, Biography, Autobiography Drama: Comedy, Tragedy, Tragi-comedy, One-act-play, Literary Terms: Couplet, Allegory, Alliteration, Assonance, Refrain, aside, monologue, soliloquy, meta fiction, plot, character, setting, narrative technique, farce, simile, metaphor, personification, hyperbole, satire, prologue, epilogue. Art for Art's sake, Expressionism, Metre and Metrical Devices, Classicism, Romanticism, Realism, Naturalism, Canon,	15 hrs
Unit -IV	Introduction to Study of Culture Meaning of Culture, The idea of Culture, Culture and the Media 'Towards a Definition of Culture', in India and World Culture (New Delhi: Sahitya Academy, 1986). Media Culture and Cultural Studies – Pramod Nayar Key Concepts : Ideology, identity, Subaltern, Modernity, Representation	15 hrs
Unit- V	1. "A Different History" (Poem) Sujata Bhatt 2. I Too (Poem) – Langston Hughes 3. Shooting an Elephant – George Orwell 4. The Silent Rattle – Basu Bevinagidad 5. Spoken English and Broken English – G B Shaw	15 hrs

References:

1. Baldick, Chris. The Oxford Dictionary of Literary Terms, OUP, 2001.
2. Bate, Jonathan. English Literature : A Very Short Introduction, OUP.
3. Benett, Andrew. An Introduction to Literature, Criticism and Theory Routledge
4. Eagleton, Terry. How to Read Literature. Yale University Press
5. Eagleton, Robert. Doing English; A guide for Literature Students, Routledge, 2000.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2. 3 PRINCIPLES OF GEOMORPHOLOGY Course Code: IBHI1DSC03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (History)	DSC-3 (Minor-2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- Define the Geomorphology and to explain the essential principles of it.
- outline the mechanism of dynamic nature of the Earth's surface and interior of the Earth.
- illustrate and explain the forces affecting the crust of the earth and its effect on it.
- understand the conceptual and dynamic aspects of landform development.
- understand the principles of geomorphology thoroughly and explain them.

Unit	Title: Principles of Geomorphology	60 hrs/ sem
Unit- I	Introduction to geography: physical and human geography. Introduction to Geomorphology: meaning, nature, development and scope. Principles of Geomorphology and Geological Time Scale. Distribution of continents and oceans.	15 hrs
Unit- II	Internal structure of the earth. Alfred Wegener's Continental Drift. Theory of Isostasy: Views of Pratt and Airy Convectional Current Theory and Concept of Sea floor Spreading. Theory of Plate Tectonics: plate boundary, subduction. Case Studies: Volcano, Earthquake: reporting of latest incidents.	15 hrs
Unit- III	Earth's Movements: Endogenetic and Exogenetic forces, Sudden and Diastrophic movements- Epeirogenetic and Orogenetic Movements- Process of folding and faulting. Vulcanicity and earthquake Rocks: Characteristics, types, importance and rock cycle. Weathering: meaning, types and controlling factors.	15 hrs

	Mass Movement: meaning, controlling factors, types-landslides and rock-falls.	
Unit- IV	Landforms: meaning, types and factors controlling landforms development Slope development: concept and types. Concept of Cycle of Erosion–W.M. Davis and W. Penck. Agents of Denudation: river; drainage patterns, groundwater, Sea waves, Wind and Glaciers and resultant landforms. Application of geomorphology: in India and Karnataka (Regional planning, Urban planning and transportation, Mining, Hazard management, Agriculture and Environmental management).	15 hrs

References:

1. Ahmed E. (1985) Geomorphology, Kalyani Publishers, New Delhi.
2. Bloom A.L. (1978) Geomorphology: A Systematic Analysis of Late Cenozoic Landforms Prentice – Hall of India, New Delhi.
3. P Mallappa, Physical Geography (Kannada Version)
4. Kolhapure and S S Nanjan, Physical Geography (Kannada Version)
5. Brunnsden D. (1985) Geomorphology in the Service of Man: The Future of Geography, Methuen, U.K.
6. Chorley, R.J., Schumm, S. A. and Sugden, D.E. 1984: Geomorphology, Methuen, London
7. Cooke, R.U. and Warren, 1973: Geomorphology in Deserts, Batsford, London

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

3. Ability Enhancement & Value-Added Courses- (AE&VAC)

Course Title: 3.1 LANGUAGE: ENGLISH 1- ART VISION							
Course Code: IBEN1AB01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (History)	AE&VAC-1	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- Acquire the knowledge of English prose and poetry
- Acquire the knowledge of parts of speech
- Appreciate the nuances of English poetry and prose
- Use proper articles, prepositions and forms of verbs
- Use appropriate tense forms in sentences
- Acquire basic language skills

Unit	Title: English 1- Art Vision	60 hrs/sem
Unit-I Prose	1. The Secret of Work – Swami Vivekanand 2. Salta Pro Nobis – John Galsworthy 3. The Umbrella - Guy de Maupassant 4. The Gold Watch – Mulk Raj Anand 5. Florence Nightingale – Abrar Mohsin	15 hrs
Unit -II Poetry	1. Kublakhian – S. T. Coleridge 2. In the Bazaars of Hyderabad – Sarojini Naidu 3. Paper Boat- Rabindranath Tagore 4. Sonnet 18 – William Shakespeare 5. Refugee Mother and Child – Chinua Achebe	15 hrs
Unit -III Grammar	1. Parts of Speech (With special emphasis on Verbs, Adverbs, adjectives and Prepositions) 2. Use of Articles in English 3. Cloze Test	15 hrs

Unit- IV	1. Tenses – (Special emphasis on Simple Present, Present Continuous and Simple Past Tense) 2. Reading Skills – Meaning, Types , Techniques 3. Synonyms and Antonyms	15hrs

References:

1. **Text Books: Art Vision: An Anthology of Poetry and Prose**, ed Board of Editors, Ravindra Publications, Hyderabad
2. R. P. Singh's *Functional Skills in Language and Literature*, OUP
3. Murphy, Raymond. *Intermediate English Grammar*. Cambridge Univ. Press.
4. Wren and Martin. *High School English Grammar and Composition*.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 A. ART EDUCATION (PERFORMING & VISUAL) AND CREATIVE EXPRESSIONS-1. PUPPETRY Course code: IBHI1AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (History)	AE&VAC-2	Theory	2	20	30	50

Puppetry:

Puppetry is an integrated art form, which takes into its fold everything from fine arts to performance. Puppetry is one of the oldest forms of performing art. Puppetry has evolved over the years into a sophisticated form of art. The journey was very interesting with a lot of ups and downs. There are thousands of forms of puppetry from simple finger puppets to highly complex puppets played by more than 3 people. Each country has a puppet form, why country, each area in a country has a puppet form. Hence, in India you will find many, many forms of puppetry. In puppetry there are two main aspects. One the designing and creating of puppets and the other playing or performing puppetry. These two skills are different. Designing will need a lot of thinking, visualization, and technical skills while performance will need high level communication skills. Hence, together they make a consolidated a high range of skills. In this course, students are exposed to different forms of puppets and puppetry. There will be a discussion around the forms and the aesthetic sense of puppetry. Later the students are encouraged to prepare, design and create puppets. They then prepare script and play the puppets. This creation of the puppets together in small groups with a lot of discussions and give and take helps the students develop working together skills and conceptual understanding.

Course Outcomes:

After completion of this course, student teachers will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of puppetry,
- design puppets,
- practice and create a short puppetry show.

UNIT – I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT – II

Designing Puppets (6 Sessions)

In this unit, students will learn about puppetry, its history and specifically about how puppets work. This unit will also discuss the imagination required to design puppets, visualize how puppets will be used and the technicalities of designing puppets. These will be learnt by designing puppets. Students will start with constructing finger puppets and move towards small shapes through papers, like Fish, birds, rat - then they will design masks, flat masks, and masks with dimensions. At the end they will design puppets with old newspaper. The puppets are designed with old newspapers and colour papers. They decorate it and design it in such a way that it can be played, performed. They prepare costumes and all other accessories.

UNIT – III

Performing the puppets (4 Sessions)

This unit will engage in performance of puppetry and the level of communication skills required to create a good engaging story and perform it with the help of puppets they have created. The performance will be expected to relate to some activity in the educational context. Students will perform the puppets they have designed. Initially each member will play their own puppets. Later they will play in pairs, later they will be formed into a small group and asked to prepare their own skits with the puppets. They conclude by performing in small groups. Their learning is consolidated and reflected.

Discussion is held on how different aspects of puppet making can be incorporated in class room processes of young children. Adapting the individual and group exercises done during the puppetry course will be discussed to be used in the classroom situation.

Pedagogy:

The Pedagogy is basically hand-on training. More emphasis is given to experiential learning. They do things and through doing learn about art and its connection to education. The process takes you through different

forms of art- fine arts, playing with colors, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms

Week wise break up of sessions			
Sl. no	Topics	Session flow	Remarks
	Aesthetics and art, art in everyday life.	Based on their experience	
	Importance of art. Appreciation of art.	Discussion	
	Art for art's sake. Art with social responsibility. art for social change	Debate	
	The world of puppetry. Different forms of puppetry.	Presentations	
	History of puppetry	Lecture	
	Preparation- finger puppets	Hands on	
	Preparation of masks	Hands on	
	Preparing puppets	Hands on	
	Performing individually	Practice	
	Performing in pairs	Practice	
	Performing in groups – 3, 4, 5.	Practice	
	Assignments	Written.	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test1	05
Internal Assessment Test2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 B. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 2. THEATRE Course code: IBHI1AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (History)	AE&VAC-2	Theory	2	20	30	50

Theatre:

Theatre is a collaborative art form, and it is inherently interdisciplinary in its nature. It comprises many facets and skills like acting, directing, writing, designing the sets and costumes, make-up, production, lights, sounds and music. All these elements and skill sets come together and are stitched in the form of a ‘play’ which is performed live, in front of an audience. In the Indian context, theatre has a deep-rooted history with its classical, folk, and other cultural forms until other contemporary forms of theatre evolved in recent times.

Theatre education for children can play a vital role in their individual, social, and emotional development. It teaches them the values of trust and interdependence, makes them confident to express themselves and helps them learn to work in a collaborative environment. It develops their ability to contextualize, critique and discuss certain questions and thoughts they encounter in everyday life. It further helps them imagine, explore, and create their own narratives.

In this course, we will briefly talk about the aesthetics of theatre and how theatre exists in different forms. The students will learn some basic theatre tools that will help them create and perform a narrative they collaboratively arrive at.

In simple terms one can say theatre has two major aspects i.e., creating the script and then performing it. Body is the primary instrument in any theatrical performance accompanied by text, material, visual and sound. This course will introduce students to these aspects of any theatre performance, in the form of direct experience by doing this themselves.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of theatre,
- learn basic theatre tools of improvisation, ideation, and creation of a script,
- create a short performance with educational possibilities.

UNIT - I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT - II

Introduction to Theatre, and Beginning with the body (3 Sessions)

We will discuss some core essentials in the aesthetics of theatre like the performance, the makers, the audience, and the context and how we relate this to the world around us, in everyday lives. In this unit, we will discuss examples of how theatre was used in social movements that have contributed to educating the larger population about important social issues. Additionally, we will also learn from practices and approaches of theatre groups like Budhan Theatre who work with denotified tribes, and Manalmagudi who work closely with physical nonverbal theatre. Exposing students to these approaches will lead to rich discussions on the role of theatre in pedagogy and practice.

In this unit, students will learn certain principles and awareness on how to use their body and voice in a given space and time, with respect to other bodies. There will be several games, exercises that will familiarise them with certain basics of movement, voice, acting and thereby create improvisations and images in a given context. The activities and tasks will be both in individuals and groups.

UNIT - III

Arriving at a script (3 Sessions)

We will engage in some theatre making processes to arrive at a script by the end of this unit. How to adapt or devise a script with actors? How can we borrow from everyday experiences of memory, sound and visuals, without a written text or spoken word? Plays, stories, poems, newspapers articles, will be shared to read, reflect, analyse, and re-create like “Why, why Girl” by Mahashweta Devi, “Ratna Pakshi” by K Ramaiah, “Beyond the land of Hattamala and Scandal in Fairyland” by Baadal Sircar, and songs of Kabir etc. The texts chosen will have a direct relation with topics from social studies, moral and political education.

Students will use their skills of improvisation they learned in Unit 2 to explore, ideate, create, and finally arrive at a script. What kind of stories, narratives, and characters they choose to perform will lead back to the discussion of aesthetics. Students will mostly work in groups to choose or create a text, concept, or an

idea which they want to perform. Students will be encouraged to use their perspectives on the education system, in converting the text into a script.

UNIT - IV

Performing the script

This unit will engage in the actual making of the final piece they choose to make. Students will have to visualise the final text on stage and start rehearsing in their groups. Apart from using their bodies to play characters, the students will also have to think about design and other aesthetic elements like sets, props, costumes, lights, music and sounds they want to use in the performance.

Students will have to practice beyond the six classes as the class time will be utilised to discuss and provide feedback as the work progresses. The last two classes in this unit will be utilised for the final rehearsals and assessments. The final performance will take place in front of a small audience followed by a brief post-performance discussion. Students will engage in discussing and reflecting on the views, questions and comments shared by the audience.

Pedagogy:

The pedagogy is basically hands-on training. More emphasis is given to experiential learning. They do things and through doing, they learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colours, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

Week wise break up of sessions		
Week	Topics	Session flow
1	UNIT - I: Aesthetics and art, art in everyday life. Importance of art. Appreciation of art	Based on their experience
2	Art for art's sake. Art with social responsibility. Art for social change	Discussion
3	UNIT -II: Aesthetics of Theatre	Discussion
4	Body work - Individual and group	Hands on
5	Body work – Improvisation	Hands on
6	UNIT - III: Adaptation of texts. Aesthetic choices.	Hands on, Discussion
7	Story making and devising	Hands on
8	Arriving at a text	Hands on
9	UNIT - IV: Visualizing the final piece. Thinking about design and aesthetic elements	Hands on, Discussion
10	Rehearsals and feedback	Hands on
11	Rehearsals and feedback	Hands on
12	Final rehearsals and assessment	
13	Final rehearsals and assessment	
14	Performance and audience discussion	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 C. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS - 3. COLLAGE-MAKING Course code: IBHI1AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (History)	AE&VAC-2	Theory	2	20	30	50

Collage:

Collage as visual art medium A major aspect of college, and one that is sometimes overlooked, is the incredibly diverse array of materials and objects that can be used. Collecting interesting materials is an ongoing activity for artists and for those who teach college. But it is just as important for young people to hunt for and make decisions about materials they would like to incorporate into their work. All materials, and the alterations that artists make to them, are suggestive of ideas and concepts based on their surfaces, forms, textures, degree of transparency and opacity, colour, and other visual characteristics. Materials also connect us, through association and reference, to social and cultural worlds and places. What ideas might a scrap of newspaper, as a collage material, express? How might these meanings differ from those of, say, feathers? Or twigs? Or a thin piece of plastic cut out from a plastic bag?

Working with and creating artwork in Collage involves various aspects: selecting materials, manipulating materials, investigating materiality, closely observing materials, discovering possibilities, composing, designing the artwork, planning, finding solutions, applying solutions, thinking flexibility, decision-making, research, using imagination, expressing, taking creative risks, develop perseverance, and much more. Students will also be introduced to various aspects of art in education: The value of art and artmaking by itself, art's use as an instrument in education, social and moral dimensions of art, and the controversial perceptions around good art and bad art.

This course aims for students to understand the importance of aesthetics and art in education, the role art can play in education, and mainly to appreciate, understand and gain skills with the medium of collage and its techniques.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance and the role of aesthetics and art in education.
- understand the medium of collage and its versatility.
- design, plan, and create an expressive self-portrait collage by applying a variety of collage techniques.
- design and set up an interactive visual art exhibition to display their artworks.

- understand and appreciate art-based learning experiences.
- develop the ability to reflect and challenge their assumptions and beliefs around art and develop new understandings.

UNIT – I

Understand the importance of Aesthetics and Art in Education (2 Sessions)

Students will be introduced to Aesthetics and Arts by engaging in experiences, discussions, and dialogues. Students will experience a session of ‘Visual thinking strategy’ (VTS) activity in which students will collectively view and engage in a series of artworks closely, share their observations, critically analyze their observations, listen to multiple perspectives from peers, suspend judgements, and draw their own understanding of the artwork. Students will recognize aesthetic and un-aesthetic experiences through compare and contrast. Through this activity and unpacking of the experience, students will start making connections and develop understandings around what aesthetics mean, aesthetic aspects of daily life, develop aesthetic judgment, and how arts evoke emotion and awaken.

UNIT – II

Exploring paper collage and its techniques (4 Sessions)

Students will be introduced to the medium of collage and open their minds to the possibilities within this medium. Students will view and discuss examples of collage artworks, artist process and artist interview videos. Students will get a chance to compare and contrast various ways collage as a medium is used. Students will reflect upon their own past art educational experiences and observations and engage in dialogue and discussions. Students will analyze effective and ineffective ways of using the medium of collage in educational and other settings.

Through inquiry-based participatory demonstrations, students will investigate and discover a variety of ways to manipulate paper and create individual and unique two-dimensional compositions in the medium of paper Collage. They will understand and learn the techniques, artistic terminologies of the collage medium. Students will reflect on their experience and engage in facilitated discussions to deepen their understanding on the role of art medium exploration and how it can foster various learning skills.

Students then use their knowledge and experience from the previous sessions and explore collage as a medium further. Students will investigate, discover, and learn to create visual textures, physical textures, and create their own unique patterns. They will understand the difference between textures and patterns. Students will use a variety of techniques to create unique textures and patterns, analyze their findings, give each other feedback, work in groups to problem solve, etc. They will understand how art medium explorations can be used as a pedagogical tool in learning environments. Students will bring in various materials found around

them like different kinds of paper, paper-based materials, natural materials, fabric, and explore these materials and use them as materials to create collage compositions.

Students will explore a wide range of techniques and discover their own ways to manipulate these found materials to create interesting textures and patterns. Students will work in groups, problem solve, investigate, develop solutions on their own, and share their findings with each other. Through discussions, students will reflect upon this exploration experience and understand how art making processes can develop skills and abilities in a learner.

UNIT - III

Ideating for an Expressive Self-Portrait (2 Sessions)

In this session students will further explore and discover possibilities in Collage as a medium. Students will learn a variety of ways to make paper stands and create interesting paper sculpture compositions using 3D techniques. Students will draw from their previous experiences of using paper for 2D explorations and add more interest to their unique 3D explorations. Students will share their findings with peers and widen their understanding about the possibilities.

Students will reflect on all the material exploration sessions thus far and participate in a facilitated dialogue around art making and education. Students will engage in a close observation sketching and drawing activity. Through a guided process, students will create a well observed self-portrait drawing. Students will engage in discussions and dialogue to unpack the self-portrait drawing experience, the learnings, discoveries, challenges and more. Through this activity students will also be able to challenge assumptions around talent and artmaking.

UNIT - IV

Creation of an Expressive Self-Portrait Collage (3 Sessions)

Students will engage in a step-by-step process involving sketching, ideating, planning, applying their discoveries of using paper as a collage material, and finally create a large expressive self-portrait using the medium of paper collage. Throughout the process students will problem-solve, critically think, push their imagination, find multiple solutions, make independent decisions, receive and give peer feedback, use resources effectively, draw from their own experiences, apply their learnings into creating this unique and expressive self-portrait piece.

UNIT - V

Designing and setting up an Exhibition (2 Sessions and Exhibition Day)

Students will collectively start designing and planning for the exhibition to put up their artworks for a general audience to view and engage with. Students will be planning the various aspects of a visual art exhibition: ways to display artworks, designing the layout of the exhibition space and how the audience will move within the space, design invitations, ways that the audience can engage with the artworks, various ways the artists can talk about their artmaking, and more. Students will divide the tasks among themselves, take on the various roles required, and set up the exhibition space.

Pedagogy:

- Students will engage in hands-on art making activities.
- Students will engage in discussions and dialogues with peers.
- Students will engage in giving and receiving peer feedback.
- Students will continually reflect on their learning through journaling.
- Students will work independently and collaboratively throughout the course.
- Students will receive reference materials and resources to broaden and deepen their understanding.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

References:

1. Works of Deborah Roberts, William Kentridge, Wangechi Mutu, etc
2. Marc, Cut paper collage artist - <https://www.youtube.com/watch?v=WgRZlWl-Oh0>
3. G. Subramanian: Collage art - <https://www.youtube.com/watch?v=ioRRi9R46a0>
4. Amber Fletschock, Collage artist - <https://www.youtube.com/watch?v=aa7p1vYqUc4>
5. Arturo Herrera, artist - https://www.youtube.com/watch?v=Oagx3_NZ5HU

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.4 UNDERSTANDING INDIA PART- I (INDIAN ETHOS AND KNOWLEDGE SYSTEMS) Course Code: IBHI1AB03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.A. B.Ed. (History)	AE&VAC-3	Theory	2	20	30	50

Course Outcomes:

After the completion of the course, it is expected that the students will be able to:

- recognize the vast corpus of knowledge traditions of India, while developing an appreciation for it,
- apply their acquired research and critical thinking skills to multidisciplinary themes, and-appreciate the diverse belief systems and knowledge traditions in India.
- discuss the formation and evolution of knowledge of India through multidisciplinary lens.

UNIT-1

Introduction to the Knowledge of India

- Definition & Scope; Relevance of this Knowledge.
- Need to revisit our Ancient Knowledge, Traditions, and Culture.

UNIT-II

Culture-Art and Literature

- Fine Arts (Traditional Art Forms, Contemporary Arts, Arts and Spirituality, Arts Identity, and Art and Globalization)
- Performing Arts (Indian Dance Systems, Traditional Indian Pieces of Music, Visual Arts, Folk Arts, etc.,)
- Literature (Sanskrit Literature, Religious Literature, Indian Poetry, Folk Literature, Indian Fiction, Sangam Literature, Kannada, Malayalam Literature, Bengali Literature, etc.

UNIT-III

Polity and Law

- A. Kingship & Types of Government (Oligarchies, Republics); Local Administration (Village Administration);
- B. Basis of Law: Dharma & its sources; Criminal Justice: Police, and Punishments; Lessons from Chanakya Niti; Lessons for modern-day India: Towards a Tradition-Driven Equitable and Just Polity and Law System.

UNIT-IV

Economy

- A. Overview of the Indian Economy from the Stone Age to the Guptas: The new culture of Urbanization (including Castes, Guilds, and other Economic Institutions; Harappan Civilization Economy; Growth of Agriculture and Proliferation of New Occupations: Growth of Writing);
- B. Internal & External Trade and Commerce, including Trade Routes, Indo-Roman Contacts, and Maritime Trade of South India; Temple Economy.
- C. Land Ownership - Land Grants & Property Rights, Land Revenue Systems.
- D. Understanding Arthashastra: Ideas & Criticism; Locating Relevance of Ancient Indian Economic Thought in Modern-Day Indian Economy.

UNIT-V

Environment & Health

- A. Understanding Equilibrium between Society & Environment: Society's Perceptions Natural Resources like Forests, Land, Water, and Animals.
- B. Sustainable Architecture & Urban Planning; Solving Today's Environmental Challenges (Best Practices from Indigenous Knowledge, Tribes and Community-Led Efforts, etc.).
- C. India's Health Tradition: Ayurveda, Siddha, Ashtavaidya, Unani, and other Schools of Thought; Lessons from Sushruta Samhita and Charaka Samhita:
- D. Mental health in Ancient India: Towards Time-Tested Concepts of Mental Wellness (Concept of Mind, Dhyana, Mind-Body Relationship, Ayurveda, Yoga Darshan, Atman, etc.)

Practicum:

The modes of curriculum transaction will include lectures, Tutorials, and Practicum.

- Practicum will include organization of day trips that help student teachers watch events relating to visual and performing art; activities that enable student teachers to identify and record through photos, videos, etc. the elements of ancient architecture still existing

in the city around them; organization of Individual and group presentations based on themes such as Polity, Law and Economy etc., organization of a 'Knowledge of India' day in the institution to celebrate the culture (food, clothes, etc.) that they would have been explored in lectures and tutorials; interactions with family members, elders, neighbors, and other members of society about the evolution of local systems and economy etc.

Mode of Transaction:

- Lectures will include learner-driven participatory sessions, and Guest lectures through experts and practitioners, such as fine arts and performing arts practitioners along with contemporary poets & writers of Indian literature.
- Tutorials will include Screening of documentaries and films followed by a discussion; Learner-driven discussions in the form of focus group discussions (FGDs), Socratic Discussions, etc.; Debate/discussion can be organized to explain India's Vaad tradition; discuss on how some of the ancient methods of teaching are relevant in today's time; discussions that help Identify ethical dilemmas in daily lives and understanding the importance of ancient ethics and values to resolve them.

Mode of Assessment:

The approaches to learning assessment will include:

- Supporting the curiosity and interest of student teachers in the selected themes through a multi-modal approach, including regular assessments and actionable feedback that enable learners to outline and interpret the processes and events of the formation & evolution of knowledge of India through a multidisciplinary lens.
- Enabling the student teachers to demonstrate critical analysis and independent thinking of the processes and events in the formulation & evolution of different traditions that help student teachers evaluate the diverse traditions of India to distinguish its achievements and limitations.
- Use of first-hand or second-hand experiences that enable student-teachers to develop and articulate an ethics-based education rooted in Indian thought to their students in the classroom context.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Altekar, A.S. (2009). Education in Ancient India. New Delhi: Gyan Publishing House.(Originally published in 1944 by Osmania University. Nand Kishore & Bros.
2. Dominik, W. (2001). The roots of ayurveda. Penguin Classics.
3. Mahadevan, B., Bhat, R.V. & Nagendra, P.R.N. (2021). Introduction to Indian knowledge system: Concepts and applications. PHI Learning Pvt. Ltd.
4. Nehru, J (1946).The Discovery of India. UK:Meridian Books. Reprinted (2008) by Penguin.
5. Sinha, A. (1998). Design of settlements in the vastu shastras. Journal of Cultural Geography, 17(2), 27-41.
6. Swami Suparnananda (2016). The Cultural Heritage of India (Vol. 2). The Rama Krishna Mission Institute of Culture.
7. Tachikawa, M. (1971). A sixth-century manual of Indian logic: A translation of the Nyayapravesa. Journal of Indian Philosophy, 1(2), 111-145.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
<i>Formative Assessment as per guidelines.</i>	

II Semester
ITEP B.A. B.Ed. History

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Discipline Specific Course- DSC						
1	DSC -1 (Major- 1)	History of India (From Guptas to 1206 A.D.)	4	40	60	100
2	DSC-2 (Major- 2)	History of India 1206 A.D. to 1526	4	40	60	100
3	DSC-3 (Minor-1)	English Literature-Part- 1 (From beginning to 1798)	4	40	60	100
4	DSC-4 (Minor-2)	Principles of Climatology	4	40	60	100
Ability Enhancement & Value-Added Courses- AE&VAC						
5	AE&VAC-1	Language-II /Kannada/Hindi	4	40	60	100
6	AE&VAC-2	Understanding India Part-II (Indian Ethos & Knowledge systems)	2	20	30	50
7	AE&VAC-3	Teacher And Society	2	20	30	50
Total Credits			24	240	360	600

II Semester
ITEP B.A. B.Ed. History

SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Discipline Specific Course- DSC	Major-1	IBHI2DSC01T	1.1 History of India (From Guptas to 1206 A.D.)
		Major-2	IBHI2DSC02T	1.2 History of India 1206 A.D. to 1526
		Minor-1	IBHI2DSC03T	1.3 English Literature-Part-1 (From beginning to 1798)
		Minor-2	IBHI2DSC04T	1.4 Principles of Climatology
2.	Ability Enhancement & Value-Added Courses-AE&VAC		IBHI2AB01T	2.1 Language-II /Kannada/Hindi
			IBHI2AB02T	2.2 Understanding India Part-II (Indian Ethos & Knowledge systems)
			IBHI2AB03T	2.3 Teacher and Society

1. Discipline Specific Course (DSC)

Course Title: 1.1 HISTORY OF INDIA (From Guptas to 1206 A.D.) Course Code: IBHI2DSC01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (History)	DSC-1 (Major- 1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- The rule of Gupta and Vardhana empires and the consolidation various dynasties in South India
- The development of science, technology, literature and architecture of our ancient past.
- Foreign invasions on Northern India and rise of early Philosophies and Sects.

Unit	Title: HISTORY OF INDIA (From Guptas to 1206 A.D.)	75 hrs/sem
Unit- I	Establishment of Empire & Kingdoms:	15Hrs
	• Reconstructing the History of Medieval India- Sources - Archaeological & Literary • The Gupta Empire- Brief Political History with special reference to Samudra Gupta- Golden Age of the Guptas-Growth of Literature, Science, Art & Architecture • Vardhana Dyansty-Early Rulers-Achievements of Harshavardhana, Their Contribution to Religion, Literature, Art and Architecture.	
Unit- II	Early Dynasties in Karnataka:	15 Hrs
	• The Kadambas- Political History- Mayuravarma- Literature, Art, Architecture, The Chalukyas of Badami – Early Rulers-Pulakesi II –Their Contribution to Art & Architecture, Education and Literature • The Rashtrakutas- Early Rulers – Dhruva, Govinda-III, Amoghavarsha-I, Krishna-III, • Cultural Contributions of the Rashtrakuta - Religion, Education, Literature, Art and Architecture	
Unit-III	Dynasties in South India:	15Hrs
	• The Sangama Age-Literature and Society • The Pallava Political History- Mahendravarma-I, Narasimhavarma-I • The Art & Architecture of the features, Literature Pallavas- Temples, Caves- Salient	

Unit-IV	Expansion of Political Supremacy in South India: • The Cholas- Political History- Government. Rajaraja-I, Rajendra-I, Local Self- • The Art & Architecture of the Cholas- Salient features, Growth of Literature • Religious Developments in South India: Shaivism, Vaishnavism, Jainism Buddhism	15Hrs
Unit-V	Invasion of Arabs and Indian Philosophy: • Arab conquest of Sindh: Causes and consequences of early Turkish invasions: Ghazni Mahmud and Ghorī Mohmud invasions • Indian Philosophy-Dvaita philosophies-Shankara, Madhva and Ramanuja, Basaveshvara, Akkamahadevi, Shivasharanas • Map Study: ➤ Mark the empire of Samudra Gupta and write a note on his Conquests ➤ Mark the empire of Pulakesi- II and write a short note about his Conquests	15Hrs

References:

1. Thapar Romila : *History of India Vol-I*. Penguin Books India Pvt. Ltd., New Delhi-2000.
2. Majumdar R.C.: *Ancient India*. Motilal Banarsidas Delhi, Reprinted:2017
3. Lunia B.N. : *Evolution of Indian Culture*. Lakshmi Narayan Agarwal, Agra. 1960.
4. Jha D. N.: *Ancient India- An Introductory*. Rawat Publishers, Jaipur.1977
5. Khurana K.L: *Ancient India*. Lakshmi Narayan Agarwal, Agra. 2011.
6. Das S.K.: *The Economic History of Ancient India*. Vohra Publishers, Allahabad. 2007.
7. Sharma R.S. : *Material Culture and Social formations in Ancient India*. Macmillan India Ltd. Delhi. 2007.
8. Sharma R.S.: *India's Ancient Past*. Oxford University Press. New Delhi. 31st Impression 2018.
9. Bashyam A.L.: *The Wonder that was India, Vol-I*. Picador Pan Macmillan, Publisher Ltd. London. 2004.
10. Nilkanta Sastri K.A.: *The Illustrated History of South India*. Oxford University Press , New Delhi.2009

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.2 HISTORY OF INDIA (1206 A.D. to 1526) Course Code: IBHI2DSC02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (History)	DSC-2 (Major- 2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- The administration and reforms of Delhi Sultanates and their Socio-Economic and Cultural Contributions.
- The Administration, Trade and Commerce and Cultural Contributions of Vijayanagar empire.
- The administration and cultural contributions of Bahamani and Adilshahis dynasties and also the life and social philosophy of Bhakti and Sufi Saints.

Unit	Title: History of India 1206 A.D. to 1526	75 hrs/sem
Unit- I	Interpreting the Delhi Sultanate: • Survey of sources: Archeological and Literary Sources. • Delhi Sultanate- Foundation, expansion and consolidation of the Sultanate of Delhi; The Slaves- Ku tub Din Aibak, Iltutmish, Iban, Raziya Sultan • The Khiljis: Alla- Ud Din Khilji- Conquests & Administration	15Hrs
Unit- II	• Tughluqs and Lodis • The Tughluqs -Muhammad Bin Tughluqs, Ferozshah Tughluq-Their Conquests and Administration. • The Lodis: Conquest of Bahlul and Sikandar; Ibrahim Lodi and the First battle of Panipat • Theories of Kingship; Nobles, Sufis, Ulema and the political authority	15Hrs

Unit-III	Society and Economy: • Administration of Delhi Sultanate Delhi • Economy, Trade and Commerce of the Delhi Sultanates. • Art and Architecture of Delhi Sultanate.	15Hrs
Unit-IV	Emergence of Provincial Dynasties • The Bahamanis- Early Rulers- their cultural Contributions, disintegration of Bahamani Kingdom • Mahmud Gawan and His Achievements • Adil Shahis of Bijapur-Early Sultans-Ibrahim-I, Ali Adil Shah-I- Ibrahim Adil Shah-II	15Hrs
Unit-V	The Vijayanagara Empire and Reform Movements. • Early Rulers- Devaraya-II, Krishnadevaraya and Achievements – Battle of Talikota and Decline. • Sufi Movement-Principles of Sufis, Khwaja Moinuddin Chisti and Hazarat Nizamuddin Auliya. Bhakti movement-Principles- Kabir, Nanak, Vallabhacharya, Chaitanya, Meera Bai Map Study: ➤ Mark the empire of Alla –Ud Din Khilji conquests and write a short note on it. ➤ Mark the empire of Krishnadevaraya and write a short note on it.	15Hrs

References:

1. Habib Irfan: Medieval India.(1200-1750) Oxford University Press. New Delhi. 1998.
2. Chandara Satish: Medieval India from Sultanate to Mughals. Har Anand Publications. Delhi, 2007.
3. Mehta J.L. : Advance study in the History of Medieval India. Vol- 1(1000-1526).Sterling Publishers Pvt Ltd. New Delhi.2009.
4. Khurana K.L: Medieval India. Lakshmi Narayan Agarwal, Agra. 2009.
5. Chandara Satish: History of Medieval India. Orient Black Swan Pvt.Ltd. Hyderabad, 2007.
6. Chandara Satish: Essays on Medieval Indian History, Oxford University Press. New Delhi. 2003.
7. Sharma L.P.: History of Medieval India 1000-1740. Konark Publishers Pvt.Ltd. Dehli.1996.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 ENGLISH LITERATURE- PART- 1 (FROM BEGINNING TO 1798) Course code: IBHI2DSC03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (History)	DSC-3 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

- At the end of the course students will be able to:
- Understand major trends and movements in English literature
- Comprehend the major works of representative writers from Chaucer to Dr Johnson
- Acquire Knowledge of English poetry, prose, novel and drama of prescribed ages
- Understand literary movements in English Literature
- Appreciate the contribution of English writers of prescribed period

Unit	Title: ENGLISH LITERATURE PART -1 (From beginning to 1798)	75 Hours / Sem
Unit - I	HISTORY OF ENGLISH LITERATURE (UP TO 1798)	15 Hrs.
	Age of Chaucer, Renaissance, Elizabethan Poetry, Elizabethan Drama, Metaphysical Poetry, Restoration Drama, 18th Century Prose, Development of Novel in 18th Century, Neo-classical and Transitional Poetry Key Terms: Renaissance, Reformation, Comedy of Humor, Puritanism, Comedy of manners, Neo-classicism, periodical essay, picaresque novel, gothic novel	
Unit - II	Major Writers, Works and Trends:	15 Hrs.
	Francis Bacon, Christopher Marlowe, Ben Jonson, John Milton, John Dryden, Alexander Pope, Dr. Samuel Johnson, Oliver Goldsmith, John Bunyan, Aphra Behn, Margaret Cavendish, Elizabeth Cary, Anne Finch, Amelia Lanyer, Fanny Burney, Fairy Queene, As You Like It, Jonson's Alchemist, Paradise	

	Lost, Absalom and Achitophel, Rape of the Lock, Pamela, Letters of Elizabeth Carte, Coverly Papers etc.	
Unit - III	Representative Texts:	15 Hrs.
	Poems • Amoretti III: The Sovereign Beauty – Edmund Spenser • To Celia – Ben Jonson • On His Blindness - John Milton • Sunne Rising - John Donne • The Pulley – George Herbert • My Luv is Like Red Red Rose Robert • Burns	
Unit - IV	Essays Of Revenge - Francis Bacon Man in Black – Oliver Goldsmith Preface to Shakespeare – Dr Samuel Johnson	15 Hrs.
Unit-V	Play: Midsummer Night’s Dream- William Shakespeare (Any edition)	15 hrs

Reference:

1. Andrew Sanders, English Literature, OUP, 2005
2. Edward Albert, History of English Literature, OUP, 2014
3. M. H. Abrams, A Glossary of Literary Terms, Cengage Publishers, New Delhi

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 1.4 PRINCIPLES OF CLIMATOLOGY Course Code: IBHI2DSC04T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (History)	DSC-4 (Minor-2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- To define the field of climatology and to understand the atmospheric composition and structure.
- To outline the mechanism and process of solar radiation transfer to earth surface and to explain the temperature distribution and variation according to time and space.
- To illustrate and explain the air pressure system, wind regulating forces and the formation of the Atmospheric Disturbance.
- To understand and compute the air humidity as well as to explain the process of Condensation and formation of precipitation and its types.
- To understand the principles of climatology and explain in detail

Unit	Title: PRINCIPLES OF CLIMATOLOGY	60 Hrs / Sem
Unit - I	Nature and Scope of Climatology, Atmospheric Sciences, Climatology and Meteorology. Origin and structure of the Atmosphere: Troposphere, Stratosphere, Mesosphere, Ionosphere, Exosphere and their characteristics. Composition of the atmosphere Weather and Climate	15 Hrs.
Unit - II	Insolation: Definition, Mechanism, Solar Constant. Factors affecting the Insolation: Angle of incidence, length of the day, Sunspots, Distance between the earth and the sun, effect of the atmosphere. Heating and cooling process of the atmosphere-Radiation, Conduction, convection and advection.	15 Hrs.

	Temperature: meaning and Influencing Factors on the Distribution of Temperature. Distribution of the temperature: Vertical, Horizontal, and Inversion of temperature. Global Energy Budget: Incoming shortwave solar radiation, Outgoing Longwave Terrestrial radiation, Albedo. Net Radiation and Latitudinal Heat Balances.	
Unit - III	Atmospheric Pressure: Influencing factors on atmospheric pressure. Vertical and Horizontal Distribution of the atmospheric pressure and Pressure Belts, Pressure Gradient. Tri-cellular-Hadley, Ferrel's and Polar Cells. Winds: influencing factors, Types - planetary, seasonal, local winds, Variable winds- Cyclones and anti-cyclones. Air-Masses and Fronts: Definition, Nature, Source Regions and Classification of Air Masses.	15 Hrs.
Unit - IV	Humidity: Sources, influencing factors and types-Absolute, Relative and Specific. Hydrological cycle: process of evaporation, condensation. Clouds and its types. Precipitation and its forms. Climate Change: Causes and consequences, recent issues-floods, drought and global warming.	15 Hrs.

Reference:

1. Lutgens, Frederic K. & Tarbuck, Edward J. (2010). The Atmosphere: An Introduction to
2. Meteorology. New Jersey: Pearson Prentice Hall.
3. Oliver, John E. & Hidore, John J. (2003). Climatology: An Atmospheric Science. Delhi:
4. Pearson Education.
5. Singh, S. (2005). Climatology. Allahabad: Prayag Pustak Bhawan.
6. Barry, R.G. and Chorley, R.J. (2003): Atmosphere, Weather and Climate; Psychology Press, Hove;
7. East Sussex.
8. Critchfield, H.J., (1975): general Climatology, Prentice Hall, New Jersey.
9. Lal, D. S. (1998). Climatology. Allahabad: Chaitanya Publishing House.
10. P Mallappa, Physical Geography (Kannada Version).

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

2. Ability Enhancement & Value-Added Course (AE&VAC)

Course Title: 2.1 LANGUAGE-II /KANNADA: BELAGU -1 Course code: IBHI2AB01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (History)	AE&VAC-1	Theory	4	40	60	100

Course Outcomes (COs):Attheend ofthecoursestudentswillbeableto:

- CO1: ರಾಷ್ಟ್ರೀಯತೆ ಎಂಬ ಪರಿಕಲ್ಪನೆಯ ಕುರಿತು ಸ್ಪಷ್ಟತೆ ಒದಗುತ್ತದೆ.
- CO2: ತಪ್ಪು ಭಾವಿಸುವ ಕ್ರಮದಿಂದ ಬಿಡುಗಡೆ
- CO3: ಸಾಹಿತ್ಯ ಸಮಕಾಲೀನ ಸ್ಪಂದನೆ ಎನ್ನುವುದು ತಿಳಿಯುತ್ತದೆ.
- CO4: ಕನ್ನಡತನ ಎನ್ನುವುದು ಕೇವಲ ಭಾವನಾತ್ಮಕತೆಯಲ್ಲ, ಅದು ಉಸಿರಿನಂಥ ವಾಸ್ತವ
- CO5: ಕರ್ನಾಟಕ ಏಕೀಕರಣ ಚಳುವಳಿಯ ತಿಳಿವು ಲಭಿಸುತ್ತದೆ
- CO6: ಭಾಷೆಗೂ-ವ್ಯಕ್ತಿಗೂ, ಭಾಷೆಗೂ-ಸಮುದಾಯಕ್ಕೂ ಇರುವ ಕರುಳು ಬಳ್ಳಿ ತಿಳಿಯುತ್ತದೆ
- CO7: ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ನಾಗರಿಕ ಪ್ರಜ್ಞೆ ಅರಳುತ್ತದೆ.

Unit	Title: ಬೆಳಗು ೧ (ಕನ್ನಡ AECC)	60hrs/sem
UnitI	ರಾಷ್ಟ್ರೀಯತೆ ೧. ಭಾರತದಲ್ಲಿ ರಾಷ್ಟ್ರೀಯವಾದ - ರವಿಂದ್ರನಾಥ ಠಾಗೋರ್ ೨. ಕನ್ನಡಕ್ಕೂ ಒಂದು ರಾಷ್ಟ್ರೀಯತೆ - ದೇವನೂರ ಮಹಾದೇವ ೩. ಅಮೃತತ್ವ - ತತ್ವದ ಹಂಬಲದಲ್ಲಿ - ಚ. ಹ. ರಘುನಾಥ ೪. ರಾಷ್ಟ್ರೀಯತೆಯ ಆಚರಣೆಯ ಸುತ್ತ - ರಾಮಲಿಂಗಪ್ಪ ಟಿ. ಬೇಗೂರ	15 hrs
UnitIII	ಸ್ವಾತಂತ್ರ್ಯದ ಪ್ರತಿಸ್ಪಂದನೆ ೧. ಗಾಂಧಿ (ಕವಿತೆ) - ಜಿ. ಎಸ್. ಶಿವರುದ್ರಪ್ಪ ೨. ಭಾರತಾಂಬೆಯ ರಥೋತ್ಸವ - ಡಿ. ಗೋವಿಂದ ದಾಸ ೩. ನಿರಾಶ್ರಿತ (ಕಥೆ)- ಎಚ್. ವಿ. ಸಾವಿತ್ರಮ್ಮ ೪. ಇಂದೇ ಸೀಮೋಲ್ಲಂಘನ - ಚೆನ್ನವೀರ ಕಣವಿ	15 hrs

UnitIII	ಕರ್ನಾಟಕರ ತಾತ್ವಿಕತೆ ೧. ಕನ್ನಡ ಡಿಂಡಿಮ ಕವಿತೆ ಮತ್ತು ಮುನ್ನುಡಿ - ಕುವೆಂಪು ೨. ನಾಡಿಗೂ ನುಡಿಗೂ ಸಂಬಂಧ - ದ. ರಾ. ಬೇಂದ್ರೆ ೩. ಜನಭಾಷೆ ಸ್ಥಿತಿ ಮತ್ತು ಗತಿ - ಚಂಪಾ ೪. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಎಂದರೇನು?- ರಹಮತ್ ತರೀಕೆರೆ	15 hrs
UnitIV	ಕರ್ನಾಟಕದ ಸೃಜನಶೀಲ ಸ್ಪಂದನೆ ೧. ಕಾವೇರಿಯಿಂದಮಾ ಗೋದಾವರಿ.....- ಶ್ರೀವಿಜಯ ೨. ಉದಯವಾಗಲಿ ನಮ್ಮ ಚೆಲುವ ಕನ್ನಡ ನಾಡು - ಹುಯಿಲಗೋಳ ನಾರಾಯಣ ೩. ಆಯ್ದ ವಚನಗಳು - ಜಯದೇವಿ ತಾಯಿ ಲಿಗಾಡೆ ೪. ನಿತ್ಯೋತ್ಸವ - ಕೆ. ಎಸ್. ನಿಸಾರ್ ಅಹಮದ್	15hrs

Recommended books:

1. ನಿತ್ಯೋತ್ಸವ - ನಿಸಾರ್ ಅಹಮದ್
2. ಗರಿ - ದ. ರಾ. ಬೇಂದ್ರೆ
3. ಕವಿರಾಜಮಾರ್ಗ - ಶ್ರೀವಿಜಯ
4. ಪಂಪಭಾರತ - ಪಂಪ
5. ವಚನ ಸಂಪುಟಗಳು - ವ.ಸಾ.ಪ, ವಿಜಯಪುರ
6. ಸಾಲು ದೀಪಗಳು - ಕನ್ನಡ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2.1 LANGUAGE-II /HINDI: KAVYA KAUMUDI AUR ANUVAD**Course Code: IBHI2AB01T**

Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (History)	AE&VAC-1	Theory	4	40	60	100

Course Outcomes (COs):At the end of the course students will be able to:

CO1: कविता में रुचि उत्पन्न करना

CO2: गति, लय, भावयुक्त वाचन की योग्यता उत्पन्न करना

CO3: कल्पना शक्ति को उत्पन्न करना

CO4: सौंदर्यानुभूति की क्षमता उत्पन्न करना

CO5: रस, छंद, अलंकार का ज्ञान कराना

CO6: विविध भावों से युक्त कविता को समीक्षात्मक अध्ययन के लिए प्रोत्साहित करना

CO7: छात्रों में अनुवाद कौशल का विकास होता है ।

CO8: अनुवाद कला द्वारा बेरोजगारी की समस्या से मुक्त हो सकते हैं ।

Unit	Title: KAVYA KAUMUDI AUR ANUVAD काव्य कौमुदी और अनुवाद	60hrs/ sem
Unit I	हिंदी काव्य का सामान्य परिचय	15hrs
Unit II	काव्य कौमुदी-सं. डॉ.एन.शाजी, डॉ. शीबा एम.आर, डॉ. मंजू ए. (राजपल एण्ड सन्स, दिल्ली) 1. किरण – जयशंकर प्रसाद 2. वह तोड़ती पत्थर – सूर्यकामत त्रीपाठी 'निराला' 3. मधुशाला – हरिवंशराय बच्चन 4. एकलव्य – कीर्ति चौधरी 5. मरने से नहीं डरता – चंद्रकांत देवताळे	15hrs

Unit III	6. मुक्ति – अरुण कमल 7. बेजगह – अनामिका 8. नालंदा के खंडहर – निर्मला गर्ग	1 hrs
Unit IV	अनुवाद कला कन्नड या अंग्रेजी से हिंदी में अनुवाद	15hrs

Recommended books:

1. काव्य कौमुदी-सं. डॉ.एन.शाजी, डॉ. शीवा एम.आर, डॉ. मंजू ए. राजपाल एण्ड सन्स, दिल्ली
2. हिंदी कविता – सं. कण्णूर विश्वविद्यालय, राधाकृष्ण प्रकाशन, जी-17, जगतपुरी, दिल्ली
3. नई कविता के प्रतिमान – लक्ष्मीकांत वर्मा, भारती प्रकाशन, इलाहाबाद
4. नई रचना और रचनाकार – डॉ. दयानंद शर्मा, अन्नपूर्णा प्रकाशन, कानपुर
5. नई कविता के सात अध्याय – डॉ. देवेश ठाकूर, संकल्प प्रकाशन, मुंबई
6. प्रयोजनमूलक हिंदी-डा-नरेश मिश्र, राजपाल एण्ड सन्स नई दिल्ली ।
7. प्रयोजनमूलक हिंदी-डा-बशीरुद्दीन मदरी, गीता प्रकाशन हैदराबाद
8. सरकारी कार्यालयों में हिंदी का प्रयोग-गोपिनाथ श्रीवास्तव, लोकभारती प्रकाशन।
9. प्रयोजनमूलक हिंदी- राष्ट्रभाषा प्रचार समिति, वर्धा।

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2.2 UNDERSTANDING INDIA PART- II (INDIAN ETHOS AND KNOWLEDGE SYSTEMS)							
Course Code: IBHI2AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (History)	AE&VAC-2	Theory	2	20	30	50

Course Outcomes:

After the completion of the course, it is expected that the students will be able to:

- recognize the vast corpus of knowledge traditions of India, while developing an appreciation for it,
- apply their acquired research and critical thinking skills in multidisciplinary themes,
- summarize and pass on their learnings to their students of different Indian traditions in an easily digestible manner.

UNIT-I

Introduction of Knowledge of India

- Recap of the previous semester's definition and introduction.
- Recap of previous knowledge.

UNIT-II

Philosophy, Ethics & Values: Schools of Philosophy

- Vaishesika, Nyaya, Samkhya, Yoga, Purva Mimansa and Vedanta or Uttara Mimansa (theory and the major thinkers) – and Jain, Buddhist, and Charvak traditions.
- Vedanta: philosophical systems (Advaita, Vishishtadvaita, Dvaita).
- Ethics, morality, and social dilemma (including self-leadership) and their relevance in today's time.
- How do Indians value spirituality? Spirituality and Social Responsibility; Importance of Spirituality in current times.
- Using ethics in a technologically volatile world: leading an ethical and modern life.
- Practical Vedanta for well-being (mindfulness, inter-connectedness, society-self relationship, etc.).

UNIT-III

Culture- Lifestyle

- A. Food (regional cuisines, ayurvedic diet, food and festival, vegetarianism, Jainism in food, food and hospitality, and globalization).
- B. Clothes (traditional Indian clothing, textile arts, religious costumes, clothing status, clothing, gender, globalization in clothing).
- C. Sports (traditional Indian sports, martial arts, sports, and gender, sports & globalization).
- D. The lifestyle of Yoga; adapting ancient lifestyle – A path towards longevity.

UNIT-IV

Science & Technology

- A. Arithmetic and logic.
- B. Natural sciences: math, physics, metallurgy, and chemistry.
- C. Astronomy: India's contributions to the world.
- D. Indian notions of time and space.
- E. Technology in the economy: agriculture, transportation, etc.

UNIT-V

Linguistic Traditions

- A. History of linguistics in India (conceptualizing ancient Indian linguistics, oral traditions, etc.).
- B. Language as Culture: Evolution of Languages over the years & language as building blocks to different cultures and society
- C. Language: Identity, culture, and History.

Practicum:

The modes of curriculum transaction will include lectures, Tutorials, and Practicum.

- Practicum will include organization of day trips that help student teachers watch events relating to visual and performing art; activities that enable student teachers to identify and record through photos, videos, etc. the elements of ancient architecture still existing in the city around them; organization of Individual and group presentations based on themes such as Polity, Law and Economy etc., organization of a 'Knowledge of India 'day in the institution to celebrate the culture (food, clothes, etc.) that they would have been explored in lectures and tutorials;

interactions with family members, elders, neighbors, and other members of society about the evolution of local systems and economy etc

Mode of Transaction:

Lectures will include learner-driven participatory sessions, and Guest lectures through experts and practitioners, such as fine arts and performing arts practitioners along with contemporary poets & writers of Indian literature.

Tutorials will include Screening of documentaries and films followed by a discussion; Learner-driven discussions in the form of focus group discussions (FGDs), Socratic Discussions, etc.; Debate/discussion can be organized to explain India's Vaad tradition; discuss on how some of the ancient methods of teaching are relevant in today's time; discussions that help Identify ethical dilemmas in daily lives and understanding the importance of ancient ethics and values to resolve them.

Mode of Assessment:

The approaches to learning assessment will include:

- Supporting the curiosity and interest of student teachers in the selected themes through a multi-modal approach, including regular assessments and actionable feedback that enable learners to outline and interpret the processes and events of the formation & evolution of knowledge of India through a multidisciplinary lens.
- Enabling the student teachers to demonstrate critical analysis and independent thinking of the processes and events in the formulation & evolution of different traditions that help student teachers evaluate the diverse traditions of India to distinguish its achievements and limitations.
- Use of first-hand or second-hand experiences that enable student-teachers to develop and articulate an ethics-based education rooted in Indian thought to their students in the classroom context.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Board, Karnatak University, Dharwad. from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Balasubramanian, R. (2000). Introduction. In Chattopadhyana, D. P. (Ed.), History of science, philosophy and culture in Indian civilization. Advaita Vedanta. [Vol. 2 (II)]. Centre for Studies in Civilizations.
2. Bhattacharya, R. (2002). Carvaka fragments: A new collection. Journal of Indian Philosophy, 30, 597-640.
3. Dharampal (2021). Indian science and technology in the eighteenth century: Some contemporary European accounts. Rashtrottaana Sahitya.
4. Sharma, S. (2023). Significance of ancient Indian sciences in contemporary education.
5. Subbarayapa, B. V. (1982). Glimpses of science and technology in ancient and mediaeval India. Endeavour, 6(4), 177-182. [https://doi.org/10.1016/0160-9327\(82\)90073-4](https://doi.org/10.1016/0160-9327(82)90073-4)

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
<i>Formative Assessment as per guidelines.</i>	

Course Title: TEACHER AND SOCIETY Course Code: IBHI2AB03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.A. B.Ed. (History)	AE&VAC-3	Theory	2	20	30	50

Course Outcomes:

After completion of the course, it is expected that the student teachers will be able to:

- examine the relationship between teacher beliefs, values, character, social and cultural context, and teaching critically.
- conceptualize teacher agency, its individual, contextual, and structural dimensions, and how it gets impacted and in turn shapes education.
- explain the teacher's roles and characteristics; the personal and professional self, the reflective practitioner, and their significant role in shaping self, school, and society,
- differentiate between the narrow curricular aims of education and the broader educational aims and their role in shaping self, school and society,
- demonstrate an ability to develop positive classrooms through engaging in the ethic of care,
- demonstrate an ability to critically reflect on personal and collective practice so as to improve learning and teaching,
- conceptualize teacher agency, its individual, contextual, and structural dimensions and how it gets impacted and in turn shapes education.

UNIT-I

Understanding the Teacher: Exploring the Personal and Professional Teacher

- Exploring the wider Personal and General Social Context of Teacher: Life History, Teacher Beliefs, Values and Aspirations, Diverse Identities, Social Contexts and Commitment to Learning and Education.
- Exploring the Professional Teacher: Qualifications, Education in teaching, Attitude, Aptitude, Experience and Exposure.
- The Charismatic Teacher, the Communicator Teacher, The Missionary Teacher, The Competent Practitioner, The Reflective Practitioner, The Learning Teacher.

- D. Reflexive Practice: Nurturing the Professional Capital through collaborative and/or collective engagement with self, others, the social context.

UNIT-II

Nurturing the Teacher: A Dialogue Beyond the Curricular Goals, for Life and Posterity

- A. Teaching: One profession, many roles
- B. Teaching Character: Nurturing Teachers for Human Flourishing.
- C. Holistic Teacher Development: Nurturing the Panchakoshas.
- D. Teacher Values, Beliefs, and current Philosophy of Teaching: A Reflective Dialogue.
- E. Developing an Ethic of Care in Teacher Education: Nurturing Teachers towards a pedagogy of care.

UNIT-III

Understanding and Fostering Teacher Agency: Role in shaping Education Systems of Tomorrow

- A. Teacher Agency: What is it and why does it matter?
- B. Individual, Cultural and Structural Dimensions of Teacher Agency.
- C. Teacher discourses, Philosophy, Relationships, Networks and Professional Development: Shaping teacher agency and Creative insubordination.
- D. Challenges and Issues in fostering Teacher Agency: Performativity, Non-academic engagements, Systemic apathy, Policy and Practice gaps and others.
- E. Role of Teacher in shaping the educational policy, practice, and reforms

UNIT - IV

Teacher as an Architect of the New India: Shaping the Society of Tomorrow

- A. Engaging in Critical Education: Dialogues on power relations associated with Gender, Ethnicity, Culture, Disability, Class, Poverty, the reproduction of disadvantage and realizing the true human potential.
- B. Being a Critical Teacher: Raising debates around rapid technological advancement and impact on individual, family and social life; the growing isolation and impact on mental and social health and well-being, changing relationships between the 'state' and the 'market' and their impact on formal education; the conceptualization of teacher, teaching and teacher roles, 'globalization' and the reconstructed nationalism shaping the socio-political milieu and impact on social psyche, growing

materialistic urge, sensory drives and the gradual deterioration of the individual and societal character.

Practicum:

- Take up a case study of any one teacher education Institution.
- Write a biography of any one of your favorite teachers/ Educationists.

Mode of Transaction:

Teacher and Society is a reflection-based course that invites teachers to re-think teachers and teaching. It awakens and inspires teachers to realize broader educational aims through an action and reflection cycle. The approach therefore would include a blend of lectures, in-class seminars, thinking exercises, critical reflections, group work, case-based approaches, and enquiry-based learning.

- Learners would also be exposed to case studies featuring teachers from a representative cross-section of Schools in India and critically analyse their exercise of agentic force in school improvement and the improvement of teaching practice.
- Situating themselves in the geo-political context, the learners will get to critically engage in some of the policy dialogues.
- Learners would reflect on their practice as pre-service interns, knowledge, skills, and understandings-and identify opportunities to apply course learnings to their school context.

Mode of Assessment:

The entire syllabus is based on practical exercises. Being a very thought-provoking course, the assessment would largely include critical thinking kind of assignments. The following are some exemplars.

- Write your current teaching philosophy based on your beliefs and values.
- Choose any one area of immediate societal concern like environmental degradation, increasing crime against women, cybercrimes, bullying or any other and draw an action plan that you as a teacher would undertake to mobilize self, school and society towards betterment.
- Critical Reflections on popular debates around power relations associated with Gender, Ethnicity, Culture, Disability, Class. Poverty, and others

These are just prototypes and institutes may choose either of these or think of other innovative assignments that would inculcate in future teachers a sense of belonging to society.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Board, Karnatak University, Dharwad. from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Ashton, K. (2021). Novice teacher agency in the multi-level language classroom. *Language, Culture and Curriculum*, 34(3), 242-256.
2. Axline, M.A. (2018). *Dibs: In Search of Self*. Lexington, Massachusetts: Plunkett Lake Press
3. practices and professional development in teaching. Shipra Publication.
4. Kumar, S. (2023, January). Reconceptualizing teacher education from an emancipatory perspective. *Journal of Educational Planning and Administration*. 37(1), 31-45.
5. Lasky, S. (2005). A sociocultural approach to understanding teacher identity, agency and professional vulnerability in a context of secondary school reform. *Teaching and Teacher Education*, 21(8), 899-916.
6. Motta, S. C., & Bennett, A. (2018). Pedagogies of care, care-full epistemological practice and 'other' caring subjectivities in enabling education. *Teaching in Higher Education*, 23(5), 631-646. <https://doi.org/10.1080/13562517.2018.1465911>

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
<i>Formative Assessment as per guidelines.</i>	

III SEMESTER
ITEP BA. B.Ed History

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Child development & Educational Psychology	4	40	60	100
Discipline Specific Course- DSC						
2.	DSC- 1 (Major-1)	History of India 1526 A. D. to 1757	4	40	60	100
3	DSC-2 (Major-2)	History of India 1757 A.D. to 1857 A.D.	4	40	60	100
4	DSC- 3 (Minor-1)	English Literature –Part 2 (From 1798 to Modern Age)	4	40	60	100
5	DSC-4 (Minor-2)	Human Geography	4	40	60	100
Stage Specific Content Cum Pedagogy- SSCCP						
6	SSCCP-1	Pedagogy of Social Science-I	2	20	30	50
7	SSCCP-2	Pedagogy of English-I	2	20	30	50
Total Credits			24	240	360	600

III SEMESTER
ITEP BA. B.Ed History
SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education- FCE			1.1 Child development & Educational Psychology
2	Discipline Specific Course- DSC	Major-1		2.1 History of India 1526 A. D. to 1757
		Major-2		2.2 History of India 1757 A.D. to 1857 A.D.
		Minor-1		2.3 English Literature –Part 2 (From 1798 to Modern Age)
		Minor-2		2.4 Human Geography
3.	Stage Specific Content Cum Pedagogy- SSCCP			3.1 Pedagogy of Social Science-I
				3.2 Pedagogy of English-I

1. Foundation Course of Education- (FCE)

Course Title: 1.1 CHILD DEVELOPMENT & EDUCATIONAL PSYCHOLOGY							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	BA. B.Ed (History)	FCE-1	Theory	4	40	60	100

Course Outcomes:

After completion of this course, student teachers will be able to:

- describe the meaning, concept, characteristics, and factors affecting growth and development,
- use the knowledge of Indian concept of self,
- apply various problem solving and learning strategies in real classroom settings,
- identify the various approaches of the process of learning,
- explain group dynamics and apply strategies to facilitate group learning.

UNIT - I

Child Development

A. Meaning and significance of understanding the process of Child Development

- Biological, cognitive, socio-emotional, and moral.

B. Developmental characteristics of a child during:

- Infancy stage
- Early Childhood stage
- Middle to Late Childhood stage
- Adolescence stage

C. The Indian concept of self: Mind (मनस्), Intellect (बुद्धि), Memory (स्मृति). Panch-koshIya Vikas (पञ्चकोशीय विकास).

D. Educational Implications.

UNIT - II

Developmental Process

A. Development across domains:

- Physical Development
- Cognitive Development
- Language Development
- Socio-Emotional Development
- Aesthetic Development
- Moral Development

During each of the above-mentioned developmental stages of a child.

B. Factors affecting development.

C. Individual differences:

- Children with special needs including developmental disorders.
- Tools and Techniques for Identifying Learner with different abilities.

D. Teachers' role and strategies to address the needs of learners with different learning abilities.

UNIT - III

Process of Learning

A. Conceptual Clarity and significance.

B. Approaches:

- Behaviorist
- Cognitivist
- Constructivist
- Developmental
- Information processing Model of learning
- Shri Aurobindo's Integral approach

C. Problem Solving and Learning Strategies: Inquiry and problem-based learning, Steps and Strategies in problem solving, Factors hindering problem solving.

D. How to Learn: Significance and Strategies

UNIT - IV

Motivation and Classroom Management

A. Motivation

- Conceptual clarity, nature, and significance
- Intrinsic and Extrinsic Motivation
- Strategies for Motivation

B. Classroom management

- Creating a positive learning environment
- Planning space for learning
- Managing behavioral problems

C. Group dynamics:

- Classroom as a social group
- Characteristics of group
- Understanding group interaction-sociometry
- Strategies to facilitate group learning.

Practicum:

1. Spending day with a child and preparing a report based on our observations of children for:
 - A day from different economic status (low and affluent)
 - Focus on various factors: Physical, emotional, social, language, cultural and religious influencing the child on daily basis.
2. Observing children to understand the styles of children learning process.
3. Identifying the Learning Difficulties of Students in Different learning areas and the Possible Reason for them- Case Study Report.
4. Preparing Personalized Intervention plan for Students with Learning Difficulties.
5. Plan to use advanced technology to encourage talented / gifted children.
6. Encouraging gifted / talented students beyond the general school curriculum.
7. Familiarization and Reporting of Individual Psychological Tests.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. Bates. B. (2019). Learning Theories Simplified. Sage Publications Ltd.
2. Berk. L. E. (2011). Child Development. (8th ed.). New Delhi: Pearson Prentice Hall.
Cornelissen. M. & Misra, G.(2013). Foundations and Applications of Indian Psychology. Pearson Education
3. Dehaene, S.(2021). How We Learn: The New Science of Education and The Brain, Penguin Publication

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

2. Discipline Specific Course- (DSC)

Course Title: 2.1 HISTORY OF INDIA 1526 A. D. to 1757 Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	BA. B.Ed (History)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- The Mughal empire and their administration, extension policies and cultural contributions
- The Maratha Empire and their Administration and contribution.
- The changes and continuities in the field of culture, especially with regard to art, architecture.

Unit	Title: HISTORY OF INDIA 1526 A. D. to 1757	75 hrs/sem
Unit- I	Establishment of Mughal Rule in India • Reconstruction of Mughal History : Archaeological and Literary Sources • Foundation of the Mughal Empire in India-Babur and Humayun. • Shershah – His Conquests and administration.	15hrs
Unit- II	Consolidation of Mughal Empire • Akbar-His Conquests- Internal Policy-Relationship with Rajputs, Religious Policy • Jahangir and administration and Shahajahan – Their Achievements. • Aurangzeb-His Conquests- internal policy, Religious Policy and Deccan Policy	15 hrs
Unit-III	Mughal Administration and Art • Mughal Administration • Mughal Trade, Commerce and Industry	15hrs

	• Art and Architecture of the Mughals	
Unit-IV	Maratha Regime under Shivaji • Shivaji and His Conquests • Administration of Shivaji • Successors of Shivaji	15hrs
Unit-V	Map Study: ➤ Mark the places conquered by Akbar & write a short note on it ➤ Mark the places conquered by Shivaji & write a short note on it	15 hrs

References:

1. Habib Irfan: Medieval India.(1200-1750) Oxford University Press. New Delhi. 1998.
2. Chandara Satish: Medieval India from Sultanate to Mughals. Har Anand Publications. Delhi, 2007.
3. Mehta J.L.: Advance study in the History of Medieval India. Vol- 2 MughalEmpire (1526-1707).
Sterling Publishers Pvt. Ltd. New Delhi.2009.
4. Athar Ali M.: The Mughal Nobility under Aurangzeb. People's Publishing House, Delhi.1992
5. Chandara Satish: History of Medieval India. Orient Black Swan Pvt.Ltd. Hyderabad, 2007.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 HISTORY OF INDIA 1757 A.D. to 1857 A.D Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	BA. B.Ed (History)	DSC-2 (Major-2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- The expansion of British rule and their administrative and extension policies.
- It deals also with the early resistance and revolts of Indians and domestic and foreign policies of British.
- They came know British Impact on India Economy.

Unit	Title: HISTORY OF INDIA 1757 A.D. to 1857 A.D.	75 hrs/ sem
Unit- I	Advent of Europeans in India • European Settlements-Portuguese, Dutch, French- Establishment of the East India Company and Expansion of Company in India • The Anglo-French Struggle (Carnatic Wars) in South India • The British occupation of Bengal –Battles of Plassey and Buxa Dual Govt System in Bengal.	15 hrs
Unit- II	Expansion of British Empire • Warren Hastings- His Domestic and Foreign policy • Lord Cornwallis – His Reforms • Lord Wellesley-Subsidiary Alliance.	15 hrs
Unit-III	The Consolidation of British Power. • Marquess of Hastings: His Domestic and Foreign Policy • William Bentinck and his Reforms. • Lord Dalhousie and His Policy of Annexation	15hrs

Unit-IV	The Great Revolt of 1857 • Revolts against the British before 1857 • The Great Revolt of 1857: Nature, causes, and effects • British Impact on India Economy	15hrs
Unit-V	Map Study: ➤ Mark the Places of the Great Revolt of 1857 and write a note on them ➤ Mark the Places of Historical importance and write a note on them: 1.Calicut 2. Surat 3.Pondichery 4. Plassey 5. Buxar 6. Calcutta 7. Arcot 8. Agra 9. Wandivash 10. Benares 11. Lucknow 12. Srirangapattana 13.Bessin 14. Salbhai 15. Lahore 16. Madras 17. Bombay 18. Thane 19.Trichonopoly 20. Allahabad	15hrs

References:

1. R.C. Majumdar: Advanced History of India
2. V.D. Mahajan: History of Modern India
3. Raychaudari: Social, Cultural and Economic History of India Modern Times
4. Bipin Chandra: Nationalism and Colonialism in India
5. Percival Spear: Oxford History of Modern India (1740-1975)
6. A.R. Desai: Social Background of Indian Nationalism
7. Hassan Imam: Indian National Movement
8. Mishra: The Uniform and Division of India

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.3 ENGLISH LITERATURE PART -2 (FROM 1798 TO MODERN AGE) Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	BA. B.Ed (History)	DSC-3 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- Understand major trends and movements in English literature from 19th century to Modern Age
- Understand the major works of representative writers from Wordsworth to T S Eliot
- Acquire Knowledge of English poetry, prose, novel and drama of prescribed ages
- Acquaint themselves with the literary movements in English Literature
- Appreciate the contribution of English writers of prescribed period

Unit	Title: ENGLISH LITERATURE PART- 2 (From 1798 to Modern Age)	75 hrs/ sem
Unit- I	Background to Literature: Romantic Period –Poetry and Prose, Victorian Age- Poetry, Pre-Raphaelite Poetry, Oxford Movement, Victorian Novel, 19th century Prose, Modern Age: Major trends in Modern Poetry, Modern Novel, Modern Drama, Modern Prose. Key concepts: Modernism, Marxism, Stream of Consciousness, Poetic Drama, Irish Theatre Movement,	15hrs
Unit- II	Major Writers and Works S T Coleridge, P B Shelley, Jane Austen, Charles Lamb, William Hazlitt, Walter Scott, Alfred Tennyson, Matthew Arnold, John Ruskin, Thomas Carlyle, Bronte Sisters, Thomas Hardy, George Eliot, Charles Dickens, T. S. Eliot, W.B. Yeats, G. B. Shaw, Virginia Woolf, D. H. Lawrence, H G Wells, Somerset Maugham, John Galsworthy, E M Forster, George Orwell, W H Auden. Hard Times, The Return of the Native, Unto This Last, The Murder in the Cathedral, Arms and the Man, Culture and Anarchy, Animal Farm, The Waste Land, Sons and	15 hrs

	Lovers,	
Unit-III	Tintern Abbey – William Wordsworth Ozymandias – P B Shelley My Last Duchess – Robert Browning John Keats: Ode on Grecian Urn Matthew Arnold: Dover Beach W B Yeats: Easter 1916	15 hrs
Unit-IV	Novel: The Heart of Darkness – Joseph Conrad	15 hrs
Unit-V	Play: Justice: John Galsworthy	15hrs

References:

1. Andrew Sanders, English Literature, OUP, 2005
2. Edward Albert, History of English Literature, OUP, 2014
3. M. H. Abrams, A Glossary of Literary Terms, Cengage Publishers, New Delhi

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.4 HUMAN GEOGRAPHY Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	BA. B.Ed (History)	DSC-4 (Minor-2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- To learn how human and physical components of the world interact.
- To familiarized with economic processes such as globalization, trade and their impacts on economic, cultural and social activities.
- To describe what geography and human geography are. To understand population dynamics and migration.
- To establish the population resource relationships and regional resource development.

Unit	Title: HUMAN GEOGRAPHY	75 hrs/ sem
Unit- I	Nature, scope and growth of human geography, Branches in human geography. Approaches to man-environment relationship: Environmental Determinism and Possibilism, Neo-determinism (stop and go determinism). Approaches to study human geography: Descriptive approach Regional approach, Areal Differentiation approach and spatial organization approach. Quantitative revolution and Locational Analysis. Welfare or Humanistic approach, Radical approach, Behavioural approach. Regional Synthesis.	15hrs
Unit- II	Concept of Culture, Material and Non-material culture Cultural Regions, cultural Traits and Complexes, cultural Hearths. Major cultural realms of the world. Race: Characteristics and classification. Broad racial groups of the world and their distribution. Linguistic and ethnic diversity. Major Religions and their Distribution: Hinduism, Christianity, Islam and Buddhism. Assignment: Students will have to select nearby area and study religions and their	15 hrs

	characteristics and submit the report.	
Unit-III	Primary Economic Activities. Agriculture: Primitive Subsistence, Intensive subsistence, Plantation Agriculture, Extensive Commercial grain cultivation, Mixed Farming, Dairy Farming. Forestry, fishing and mining. Secondary Activities: Manufacturing – Cotton Textile and Iron & Steel. Concept of Manufacturing Region. Industrial Regions of the world. New Industrial Policy. Tertiary Activities: Trade and commerce, Retail Trading services, wholesale trading. Trade balance and trade policy. Major tribes, tribal areas and their problems.	15 hrs
Unit-IV	Population: Resource Relationships and regional resource development. Transport and communications: Factors, Types and Distribution of Roads, Railway, airway and waterways. Services: Formal and Informal sector. Information technology. Urban Settlements: Origin and evolution, hierarchy, trends and patterns of urban settlements. Urban morphology. Concept of Primate City and rank size rule. Functional classification of towns, Rural-urban fringe. Problems and remedies of urbanization. Central Place theory Rural Settlements – types, patterns and factors influencing on distribution. Field Study: Students have to study human resource development in local area and prepare a report	15 hrs

References:

1. Dickens and Pitts (1963) Introduction to Human Geography,
2. Harm D. Blij (1992) Human and Economic Geography, Macmillan Publishing Company, New York
3. Hussain M (2003) Human Geography, Rawat Publications, Jaipur
4. Nellson, Gabler Vining (1995) Human Geography, People, Cultures and Landscapes
5. Ranganath (2002) Principles of Human Geography (Kannada Version) Dayanidhi,

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

3. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 3.1 PEDAGOGY OF SOCIAL SCIENCE-I Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	BA. B.Ed (History)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- define and discuss the concept and nature of Social Science,
- analyze critically the policies with reference to pedagogic, inclusive, and ethical issues,
- utilize innovative pedagogical skills to engage and foster critical thinking among students.

UNIT – I: Understanding the Concept of Social Sciences

- A. Concept, nature and scope of Social Science
- B. Perspectives of Social Sciences in daily life and the construction of:
 - a. social facts and opinions,
 - b. explanations and arguments; and
 - c. spatial and temporal contexts
- C. Linking Interdisciplinary and Multidisciplinary aspects of Social Sciences.

UNIT – II: Historical/ Policy Perspective of the Subject

- A. Emergence of Social Science from Environmental Sciences as a subject in the middle stage. B.
- B. A reflection of Social Sciences in Education Commission (1964-66), NEP 1986 and NPE 2020.
- C. The present position of Social Science as a subject in the school curriculum regarding NCF 2005 and NCFSE 2023 at the middle stage.

UNIT – III: Pedagogical Concerns of Social Science

- A. Meaning, nature, and scope of constructivist pedagogy with special reference to middle stage.
- B. Approach: Constructivist approach of collaborative learning.
- C. Method (Tool and Techniques): Narration (story-telling and recitation) cum discussion Elocution and Debates (soliloquy, monologue, and dialogue), Inductive- deductive (concept map and problem-solving method), Analytic-synthetic method.
- D. Activities: Brainstorming and concept mapping, Observation, introspection, and reflection (making of anecdotal records, observation schedule and reflective diaries) project work (problem, aesthetic, constructive and drill), dramatization (role play, mime, skit, dance-drama, Bal-Panchayat, street-play, theatre), Field Trip (Exhibits, museums, heritage, and archaeological sites, social- communal places as markets and railway stations).

Practicum:

1. Construction of analogic strategies for elaborating facts and opinions (promote elaboration, the cognitive process of constructing relations between what is already known, and what is new.)
2. Analysis of Policy (NEP 2020- pedagogy based on the principles of NEP 2020)
3. Field Trip and documentation.

Mode of Transaction:

Narration, Discussion, Demonstration, Project-method and problem-solving, Dramatization and Field-based experience

Mode of Assessment:

Assignment, Written-test, Performance test (classroom presentation of projects and field trips)

References:

1. MHRD. (2020). National Education Policy 2020. Ministry of Human Resource Development. Government of India. New Delhi. from https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf Retrieved
2. NCERT (2006). Teaching of Social Science. Position Paper- National Focus Group. NCERT
3. NCERT. (2005). National Curriculum Framework 2005. National Council of Educational Research and Training, New Delhi
4. NCERT. (2023). National Curriculum Framework for School Education 2023 (draft). National Council of Educational Research and Training, New Delhi. Retrieved from <https://ncert.nic.in/pdf/ncfse2023.pdf>

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 3.2 PEDAGOGY OF ENGLISH-I Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	BA. B.Ed (History)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- define the historical and sociopolitical context that has influenced language teaching learning methodologies,
- demonstrate an understanding of the profound impact of language on shaping individual and collective identities,
- apply theoretical knowledge of language teaching methodologies to design effective and inclusive language lessons for middle-stage school children,
- analyze the power dynamics inherent in language use and its implications for learners from diverse backgrounds,
- synthesize various teaching strategies to adapt language instruction for different learning environments and cultural contexts,
- evaluate the effectiveness of language teaching methods in promoting students' language development and fostering inclusive classrooms.

UNIT – I

Nature and Scope of Language Education in Middle Stag

- A. Language Education: Concept, nature, and scope; language as a tool of empowerment or marginalization in different contexts; language as a medium for cultural symbols and identity expression in middle stage.
- B. Language as a Structured System: language as a structured and rule-governed system of communication, components of language— phonology, morphology, syntax, semantics, and pragmatics; viewing language as one of the semiotic systems for meaning-making, language's use of symbols and its role in shaping cultural representations.
- C. Challenges in Defining and Categorizing Languages: difficulties in drawing clear boundaries between languages and dialects; the impact of linguistic on language classification; language continuum and the blurred linguistic boundaries in multilingual regions.

- D. Aim and Objective of Language Teaching in Middle Stage: understanding the specific goals of language education at the middle stage in Indian schools; language as a tool for forming and maintaining social connections, the relationship between language and interpersonal relationships; the inseparable link between language and individual/group identity, language's role in preserving cultural heritage and shaping self-perception.

UNIT-II

Historical and Policy Perspective of Language Teaching

- A. Analyzing Constitutional Provisions for Language: analyzing relevant constitutional provisions related to language education in India, understanding the constitutional framework for language policies and provisions.
- B. Analyzing Policy Documents and Census Reports: analyzing language-related policy documents and their implications for language education with special reference to inclusive classroom; Understand language demographics in India and language inclusiveness.
- C. Language curriculum in the middle stage: importance of language education in multilingual context; understanding three language formula; analyzing the process of language learning and acquisition in the Indian context; identifying factors influencing language learning outcomes in diverse linguistic environments; NCFSE 2023 on language education in middle stage; suggestions of various committees on language education.
- D. Indian Multilingual Situation and Multilingualism: understanding the complex multilingual landscape of India, exploring bilingual and multilingual education models in Indian contexts; culturally responsive language teaching: developing culturally responsive language teaching strategies for middle-stage learners; NEP 2020 on cultural diversity and importance of language education.

UNIT – III

Pedagogical Aspects of Language Teaching

- A. Pedagogy of language teaching: approaches, methods, and techniques.
- B. Teaching Listening: Sub Skills of Listening: micro and macro listening skills, focusing on specific elements like recognizing phonetic features, stress, rhythm, and intonation; emphasizing comprehension of longer stretches of spoken language and overall meaning.
- C. Teaching Speaking: approaches to teaching speaking skills; fluency and accuracy; types of speaking activities: role-plays, debates and discussions, picture descriptions, storytelling,

information gap activities, public speaking; fostering a positive and non-threatening classroom atmosphere for speaking practice.

- D. Teaching Reading: orthographic System; interactive models of reading; reading approaches; reading in the digital age; reading as a recursive practice; understanding the purposes and benefits of silent and loud reading in language learning.
- E. Teaching Writing and Grammar: approaches of writing; skill of introducing, developing and transitioning ideas; collaborative writing, portfolio writing, controlled writing, guided writing, free writing; Explicit vs./and implicit instruction of grammar teaching; integrating grammar with other language skills.

Practicum :

1. Analyze policy documents and census reports to understand language demographics and educational provisions in India.
2. Create listening activities with pre-listening, while-listening, and post-listening stages.
3. Design activities that balance fluency and accuracy in speaking practice.
4. Facilitate free writing, guided writing, and code-meshing activities to foster creativity.
5. Design activities that connect grammar with reading, writing, and speaking.
6. Examine language policies in educational institutions and discuss their implications for language learning.

Mode of Transaction:

Interactive discussions, case studies, group projects, role-playing, peer teaching, microteaching, language labs observation, and reflection simulations, field visits, multimedia presentations, debates and discussions, language learning tasks, teaching demonstrations, community engagement

Mode of Assessment:

Quizzes and tests, performance assessments, portfolios, peer assessment, self-assessment, project-based assessments, authentic assessments, oral proficiency interviews, writing samples, peer feedback assessments, language journals, language tests for specific purposes, observations, online assessments, and rubrics.

References:

Teachers may also suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

IV Semester
ITEP BA. B.Ed History

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE	Philosophical & Sociological Perspectives of Education -I	4	40	60	100
Discipline Specific Course- DSC						
2.	DSC-1 (Major- 1)	History and Culture of Karnataka (From earlier to 1336)	4	40	60	100
3	DSC-2 (Major- 2)	History of India 1857 A.D. to 2000 A.D.	4	40	60	100
4	DSC -3 (Minor – 1)	Indian English Literature (from beginning to the Modern Age)	4	40	60	100
5	DSC -4 (Minor – 2)	Regional Geography of India	4	40	60	100
Stage Specific Content Cum Pedagogy- SSCCP						
6	SSCCP-1	Pedagogy of Social Science-II	2	20	30	50
7	SSCCP-2	Pedagogy of English-II	2	20	30	50
Total Credits			24	240	360	600

**IV Semester
ITEP BA. B.Ed History**

SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education- FCE			1.1 Philosophical & Sociological Perspectives of Education -I
2	Discipline Specific Course- DSC	Major-1		2.1 History and Culture of Karnataka (From earlier to 1336)
		Major-2		2.2 History of India 1857 A.D. to 2000 A.D.
		Minor-1		2.3 Indian English Literature (from beginning to the Modern Age)
		Minor-2		2.4 Regional Geography of India
3.	Stage Specific Content Cum Pedagogy- SSCCP			3.1 Pedagogy of Social Science-II
				3.2 Pedagogy of English-II

3. Foundation Course of Education- (FCE)

Course Title: 1.1 PHILOSOPHICAL & SOCIOLOGICAL PERSPECTIVES OF EDUCATION -I Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	BA. B.Ed (History)	FCE-1	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- To encourage students to explore the nature of knowledge, the nature of human beings, the nature of society and its aims and the educational implications of these understandings.
- To engage the prospective teachers to read and acquaint themselves with the meaning of terms like Vidya, Avidya, Shiksha, Education etc. and to facilitate them to understand and differentiate them through reflections on these terms on the basis of ancient Indian texts.
- To facilitate prospective teachers to engage themselves in peer groups for sharing of their real-life reflective experiences regarding socio-cultural and philosophical living and facilitate them to conceptualize the meaning of terms like philosophical, social and cultural traditions in Indian educational context.

UNIT – I

Education and Philosophy

A. Conceptual clarity, nature and relationships.

B. Aims of studying philosophical perspective of education.

C. Branches of Philosophy and their educational implications: Metaphysics

(तत्त्व विमीमा ा सा) Epistemology (ज्ञान विमीमा ा सा), Axiology (मूल्य विमीमा ा सा)

D. Understanding Indian Perspective of Education

- Meaning, nature and aims of education with special reference to Vedic, Buddhist, Jain, Sikh and Islamic traditions.
- Understanding the terms Darshana, Para and Apra Vidya, Avidya, Shiksha, Samvaad, Panchkosha, Gurukulam, Acharya, Guru, Shishya, Upadhyaya, Jigyasa, Swadhyaya.

E. Understanding Western Perspective of Education

- Meaning, Nature and aims of education with reference to Cognitive, Behaviorist and Developmental theories of Education.

UNIT – II

Philosophical Schools and Education

A. Conceptual Clarity of the following schools of thoughts with their implications for educational practices:

- **Bharatiya:** Samakhya, Yoga, Nyaya, Vaisheshika, Mimansa, Vedanta
- **Western:** Idealism, Naturalism, Pragmatism, Progressivism.

UNIT - III

Educational Thinkers

A. Deliberations on aims, process and educational institutions developed on thoughts of following thinkers and practitioners:

- **Bharatiya:** Swami Vivekananda, Sri Aurobindo Ghosh, Gurudev Rabindra Nath Tagore, J. Krishnamurti, Mahamana Madan Mohan Malaviya, Mahatma Gandhi, Gijubhai Badheka.
- **Western:** J. Rousse, Maria Montessori, Friedrich Froebel, John Dewey.

UNIT – IV

Value Education

- A. Conceptual Clarity, Significance and Types of Values.
- B. Indian Traditional Values.
- C. Guru-Shishya-Parampara and Educational Values.
- D. Convocation message in Taittiriya Upanishad.
- E. Values enshrined in Indian Constitution.
- F. NEP, 2020 and Values with special reference to 21st Century.
- G. Pedagogical Issues.

Practicum:

1. Individual/group assignments/tasks in various forms like writing small paragraphs/brief notes, conceptualizations on specific terms etc.
2. Institutional visits in small groups in coordination to institutions related to different thinker/s and preparation of a report followed by individual/group presentation.

3. Sharing of student experiences (in groups) related to readings on great thinkers help the to reshape their concept and enable them to develop vision, mission and objectives for a school and their plan to accomplish the objectives in form of a group report.
4. Identification and reporting of Indian perspective related to educational aims, student-teacher characteristics, methods, evaluation procedure, convocation etc. based on critical study of life and thoughts of thinkers.

Mode of Transaction

The course content transaction will include the following:

- Organized lectures using variety of media.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, engagement of in reading of primary or secondary sources of literature (Original texts, reference books etc.) related to different aspects of life and education of Great Educators, case studies, short term project work etc.
- Critically examining their experiences to carve out their world and life view and further analyze them from philosophical point of view to reshape their perspective. They will engage prospective teachers in the development of comparative educational charts related to vision, aims, process, institution etc. They will also lead to reading-based interactions and critical reflections related to process and significance of entry/admission rituals, convocation system etc.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

2. Discipline Specific Course- (DSC)

Course Title: 2.1 HISTORY AND CULTURE OF KARNATAKA (FROM EARLIER TO 1336) Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	BA. B.Ed (History)	DSC-1 (Major- 1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- Students will be able to learn the history and culture of our region.
- Understand the history of early dynasties of Karnataka and their administration and, Socio-economic contribution. The cultural contributions of major dynasties and the Sharana Movement led by Shri Basaveshwar.

Unit	HISTORY AND CULTURE OF KARNATAKA (From Earliest to 1336)	75 hrs/ sem
Unit- I	Sources and Pre-historical Sites in Karnataka, • Sources –Archaeological and Literary Sources • Geographical Features of Karnataka • Pre-historic Sites in Karnataka	15 hrs
Unit- II	Early Dynasties of Karnataka • Karnataka under the Mauryas and Satavahanas • The Kadambas and Gangas-Early Rulers-Their Cultural Contribution • Chalukyas of Badami-Early Rulers-Pulakasi-II and Cultural Contributions of the Chalukyas of Badami	15 hrs
Unit-III	The Rastrakutas, Chalukyas of Kalyan and Kalachuris • The Rastrakutas – Dhruva, Govinda-III, Amoghavarsha and Krishna- III and Rashtrakuta Cultural Contributions • The Chalukyas of Kalyana-Early Rulers-Vikramaditya-VI and Their Cultural Contributions	15 hrs

	• Kalachuris-Bijjala and Basaveshwara and His Reform Movement	
Unit-IV	The Hoysalas and Minor Dynasties of Karnataka • The Hoysalas-Early Rulers-Vishnuvardhana and Ballala-II-Hoysala Cultural Contributions • Yadavas of Devagiri-Political History-Bhillama-IV-Their Cultural Contributions • Minor Dynasties of Karnataka-Kadambas of Hangal, Rattas of Saudatti, Pandyas of Uchchangi	15 hrs
Unit-V	Chapter- 3 Map Study ➤ Mark the places Conquered by Pulakesi-II and write a note on his conquests ➤ Mark the Places of Historical importance and write a note on them: Sannati, Talakad, Sravanabelgola, Badami, Belur, Dorasamudra, Somanathpura, Saudatti, Hangal, Basavanabagevadi	15hrs

References:

1. Desai P.B : History of Karantaka, Kannada Research Institute, K. U. Dharwad, 1970
2. R.R Diwakar and others-Karnataka through the Ages. Govt of Karantaka, Bangalore 1968.
3. Nilakantha Shastri K.A : History of South India, Oxford-1966
4. Yazdani E. : Ealy History of Deccan, Oxford-1966.
5. Basavaraja K.R : History and Culture of Karantaka, Dharwad-1954.
6. Suryanath Kamath : Concise History of Karnataka.
7. H. V. Shreenivasmurthy : History of Karnataka.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 HISTORY OF INDIA 1857 A.D. to 2000 A.D. Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	BA. B.Ed (History)	DSC-2 (Major- 2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- The administrative policies of the British Crown.
- The socio-religious reform movements in India.
- Further this helps students to understand the process and impact of the constitutional development.

Unit	Title: HISTORY OF INDIA 1857 A.D. to 2000 A.D.	75 hrs/sem
Unit- I	India Under the British crown • Lytton –Domestic and Foreign Policy • Lord Rippon and his reforms • Lord Curzon: Domestic and Foreign Policy	15hrs
Unit- II	Socio-Religious Reform Movements of the 19th Century • Brahmo Samaj- Raja Ram Mohan Ray. Arya samaj – Dayanand Saraswati, Prarthana Samaj- Mahadev Govinda Ranade, Theosophical Society- Annie • Aligarh Movement- Sir Sayyed Ahmad Khan, Reform Movement in other Communities- the Sikhs, Parsees and Christians • Social Philosophy of Mahatma Gandhiji	15 hrs
Unit-III	Constitutional Developments • Act of 1909 • Act of 1919 • Acts of 1935 and 1947	15 hrs
Unit-IV	Freedom Movement and Social Reforms movement in India • Causes for the Rise of Indian Nationalism –Foundation of The Indian National Congress, Moderates and Extremists • Gandian Era: Mahatma Gandhi and Freedom Struggle; Subhash Chandra Bose and INA. • Social Reform Movements in 20th Century-Mahatma Phule; Periyar;	15 hrs

	Narayan Guru and Dr. B.R. Ambedkar.	
Unit-V	Indian Independence and Making of the Constitution • Indian Independence, Partition of India and Integration of Princely States. • Making of the Constitution and the Establishment of the Republic. Reorganization of Linguistic States. Map Study: ➤ Mark the centers of National Movement and Socio - Religions Movements where occurred and Write a Note on it. ➤ Places of Historical importance: 1. Wardha 2. Sabaramati 3. Aligarh 4. Chauri – Chaura 5. Dandi 6. Shivapura 7. Haripura 8. Bombay 9. Calcutta 10. Poona 11. Banaras 12. Surat 13. Lucknow 14. Nagpur 15. Gaya 16. Belgaum 17. Lahore 18. Allhabad 19. Amritsar	15hrs

References:

1. R.C. Majumdar: Advanced History of India
2. V.D. Mahajan: History of Modern India
3. Bipin Chandra: Nationalism and Colonialism in India
4. Grover and Grover: A New Look at on Modern Indian History
5. A.R. Desai: Social Background of Indian Nationalism
6. Hassan Imam: Indian National Movement
7. Gopal S.: British Policy in India (1858 -1905)
8. Anil Seal: The Emergence of Indian Nationalism
9. Tarachand: Indian National movement's volumes
10. R.N. Agarwal: Indian National Movement and Constitutional Development

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.3 INDIAN ENGLISH LITERATURE (FROM BEGINNING TO THE MODERN AGE)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	BA. B.Ed (History)	DSC-3 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

1. Comprehend major trends and movements in Indian English literature from 19th century to Modern Age
2. Understand the major works of representative writers of Pre-Independence and Post Independence Period
3. Gain Knowledge of Indian English poetry, prose, novel and drama of prescribed ages
4. Acquaint themselves with the literary movements in Indian English Literature
5. Appreciate the contribution of English writers of prescribed period

Unit	Title: INDIAN ENGLISH LITERATURE (from beginning to the Modern Age)	75 hrs/ sem
Unit-I	Background 1. The Nature and Scope of Indian English Literature; charges against Indian English Literature (Reference: M. K. Naik, A History of Indian English Literature (Chapters 1 and 6), New Delhi: Sahitya Akademi, 1980 2. Pre-Independence Indian English Poetry, Prose, Drama and Novel 3. Post-Independence Indian English Poetry, Prose, and Novel	15hrs
Unit- II	Introducing authors/texts: Raja Ram Mohan Roy, Toru Dutt, Sri Aurobindo, Swami Vivekananda, , Bankim Chandra Chattopadhyay, Mahatma Gandhi, Dr B R Ambedkar, Rabindranath Tagore, Sarojini Naidu, Nirad C Chaudhari, Henry Derozio, Manohar Malgaonkar, Kamala Das, Shashi Deshpande, Chaman Nahal, Amitav Ghosh, K. A. Abbas, Vikram Seth, Arun Joshi, G.V. Desani, ,Sunithi Namjoshi, Arun Kolatkar, T P Kailasam, Anita Desai, Manju Kapur, Arvind Adiga, Chitra Banerjee Divakaruni, Namitha Gokhale.	15 hrs

	Kiran Desai, Anita Nair, Mahesh Dattani, Salman Rushdie, Ruskin Bond	
Unit-III	Representative Texts: Poetry 1. Toru Dutt -- Our Casuarina Tree, 2. Sarojini Naidu – Bangle Sellers, 3. Kamala Das- My Grand Mother’s House, 4. A. K. Ramanujan – A River, 5. Nissim Ezekiel - Good bye Party to Miss Pushpa T. S. 6. 6. Arun Kolatkar- An Old Woman	15 hrs
Unit-IV	Three Thousand Stitches: Ordinary People, Extraordinary Lives - Sudha Murthy	15 hrs
Unit-V	Novel: Waiting for Mahatma – R K Narayan	15hrs

References:

1. Indian English Literature – M K Naik
2. .Indian Writing in English – K R Srinivas Iyengar
3. Indian Poetry in English – Makarand Paranjape
4. Twice Born Fiction – Meenakshi Mukherjee
5. Makers of Indian English Literature- C D Narasimaiah

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.4 REGIONAL GEOGRAPHY OF INDIA Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	BA. B.Ed (History)	DSC-4 (Minor-2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- gets exact information regarding mechanism of monsoon and its impact.
- interpret and apply the concepts on resource distribution of India and related economic activities.
- describe the Locational characteristics of an industry.
- demonstrate the economic development through the connectivity of transport and communication.

Unit	Title: REGIONAL GEOGRAPHY OF INDIA	60 hrs/sem
Unit- I	Location, size and extent. Major physiographical regions (northern mountains, northern great plains, peninsular plateau and coastal plains and islands) and their characteristics. Climate: Seasonal weather characteristics, climatic zones. Mechanism and characteristics of Indian monsoons; Tropical cyclones and western disturbances. Floods and droughts. Drainage system. Soil: types, erosion and conservation. Vegetation: Types, distribution, afforestation, social forestry programs, national parks, wildlife sanctuaries, and biosphere reserves.	15hrs
Unit- II	Water resources of India, surface and groundwater, water demand and utilization. Irrigation: Sources, types and intensity. Issues and challenges: water resources scarcity, Water conservation and management. watershed management, rain water harvesting, recycle and reuse of water. Interlinking of rivers. National water policies, national water mission, Jala shakti Abhiyaan.	15 hrs

	Command area development and water management. Central Water Commission and Water Tribunal and their role. Agriculture: Land use and cropping pattern – meaning and concepts, land use and cropping Pattern in India, agro-climatic regions, green revolution – causes and effects, hunger index and malnutrition; food security and right to food to achieve Zero hunger and Good Health and Wellbeing.	
Unit-III	Locational factors of industries, major industrial regions and their characteristics, Classification of Industries: Agro-based, mineral-based, forest-based and animal-based industries. Special Economic Zones: Industrial / economic corridor. Transport & Communication: Significance, growth and development – Road ways, railway, waterway, airway and pipeline networks and their complementary and competition. Communication: Means of communication their significance.	15 hrs
Unit-IV	Growth, distribution and density of population. Composition of population: Age, sex, rural-urban population composition. Migration: meaning, factors, types, causes and consequences. Human Development in India: Measures, levels of development based on HDI, Human Gender Development Index (GDI)	15 hrs

References:

1. Khullar DR. (2009): India: A Comprehensive Geography, kalyani Publishes, New Delhi, Hyderabad, Kolkata.
2. Alka Gautam (2009) Geography of India, Sharada pustak bhawan, University Road, Allahabad – UP.
3. Sharma TC & Coutinho O (2005) : Economic and Commercial geography of India, Vikas Publishing House Ltd., New Delhi-14
4. Tiwari RC. (2008) Geography of India, Prayag Pustak Bhavan, 20-A, University Road, Allahabad- UP
5. Pritivish Nag & Smita Sengupta (1992) Geography of India, Concept Publishing Company, New Delhi.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

3. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 3.1 PEDAGOGY OF SOCIAL SCIENCE-II Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	BA. B.Ed (History)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teacher will be able to:

- list teaching learning materials appropriate for the lessons,
- utilize the local specific resources for effective teaching learning of Social Science,
- analyze the Social Science textbooks and develop unit plan and lesson plan accordingly,
- analyze middle school Social Science curriculum and textbook.

UNIT – I

Teaching Learning Aids / Materials

- A. Textual/reference: magazines, newspapers, journals, reports, documents, records and gazettes, dictionaries, and encyclopedias.
- B. Visual References: atlas, map, globe, map book, timeline, historical map, table, diagram, graph, chart, picture, photograph, model, satellite imagery and aerial photograph, digital imagery.
- C. Contrived Reference: Documentaries and Films, Bal-Panchayat, Mock-Parliament, Plays (Musical and non-musical) and Theatre.
- D. Direct Experience: Laboratory and simulated environments.

UNIT- II

Learning Resources in Subject

- A. Resource Room: Teaching of the specific about a particular content area
- B. TED Talks and YouTube channels: There are numerous TED Talks and YouTube channels dedicated to social science topics. These platforms often feature engaging and thought-provoking talks by leading researchers and experts in their respective fields.

- C. Podcasts: Many podcasts focus on social science subjects, featuring interviews with scholars, discussions on current events, and explorations of various social issues.
- D. Documentaries and Films: Watching documentaries and films related to social science can provide a visual and engaging way to learn about different cultures, historical events, and social phenomena.
- E. Museums and Exhibits: Visiting museums and exhibits related to anthropology, history, and sociology can provide a hands-on and immersive learning experience.
- F. Society and social issues and society as a laboratory.

UNIT- III

Textbook Analysis and Planning for Teaching the Subject

- A. Analysis of Social Science textbooks, concept, organization, state and national perspectives and pedagogical concerns in Social Science textbooks.
- B. Introduction to skills of teaching-learning: induction, illustration, explanation, stimulation (verbal-nonverbal) and closure.
- C. Development of year plan, unit plan and lesson plan, 5 E and ICON Model.

Practicum:

1. Make a collection of teaching-learning aids.
2. Take an example of a TED talk and develop its motivational aspects.
3. Textbook analysis and reflection of concurrent and sequential concept arrangement.
4. Identify learning objectives, outcomes, learning points and develop to practice the delivery of lesson plans.

Mode of Transaction:

Narration, Demonstration, Field-based experience, discussions, discussion forums, and observation.

Mode of Assessment:

Written test, classroom presentations and workshops.

References:

1. MHRD. (2020). National Education Policy 2020. Ministry of Human Resource Development. Government of India. New Delhi. Retrieved from https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English.
2. NCERT (2017). Learning Outcomes at the Elementary Stage. NCERT, New Delhi
3. NCERT (2022). Toy- Based Pedagogy- A Handbook (Learning for Fun, Joy and Holistic Development) Part- I. MOE, Govt. of India
4. NCERT. (2023). National Curriculum Framework for School Education 2023 (draft). National Council of Educational Research and Training, New Delhi. Retrieved from <https://ncert.nic.in/pdf/ncfse2023.pdf>

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 3.2 PEDAGOGY OF ENGLISH-II Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	BA. B.Ed (History)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- enlist resources for Language teaching,
- classify different types of teaching aids,
- select appropriate teaching material for Language teaching,
- develop suitable teaching aids relevant to the topic,
- justify the use of multimedia in Language teaching,
- critically evaluate the Language textbooks prescribed for middle stage.

UNIT - I: Teaching Learning Aids / Materials

- A. Teaching Learning Aids/Materials: concept, definition, role, and importance of teaching aids/ materials in language teaching in middle stage; historical perspective of using teaching aids; teaching aids in ancient Indian teaching with special reference to Language teaching.
- B. Types of Teaching Learning Aids/ Materials: print, non-print and digital media for offline as well as online classroom teaching learning; print and digital materials for Language teaching in middle stage like reflective journals, charts, 2-D and 3-D models, games, toys, flash cards, worksheets, multimedia; virtual classroom presentation.
- C. Identification of eco-friendly components for developing teaching learning materials for language teaching; strategies of improvisation in using teaching materials in diverse context; feasibility analysis of environmentally friendly materials for developing teaching learning materials; approaches of using teaching aids/ teaching learning materials in multilingual classrooms.
- D. Strategies for making, choosing, and using teaching learning material for multicultural classroom; fostering inclusiveness through using teaching learning materials in Language classroom.

UNIT – II: Learning Resources in Subject

- A. Identification and Using strategies of Learning Resources from the Environment, textbook, teachers' manual/ handbook, laboratory manual and other places in Language classroom.
- B. Non-Print and Digital Resources – radio, tv, websites, animations, audios, videos, images, simulations, digital repository, augmented reality, virtual reality and AI based digital resources.
- C. Language Laboratory – types, design, management and practices; virtual laboratories. Use of language laboratory for promoting Language proficiency.
- D. Language teaching learning kits, language clubs, folk fairs, folk exhibitions, excursions, community resources and pooling of resources; use of local dialect as learning resource in Language teaching in middle stage.

UNIT – III: Textbook Analysis and Planning for Teaching the Subject

- A. Understanding the Language Textbook; Analyzing Language content from the Pedagogical Content Knowledge (PCK) perspective; analyzing relative weightage of content in the Language textbooks, strategies for distributing and selecting the content for teaching, identifying concepts, organizing, and planning appropriate learning strategies and learning experiences.
- B. Unit plan and lesson plan: concept, types, need and importance; models of lesson plan; steps of designing language teaching plan; devising Language content distribution plan for unit plan and lesson plan.
- C. Developing unit plans and lesson plans based on Language learning outcomes and experiential learning.
- D. Developing ICT integrated Language lesson plans for online teaching using digital resources and multimedia.

Practicum:

- Develop a reflective journal, chart, 2-D or 3-D model, flashcards, or multimedia presentation for a specific concept from Language textbook.
- Identify suitable teaching learning aids or materials from the environment and use it to enhance the Language teaching-learning process in middle stage.
- Analyze a selected Language textbook and identify strengths, weaknesses, alignment with learning outcomes, and propose improvements or modifications.
- Demonstrate an ICT-integrated lesson plan for online teaching by utilizing digital resources, multimedia, and interactive elements to engage learners effectively.
- Developing specific teaching learning material using locally available resources for effective Language teaching.

Mode of Transaction:

Lecture-cum-discussion/demonstration, hands on activities, project approach, inquiry approach, experimentation, problem solving, experiential learning, art and environment integrated learning, sport integrated learning etc.

Mode of Assessment:

Written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester examination.

References:

1. MHRD. (2020). National education policy 2020. Govt. of India.
2. National Curriculum Framework 2005; Position Paper, National Focus Group on Teaching of English: NCERT, 2006.
3. Programme of Action (1992). Department of Education, Ministry of Human Resource Development: New Delhi. Retrieved http://mhrd.gov.in/sites/upload_files/mhrd/files/document-reports/POA_1992.pdf.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

V Semester
ITEP BA. B.Ed History

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Discipline Specific Course- DSC						
1.	DSC-1 (Major- 1)	History and Culture of Karnataka	4	40	60	100
2	DSC-2 (Major- 2)	History of Modern Europe-1789-1878	4	40	60	100
3	DSC-3 (Major- 3) (Elective)	History of Modern Europe (1880-1945) (Elective)	4	40	60	100
Stage Specific Content Cum Pedagogy- SSCCP						
4	SSCCP-1	Pedagogy of Social Science-III	2	20	30	50
5	SSCCP-2	Pedagogy of English-III	2	20	30	50
Ability Enhancement & Value-Added Course- AE&VAC						
6	AE&VAC-1	ICT / AI in Education	2	20	30	50
School Experience- SE						
7	SE-1	Pre-Internship Practice (Demonstration Lessons)	2	20	30	50
Total Credits			20	200	300	500

V Semester
ITEP B.A B.Ed History

SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Discipline Specific Course- DSC	Major- 1		1.1 History and Culture of Karnataka
		Major- 2		1.2 History and Culture of Karnataka
		Major- 3		1.3 History of Modern Europe-1789-1878
2	Stage Specific Content Cum Pedagogy - SSCCP			2.1 Pedagogy of Social Science-III
				2.2 Pedagogy of English-III
3	Ability Enhancement & Value-Added Course- AE&VAC			3.1 ICT / AI in Education
4	School Experience- SE			4.1 Pre-Internship Practice (Demonstration Lessons)

1. Discipline Specific Course- (DSC)

Course Title: 1.1 HISTORY AND CULTURE OF KARNATAKA Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	BA. B.Ed (History)	DSC-1 (Major- 1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- Understand the rise and fall of Political dynasties in Karnataka
- Familiarize with patterns of administration.
- Understand the Freedom movement and unification movement in Karnataka.

Unit	Title: History and Culture of Karnataka 1336 to 1986	75 hrs/ sem
Unit- I	History of Vijayanagara Bahamani and Nayakas • Vijayanagara Empire – Administration and Cultural Contributions. • Bahmanis- Administration and Adilshahis of Bijapur- Administration, Contributions to Literature, Art and Architecture. • Nayakas- Nayakas of Chitradurga-Madakari Nayaka-V, Nayakas of Keladi Shivappa Nayaka and his Administration.Nadaprabhus of Yalahanka- Kempegouda	15Hrs
Unit- II	Wodeyars of Mysore, Hyder Ali and Tippu Sultan • Wodeyars of Mysore-Early Rulers-Chikdevaraja and His Achievements. • Rise of Hyder Ali and His Conflict with the British • Tipu Sultan-His wars against the Brieish and His Administration	15 Hrs
Unit-III	Rendition of Mysore and After • Krishnaraja Wodeyar-III-Mysore Under the Commissioners' Rule- L.B. Bowring and Mark Cubbon • Mysore Under Diwans- C. Rangacharlu, Sheshadri Iyer • Krishnaraja Wodeyar-IV, Vishweshwarayya and Mirza Ismail-Their Contribution to Modern Mysore	15 Hrs

Unit-IV	Peoples Movements in Modern Karnataka - Freedom Movement in Karnataka - Unification Movement of Karnataka-Factors, Stages and Commissions - Backward Class Movement and Commissions in Karnataka	15 Hrs
Unit-V	Chapter- 3 Map Study: ➤ Mark the Centers of Unification Movement were occurred and write a note on it. ➤ Mark the places of Historical Importance and write a note on the followings: Hampi, Talikote, Bidar, Gulbarga, Bijapur, Devanahalli, Shrirangapattana, Keladi, Chitradurga, Isoor, Vidhuraswath, Shivapur, Belgaum, Ankola, Dharwad	15Hrs

References:

1. Desai P.B : History of Karnataka, Kannada Research Institute, K. U. Dharwad, 1970
2. R.R Diwakar and others-Karnataka through the Ages. Govt of Karnataka, Bangalore 1968.
3. Nilakantha Shastri K.: A History of South India Oxford-1966
4. Yazdani E. : Ealy History of Deccan, Oxford-1966.
5. Basavaraja K. R : History and Culture of Karnataka, Dharwad-1954.
6. Suryanath Kamath : Concise History of Karnataka.
7. H. V Shreenivasmurthy : History of Karnataka.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 1.2 HISTORY OF MODERN EUROPE-1789-1878 Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	BA. B.Ed (History)	DSC-2 (Major- 2)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- Realize the significance of Values and ideas of French Revolution namely, Liberty, Equality and Fraternity.
- Understand the Spread of Modern ideologies like liberalism, Socialism and democracy.
- Comprehend the nationalist and unification movement of Modern Europe.

Unit	Title: HISTORY OF MODERN EUROPE-1789-1878	75 hrs/sem
Unit- I	Revolutions : Napoleon and Metternich Era • French Revolution (1789)-Causes and the Role of Philosophers • Napoleonic Era-His Conquests and Reforms • Metternich Era-Congress of Vienna-Concert of Europe	15Hrs
Unit- II	Greek war of Independence and Revolutions in Europe • Greek War of Independence (1829-30) and Crimean War (1854-56) • Industrial Revolution in Europe-Britain and Belgium • French Revolutions of 1830 & 1848-Napoleon-III	15 Hrs
Unit-III	Ideological and Unification Movements • Unification of Italy- Role of Garibaldi, Mazzini and Cavour • Unification of Germany-Bismarck and Kaiser William • Russo –Turkish War (1877-78) –Berlin Congress (1878) and its Impact on Europe	15 Hrs

References:

1. Edward Davis : Europe-A History
2. Gokhale B.K. : Modern Europe 1848 to 1960
3. H.A.L. Fisher : A History of Europe (2 Volumes)
4. David Thomson : Europe since Napoleon
5. C.D. Hazen : Europe since 1815 06 Charles Hazen - History of Modern World
6. Swain James Edgar : History of World civilization
7. Wall bank and Taylor : Civilization of Past and present
8. J.P. Taylor : The struggle for mastery in Europe in 19th and 20th Century.
9. H.E. Bames : Intellectual History of Europe
10. K.L.Khurana : History of Modern Europe

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 1.3 HISTORY OF MODERN EUROPE (1880-1945) (Elective) Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	BA. B.Ed (History)	DSC-3 (Major- 3)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- This paper gives an overview of revolutions, reforms in Europe and the ideological movements.
- The political developments of Europe on the eve First World War and after math and the role of League of Nations and UNO.
- Further it deals with the rise of Russian revolution and the dictatorships in Europe.

Unit	Title: History of Modern Europe (1880-1945)	75 hrs/sem
Unit- I	Ideological Movement in Europe • Formation of Alliance and Counter Alliance (1880-1914)-Divide of World into two camps. • Eastern Question (1878-1994) and Balkan Wars (1912-13) • Young Turk Movement and Italo – Turkish War- Totalitarianism in USSR and Kemal Pasha’s benevolent Dictatorship in Turkey	15Hrs
Unit- II	First World War and League of Nations • First World War: Causes, Results and Versailles Treaty • Russian Revolution of 1917 – Communist Regime in USSR – Lenin’s New Economic Policy • League of Nations: Structure, Achievements and Failure	15 Hrs
Unit-III	Hitler and Mussolini-Their Policies • Great Depression of 1929 Causes and effects • The Second World War-Causes, Course and Results • United nations Organizations- Main Organs, work and relevance	15 Hrs

References:

1. Edward Davis : Europe-A History
2. Gokhale B.K. : Modern Europe 1848 to 1960
3. H.A.L. Fisher : A History of Europe (2 Volumes)
4. David Thomson : Europe since Napoleon
5. C.D. Hazen : Europe since 1815
6. Charles Hazen : History of Modern World
7. Swain James Edgar : History of World civilization
8. J.P. Taylor : The struggle for mastery in Europe in 19th and 20th Century.
9. H.E. Bames :Intellectual History of Europe
10. K.L.Khurana : History of Modern Europe

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

2. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 2.1 PEDAGOGY OF SOCIAL SCIENCE-III							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	BA. B.Ed (History)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teacher will be able to:

- differentiate different modes of assessment in Social Science,
- develop test items based upon the content of the textbook and context of the learners,
- plan and implement activity-oriented classrooms, hands-on learning for active student participation,
- integrate ICT tools and technology to enhance instructional delivery and engage students effectively.

Unit- I

Assessment and Evaluation

- A. Importance of assessment in Social Sciences and assessment for, of and as.
- B. Quantitative and qualitative tools and techniques in Social Sciences (checklist, questionnaire, scale, anecdotal records, observation schedule, sociometry, rating scale, rubrics, and portfolio).
- C. Construction of tests: questions for testing cognitive and co-cognitive areas of learning: questions for testing cognitive and co-cognitive areas of learning.

Unit-II

Activity Oriented Classrooms

- A. Interactive and critical pedagogy in Social Sciences
- B. Designing Engaging Social Science Activities
 - a. Project-Based Learning in Social Science
 - b. Role-Playing and Simulations
- C. Incorporating Technology in Activity-Oriented Social Science Lessons
 - a. Digital Mapping and Data Visualization
 - b. Virtual Field Trips and Cultural Experiences

D. Facilitating Activity-Oriented Social Science Lessons

- a. Discussion Techniques using peer teaching and team-teaching.

Unit -III

ICT Integration in Social Sciences

- A. Overview of ICT tools and their potential benefits in the social science classroom.
- B. Digital literacy and information fluency (Building digital literacy skills among educators and students, Teaching students to critically evaluate online information sources).
- C. Use of ICT in the Classroom: Artificial intelligence, interactive presentations, and multimedia content creation, utilizing presentation software to design visually appealing and interactive lessons.
- D. Virtual field trips and online research: Exploring virtual field trip opportunities, leveraging virtual reality and online resources to take students on virtual field trips to historical sites, cultural landmarks, and global locations.
- E. Conducting online research in social sciences: (Enhancing global awareness and cross-cultural understanding, teaching effective research skills and techniques using digital libraries, academic databases, and search engines, data analysis and visualization, Geographic Information Systems (GIS) in social sciences, creating interactive maps to explore spatial patterns and relationships).
- F. Popular Apps.
- G. Use of Tools and Platforms along with the National Teachers Portal, DIKSHA SWAYAM.

Practicum:

- 1. Sessions of hands-on practice using ICT tools and software.
- 2. Design and delivery of multimedia projects and interactive lessons.
- 3. Online forums and reflective journals on ICT integration in the Social Sciences.

Mode of Transaction:

Narration, Demonstration, Field-based experience, Discussions.

Mode of Assessment:

Creating authentic assessment tasks that mirror real-world applications of Social Science concepts. Evaluating student performance based on real-world scenarios and problem-solving skills.

References:

4. NCERT (2019). Continuous and Comprehensive Evaluation Guidelines. NCERT
5. NCERT (2022). Toy- Based Pedagogy- A Handbook (Learning for Fun, Joy and Holistic Development) Part- I. MOE, Govt. of India.
6. NCERT (2023). Draft- National Curriculum Framework for School Education (2023). National Steering Committee for National Curriculum Frameworks.

*Teachers may also suggest books/readings as per the need of the learners and learning content

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 PEDAGOGY OF ENGLISH-III Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	BA. B.Ed (History)	SSCCP-2	Theory	2	20	30	50

Course Outcomes :

After completion of this course, student teachers will be able to:

- explain the concept of assessment for Language,
- classify different modalities of assessment,
- find out the assessment techniques suitable for Language skills,
- justify the assessment of language skills in the different context of first and second Language learning,
- design assessment rubrics efficiently,
- design joyful classroom activities for better learning outcomes,
- use ICT based assessment tools to evaluate Language learning outcomes,
- creating Language classrooms into inclusive learning spaces for joyful and engaged learning.

UNIT -I

Language Teaching: Assessment of Learning Outcome

- Assessment and Evaluation: concept, nature, scope and importance; differentiating assessment and evaluation; qualitative and quantitative paradigm; aims of assessment and evaluation in language teaching learning at middle stage.
- Assessment of Language Learning Outcomes: strategies specific to language teaching learning in using – school-based assessment, formative and summative assessment, 360-degree assessment; continuous and comprehensive assessment (CCA); importance of group assessment and peer assessment in language teaching.
- Assessment of Language Skills/Competencies: assessment of four language skills (techniques and tools), constructivist approach to assessment: rubric, portfolio, journal writing & open-ended test; language lab, group activities, soft skill presentation.
- Construction of achievement test: typology of questions based on lower order and higher order thinking process; construction of blue print and table of specification; devising feedback mechanism; adaptation of evaluation instruments for inclusive classroom; Error analysis, diagnostic tests and enrichment measures.

UNIT- II

Activity oriented Language Classroom

- A. Activity oriented Language Classroom: need, importance, and scope; strategies for designing activity-based language learning classroom.
- B. Language classroom activity: psychological and sociological thrust areas to be addressed in preparation and use of activities at middle stage.
- C. Planning and administration of activities: discussion; debate; recitation; story telling; puppetry; role play; framing questions; reading and writing competitions; spelling memory game; elocution; brainstorming.
- D. Mechanism for skill assessment: task-based assessment; pair work and group work assessment and evaluation; collaborative and cooperative work; project; peer assessment; language skill development strategies for inclusive setting.

UNIT – III

ICT integration in Language Learning

- A. ICT: concept and purpose of use in language teaching learning process; components of ICT: ICT, audio-visual materials, internet, animations, audio, T.V., Films, mobile apps, e resources, AI based resources.
- B. Strategies for developing integration skills of using ICT in language teaching; recent trends in ICT for language teaching: artificial intelligence (AI), smart boards, block chain.
- C. Exploration of assistive devices for inclusive classroom.
- D. Basic model for developing e-content in language; open educational resources (OER) and digital ethics and knowledge of national portals like Diksha, Swayam etc.

Practicum:

1. Write a report on current practices of assessment and evaluation at the middle Stage.
2. Analyze and reframe previous year language question papers.
3. Develop a test in language to assess all aspects of language learning.
4. Design and develop at least two classroom activities specifying the skills it boosts, using norms and assessment strategies.

5. Prepare a ICT integrated plan of language teaching and assessment for learning at middle stage (assuming availability of smart boards and internet connectivity in the classroom).
6. Enlist and elaborate different ICT tools and mobile applications to be used for assessment of language skills.
7. Case study of inclusive Language teaching classroom.

Mode of Transaction:

Lecture-cum-discussion/demonstration for the basic conceptual parts of different units. Hands-on activities, project approach, inquiry approach, experimentation, problem solving, experiential learning, art and environment integrated learning, sport integrated learning etc. can be used for teaching skill development and ICT integration.

Mode of Assessment:

Written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester examination

References:

1. National Curriculum Framework for School Education (2023). National steering committee for national curriculum framework. NCERT.

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

3. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 3.1 ICT / AI IN EDUCATION Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	BA. B.Ed (History)	AE&VAC-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- Understand Educational Technology and ICT
- Analyse ICT and Instructional Design
- Understand emerging technologies in Education
- Analyse ICT in Teaching Learning
- Work on Subject specific ICT tools and for Assessment

Unit	Content	75 hrs/sem
Unit -I	Introduction to ICT in Education: Meaning, Nature, importance of Information Technology, Communication Technology & Information and Communication Technology (ICT) and Instructional Technology- Educational Technology and ICT in Education (Difference, Scope of ICT- Teaching, learning, Research & Publication Educational Administration and Assessment)-	15Hrs
Unit- II	Emerging Technologies in Education: E-learning Concept, methods, and media (LMS, Virtual Universities, Massive Open Online Course (MOOCs), Indian MOOCs, Types of MOOCs: cMOOCs, xMOOCs & LMOOCs)- Open Education Resources (Creative Commons, Concept, and application)- Augmented reality, Virtual reality, Artificial intelligence, Mixed Reality & Gamification in education (Meaning, history, importance, tools and uses)- Cloud Computing & Internet of Things - Meaning, importance and uses- Ethical issues & safety in ICT- (Teaching, Learning and Research, Cyberbullying, Cyber security literacy & data protection, Online identity and privacy)	15 Hrs

Unit-III	Possibilities of AI Technology and AI Ethics: Possibilities: AI Possibilities in Health, AI possibilities in technology, AI Possibilities for customer experience, For Vehicles, Media, AI Ethics: Ethical Concerns of AI, Bias, Components of good AI policy, AI	15 Hrs

Activities/ Internal Assessment Tasks:

1. Prepare a report on the trends and developments in Educational Technology
2. Prepare an instructional design script following any of the instructional design models.
3. Explore any one online platform for MOOCs and prepare a report highlighting its structure and courses.
4. Prepare an assessment tool on any one chapter of the textbook.
5. Create an Image using **Gemini** AI App
6. Solving math problem using **math.now** AI Tool
7. Generating Presentation or PPT using **Presentation.AI** Tool
8. Preparing Notes using **Notebook LLM** AI Tool
9. Drafting a letter using **ChatGPT** AI Tool

References:

1. Bharihoke Deepak. (2000). Fundamentals of Information Technology, Pentagon Press: New Delhi
2. Conrad, Keri (2001). Instructional Design for Web based Training. HRD Press
3. Crumlish Christian (1999). The Internet No Experience Required. BPB Publications: New Delhi
4. Evant, M: The International Encyclopedia of Educational Technology.
5. Jain Amit; Sharma Samart; & Banerji Saurab (2002). Microsoft Word for Beginners. NISCOM, CSIR: New Delhi.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

4. School Experience- (SE)

Course Title: 4.1 PRE-INTERNSHIP PRACTICE (DEMONSTRATION LESSONS)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	BA. B.Ed (History)	SE-1	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- describe the prerequisites of the internship,
- demonstrate knowledge of pedagogic practices, classroom management skills, assessment tools and learning standards,
- develop lessons plans and relevant Teaching Learning Materials (TLMs),
- develop readiness to take up an internship programme.

Mode of Transaction:

- Demonstration lesson (minimum 1 in each pedagogical subject)
- Peer Group teaching and peer observation (minimum 5 in each pedagogical subject)
- Observation of lessons by teacher educators during peer group teaching
- Reflective group discussions/workshops/seminars
- Preparation and presentation of the video content illustrating best classroom practices.

Content:

The pre-internship will include activities relating to the stage-specific pedagogy courses, ability enhancement and value-added courses and foundation courses transacted during previous semesters. It will also include knowledge of pedagogy, formats of lesson plans, different ICT tools, schooling systems in India, principles of classroom management, assessment, and other relevant content.

Activities:

- Orientation of student teachers to different pedagogic practices like experiential learning, inter-relationship amongst different subjects, integration of Indian Knowledge Systems (IKS) and values in school subjects, and classroom management skills
- Observation of the lesson demonstrated by teacher educators/experts in the institute.
- Designing guided activities for each class/subject based on learning outcomes.
- Study Middle Stage Learning Standards in the NCF
- Content analysis and development of the unit plan, concept map and lesson plan.
- Discussion on unit plan and lesson plan with teacher educators/experts
- Preparation of a Portfolio (for self-work) that the student-teacher will use to keep all her/his work.
- Participate in discussions/reflective sessions for conceptualizing teaching-learning practices.
- Exploring available learning resources and educational videos
- Developing local, low-cost, and innovative TLMs
- Reading and reflecting on inspiring books on pedagogic practices

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Classroom teaching skills and assessment tools (including learning standards)	Simulated Presentation	Teacher-Educator	1
Reflective group discussions/workshop	Observations	Teacher-Educator	0.5
Artefacts (Lesson Plans, TLM, Curated Videos) and action research procedures.	Evaluation	Teacher-Educator	0.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

VI Semester

ITEP B.A B.Ed History

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Assessment & Evaluation	2	20	30	50
2	FCE-2	Inclusive Education	2	20	30	50
Discipline Specific Course- DSC						
3	DSC-1 (Major- 1)	Tour Guiding	4	40	60	100
4	DSC-2 (Major- 2)	Project/Dissertation	4	40	60	100
Stage Specific Content Cum Pedagogy - SSCCP						
4	SSCCP-1	Pedagogy of Social Science-IV	2	20	30	50
5	SSCCP-2	Pedagogy of English -IV	2	20	30	50
Ability Enhancement & Value-Added Course- AE&VAC						
6	AE&VAC-1	Mathematical & Quantitative Reasoning	2	20	30	50
School Experience- SE						
7	SE-1	School Observation (Field Practice)	2	20	30	50
Total Credits			20	200	300	500

**VI Semester
B.A B.Ed History**

SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education- FCE			1.1 Assessment & Evaluation
				1.2 Inclusive Education
2	Discipline Specific Course- DSC	Major- 1		2.1 Tour Guiding
		Major- 2		2.2 Project/Dissertation
3.	Stage Specific Content Cum Pedagogy - SSCCP			3.1 Pedagogy of Social Science-IV
				3.2 Pedagogy of English -IV
4	Ability Enhancement & Value- Added Courses- AE&VAC			4.1 Mathematical & Quantitative Reasoning
5	School Experience-SE			5.1 School Observation (Field Practice)

1. Foundation Course of Education- (FCE)

Course Title: 1.1 ASSESSMENT & EVALUATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (History)	FCE-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- use different approaches to assess and evaluate of student performance such as time constrained examinations; closed/open-book tests; problem-based assignments; practical assignment reports; observation of practical skills; individual and group project reports; oral presentations; viva voce interviews; computerized adaptive testing; peer and self-assessment etc.,
- develop and use informal and formal diagnostic, formative, and summative assessment strategies to monitor student learning levels and help the teacher continuously revise teaching-learning processes to optimize learning and development for all students,
- develop an understanding among student teachers of the approaches to provide timely, effective, and appropriate feedback to students about their performance relative to the expected learning outcomes and organizing learning enhancement initiatives that are required to bridge the gap in student learning levels,
- present report on student achievement, making use of accurate and reliable records etc.
- develop assessment “as”, “of”, and “for” learning that are aligned to the expected learning outcomes,
- design the progress card of students based on school-based assessment to make it a holistic, 360-degree, multidimensional report that reflects the progress as well as the performance of learners assessed through self-assessment and peer assessment, project based and inquiry-based learning, quizzes, role plays, group work, portfolios, etc., along with teacher assessment that would provide students with valuable information on their strengths, areas of interest, and needed areas of improvement.

UNIT - I

Assessment and Education

A. Assessment and Evaluation

- Meaning and significance of assessment and evaluation in educational field.
- Conceptual Clarity and purpose of Measurement, Assessment, Examination, Appraisal and Evaluation in Education.
- Learning outcomes across the stages and assessment.
- Taxonomy of Objectives (Revised in 2001) and Implications.

B. Forms of Assessment

- Formative, Summative, diagnostic, prognostic.
- Internal and External assessment.
- Assessment For learning, of learning and as learning.
- Authentic Assessment; Online Assessment.

C. Improving Assessment and Evaluation in Schools: Brief Historical Review (1975, 1988, 2000, 2005, 2020)

UNIT - II

Process of Assessment and Evaluation

A. Formative and Summative Assessment: Concept and Characteristics.

B. Approaches to assess and evaluate student performance such as time-constrained examinations; closed/open-book tests; problem-based assignments; practical assignment reports; observation of practical skills; individual and group project reports; oral presentations; viva-voce interviews; computerized adaptive testing; peer and self-assessment etc.

C. Assessing Higher Order Thinking Abilities: Problem solving, critical thinking, creative thinking, communication skills, judgement and decision making, ethical and moral reasoning.

D. Tools and Techniques

- Observation, rating scale, check list, anecdotes, interviews.
- Assessment of attitudes and interests.
- Socio-metric techniques.
- Criteria for assessment of social and personal behaviour.
- Self-assessment and Peer Assessment.

UNIT - III

Analysis and Interpretation

- A. Analysis of students' performance and scores: credit and grading
- B. Graphical representation (Histogram, Frequency Curves)
- C. Interpretation of student's performance based on the analysis and their further uses in improving learner's performance: credit and grading, constructive feedback.
- D. Reporting student's performance: 360-degree progress reports, cumulative records and their uses, portfolios, PTA meetings, qualitative reporting based on the observations, descriptive indicators in report-cards.

Practicum:

- 1. Review of various education commission, Policies and reports and NCF 2005 to get a brief view of the recommendations on Assessment and Evaluation.
- 2. Constructing a unit test using table of specifications.
- 3. Construction of any one of the tools (rating scale, check list, observation schedule, etc.) and administering it to group of students or using it to observe the school and classroom environment and interpreting it.
- 4. Analysis of question papers of various Boards.
- 5. Analysis of report cards - State and Central (CBSE)
- 6. Preparing format of 360-degree report Card.
- 7. Review of learning outcomes by NCERT in different subject areas.
- 8. Interviews with teachers and students to study the assessment practices, issues and problems related to it followed by presentation.
- 9. Reviewing Assessment Discussions in NPE (2020).

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Andrade, H. L. (2013). Classroom assessment in the context of learning theory and research. J. H. McMillan (Ed.), Suge handbook of research on classroom assessment. California, USA: Sage.
2. Aggarwal, J. C. (2005). Essentials of Examination System: Evaluation, Tests and Measurement. New Delhi: Vikas Publishing House Pvt. Ltd.
3. Bhatnagar. A. B. & Bhatnagar. Anurag (2014). Measurement and Evaluation (Tyranny of Testing). Meerut: R. Lall Book Depot.
4. Black, P. (2015). Formative assessment - an optimistic but incomplete vision. Assessment in Education: Principles, Policy & Practice, 22(I).
5. Broadfoot, P. (1979). Assessment. schools, and society. London, USA: Methuen & Co.
6. Deshpande, J.V. Examining the Examination System, Economic & Political Weekiy. April 17, 2004, Vol. XXXIX, No. I6.
7. Dweck, C. S. (2006). Mindset: The new psychology of success. New York: Ballantine Book
8. Gronlund, N.E and Linn R.L. (2003). Measurement and Assessment in Teaching. Singapore: Pearson Education.
9. Nawani, D (2012), Continuously and Comprehensively evaluating Children. Economic & Political Weekly: Vol. XLVII, and Jan 12, 2013.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 1.2 INCLUSIVE EDUCATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (History)	FCE-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- ensure inclusion and equal participation in education of children with disabilities in the regular schooling process that allows students with and without disabilities learn together, ensuring their retention in the school system, and enabling them to achieve the defined learning outcomes,
- adapt teaching and learning process to meet the learning needs of different students with disabilities, including providing education and opportunities for participating in arts, sports, and vocation-related activities, making school buildings and compounds as well as other facilities barrier free and accessible for children with disabilities, supporting activities that help the provision of individualized learning environment and learning activities/resources, making available assistive devices and appropriate technology-based tools, as well as adequate and language-appropriate teaching-learning materials (e.g., textbooks in accessible formats such as large print and Braille) to help children with disabilities integrate more easily into classrooms and engage with teachers and their peers, using appropriate modes and means of communication, detecting specific learning disabilities in children at the earliest and taking appropriate measures to overcome them, monitoring completion of education and learning levels of students with disabilities etc.

UNIT - I

Inclusion and Education

A. Conceptual Clarity, relation, and significance with special reference to:

- UNCRPD, 2006,
- RPWD Act, 2016,

With special reference to Indian Context.

B. Clarity of various terms and phrases associated with Inclusive Education: Integrated Education, Special Education, Impairment and Disability, Assessment and Evaluation, Curriculum, adaptation, modification and differentiation, universal design of learning

C. Shifting from Disability to the Inclusive view.

D. Shifting Paradigms from Bio centric to Human Rights.

E. Introductory reference of Policies/Acts with reference to educational implications for Children with Disabilities: Right to Education Act, 2009/ 2012, RPWD Act, 2016, UNCRPD, National Trust Act, 1999, National Educational Policy, 2020.

UNIT – II

Children with Disabilities and Marginalized Groups

A. Nature and needs of children with sensory impairments: cognitive impairments and intellectual disability, physical disabilities, cerebral palsy, multiple disabilities.

B. Specific needs of children with behavioral, emotional learning disabilities

C. Health Problems.

D. Educational needs of children belonging to Marginalized Groups.

UNIT - III

Pedagogical Issues

A. Conceptual clarity and significance.

B. Meeting the specific needs of Children with Disabilities with special reference to:

- education and opportunities for participating in arts, sports, and vocation-related activities,
- making school buildings and compounds as well as another facilities barrier free and accessible
- supporting the learning activities and resources for individualized learning environment making available assistive devices and appropriate technology-based tools,

- language-appropriate teaching-learning materials (e.g., textbooks in accessible formats such as large print and Braille)
- assessing strategies

C. Designing strategies assessment for inclusive classrooms.

Practicum:

1. Developing a checklist for identifying the various needs of children with disabilities.
2. Visiting schools of different categories and talking to parents, teachers, and Children with and without disabilities and list the problems faced by these children and the families at the local level in gaining access to education.
3. Analyzing RPWD Act 2016 and list its implications for CWD in inclusive settings.
4. Outlining the problems faced by children with Visual Disabilities while learning mathematics and EVS.
5. Giving a few exemplary adaptations based on the Preparatory Level textbooks.
6. Outlining the problems faced by children with hearing impairments while learning language. Give a few exemplar adaptations based on the primary level textbooks.
7. Students work in small groups of 10 or so to prepare a street play highlighting the meaning and provisions of inclusive education.
8. Analyzing the Context of NPE 2020 in the light of Inclusive Education.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

1. Alan H. and Ravic R. (1998). Best and promising Practices in Developmental Disabilities, Texas. PRO-ED. Inc.
2. Arthur E. Del Orto. Paul w. Power (2007) The Psychological and Social Impact of illness and Disability.
3. Bhattacharya. T. (2010). Re-examining Issues of Inclusion in Education. Economic & Political Weekly. Vol.XIV (16): 18-23
4. Clough. P. & Corbett, J. (2000). Theories of inclusive Education. Paul Chapman Publishing. London
5. Department of Education of groups with special needs, NCERT
6. Jha M. M. (2002). School Without Walls: Inclusive Education for All. Oxford, Heinemann. Jorgensen, C. M.. Mc Sheehan. M., & Sonnenmeier, R. M. (2009). Essential best practices in inclusive school. Institute on Disability/UCF. University of New Hampshire
7. Jain, A. and Singh, R.R. (2014). Seemant Varg Kee Balikaon Ke Shaikshik Shashaktikaran Main Kastoomba Gandhi Balika Vidyalay Kee Bhumika Ka Moolyankan (Ekal Adhyayan), Pariprekshya, NUEPA, New Delhi, ISSN 0972-7515. Varsh 22, Ank 02 August 2014

Teachers may suggest books/readings and learning contents as per the needs of the learners.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

2. Discipline Specific Course- (DSC)

Course Title: 2.1 TOUR GUIDING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (History)	DSC-1 (Major- 1)	Theory	4	40	60	100

Course Outcomes:

- At the end of the course, students will be able to:
- Students will be able to learn skills in tour guiding.
- It is their task to entertain visitors to their region and to help them to interpret the sights that they are visiting.
- How to become such a professional guide and shows how to develop the skills and relevant information that will need to work as a guide.

Unit	Title: Tour Guiding	60 hrs/sem
1	History, Heritage Sites and Tourist Destinations in Karnataka	5hrs
2	Heritage Sites in South Karnataka- Beluru, Arasikere, Somanathapur, Sravana Belagola, Mysore, etc.	5hrs
3	Heritage Sites in North Karnataka - Mahakuta, Aihole, Badami, Hooli, Belgaum, Bidar, Bijapur etc.	5hrs
4	Heritage Sites in Coastal Karnataka- Karkala, Venur, Bhatkal, Mirjan fort, Karwar, Gokarna.	5hrs
5	Waterfalls and Hill stations- Gokak Falls, Dooda Sagar Falls, Navilu Thirtha, Joga Falls,	5hrs
6	Wild life Sanctuaries and National Parks – Bhadra Wild Life, Bhimgad Wild Life and Daroji Wild Life Sanctuaries, Bandipur and Anshi National Park.	5hrs
7	Adventure Tourism, Sports Tourism- Devbagh, Nandi Hills, Shivana Samudra, Dandeli, Medical Tourism : MICE - Rural Tourism	5hrs
8	Fairs and Festivals of Karnataka -Mysore Dasara, Hampi Utsava, Chalukya Utsava, Navaraspur Utsava and other Utsavas of Karnataka.	5hrs
9	Pilgrimage Centers - Sravana Belgola, Sringeri, Savadatti, Ganagapura, Dharmasthla, Mundagod, Guddada Mailara, Godachi, Kaginala, Siddaruda Matha (Hubli),.	5hrs
10	World Heritage Sites in Karnataka : Hampi and Pattadakal	5hrs

11	Tour Guiding, Definition of a Tourist Guide, Duties and Responsibilities of Guides, Categories of Tourist Guides -:A Class, “B” Class and “C” Class Guides.	5hrs
12	Guiding in Monuments, Guiding in Wild Life Parks and Sanctuaries, Knowledge regarding local culture including cuisine, Travel Agencies and Guides, First Aid, Map Reading - GPRS	5hrs

References:

1. Kumar C., Chiranjit: Tour Guiding, Create space Independent Pub, 8 may 2016
2. Nick manning: How to be a Tour Guide, Nick manning 24 Aug 2014
3. Allchin.B. Allchin. F.R. et al: Conservation of Indian Heritage. Cosmo Publishers. New Delhi (1989)
4. New Inskeep. Edward.: Tourism Planning: An Integrated and Sustainable Development Approach (1991) VNR. New York.
5. Ashworth. G.J.: The Tourist Historic City. Retrospect and Prospect of Managing the Heritage City. Pergamon. Oxford, (2000)
6. Accounts of Foreign Travelers – A.S.I. Gupta. T.C: Tourism Production in India.
7. G.S. Batra: Tourism in the 21st Century.
8. Krishna K Kolhar: Basics of Tourism- Theory Operation and Practice, Mohinder Chand Kanishka Publishers, Delhi.
9. Vijayalakshmi. K.S: History and Tourism, Bangaluru.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 PROJECT/DISSERTATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (History)	DSC-2 (Major- 2)	Practical	4	40	60	100

Course Outcomes:

The student teachers will:

- present contextual problems, an appropriate research design and the plan of action for undertaking school-based research,
- demonstrate the tools and techniques used for the collection of relevant data,
- summarize the analyze data used to identify the causes,
- demonstrate the interventions used for addressing the problems,
- present the effectiveness of the intervention(s),
- share research experiences through reports and presentation.

Mode of Transaction:

The following strategies will be used during the project:

- Discussions with teacher educator, school head, mentors, and peers for identification of problem and development of intervention(s).
- Finalize the research project proposal outline through discussion with mentor teachers/teacher educators.
- Document analysis, interaction with all stakeholders, and field visits.
- Sharing and presentation of the outcomes of school-based research.

Content:

The student teachers during previous semesters have studied different courses in Foundations of Education, Disciplinary Courses, Stage-specific pedagogy courses, Ability Enhancement and Value-Added Courses. The required knowledge of action research and case study includes- the concept and importance of action research/case study, the steps of conducting action research/case study (objectives, methods, research design, design tools, data collection, and data analysis) and report writing. The research problem will be taken from the day-to-day teaching-learning process of the school. Some of the significant areas may cover:

- Learning progress and outcomes in different subjects

- assessment
- Learners' diversity and inclusion
- Participation in arts, games, sports

Mode of Assessment:

The assessment of the project will be continuous. The teacher educators, as well as mentors, will be involved in the assessment of the activities. The following rating scale may be used to assess the student teachers:

Assessment

Competence/Artifact	Method of assessment	Assessed By	Credits
Observation during the execution of action research	Observations	Teacher Educator	1.5
Research Report	Presentation of Report	Teacher-Educators (panel of three experts)	2.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

3. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 3.1 PEDAGOGY OF SOCIAL SCIENCE-IV							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (History)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

- At the end of the course students will be able to acquire:
- describe the process of “learning how to learn”,
- outline principles, for fostering students' metacognitive abilities and lifelong learning skills,
- describe the features of innovative teaching practices that cultivate creativity, critical thinking, and problem-solving among students,
- list different strategies for continuous professional development of teachers of Social Science.

UNIT - I: Learning About How to Learn

- A. Role of motivation and mind set aptitude and attitude in processing the multidisciplinary nature of social sciences.
- B. An overview of Multiple Intelligence and how it shapes learning style and preference of studying social sciences.
- C. Information Processing and time management focus on building social schema:
 - Chunking and Spacing
 - Active Recall and Interleaving
 - Mnemonics and Visualization

UNIT - II : Innovative Practices

- A. Nature and operationalization of Innovative Practices.
- B. Global Collaborative Project-Based Learning (PBL) in context community.
- C. Social science laboratory, society as a laboratory and virtual laboratory.
- D. Plurilinguistic Exposures, Field notes and reflective diary.

UNIT - III: Continuous Professional Development of Teacher

- A. Role of NPST and NMM as indicators of professionalism with special reference to qualities of an innovative teacher.
- B. Professional development activities: seminars, conferences, workshops, online and offline courses, flipped learning and blended learning courses, orientation and refresher programmes, teacher exchange programmes, capacity building programmes publications, and development of teaching portfolio.
- C. Emphasizing the importance of inclusive practices in the classroom and strategies for creating a supportive and equitable learning environment.
- D. Role of Teacher appraisal in enhancing professionalism in teachers.

Practicum :

- 1. Connecting with community issues and writing case reports
- 2. Report writing on multi-disciplinary and school-oriented practices.
- 3. Reflection and Evidence-Based Practices in the form of reflective diary.

Mode of Transaction:

Discussions, Demonstration, Field-based Experience

Mode of Assessment:

Internal-external assessment as per the requirement of the system. Rating-Scale, Rubrics and Portfolio.

References:

- 1. National Curriculum Framework for School Education, 2023
- 2. National Education Policy 2020, MoE, Government of India

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 3.2 PEDAGOGY OF ENGLISH-IV Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (History)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- state meaning and educational implications of learning to learn
- describe need and scope of innovations in teaching learning of Languages
- classify different modalities of professional development
- plan and implement suitable modes of professional development for Language teachers
- plan, design and accomplish action research.

UNIT - I: Learning about How to Learn

- A. Learning to learn concept, educational implication and development of self-regulated learning skills for languages; ways of management of time and information; organization of knowledge; techniques of learning to learn.
- B. How the languages are learned: strategies to learn a new language; basic language learning strategies (cognitive and meta-cognitive language learning strategy).
- C. Philosophical and Psycho-Social context of teaching and learning a language: learning styles; factors affecting language learning.
- D. Role of a Teacher: as a leader in classroom; as facilitator; as creator of appropriate democratic and constructivist learning environment.

UNIT - II: Innovative Practices

- A. Innovative practices: meaning, need and scope of innovation and teaching as innovative practice; challenges in innovation in language teaching.
- B. Qualities of an Innovative Language Teacher in the Context of National Professional Standards for Teachers (NPST) and National Mentoring Mission (NMM).

- C. Learner's autonomy: ICT based innovations in language teaching; Web 2.0 tool.
- D. Effective Communication with Special Reference to the Language to be used in the Classroom in Multilingual Context, Transformative Pedagogical Practices in context of language teaching.

UNIT - III: Continuous Professional Development of Teacher

- A. Professional Development of Language Teachers: need for updating content and pedagogical competencies; role of In-service courses in developing professional competencies.
- B. Professional Development Activities: seminars, conferences, orientation Programmes, workshops, online and offline courses, teacher exchange programmes (National and International), competitions, publications, development of teaching portfolio, capacity building programmes.
- C. Developing Professional Competencies in Dealing with Gender Issues in language education; equity and inclusion in language class; ethical Issues in language teaching; incorporating environmental issues, human health, population, human rights, etc. in language teaching and learning.
- D. Action Research in language teaching, reflection and evidence-based practices in language teaching, importance of self-directed professional development.

Practicum:

1. Write a report on learning and how to learn.
2. Design a PowerPoint presentation on innovative practices.
3. Formulate professional development activities for the continuous growth and development of a teacher.
4. Prepare multimedia based innovative practices of Language learning and teaching for online mode of teaching.

Mode of Transaction:

Lecture-cum-discussion/demonstration and interactive instructions for the basic conceptual parts of different units. Organizing various activities, project approach, inquiry approach, experimentation, problem solving, experiential learning, art and environment integrated learning, sport integrated learning etc. for teaching skill development.

Mode of Assessment:

Through written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester end examination.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

4. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 4.1 MATHEMATICAL & QUANTITATIVE REASONING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (History)	AE&VAC-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- adapt mathematical reasoning to solve problems in the real world and explain some fundamental ideas and tenets in this field,
- analyze and interpret quantitative data,
- interpret & deduce the right conclusions from numerical representations like formulas, graphs, or tables,
- demonstrate critical thinking and problem-solving skills using mathematical and quantitative reasoning methods,
- evaluate operational matrix,
- analyze educational data and create educational model & use them in decision making,
- analyze and evaluate mathematical and quantitative reasoning problems and solutions.

UNIT - I

Introduction to mathematical and quantitative reasoning

- A. Meaning, nature and scope of mathematical and quantitative reasoning.
- B. Importance of mathematical and quantitative reasoning in various fields.
- C. Types of quantitative reasoning.
- D. Usage of mathematical and quantitative reasoning.
- E. Concept of mathematization.

UNIT – II

Introduction to data in Education

- A. Data requirement, different sources of data
- B. School enrolment: gross enrolment ratios, net enrolment ratios, educational progression: dropout rate, literacy: measures of literacy

- C. Indian censuses, details of different items on which Indian censuses collect data.
- D. Nationwide sample surveys, National family health survey, District level household survey, UDISE

UNIT - III

Data Analysis & Interpretation

- A. Concept of data interpretation (equation, diagram, graph, tables)
- B. Statistical analysis of data in educational context and its applications (measures of central tendency, measures of variability, percentile)
- C. Visual and numerical representation of data and its application (bar diagram, histogram, pie charts)
- D. Learning analytics: concept, significance, types, levels, and its applications in educational context.

Practicum:

1. Take last 5 years of UDISE data and analyze various indicators related to schools, teachers, and students.

Mode of Transaction:

The approaches to curriculum transaction will focus on developing the analytical and critical thinking skills of students, as well as their ability to apply mathematical and quantitative reasoning in real-life situations. Some of the approaches to curriculum transaction will include the following:

- Active Learning which involves active participation of student teachers in problem-solving situations, group discussions, and hands-on activities that help student teachers engage with the material and apply mathematical thinking and reasoning to solve problems.
- Real-World Applications involving the use of real-world examples to demonstrate the practical applications of mathematical concepts that help student teachers see the relevance of what they are learning and how it can be applied in various fields.
- Collaborative learning encourages student teachers to work together in small groups, where they can share ideas and help each other learn. This fosters a sense of community in the classroom and helps students develop teamwork and communication skills.
- Technology Integration involves the incorporation of technology tools such as calculators, spreadsheets, and interactive software to help student teachers visualize and solve mathematical problems more easily.

- Overall, a pedagogy that combines active learning, real-world applications, collaborative learning, technology integration, and effective assessment strategies that help student teachers develop a strong foundation in mathematical and quantitative reasoning.

Mode of Assessment:

Use of a variety of assessment methods such as quizzes, exams, group projects, and presentations to evaluate student learning. Providing timely feedback and offering opportunities for students to revise their work and improve their understanding.

References:

1. Teachers may suggest books/readings as per the needs of the learners and learning content.
2. Abramovich, S., & Freiman, V. (2022). Fostering collateral creativity in school mathematics: Paying attention to students' emerging ideas in the age of technology. *Mathematics Education in the Digital Era*. Springer Cham. <https://doi.org/10.1007/978-3-031-40639-3>
3. Akar, G. K., Zembat, I. O., Arslan, S., Thompson, P. W. (2022). Quantitative reasoning in mathematics and science education. *Mathematics Education in the Digital Era*. Springer Cham. <https://doi.org/10.1007/978-3-031-14553-7>
4. Burnham, R., Bellon, J., Carter, K., & Rehfuss, N. (2021). Quantitative skills & reasoning. The University of West Georgia.
5. Chawla, D., & Sondhi, N. (2001). Research methodology: concepts and cases. Vikas Publishing.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

4. School Experience- (SE)

Course Title: 4.1 SCHOOL OBSERVATION (FIELD PRACTICE)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.A. B.Ed. (History)	SE-1	Practical	2	20	30	50

Course Outcomes:

Student teachers will be able to:

- Describe various schooling systems,
- Describe the processes, practices, and overall environment of the school,
- Establish rapport with the stakeholders of the school system state the process of conducting different activities in the school,
- Describe the available school infrastructure (classrooms, libraries, laboratories, playground, sanitation, drinking water facility, mid-day meal facility, inclusive facilities, safety and security, rainwater harvesting),
- Describe the availability and usage of ICT and TLMs,
- Summarize the available documents in both physical and digital modes, including UDISE data,
- Reflect upon relationships among the stakeholders,
- Analyze various assessment processes adopted in different types of schools,
- Prepare and present a comprehensive profile of the schools observed (including classroom processes).

Mode of Transaction:

- Observation
- Interaction
- Discussion
- Reviewing the available literature on the different schooling system
- Collection of relevant documents and data

Preparation for school observation:

- Orientation on the school observation process
- Development of the observation formats/tools

School Observation (minimum three types of schools):

- Student teachers will go for school observation in small groups to observe and collect data by using the developed formats/tools.
- Analysis of the collected data
- Preparing a comprehensive profile of the schools observed

Post-School Observation Session:

- Group-wise presentation of the school profile
- Discussion and Feedback
- Reflection on the understanding of various types of schooling systems.

Content:

The school observation as a field-based activity will cover observation of school and classroom processes. The student teachers under the mentorship of teacher educators will visit schools, interact with teachers and students and other stakeholders, and relate the observation with the courses studied during the previous semesters, i.e. Foundations of Education, Disciplinary Courses, Pedagogy courses and Ability Enhancement & Value-Added Courses.

- Meaning and Nature of school observation process
- Difference between monitoring and observation
- Theory and practices of school observation components such as:
 1. Schooling system
 2. Rapport with all the stakeholders
 3. Office management procedures of different types of schools
 4. School environment in all perspectives
 5. Process of conducting curricular activities in the schooling process
 6. Existing infrastructure available in the school
 7. Utility of ICT and TLM facilities
 8. Interpersonal relationships among the stakeholders
 9. Various assessment processes adopted in different types of schools.
 10. Engagement of parents and other community members in school activities.

Activities:

- Visit three types of middle schools with observation formats developed in the institute and get acquainted with various schooling systems. Establish rapport with all stakeholders.
- Collect information about the demography of students in classes VI to VIII and understand the linkage of the middle stage with the secondary and preparatory stages through interaction with teachers, students, and staff.
- Observe school processes and curriculum transactions through experiential learning and prepare a report.
- Interact with teachers and students and report on implementing ten bag-less days and skill development courses.
- Reflect on effective classroom teaching learning strategies.
- Observe integration of IKS, values, local resources in teaching learning process
- Observe practice and assessment of vocational education in the school.
- Observe the availability and usage of library resources, laboratories (General Science, Mathematics, Languages, Social Science, Computer), sports facilities, and art and music learning facilities.
- Study the provision of other student support services- guidance and counselling, scouts and guides, and health and wellness programme.

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Involvement and active participation during the school visit	Observations	Teacher Educator	0.5
Comprehensive school profile	Presentation & reflection	Teacher- Educator	1.5

Components For School Observation Report:

- School information (Context, Vision and Mission, Association with the Board)
- School Infrastructure
- Provision for CWSN/Divyang Children
- Inclusiveness at all levels
- Teacher-Student Ratio
- Teaching-Learning process
 - Academic plan
 - Classroom Activities
 - Assessment
- School Development Plan (SDP)
- Academic Calendar
- Administrative processes
 - Maintenance of students records
 - Maintenance of teachers records
- Cultural activities
- Sports activities
- Annual Day
- National and Social functions
- School Management
- School Discipline
- Interpersonal Relationships
- Understanding different types (socio-economic status, ability) of students and their needs
- Development of ICT and TLMs Engagement of parents and community members in the school activity
- Office Management
- The assessment process includes provision and practices for 360-degree holistic assessment.
- The overall progress of the school (planning, organizing, staffing, directing, motivating and controlling)
- Challenges faced and overcoming them.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

VII Semester
ITEP B.A B.Ed History

S.NO.	Course Types	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Perspectives On School Leadership & Management	2	20	30	50
2	FCE-2	Curriculum Planning Development (Textbook & material Development)	2	20	30	50
Ability Enhancement & Value-Added Course- AE&VAC						
3	AE&VAC-1	A. Art Education (Performing & visual) and Creative Expressions- 1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making	2	20	30	50
4	AE&VAC-2	Sports, Nutrition & Fitness	2	20	30	50
School Experience- SE						
5	SE-1	School-Based Research Projects	2	20	30	50
6	SE-2	Internship in Teaching	10	100	150	250
Total Credits			20	200	300	500

VII Semester
ITEP B.A B.Ed History
SYLLABUS

S.NO.	Type of Course	Course Code	Course Title
1	Foundation Course of Education- FCE		1.1 Perspectives on School Leadership & management
			1.2 Curriculum Planning Development (Textbook & material Development)
2	Ability Enhancement & Value-Added Courses - AE&VAC		2.1 A. Art Education (Performing & visual) and Creative Expressions- 1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making
			2.2 Sports, Nutrition & Fitness
3	School Experience- SE		3.1 School-Based Research Projects
			3.2 Internship in Teaching

2. Foundation Course of Education- (FCE)

Course Title:1.1 PERSPECTIVES ON SCHOOL LEADERSHIP & MANAGEMENT							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (History)	FCE-1	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- describe the diversity of schools in India, its structure, its governance, issues, challenges, and school leadership needs,
- critically examine the different leadership theories and practices and its relationship with the governance structures, the autonomy and accountability mechanisms and the larger educational policy context,
- critically think in relation to education leadership and its potential application to different contexts,
- reflect critically on school-based data for reflection and improvement,
- develop a culture of cooperation collaboration and teamwork,
- synthesize effectively to develop coherent and compelling arguments in the area of study,
- develop school vision, mission, goals, and School Development Plans.

UNIT - I

Understanding Indian School System

- A. School as a normative organization vis-a-vis school as a socio-emotional-cultural space for learning.
- B. Studying the diversity of schools in India; their structure, governance, socio-political and cultural context, funding, management, autonomy and accountability mechanisms, support systems.
- C. Relationship between school leadership and school diversity issues, challenges, and needs.
- D. Engagement with diversity discourses, educational policies, reforms and practices and role in developing inclusive schools.

UNIT - II

Understanding School Leadership

- A. School Leadership: concept as defined, and concept as practiced.
- B. Being a School Leader: exploring the multiple roles and responsibilities, issues and challenges of school leadership in the Indian context.
- C. What works in schools: sharing National and International best practices on School leadership.

UNIT - III

Schools as Learning Organizations: Role of School Leadership

- A. Schools as motivating learning spaces: Developing inspiring school ethos.
- B. Schools as learning organization: promoting personal mastery, examining mental models, and developing a shared vision, team learning and a system's thinking perspective.
- C. Development of a shared vision and shaping of the school culture.
- D. Use of data for school improvement focused on students' learning, addressing equity challenges, and building an equitable school culture that promotes excellence for all.
- E. Nurturing school belongingness: engaging students, teachers, staff, parents, SMC, and community in the formulation of a whole school development plan.
- F. Designing professional and collaborative learning opportunities for self and others (teachers, parents, and SMC members) and improving teaching and learning.

Mode of Transaction:

Perspectives on school leadership and management is a practitioner-centric course and aims to enable future teachers to be efficient school leaders. The approach to curriculum transaction therefore would include a blend of lectures, tutorials, group-work, case-based approaches, and enquiry-based learning.

- Student teachers would engage in case-based learning on topics like improving student learning, classroom observation and feedback, planning and budgeting for school improvement, leadership in diversified school contexts and such others.
- Exposure of student teachers to virtual case studies featuring leaders from a representative cross-section of Schools in India and analyze their experiences, insights, and best practices.
- Learning activities that help student teachers to understand the entire structure and functioning of school organization through interactive lectures and panel discussion with education officers who hold leadership positions at different levels from schools to cluster,

block, and district and state levels and understand their leadership issues, challenges and needs and thus get a perspective of the school ecosystem.

- Learners would reflect on their practice as pre-service interns, knowledge, skills, and understandings—and identify opportunities to apply course learnings to their school context.

Mode of Assessment:

Being a practitioner centric course, the assessment would largely include application-based tasks. This includes exploring the work and life of a school principal and writing a detailed report on the observations and the learning. The following are some exemplars. The institutes may choose either of these or think of other innovative assignment that would enhance the leadership learning experience:

- Preparing school vision, mission, goals, and school development plan.
- Shadowing school principals: a critical observation of the principal's daily work life.
- A critical examination of the diversity of schools; their governance structure, leadership, autonomy and accountability mechanisms, issues and challenges and work life of the school principal

References:

1. A Handbook on School Leadership Development (2014). NUEPA, New Delhi.
2. Ajayi, I.A (2007). Issues in School Management. Lagos: Bolabay publishers.
3. Altrichter. H. and Elliot, J. (2000) Images of Educational Change. Buckingham Open University.
4. Baldrige, J. V. (1978). Policy making and effective Leadership. San Francisco: Jossey Bass.
5. Bhattacharya, D.K. (2001). Managing People. New Delhi: Excel Books.
6. Bush T. L. B. (2003). The Principles and Practice of Educational Management. (Edited. Ed.) New Delhi: Sage Publications.
7. Bush. T., Bell. L., Bolam. R., Glatton, R. and Robbins, P. (1999). Educational Management. London: Paul Chapman Publishing Ltd.
8. Diwan, Rashmi. (2013). Educational Leadership: A Conceptual Framework (NUEPA).
9. Diwan. Rashmi and Panda, B.K. (2013). Guiding through the preparation of School Development Plan: A handbook for school heads. (NUEPA).

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title:1.2 CURRICULUM PLANNING DEVELOPMENT (TEXTBOOK & MATERIAL DEVELOPMENT)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (History)	FCE-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- discuss aims of education,
- identify and formulate of desirable values and dispositions,
- explain capacities and knowledge,
- outline curricular areas,
- demonstrate teaching-learning assessment processes and
- practice the relevance in terms of achieving the aims of school education.

UNIT - I

Education and Curriculum

- A. Meaning, need, relationship and significance.
- B. Types of Curriculums: subject-centered, activity-centered, environmental centered, community-centered
- C. Relationship and difference between curriculum, curriculum framework, syllabus and textbooks.

UNIT – II

Developing the Curriculum

- A. Basic principles of Curriculum Development
- B. Concerns for developing the Curriculum - aims to be achieved, structure and nature of discipline, different perspectives on learning and their implications to curriculum development, socio-cultural aspects and aspirations of society, value transitions, social efficiency and needs, environmental concerns, gender concerns, inclusiveness, technological advancement.
- C. Impact of Globalization.

UNIT - III

Approaches, Planning, and Implementation

- A. Approaches to Curriculum Development: Learner and activity centered, Constructivist, Knowledge Construction
- B. Curriculum planning as a cyclic process.
- C. Curriculum Implementation: Operationalizing curriculum into learning situations, Converting curriculum into syllabus, Curriculum engagement activities, Role of school at Regional, State and National level for implementation.
- D. Role of teachers in operationalizing and evaluating the curriculum with special reference to: textbooks and teachers handbooks, source books, workbooks and manuals, other learning material such as kits, AV and software materials, library, laboratory, playground, neighborhood etc.

Practicum:

- 1. Arranging discussion on:
 - Basis of National curriculum frame works (1975, 1988, 2000, and 2005).
 - Document: Learning without burden” by Prof. Yashpal
- 2. Preparing of Report based on observation of:
 - Facilities and infrastructure to implement the present curriculum.
- 3. Interviewing teachers to understand their role in:
 - Implementing and assessment of the curriculum.
- 4. Analysis of the following in the context of principles of developing the Curriculum:
 - Guidelines of NEP, 2020.
 - Curriculum of 4 Years B.Ed. Integrated Programme
 - Learning without Burden, MHRD, and India.
 - Position paper (2006). National Focus Group on ‘Curriculum, Syllabus, Textbooks’, NCERT.
 - NCERT (1988) National Curriculum for Elementary and Secondary Education: A framework.
 - NCERT (2000) National Curriculum Framework for school Education.
 - NCERT (2005) National Curriculum Framework. NCERT publications.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

- The assessment will be based on the tests and assignments.

References:

1. Apple. M.W. (199). The Politics of Curriculum and Teaching. NASSP Bulletin 75(532), 39-50.
2. Beauchamp, G (1982) Curriculum Theory: Meaning, Development & Use. Theory Into Practice, 21, 1. 23-28.
3. Connelly. F. M.. and Clendenin, D. J. (1988). Teachers as Curriculum Planners: Narratives of Experience. NY: Teachers College Press.
4. Marsh, C.J. (2009). Key Concepts for Understanding Curriculum. Tuylor and Francis.
5. Marsh. C.J. & Willis. G. (2007). Curriculum: Alternative Approaches, Ongoing Issues (4th Ed.). Upper Saddle River. NJ: Prentice Hall.
6. Ornstein. Pajak, and Ornstein. (2011). Contemporary Issues in Curriculum (5th Ed.).

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

2. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 2.1 A. ART EDUCATION (PERFORMING & VISUAL) AND CREATIVE EXPRESSIONS-1. PUPPETRY							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (History)	AE&VAC-1	Theory	2	20	30	50

Puppetry:

Puppetry is an integrated art form, which takes into its fold everything from fine arts to performance. Puppetry is one of the oldest forms of performing art. Puppetry has evolved over the years into a sophisticated form of art. The journey was very interesting with a lot of ups and downs. There are thousands of forms of puppetry from simple finger puppets to highly complex puppets played by more than 3 people. Each country has a puppet form, why country, each area in a country has a puppet form. Hence, in India you will find many, many forms of puppetry. In puppetry there are two main aspects. One the designing and creating of puppets and the other playing or performing puppetry. These two skills are different. Designing will need a lot of thinking, visualization, and technical skills while performance will need high level communication skills. Hence, together they make a consolidated a high range of skills. In this course, students are exposed to different forms of puppets and puppetry. There will be a discussion around the forms and the aesthetic sense of puppetry. Later the students are encouraged to prepare, design and create puppets. They then prepare script and play the puppets. This creation of the puppets together in small groups with a lot of discussions and give and take helps the students develop working together skills and conceptual understanding.

Course Outcomes:

After completion of this course, student teachers will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of puppetry,
- design puppets,
- practice and create a short puppetry show.

UNIT – I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT – II

Designing Puppets (6 Sessions)

In this unit, students will learn about puppetry, its history and specifically about how puppets work. This unit will also discuss the imagination required to design puppets, visualize how puppets will be used and the technicalities of designing puppets. These will be learnt by designing puppets. Students will start with constructing finger puppets and move towards small shapes through papers, like Fish, birds, rat - then they will design masks, flat masks, and masks with dimensions. At the end they will design puppets with old newspaper. The puppets are designed with old newspapers and colour papers. They decorate it and design it in such a way that it can be played, performed. They prepare costumes and all other accessories.

UNIT – III

Performing the puppets (4 Sessions)

This unit will engage in performance of puppetry and the level of communication skills required to create a good engaging story and perform it with the help of puppets they have created. The performance will be expected to relate to some activity in the educational context. Students will perform the puppets they have designed. Initially each member will play their own puppets. Later they will play in pairs, later they will be formed into a small group and asked to prepare their own skits with the puppets. They conclude by performing in small groups. Their learning is consolidated and reflected.

Discussion is held on how different aspects of puppet making can be incorporated in class room processes of young children. Adapting the individual and group exercises done during the puppetry course will be discussed to be used in the classroom situation.

Pedagogy:

The Pedagogy is basically hand-on training. More emphasis is given to experiential learning. They do things and through doing learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colours, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms

Week wise break up of sessions			
Sl. no	Topics	Session flow	Remarks
	Aesthetics and art, art in everyday life.	Based on their experience	
	Importance of art. Appreciation of art.	Discussion	
	Art for art's sake. Art with social responsibility. art for social change	Debate	
	The world of puppetry. Different forms of puppetry.	Presentations	
	History of puppetry	Lecture	
	Preparation- finger puppets	Hands on	
	Preparation of masks	Hands on	
	Preparing puppets	Hands on	
	Performing individually	Practice	
	Performing in pairs	Practice	
	Performing in groups – 3, 4, 5.	Practice	
	Assignments	Written.	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test1	05
Internal Assessment Test2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.1 B. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 2. THEATRE							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (History)	AE&VAC-1	Theory	2	20	30	50

Theatre:

Theatre is a collaborative art form, and it is inherently interdisciplinary in its nature. It comprises many facets and skills like acting, directing, writing, designing the sets and costumes, make-up, production, lights, sounds and music. All these elements and skill sets come together and are stitched in the form of a ‘play’ which is performed live, in front of an audience. In the Indian context, theatre has a deep-rooted history with its classical, folk, and other cultural forms until other contemporary forms of theatre evolved in recent times.

Theatre education for children can play a vital role in their individual, social, and emotional development. It teaches them the values of trust and interdependence, makes them confident to express themselves and helps them learn to work in a collaborative environment. It develops their ability to contextualise, critique and discuss certain questions and thoughts they encounter in everyday life. It further helps them imagine, explore, and create their own narratives.

In this course, we will briefly talk about the aesthetics of theatre and how theatre exists in different forms. The students will learn some basic theatre tools that will help them create and perform a narrative they collaboratively arrive at.

In simple terms one can say theatre has two major aspects i.e., creating the script and then performing it. Body is the primary instrument in any theatrical performance accompanied by text, material, visual and sound. This course will introduce students to these aspects of any theatre performance, in the form of direct experience by doing this themselves.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of theatre,
- learn basic theatre tools of improvisation, ideation, and creation of a script,
- create a short performance with educational possibilities.

UNIT - I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT - II

Introduction to Theatre, and Beginning with the body (3 Sessions)

We will discuss some core essentials in the aesthetics of theatre like the performance, the makers, the audience, and the context and how we relate this to the world around us, in everyday lives. In this unit, we will discuss examples of how theatre was used in social movements that have contributed to educating the larger population about important social issues. Additionally, we will also learn from practices and approaches of theatre groups like Budhan Theatre who work with denotified tribes, and Manalmagudi who work closely with physical nonverbal theatre. Exposing students to these approaches will lead to rich discussions on the role of theatre in pedagogy and practice.

In this unit, students will learn certain principles and awareness on how to use their body and voice in a given space and time, with respect to other bodies. There will be several games, exercises that will familiarise them with certain basics of movement, voice, acting and thereby create improvisations and images in a given context. The activities and tasks will be both in individuals and groups.

UNIT - III

Arriving at a script (3 Sessions)

We will engage in some theatre making processes to arrive at a script by the end of this unit. How to adapt or devise a script with actors? How can we borrow from everyday experiences of memory, sound and visuals, without a written text or spoken word? Plays, stories, poems, newspapers articles, will be shared to read, reflect, analyse, and re-create like “Why, why Girl” by Mahashweta Devi, “Ratna Pakshi” by K Ramaiah, “Beyond the land of Hattamala and Scandal in Fairyland” by Baadal Sircar, and songs of Kabir etc. The texts chosen will have a direct relation with topics from social studies, moral and political education.

Students will use their skills of improvisation they learned in Unit 2 to explore, ideate, create, and finally arrive at a script. What kind of stories, narratives, and characters they choose to perform will lead back to the

discussion of aesthetics. Students will mostly work in groups to choose or create a text, concept, or an idea which they want to perform. Students will be encouraged to use their perspectives on the education system, in converting the text into a script.

UNIT - IV

Performing the script

This unit will engage in the actual making of the final piece they choose to make. Students will have to visualise the final text on stage and start rehearsing in their groups. Apart from using their bodies to play characters, the students will also have to think about design and other aesthetic elements like sets, props, costumes, lights, music and sounds they want to use in the performance.

Students will have to practice beyond the six classes as the class time will be utilised to discuss and provide feedback as the work progresses. The last two classes in this unit will be utilised for the final rehearsals and assessments. The final performance will take place in front of a small audience followed by a brief post-performance discussion. Students will engage in discussing and reflecting on the views, questions and comments shared by the audience.

Pedagogy:

The pedagogy is basically hands-on training. More emphasis is given to experiential learning. They do things and through doing, they learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colours, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

Week wise break up of sessions		
Week	Topics	Session flow
1	UNIT - I: Aesthetics and art, art in everyday life. Importance of art. Appreciation of art	Based on their experience
2	Art for art's sake. Art with social responsibility. Art for social change	Discussion
3	UNIT II: Aesthetics of Theatre	Discussion
4	Body work - Individual and group	Hands on
5	Body work – Improvisation	Hands on
6	UNIT - III: Adaptation of texts. Aesthetic choices.	Hands on, Discussion
7	Story making and devising	Hands on
8	Arriving at a text	Hands on

9	UNIT - IV: Visualizing the final piece. Thinking about design and aesthetic elements	Hands on, Discussion
10	Rehearsals and feedback	Hands on
11	Rehearsals and feedback	Hands on
12	Final rehearsals and assessment	
13	Final rehearsals and assessment	
14	Performance and audience discussion	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.1 C. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 3. COLLAGE-MAKING Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (History)	AE&VAC-1	Theory	2	20	30	50

Collage:

Collage as visual art medium A major aspect of college, and one that is sometimes overlooked, is the incredibly diverse array of materials and objects that can be used. Collecting interesting materials is an ongoing activity for artists and for those who teach college. But it is just as important for young people to hunt for and make decisions about materials they would like to incorporate into their work. All materials, and the alterations that artists make to them, are suggestive of ideas and concepts based on their surfaces, forms, textures, degree of transparency and opacity, colour, and other visual characteristics. Materials also connect us, through association and reference, to social and cultural worlds and places. What ideas might a scrap of newspaper, as a collage material, express? How might these meanings differ from those of, say, feathers? Or twigs? Or a thin piece of plastic cut out from a plastic bag?

Working with and creating artwork in Collage involves various aspects: selecting materials, manipulating materials, investigating materiality, closely observing materials, discovering possibilities, composing, designing the artwork, planning, finding solutions, applying solutions, thinking flexibility, decision-making, research, using imagination, expressing, taking creative risks, develop perseverance, and much more. Students will also be introduced to various aspects of art in education: The value of art and artmaking by itself, art's use as an instrument in education, social and moral dimensions of art, and the controversial perceptions around good art and bad art.

This course aims for students to understand the importance of aesthetics and art in education, the role art can play in education, and mainly to appreciate, understand and gain skills with the medium of collage and its techniques.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance and the role of aesthetics and art in education.
- understand the medium of collage and its versatility.
- design, plan, and create an expressive self-portrait collage by applying a variety of collage techniques.

- design and set up an interactive visual art exhibition to display their artworks.
- understand and appreciate art-based learning experiences.
- develop the ability to reflect and challenge their assumptions and beliefs around art and develop new understandings.

UNIT – I

Understand the importance of Aesthetics and Art in Education (2 Sessions)

Students will be introduced to Aesthetics and Arts by engaging in experiences, discussions, and dialogues. Students will experience a session of ‘Visual thinking strategy’ (VTS) activity in which students will collectively view and engage in a series of artworks closely, share their observations, critically analyze their observations, listen to multiple perspectives from peers, suspend judgements, and draw their own understanding of the artwork. Students will recognize aesthetic and un-aesthetic experiences through compare and contrast. Through this activity and unpacking of the experience, students will start making connections and develop understandings around what aesthetics mean, aesthetic aspects of daily life, develop aesthetic judgment, and how arts evoke emotion and awaken.

UNIT – II

Exploring paper collage and its techniques (4 Sessions)

Students will be introduced to the medium of collage and open their minds to the possibilities within this medium. Students will view and discuss examples of collage artworks, artist process and artist interview videos. Students will get a chance to compare and contrast various ways collage as a medium is used. Students will reflect upon their own past art educational experiences and observations and engage in dialogue and discussions. Students will analyze effective and ineffective ways of using the medium of collage in educational and other settings.

Through inquiry-based participatory demonstrations, students will investigate and discover a variety of ways to manipulate paper and create individual and unique two-dimensional compositions in the medium of paper Collage. They will understand and learn the techniques, artistic terminologies of the collage medium. Students will reflect on their experience and engage in facilitated discussions to deepen their understanding on the role of art medium exploration and how it can foster various learning skills.

Students then use their knowledge and experience from the previous sessions and explore collage as a medium further. Students will investigate, discover, and learn to create visual textures, physical textures, and create their own unique patterns. They will understand the difference between textures and patterns. Students will use a variety of techniques to create unique textures and patterns, analyze their findings, give each other feedback, work in groups to problem solve, etc. They will understand how art medium explorations can be used as a pedagogical tool in learning environments. Students will bring in various materials found around them like

different kinds of paper, paper based materials, natural materials, fabric, and explore these materials and use them as materials to create collage compositions.

Students will explore a wide range of techniques and discover their own ways to manipulate these found materials to create interesting textures and patterns. Students will work in groups, problem solve, investigate, develop solutions on their own, and share their findings with each other. Through discussions, students will reflect upon this exploration experience and understand how art making processes can develop skills and abilities in a learner.

UNIT - III

Ideating for an Expressive Self-Portrait (2 Sessions)

In this session students will further explore and discover possibilities in Collage as a medium. Students will learn a variety of ways to make paper stands and create interesting paper sculpture compositions using 3D techniques. Students will draw from their previous experiences of using paper for 2D explorations and add more interest to their unique 3D explorations. Students will share their findings with peers and widen their understanding about the possibilities.

Students will reflect on all the material exploration sessions thus far and participate in a facilitated dialogue around art making and education. Students will engage in a close observation sketching and drawing activity. Through a guided process, students will create a well observed self-portrait drawing. Students will engage in discussions and dialogue to unpack the self-portrait drawing experience, the learnings, discoveries, challenges and more. Through this activity students will also be able to challenge assumptions around talent and artmaking.

UNIT - IV

Creation of an Expressive Self-Portrait Collage (3 Sessions)

Students will engage in a step-by-step process involving sketching, ideating, planning, applying their discoveries of using paper as a collage material, and finally create a large expressive self-portrait using the medium of paper collage. Throughout the process students will problem-solve, critically think, push their imagination, find multiple solutions, make independent decisions, receive and give peer feedback, use resources effectively, draw from their own experiences, apply their learnings into creating this unique and expressive self-portrait piece.

UNIT - V

Designing and setting up an Exhibition (2 Sessions and Exhibition Day)

Students will collectively start designing and planning for the exhibition to put up their artworks for a general audience to view and engage with. Students will be planning the various aspects of a visual art exhibition: ways to display artworks, designing the layout of the exhibition space and how the audience will move within the space, design invitations, ways that the audience can engage with the artworks, various ways the artists can talk about their artmaking, and more. Students will divide the tasks among themselves, take on the various roles required, and set up the exhibition space.

Pedagogy:

- Students will engage in hands-on art making activities.
- Students will engage in discussions and dialogues with peers.
- Students will engage in giving and receiving peer feedback.
- Students will continually reflect on their learning through journaling.
- Students will work independently and collaboratively throughout the course.
- Students will receive reference materials and resources to broaden and deepen their understanding.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

References:

6. Works of Deborah Roberts, William Kentridge, Wangechi Mutu, etc
7. Marc, Cut paper collage artist - <https://www.youtube.com/watch?v=WgRZIWI-Oh0>
8. G. Subramanian: Collage art - <https://www.youtube.com/watch?v=ioRRi9R46a0>
9. Amber Fletschock, Collage artist - <https://www.youtube.com/watch?v=aa7p1vYqUc4>
10. Arturo Herrera, artist - https://www.youtube.com/watch?v=Oagx3_NZ5HU

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.2 SPORTS, NUTRITION & FITNESS							
Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (History)	AE&VAC-2	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- explain the importance of sports, and the need and impact of sport for maintaining,
- discuss physical fitness, and the methods of teaching and organization of different types of sports,
- explain the importance of physical fitness, describe different components of physical fitness, and identify activities that help maintain physical fitness,
- Recognize the importance of basic health and nutrition and healthy lifestyles and identify food items that help maintain basic health and nutrition among children of different age groups.

UNIT - I

Sports

- A. Meaning of sports, importance of sports, types of sports.
- B. Different stages of sports (primary and secondary).
- C. Psychology of sports, methods of teaching different sports (indoor, outdoor, team and individual), different sports activities (individual and team games).
- D. Sports for children with disabilities and inclusion.

UNIT - II

Physical Fitness

- A. Meaning and importance of Physical fitness, components of physical fitness, Muscular Strength, Endurance, Flexibility, Body Composition, Cardiovascular Endurance, importance of healthy lifestyle.
- B. Coordination of Health and Fitness

UNIT – III

Nutrition

- A. Meaning of nutrition, types of nutrition, importance of nutrition, need of nutrition, methods for teaching nutrition,
- B. Nutrition for different age groups, nutritious food for sports personalities and common individuals, nutrition and health, nutrition and fitness, nutritious food in schools (midday meals), hostels.

Practicum:

Reflective Reading of different Sports Personalities. Collections of different types of games (Indoor, Outdoor, Individual, Team); Organizing different games (Play) for different age-groups, Organizing Group Games for cooperation, Organizing fitness programmes, Exercises at various levels. Collection of different nutritious items food. (Charts, Things, Objects, Models). Programmes organized to promote the use of nutritious food.

Mode of Transaction:

The mode of transaction should be designed to ensure that should provide a balance between theoretical knowledge and practical skills. The approaches to curriculum transaction may include the following:

- Active learning encourages student teachers to participate in discussions, brainstorming sessions, and problem-solving activities that help them develop critical thinking and problem-solving skills.
- Collaborative learning involves group projects and tasks that encourage student teachers to work collaboratively and learn from each other.

Mode of Assessment:

Assessment of theoretical aspects and Practicum.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. Agashe, S.R. (2013). Introduction to health education. New Delhi, India: Khel Sahitya Kedra.
2. Agashe, S.R. (2013). Introduction to physical education, fitness & sports. New Delhi, India: Khel Sahitya Kedra.
3. Chelladurai. P. (2001). Managing organizations for sport and physical activity: A systems perspective. Scottsdale, Ariz.: Holcomb Hathaway Publishers.

4. Gupta, M.C. (2012). Physical fitness and health. New Delhi, India: Khel Sahitya Kedra.
- Human Kinetics (2012). Introduction to recreation and leisure (2nd Ed). Champaign, IL: Human Kinetics..

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

3. School Experience- (SE)

Course Title: 3.1 SCHOOL BASED RESEARCH PROJECTS							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (History)	SE-1	Practical	2	20	30	50

Course Outcomes:

The student teachers will:

- present contextual problems, an appropriate research design and the plan of action for undertaking school-based research,
- demonstrate the tools and techniques used for the collection of relevant data,
- summarize the analyze data used to identify the causes,
- demonstrate the interventions used for addressing the problems,
- present the effectiveness of the intervention(s),
- share school-based research experiences through reports and presentation.

Mode of Transaction:

The following strategies will be used during the school-based research project:

- Discussions with teacher educator, school head, mentors, and peers for identification of problem and development of intervention(s).
- Finalize the school-based research project proposal outline through discussion with mentor teachers/teacher educators.
- Document analysis, interaction with all stakeholders, and field visits.
- Sharing and presentation of the outcomes of school-based research.

Content:

The student teachers during previous semesters have studied different courses in Foundations of Education, Disciplinary Courses, Stage-specific pedagogy courses, Ability Enhancement and Value-Added Courses. The required knowledge of action research and case study includes- the concept and importance of action research/case study, the steps of conducting action research/case study (objectives, methods, research design, design tools, data

collection, and data analysis) and report writing. The research problem will be taken from the day-to-day teaching-learning process of the school. Some of the significant areas may cover:

- Learning progress and outcomes in different subjects
- School-based assessment
- Learners' diversity and inclusion
- Participation in arts, games, sports

Mode of Assessment:

The assessment of the school-based research project will be continuous. The teacher educators, as well as mentors, will be involved in the assessment of the activities. The following rating scale may be used to assess the student teachers:

Assessment

Competence/Artifact	Method of assessment	Assessed By	Credits
Observation during the execution of action research	Observations	Teacher Educator	0.5
Research Report	Presentation of Report	Teacher-Educators (panel of three experts)	1.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 INTERNSHIP IN TEACHING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (History)	SE-2	Practical	10	100	150	250

Course Outcomes:

On completion of the internship, student teachers will be able to:

- Explain the overall functioning of the school.
- Describe and appreciate the different roles played by a teacher in the school.
- Develop age-appropriate pedagogic skills.
- Use different pedagogies learnt in real-life classrooms.
- Create appropriate teaching-learning materials.
- Create rapport with the stakeholders and understand their roles in the school system.
- Create student portfolios and comprehensive 360-degree (holistic) progress reports.
- Develop research aptitude and ability to conduct action research for the situations/problems faced during their school internship experience.

Mode of Transaction:

- Observation
- Interaction
- Discussion
- Teaching in the classroom
- Analysis and reporting
- Collection of relevant documents and data

Content:

- Pedagogies' different methods and strategies
- Scheme of lessons
- Peer lesson observation
- Management of substitute classes

- Various TLMs (including ICT tools) and their uses in teaching-learning.
- Achievement test
- Diagnostic tests
- Analysis of the result of the achievement test
- Assembly activities
- Action research and case studies.

Activities:

Student teachers are required to undertake the following stage specific activities:

1. Meet the subject-based mentors, collect timetables of classes VI to VIII and develop a scheme of lessons from the syllabus to be covered during the internship.
2. Get acquainted with the school within 2-3 days. Observe classroom teaching of school teachers.
3. Plan and transact minimum 80 lessons (40+40), including 4 stray lessons (2+2). Stray lessons are class appropriate lessons on any topic(s) to be transacted by student teachers as per their convenience to build up confidence gradually. The last 5 lessons in each pedagogy course may be transacted using lesson notes.
 - Lesson plans should include activities to promote creativity, inquiry, inquisitiveness, experimentation, exploration, analytical thinking, synthesis to understand the coherent whole, problem-solving, and application of knowledge in real-life situations.
 - Lesson plans must promote education for sustainability, including equity, environment, global citizenship, pride and rootedness in Indian culture and character building.
4. Participate in post-lesson discussions with peers, mentor(s) and teacher educators.
5. Observe peer lessons and discuss with the group.
6. Conduct laboratory activities (Atal Tinkering Lab, Science, Mathematics, Languages, Social Science, Computer), sports, and arts and crafts activities.
7. Participate in student support services- guidance and counselling, NCC, health and wellness programme.
8. Create teaching-learning materials, including ICT tools for opted pedagogic courses.
9. Plan assessment, prepare material and formative and summative assessment tools, and analyze the results.
10. Prepare and conduct diagnostic tests to identify learning difficulties, analyze data and prepare learning enhancement plan.
11. Experience classes as a substitute teacher.

12. Participate in library functioning and literary activities.
13. Participate in teacher development and training activities.
14. Organize school assemblies and other events (cultural, sports, yoga, and other development activities).
15. Attend Parents-Teachers Association (PTA) meetings if held during the internship.
16. Attend School Management Committee (SMC) meeting if held during the internship.
17. Study the process of parent and community engagement for the school development programme.
18. Conduct action research /case study.
19. Prepare a sample student portfolio, 20. Write a reflective diary daily and prepare a report of each activity.

Mode of Assessment:

The activities conducted / skills acquired during the internship by the student teachers will be assessed as per the following scheme.

Competence/Artifact	Method of assessment	Assessed By	Credits
Observation of classroom practices	• Observation of a Minimum of 6 lessons of School Teachers (3+3) • Observation of a Minimum of 10 lessons of Peers (5+5)	Teacher-Educator	Non-evaluative
Unit planning, Lesson Planning & Transaction	40 lessons transaction for each pedagogical subject * Unit plans and lesson plans * Minimum 2 Innovative lesson plans in each pedagogy subject (Eg: Storytelling, Drama based, Arts and crafts, Use of Technology)	Teacher-Educator, School Mentor	6.0
Assessment Planning and execution	Preparation of report on assessment plan in each lesson transacted i.e., within lesson transaction and lesson end activities. Preparation of a Blue Print (For one/two Pedagogical course/s) and preparation of Assessment tools	Teacher-Educator, School- Mentor	1.5

	Conduct of Unit Test & analysis of results (for both Pedagogical course/s) Development of plan for learning enhancement of students related to subjects (for both Pedagogical course/s)		
Participation/Organization of assembly and other school-level activities, PTM & SMC Meetings	Observation & Interaction	School Mentor	0.5
Preparation of Logbook /Teachers diary Min 5 lessons for each pedagogical method	Review	Teacher-Educator, School Mentor	0.5
Overall feedback on student-teacher performance by School Head	Observation and Interaction	School Head	0.5
Test lesson (one in each pedagogical method)	Presentation	Teacher-Educator	1.0

Stakeholders Responsibilities:

Role of Head of ITEP Institution:

- Identification of the adequate number of internship schools
- Signing the MoU with the schools 1.0
- Sharing of mutual expectations of ITEP institutions and the participating schools
- Identification of the internship programme coordinator
- Monitor the progress of the entire School Experience Programme

Role of Teacher-Educators of the ITEP Institution:

- Guide the student teachers in preparing lessons and activities, assessment, observation of lessons on peer teaching, action research, and case studies conducting school activities preparation and report writing on Teaching Learning Materials.
- Conduct pre- and post-lesson discussions regularly.

- Assess the transaction of lessons for the complete duration of the lesson in the rating proforma developed by the teacher education institute and give feedback/remarks to the student teachers for lesson improvement.
- Submission of monitoring and supervision reports to the institute in time.
- Discuss with the student teachers frequently and organize a phase-end meeting of the student teachers and mentors to assess the progress and performance of the student teachers.

Role of School Head:

- To introduce the student teachers to the students and staff of the school in the assembly on the first day.
- To facilitate student teachers to take classes as per stage requirements- Foundational, Preparatory, Middle, and Secondary.
- Ensure the alignment of the timetable, scheme of lessons and plan of activities/ assignments of the student teachers to be carried out during the programme in the school.
- Countersign on the attendance register maintained by the group leader/ mentor of the school.
- Ensure that all facilities and provisions are available to the student teachers to teach their lessons and carry out their assignments smoothly.
- grant of leave applications of the student teachers in exceptional circumstances.
- Involve student teachers in different activities of the school.
- Facilitate phase-end meetings of the student teachers and the mentors to assess the progress and removal of difficulties.
- Countersign/ certify the report/ documents of the activities/ assignments conducted by the student teachers towards the end of the internship programme.
- Provide input about student-teacher performance.
- Provide suggestions for improvement of the programme to the ITEP institution.

Role of Mentors:

- Guide student teachers to prepare detailed lesson plans, brief lesson notes and plans of activities/ assignments to be conducted by them in school.
- Review the lesson plan before a student-teacher transacts the lesson in the class.
- Observe the classes of student teachers.
- Assess each lesson on the prescribed proforma and write remarks in the lesson plan book provided by the student teachers.

- Give feedback continuously to the student teachers for their improvement in their teaching and other curricular activities.
- Conduct post-lesson discussions regularly.
- Countersign in the peer-teaching observation schedules after their observations in the classroom.
- Organize frequent meetings with the student teachers and supervisors to discuss the progress, difficulties faced, and experience gained by student teachers.

Role of Student-Teacher:

- Report to the school head of the participating school at least one day before the start of the internship placement.
- Seek information about the classes, timetable, and topics to teach in stage-specific pedagogic courses from the mentors on the first day of the internship programme.
- Mark your attendance as per the school practice.
- Plan all the assignments/ activities with the help of the mentor/ supervisors.
- Seek cooperation from mentors and supervisors in case of difficulty.
- Prepare the lesson plan and get approval from the mentor/ supervisor before transacting every lesson.
- Take classes according to the timetable of the participating school.
- Take substitute classes and participate in other school duties assigned by the school.
- Follow the conduct and dress code of the participating school.
- Get prior leave approval from the head of the participating school in case of emergency.
- Maintain a diary and regularly list all the innovations, challenges faced and reflections for improvement.
- Check with your mentor before attempting learning activities that depart from routine classroom procedures.
- Carry out the activities you plan for school students according to your approved plans.
- Maintain cordial relationships with the students and staff of the school.
- Refrain from making negative comments about the school or the school's personnel, especially when talking with fellow student teachers.
- Submit student teaching profiles, one each, to the supervisor and mentor who supervises your teaching.
- Before the completion of the internship programme, make sure to return all textbooks and materials to the school.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	40
Internal Assessment Test 2	40
Assignment	20
Total	100 Marks
<i>Formative Assessment as per guidelines.</i>	

VIII Semester
ITEP B.A B.Ed History

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Philosophical & Sociological Foundations of Education-II	4	40	60	100
2	FCE-2	Education Policy Analysis	2	20	30	50
3	FCE-3 (Elective)	Elective (Anyone From below) 1. Adolescence Education 2. Education for Mental Health 3. Education For Sustainable development 4. Gender Education 5. Guidance & Counselling	4	40	60	100
Ability Enhancement & Value-Added Course- AE&VAC						
4	AE&VAC-1	Yoga & Understanding Self	2	20	30	50
5	AE&VAC-2	Citizenship Education Sustainability & Environmental Education	2	20	30	50
School Experience- SE						
6	SE-1	Post-Internship (Review and Analysis)	2	20	30	50
7	SE-2	Creating Teaching-Learning Material/Work Experience	2	20	30	50
Community Engagement & Services- CE&S						
8	CE&S	Community Engagement &Services (Participating in NSS-related activity, New India Literacy Programme etc.)	2	20	30	50
Total Credits			20	200	300	500

**VIII Semester
B.A B.Ed (History)**

SYLLABUS

S.NO.	Type of Course	Course Code	Course Title
1	Foundation Course of Education- FCE		1.1 Philosophical & Sociological Foundations of Education-II
			1.2 Education Policy Analysis
			1.3 Elective (Anyone From below) 1. Adolescence Education 2. Education for Mental Health 3. Education For Sustainable development 4. Gender Education 5. Guidance & Counselling
2.	Ability Enhancement & Value-Added Courses - AE&VAC		2.1 Yoga & Understanding Self
			2.2 Citizenship Education Sustainability & Environmental Education
3	School Experience- SE		3.1 Post-Internship (Review and Analysis)
			3.2 Creating Teaching-Learning Material/Work Experience
4	Community Engagement & Services- CE&S		4.1 Community Engagement & Services (Participating in NSS-related activity, New India Literacy Programme etc.)

1. Foundation Course of Education- (FCE)

Course Title: 1.1 PHILOSOPHICAL & SOCIOLOGICAL FOUNDATIONS OF EDUCATION-II Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (History)	FCE-1	Theory	4	40	60	100

Course Outcomes:

After completion of this course, student teachers will be able to:

- Recognize the social context of education,
- Outline the meaning, nature, and scope of educational sociology,
- Establish the link between education and socialization,
- Analyze the main agents of socialization, such as family, school, community and peer groups,
- Analyze the impact of culture on education through a study of dimensions of culture and their importance to education practices,
- Recognize the different aspects of social stratification,
- Identify the close relationship between education and modernization, the role of education in Modernization, and factors and constraints to social change.

UNIT - I: Education and Society

- A. Conceptual clarity, relationship, significance and aims of studying relationship between these two.
- B. Educational sociology and social perspective of education: meaning and functions.
- C. Education as a Social System.
- D. Conceptual clarity of the following terms: society, social behavior, status, institution, ideology, system, sub-system, socialization, social system, social values and norms, conflict, modernization.
- E. Understanding the relation between individual and group behavior with special reference to purpose of education.

UNIT - II: Education and Social Change

- A. Meaning, relation, and dimensions of Social Change.
- B. Factors affecting Education and Social Change: technology, social and educational movements, curricular innovations, value conflict, legal provisions.
- C. Constitution of India and Education.
- D. Education and Modernity.
- E. E. Role of education with reference to social change.

UNIT - III: Education, Culture and Socialization

- A. Relationship between Education and Culture.
- B. Education as a process of Socialization.
- C. Impact of following on Culture and Educational Process: Social Welfare, Social Reform Movements, Legal interventions on Child Marriage and child labor Act, Educational Policies and Acts, Adult Literacy, New Technology of communication, Equality.
- D. Constitutional Provisions and Education with special reference to Social Equality and Equity.

UNIT - IV: Education and Values

- A. Conceptual Clarity, Relationship and Significance.
- B. Types of Values.
- C. Constitutional Values and its impact on our Education.
- D. Human Rights and Values.
- E. Environment and Education.
- F. Pedagogical issues.

Practicum:

1. Critical/Reflective study of contemporary aims of education and their social determinants.
2. Observation and critical study on how textbooks determine every activity of teacher and learner in the school.
3. A critique of textbook culture in school.
4. Observing the process of knowledge construction by children in structured and unstructured environments to appreciate their learning processes and nature.
5. A critical analysis of Constitution of India in the context of process of Education in India/ Educational Policies / Educational Commissions)

6. Critically observing nearby society/ locality in groups of 4-5 students and sharing observations related to cultural/ social influences on educational practice.
7. Analyzing social purpose of NEP, 2020.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.2 EDUCATION POLICY ANALYSIS							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (History)	FCE-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- discuss knowledge and capacity to engage in education policy analysis and evaluate their effectiveness,
- explain processes involved in policy analysis including undertaking situation analysis and research.
- To identify possible policy options,
- Describing these possible options,
- Comparing the potential policy options,
- Ranking the possible policy options and
- Choosing the most effective option that could address issues and problems confronting school education.

UNIT - I

Planning an Educational Policy

- A. Meaning and significance of 'Policy on Education'.
- B. Purpose and Dimensions of an Educational Policy at local and Global level.
- C. Philosophical and Sociological Perspective of planning an Educational Policy.
- D. Historical development of Educational Policies in India.
- E. Basic steps involved in planning.
- F. Constitutional provision for Policy on Education.
- G. Fundamental principles for analyzing an Educational Policy.

UNIT - II

Educational Policies in India

- A. Critical analysis of Policies on Education since Independence: 1968, 1986 (Modified in 1992), 2020 in the context of: need and significance, goals and frameworks of educational policies, content of policies, issues raised in policies, constitutional provisions, special stress, modification of policies, implementation strategies.
- B. Issue of modifying an Educational Policy.

UNIT - III

Implementation of an Educational Policy

- A. Meaning, need and significance.
- B. Mechanism of Policy Implementation.
- C. Strategies to Implement an Educational Policy.
- D. Programme of action and implementation: conceptual clarification and significance.
- E. Role of different Organization / Groups: Legislature/ Judiciary/ Political Will and Parties/ Voluntary Organizations/ Non-governmental organizations (NGOs)/ Pressure Groups/ Public.
- F. Challenges for Implementation.

Practicum:

1. Reviewing and presenting report on NEP, 2020 in reference to Policy Implementation.
2. To present a critical review of the Programme of Action (1987).
3. Preparing a list of challenges to implement the present new National Education Policy, 2020 in our States.
4. Preparing a list of Measures to be taken or taken to implement National Education Policy, 2020 in our State.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children and schools.

Mode of Assessment:

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. Adams, Paul (2014). Policy und Education. Foundations of Education Studies Series: Routledge-Taylor & Francis Group. London.
2. Handbook of Education Policy Studies, ISBN: 978-981-13-8342-7 Handbook of Education Policy Studies: School/university, Curriculum. and Assessment, Volume 21 SpringerLink <https://ink.springer.com/book/IO.1007/978-981-13-8347->
3. Henry L. (1987). "Education as a Public and Private Good". Journal of Policy Analysis and Management, summer.
4. Ministry Of Education and Cultural (Department of Education) (1985). The Teacher and Society: Report of The National Commission on Teachers. New Delhi: Government of India.
5. NCERT. (2005). National curriculum framework. (NCF 2005). New Delhi: NCERT.
6. NCERT (2022) National curriculum framework for foundational stage. New Delhi: NCERT.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective /1. ADOLESCENCE EDUCATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (History)	FCE-3 (Elective -1)	Theory	4	40	60	100

Course Outcomes:

After the completion of this course students will be able to:

- develop sensitivity, understanding and knowledge about Adolescence and Adolescence Education,
- know the historical development of Adolescent Educational Programme in India,
- know the role of local as well as international agencies towards Adolescent Educational Programme,
- develop a positive attitude towards the importance of Adolescence Education Programmes at the school level,
- develop knowledge and sensitivity on matters related to reproductive health, sex and sexuality and communicate effectively on these issues,
- develop understanding about intellectual, emotional, physiological, socio-cultural, and interpersonal issues related to the processes of growing-up,
- inculcate a healthy attitude towards sex and sexuality, respect for the opposite gender and an understanding of responsible sexual behavior,
- develop an understanding about the desired life skills,
- acquire pedagogical related skills for Adolescence Education Programmes.

UNIT - I

Adolescence and Adolescence Education

- A. Understanding Adolescence: intellectual, emotional, social, and physiological aspects of Adolescence, issues and challenges during Adolescence, myths and realities.
- B. Adolescence Education: concept, nature, and significance of Adolescence Education in Indian context, aims and objectives of Adolescence Education.
- C. Role of school, family, media, and community as social agencies in Adolescence Education. Challenges of Adolescence Education.

UNIT - II

Life Skills and Adolescence Education

- A. Concept, nature, and significance of Life Skills for Adolescence Education
- B. Relationship between Life Skills and Adolescence Education.
- C. Core Life Skills and their significance.
- D. Understanding sexual and reproductive health.
- E. STIs and HIV/AIDS: causes, prevention, cure, and skills of coping.

UNIT – III

Adolescence Education Programme in India (AEP)

- A. Historical Development of Adolescence Education Programme in India.
- B. Goals and Significance of Adolescence Education Programme in India.
- C. Role of Teachers in Adolescence Education in India (AEP).
- D. Challenges to Educational Programmes in India.
- E. Myths / Misconceptions

UNIT – IV

Pedagogical Issues

- A. Meaning, goals and significance.
- B. Challenges of teaching adolescence education: understanding student's behavior, dealing with personal self-constraints, socio- cultural issues, class-room issues and challenges, material production, methodology
- C. Preparation of teachers
- D. Approaches to adolescence education: case studies and critical incidents, brainstorming, role-playing, gaming, value clarifications, question box, discussions and debates, puppet shows, role reversal, video shows.

Practicum:

- 1. Study of Case studies and Critical Incidents. a) Field visit/s
- 2. Review and analysis of the work done by Government and Non-Government.
- 3. Study of Organizations (NGO) at national and international level.
- 4. A research study or detailed case study: Adolescents' behavior in different socio economic settings, a study on child abuse victims, adolescents in drug rehabilitation centers, adolescents residing in the precincts of industrial areas and factory establishments,

adolescents in the educational regions showing either higher or lower drop-out rate, adolescents belonging to communities in which social evils affecting them are manifested like child marriages, conducting Adolescence Education sessions in School.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

1. Arnett, J. G, Hall's Adolescence: Brilliance and Nonsense. Hist Psychol. 2006 Aug;9(3): 186-197. doi: 10.1037/1093-4510.9.3I86. PMID: 17153143.
2. Berk, L. E. (2011). Child Development. (8th ed.). New Delhi: Pearson Prentice Hall.
3. Choudhary, G.B. (2014) Adolescence Education, Delhi: PHI
4. Cobb, N. (2011). Adolescence. 7th ed. Sunderland. MA: Sinauer.
5. Department of Education & State AIDS Control Society (2005) YUVA- School Adolescence Education Programme- Handbook for Teachers. Delhi.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective /2. EDUCATION FOR MENTAL HEALTH							
Course Code							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (History)	FCE-3 (Elective -2)	Theory	4	40	60	100

Course Outcome:

After studying this course, student teachers will be able to:

- express the meaning and significance of mental health,
- describe social and psychological determinants of mental health,
- analyze the causes of stress and process of stress management,
- analyze the significance of adjustment in life,
- analyze the needs and importance of global mental health education programme,
- explain the special role of teachers and parents to maintain the good mental health of children,
- suggest prevention and promotional measures to maintain good mental health of society,
- express the need for health policies globally.

UNIT - I

Mental Health

- A. Meaning and determinants of Mental Health.
- B. Mental Health Vs Mental Hygiene.
- C. Mental disorders: Characteristics and Types.
- D. Causes of poor Mental Health.
- E. Myths Vs Facts about Mental Health.
- F. Legal perspectives of Mental Health in India.
- G. Concept of Healthy Personality

Unit-II

Stress, Stress Management and Adjustment

- A. Stress: meaning, nature and symptoms, types of stress, social and psychological perspectives, remedial measures.
- B. Stress management and adjustment: meaning and significance of stress management and adjustment, prevention and promotion, role of parents, peer group and teachers.

UNIT – III

Mental Health Education Programme

- A. Meaning and significance of Mental Health Education Programme.
- B. Dimensions of Mental Health Education Programme in India.
- C. Historical development of Mental Health Education Programmes in India.
- D. Local and Global Perspective of Mental Health Education Programme.
- E. Organizations at local and international level.
- F. Characteristics of a good Mental Health Education Programme.
- G. Role of Educational Institutions.

UNIT - IV

Challenges to Pedagogical Issues

- A. Home Vs. school
 - Diverse school and home contexts
 - Lifestyles of teachers and parents
 - Stereo-type roles
 - Mental health concerns of teachers and parents
- B. Material availability/ production
- C. Guidance and Counselling Programme:
 - Concept, need and techniques.
 - Teacher as a counsellor
- D. Designing and evaluating Mental Health Programmes

Practicum:

1. Visiting of Mental hospital and preparing list of four cases admitted in Hospital.
2. Preparation of two case histories on causes of abnormal behavior.
3. Critical analysis of laws and Public Health Policies.
4. Critical analysis of National Educational Policy, 2020 in the context of Health of children at school.
5. Critical analysis of Legal perspectives Mental Health Education in India.
6. Preparing comprehensive report on Mental Health Education Programme in India.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.

- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings and learning contents as per the needs of the learners.

1. Aris, S., Garraway. H. Gilbert, H. (2021). Mental Health. Spirituality and Well-being. Pavilion Publishing and Media Limited
2. Brady, G. (2021) Anxiety and Depression. How to help. understand and support children and young people, Pavilion Publishing and Media Limited
3. Baron, Robert. (2000). Psychology. (3rd ed.). New Delhi: Prentice Hall.
4. Charlesworth. E.A. & Nathan, R.G. (2004). Stress Management, Ballantine Books Caverro, O.B. & Calvet, N.L. (2018). New Pedagogical Challenges in the 21st Century, Intech Open, UK
5. Patel, V. and Thara, R. (Ed).(2003). Meeting the Mental Health Needs of Developing Countries. New Delhi: Sage Publications
6. Ranganathan. N. (Ed.) (2012). Education for Mental Health. New Delhi: Shipra.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 3. EDUCATION FOR SUSTAINABLE DEVELOPMENT Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (History)	FCE-3 (Elective -3)	Theory	4	40	60	100

Course Outcomes:

After studying this course, student teachers will be able to:

- clarify the meaning and significance of sustainable development,
- explore the relationship among education, development and environment,
- appreciate the relation between education and sustainable development,
- describe the characteristics of ESD,
- explain the role of education in sustainable development,
- critically analyze the meaning and importance of education in the context of sustainable development.,
- explain the role of education to achieve sustainable development,
- analyze the pedagogical issues related to ESD.

UNIT – I

Education and Sustainable Development

- Meaning, relationship, goals, and significance.
- Characteristics of ESD
- Education for Sustainable Development: Historical Perspective
- Philosophical, Sociological and Psychological Perspective.
- Role of Education for Sustainable Development.
- Decolonizing Knowledge for Sustainable Development.
- Challenges of Education for Sustainable Development.

UNIT – II

Sustainable Development Goals (SDGs)

- Meaning, nature and significance of SDGs.
- 17 Sustainable Development Goals (SDGs): UNESCO agenda.
- SDGs and Social Transformation as Universal Commitment.
- Education as a Human Right to achieve Sustainable Development.

- E. Sustainable Development and Peace.
- F. Role of Educational Institutions and Challenges to achieve SDGs.

UNIT - III

SD Goal-4: Quality Education for All

- A. Meaning, Nature, and Significance.
 - NEP, 2020 on SDG-4: Sustainable lifestyle, Gender equality, Promotion of peace & non-violence, Global citizenship, Good mental health & wellbeing, Justice in society.
- B. Pedagogical issues for SDG-4.

UNIT – IV

Sustainable Development: Politics and Policies

- A. Understanding the Policy-Making Process.
- B. Policy Analysis.
- C. Democratizing Science and Technology.
- D. Globalization and the Environment: Capitalism, Ecology and Power.
- E. Perspectives, Methods, and Skills.
- F. Innovation for Sustainability.
- G. Key Issues from an International perspective.
- H. Critical issues involved in sustainability.

Practicum:

1. To present critical review on NEP, 2020 in the context of SDGs.
2. Critical study of Delors Commission Report, 1996: Learning: The Treasure within with reference to SDGs.
3. To review and present a critical report on legal perspective on SDGs.
4. To prepare Toolkit for Educations for Sustainable Development.
5. To organize discussions/ seminars of Teachers of all streams to present their views on SDGs and to present Action Plan for this.
6. To prepare and present a short Video/film to promote SDGs.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

1. Chew-lung Chang, Gilian Kidman, et al. (2021) Issues in Teaching and Learning of Education for Sustainability: Theory into Practice (Routledge Research in Education) . Devaki, N. (2019) Education for Sustainable Development
2. IGNOU (2024). Role of Education in Sustainable Development [UNIT 10] (pp 150- 158)
3. Kothari, R. (1982), Environment and Development in Asia and the Pacific: Experiences and Prospects. UNEP.
4. UNESCO (2019a). Education for Sustainable Development: Partners in Action - Global Action Programme (GAP) Key Partners' Report (2015-2018). UNESCO.
5. UNESCO (2019b). What is Education for Sustainable Development? UNESCO.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 4. GENDER EDUCATION Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (History)	FCE-3 (Elective -4)	Theory	4	40	60	100

Course Outcomes:

After completion of this course the students will be able to:

- clarify key concepts like gender, transgender, gender bias, gender stereotype, empowerment, gender parity, equity and equality and patriarchy,
- explain the shifting from women studies to gender studies,
- clarify gender issues in school, curriculum, and textual materials across disciplines, pedagogical processes and its intersection with class, caste, religion, and region,
- examine school environment, curriculum, and pedagogy with reference to gender related issues,
- address issues related to sexuality, sexual violence, and abuse,
- draw framework for gender sensitized classroom and school environment.

UNIT - I

Gender and Education

- A. Meaning, relationship, and significance of studying.
- B. Conceptual clarity of related terms: Gender, gender perspective, sexuality, patriarchy, masculinity, feminist, gender bias, transgender, gender stereotyping and empowerment.
- C. Gender as the basis in school education.
- D. Constitutional Provisions with special reference to equity and equality, rights of girls.
- E. Education and women's empowerment. F. Shifting from women's studies to Gender Studies.

UNIT – II

Learning Gender Roles

- A. Social and Cultural Perspectives of Gender Identity: role of family and school, media, and other formal and informal organizations/ agencies
- B. Socialization and learning gender roles.
- C. Gender stereotyping/Role models.
- D. Preventing Measures: role of school and home

UNIT - III

Gender, Sexuality, Sexual Violence and Abuse

- A. Development of sexuality and its impact on children with reference to gender, body image, role-models.
- B. Sexual violence in formal and informal institutions.
- C. Child sexual abuse from pre-primary stage to secondary stage: providing accurate information on child sexual abuse, helping, and identifying signs of sexual abuse in children.
- D. Providing dos and don'ts about sexual abuse.
- E. Legal perspective: Laws for safety and Security of girls and women, Implementation of the POCSO Act.

UNIT – IV

Pedagogical Issues

- A. Analyzing classroom practices.
- B. Creating gender friendly classrooms and school environment.
- C. Analyzing Curriculum from gender perspective: learning outcomes, textual material, teaching-learning processes, language used, teaching aids, assessment strategies.
- D. ICT pedagogy for gender sensitive school curriculum.
- E. Challenges for pedagogical issues.

Practicum:

1. Preparing a Report on National Educational Policies, (1986/1992 and 2020) in the context of gender issues in Education.
2. Preparation of projects on:
 - Analysis of textual materials from the gender perspective for identifying gender bias and gender stereotype in textual materials.
 - Recommendations of commissions and policies on education to empower girls/women.
 - Mahila Samakhya Programme.
 - Women Role Models in various fields with emphasis on women in unconventional roles.
 - Video clipping on portrayal of women.
 - Folklores reflecting socialization process.
 - How students perceive sexuality and their own body images.
3. Field visits to schools to observe the schooling processes from a gender perspective.
4. Preparing Analytical Report on portrayal of men and women in print and electronic media.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Bhog, D., & Ghose, M. (2014). Writing Gender in Reflections on Writing middle- school political science textbooks in India. *Gender & Development*, 22(1), 49-62.
2. Blumberg, R. L. (2008). The invisible obstacle to educational equality: Gender bias in textbooks. *Prospects*. 38. 345-36 I.
3. Butler, J. (2014). Excerpt from Gender Trouble. In *Feminist Social Thought* pp. 112- 128. Routledge.
4. Butler, J. (2022). Selection From Gender Trouble: Feminism and the Subversion of Identity. *Transgender Studies Reader Remix* pp. 191-201: Routledge.
5. Chanana. K. (2001). Hinduism and female sexuality: Social control and education of girls in India. *Sociological Bulletin*. 50(1), 37-63.
6. Chopra. R. (2006). Invisible Men: Masculinity. Sexuality and Male Domestic Labour, *Men and Masculinities*, Sage, Vol. 9, No. 2. I October, pp. 152-67
7. Chopra. R.(2000). From Violence to Support: Family. Gender. and Masculinities in India, Uniform, South Asia Regional Office. New Delhi. Connell. R. W. & Messerschmidt. J. W. (2005). Hegemonic Masculinity: Rethinking the Concept. *Gender& Society*, 19(6), 829-859.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 5. GUIDANCE & COUNSELLING Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (History)	FCE-3 (Elective -5)	Theory	4	40	60	100

Course Outcomes:

After completion of this course the students will be able to:

- explain the basic meaning, need and significance of Guidance and Counselling in the context of education,
- differentiate between Guidance and Counselling with special reference to the purpose and strategies,
- clarify the general social, psychological, and historical perspective of Guidance and Counselling,
- describe the basic features of Guidance and Counselling with reference to students needs at school level,
- explain the basic principles of Guidance and Counselling,
- organize guidance program,
- analyze the reports of educational commission and educational policies with reference to Guidance and Counselling.

UNIT - I Guidance

- A. Meaning, need, nature and scope of Guidance.
- B. Brief historical background of Guidance movement in India.
- C. Individual and Group Guidance.
- D. Basic assumptions and principles of Guidance.
- E. Need to understand the needs of the individual and group in the context of Guidance.
- F. Essential information for Effective Guidance.
- G. Vocational Guidance and Role of teachers.

UNIT - II

Counselling

- A. Meaning, importance, areas, and types of Counselling.
- B. Approaches to Counselling: directive, non-directive and eclectic, behaviourally, and cognitively oriented.
- C. Process of Counselling: initiating counselling, preparation, and intake procedures, establishing rapport, termination of and response to initial interview.
- D. Establishing Structure: attending behaviour, observation, non-verbal behaviour, listening, verbal patterning and communication responses, silence, use of questions. transference and countertransference. regarding and respect in counseling relationships. involuntary clients, client expectation.
- E. Role of family and community.

UNIT - III

Tools and Techniques to Collect Data

- A. Psychological Testing and Diagnosis: Need and Nature.
- B. Test use and interpretation, appraisal techniques.
- C. Counselling Interview: Essential aspects, basis procedures, problems, and their handling.
- D. Personality Assessment: Historical perspective
- E. Material administration, scoring, interpretation, and evaluation of frequently used personality inventories/ questionnaire and projective tests. Personal Orientation Tests and Rating Scales: Type a behaviour, Locus of Control, Attitude scale, ST AI etc., and other clinical rating scales.
- F. Case Study: Need and Importance.

UNIT – IV

Issues Related to Guidance and Counselling

- A. Factors affecting Guidance and Counselling.
- B. Ethical issues in Guidance and Counselling.
- C. Limitation of diagnosis with special reference to Counselling.
- D. Challenges to organize Guidance and Counselling programmes in schools.
- E. Counselling and Guidance of persons with learning disabilities, visual and hearing impairment.

F. Challenges related to counselling services in schools.

Practicum:

1. Prepare a case study on students with learning difficulties.
2. Prepare a report on challenges of organizing guidance and counselling programmes in school.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings and learning content as per the needs of the learners.

1. Aiken, L. R. (2009). Psychological testing and assessment. Pearson Education India.
2. Crow. L. and Crow. A.(1962) Introduction to Guidance. New Delhi: Eurasia.
3. Geldard. K. and Geldard, D. (1997) Counselling Children: A Practical Introduction, New Delhi: Sage Publications
4. Gibson, R.L. and Mitchell, M.H. (1995) Introduction to Counselling and Guidance. New Jersey: Meril Prentice Hall, 1995.
5. Guidance and School Counselling (2020). A Brief History of School Guidance and Counselling in the United States- Counsellors, Students, and Education. Retrieved from <https://education.staleuniversity.compages2023/Guidance>
6. Holland. J. L. (1973). Making vocational choices: A theory of careers. Englewood Cliffs. J. Holland. [https://www.yOurarticelibrary.com/education/importance-of-guidance-in-education/Kabir, S.M.S. \(2017\). Essentials of Counselling. Banglabazar, Dhaka :Abosar Prokashana Sangstha](https://www.yOurarticelibrary.com/education/importance-of-guidance-in-education/Kabir,%20S.M.S.%20(2017).%20Essentials%20of%20Counselling.%20Banglabazar,%20Dhaka%20:Abosar%20Prokashana%20Sangstha)

7. Morgan-Jones. R. (2002). Counseling ater hearing loss. Rehubiliation counseling in plphysical und mental health. 109.
8. Okolic. U. C. Nwajiuba, C. A., Binuomote, M. 0.. Osuji. C. U. Onajite. G. O., & Igwe. P. A. (2020). How careers advice and guidance can facilitate career development in technical, vocational education. and training graduates: The case in Nigeria. Australian Journal uf Career Development, 29(2), 97-106.
9. Pal. H.R. & Sharma, M. (2007) Education of Gifed. New Delhi: Shipra Publication

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

2. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 2.1 YOGA & UNDERSTANDING SELF Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (History)	AE&VAC-1	Theory	2	20	30	50

Course Outcomes:

After completion of the course, the student teachers will be able to

- explain the importance of Yoga and how it helps an individual in understanding Self,
- describe the importance of practicing Yoga Asana,
- practice basic Yoga Asanas/ Kriyas.

UNIT - I

Philosophy and Historical Perspective of Yoga

- A. Concept and Meaning of Yoga, Philosophy of Yoga,
- B. Brief history and development of Yoga (Classical Yoga, Post Classical Yoga and Modern Period)
- C. Importance of Yoga for healthy living, Yoga and its relevance in the modern times, Traditions in Yoga.

UNIT - II

Schools of Yoga

- A. Different streams \schools of Yoga (Gnana, Bhakthi, Karma).
- B. Construction of Yoga Practice for all round development.
- C. Principals of Yoga: - Ahimsa, Satya, Asteya, Brachmacharya, Aparigraha, Shoucha, Santhosha, Tapas, swadyaya and Isvara Paridhana.

UNIT – III

Modern Principles of Yoga and Meditation

- A. Modern Principles: Human Body is a holistic entity, Individuals and their need are Dhāraṇa & Dhyāna, etc, meditation and reflective practices, and the importance of these aspects in becoming an effective teacher, unique Self-empowering, the quality and state of an individual mind is crucial to healing.
- B. Meditation: - its Importance, Types, and Process, Pranayama: its importance, types and process, Yoga as a Way of life for Peace, Harmony, Health love and happiness. Yoga in Indian philosophy for understanding Self.

Practicum:

1. Practice of Basic Yoga Asanas/ Kriyas.

Mode of Transaction:

Reflective reading of different Yoga practicing Personalities, learning by doing, Relaxation Techniques for imparting concentration, Understanding Self, and personality development.

Mode of Assessment:

Assessment of practicum; Assessment of practice of basic Yoga Asanas/ Kriyas; Assessment of Reflective level Readings

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. Alter. Joseph S. (2004). Yoga in Modern India: The Body between Science and Philosophy. Princeton. NJ: Princeton university Press.
2. Bronkhorst. Johannes (1993). The Two Traditions of Meditation in Ancient India. Delhi: Motilal Banarsidass.
3. De Michelis, Elizabeth (2004). A History of Modern Yoga. Patanjali and Western Esotericism. New York and London: Continuum.
4. Eliade, Mircea (2009). Yoga: Immortality and Freedom, 2d ed. Princeton. NJ: Princeton University Press.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.2 CITIZENSHIP EDUCATION SUSTAINABILITY & ENVIRONMENTAL EDUCATION							
Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (History)	AE&VAC-2	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- explain the concept of citizenship and citizenship education,
- describe the aims of and approaches to citizenship education,
- explain the concept and aims of Global Citizenship and Global Citizenship Education,
- describe the aims of and approaches to global citizenship education,
- explain the concept of ‘Sustainability’ in all fields of human activities, and approaches to achieving sustainable development in its three dimensions – economic, social and environmental – in a balanced manner,
- demonstrate an awareness of environmental issues, and actions required for mitigating the effects of climate change, environmental degradation and pollution, and initiatives required for effective waste management, conservation of biological diversity, management of biological/natural resources, forest and wildlife conservation, and sustainable development and living.

UNIT - I

Citizenship Education

- Concept of citizenship and citizenship education.
- Aims of and approaches to citizenship education.
- Concept of Global Citizenship and Global Citizenship Education.
- Aims of and approaches to global citizenship education.
- Concept of Vasudhaiva Kutumbakam, its importance in development of a holistic perspective towards local and global communities.

UNIT - II

Sustainability

- A. Concept of ‘Sustainability’ in all fields of human activities.
- B. Approaches to achieving sustainable development in its three dimensions – economic, social, and environmental.
- C. Sustainable development goals.
- D. Sustainable management of natural resources.
- E. School- and community-based activities.
- F. Education for sustainable development

UNIT – III

Environmental Education

- A. Environmental issues.
- B. Actions required for mitigating the effects of climate change, reducing environmental degradation, pollution etc.
- C. Initiatives required for effective waste management, conservation of biological diversity, management of biological/natural resources, forest and wildlife conservation, and sustainable development and living.
- D. Approaches to delivering Environmental Education
- E. Role of Mass Media and Technology in delivering environmental education.
- F. Roles Governmental and Non-Governmental Organizations in promoting Environmental Education.
- G. School and community-based environmental education activities.

Practicum:

1. Write a report on the roles of governmental and non-governmental organizations in promoting Environmental Education.

Mode of Transaction:

Lecture-cum- discussion, Focus Group discussions, in-class seminars, Library Work, Assignments, Project Work, Lesson Plan Development, Interaction with different stakeholders, ICT based educational materials, Group Work, critical reflections, group-work, case-based approaches, and enquiry-based learning.

Mode of Assessment:

Assessment of practicum and assessment of reflective level readings.

References:

1. "Vasudhaiva Kutumbakam: Relevance of India's Ancient Thinking to Contemporary Strategic Reality" (1st ed.). (2020), New Delhi. India: Aryan Books International.
2. Bhamra, T., & Lofthouse, V. (2016). Design for sustainability: a practical approach. Routledge.
3. Dalal-Clayton, B. & Bass. S. (2012). Sustainable development strategies: a resource book. Routledge.
4. Davies, I., Grammes, T. & Kuno. H. (2017). Citizenship education and character education. JSSE-Journal of Social Science Education.
5. Ekine, P. (2000). Economic Growth and Environmental Sustainability: The Prospects for Green Growth. London, UK: Routledge.
6. Hussen, A. (2012). Principles of environmental economics and sustainability: an integrated economic and ecological approach. Routledge. Environmental Problems:
7. Koger, S. M., & Winter, D. D. N. (2010). Psychology for Sustainability. London, UK: Psychology Press. Lange, E. A. (2023). Transformative Sustainability Education: Reimagining Our Future. Abingdon, Oxon: Routledge.
8. Sant, E., Davies. I. Pashby, K., & Shultz, L. (2018). Global citizenship education: A critical introduction to key concepts und debates. Bloomsbury Publishing.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

3. School Experience- (SE)

Course Title: 3.1 POST-INTERNSHIP (REVIEW ANALYSIS) Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (History)	SE-1	Practical	2	20	30	50

Course Outcomes:

The student teachers will be able to:

- demonstrate/Exhibit/Manifest comprehensive understanding of the school ecosystem.
- reflect on school internship experiences in a report.
- share their learning from school internship with peers and teacher educators.

Mode of Transaction:

- Discussion
- Presentation, Gallery walks and Exhibition.
- Report Writing

Activities:

Experience Sharing and Reflective Learning:

- Presentation of reflective journal summary
 - My Learning Journey: by each student-teacher Gallery walks (Exhibition): TLMs, display of participation in school activities (photos/stories) and other artefacts created during the internship by student teachers.
- Sharing of best practices (PPTs, Videos.)
- Survey and collect the local stories and rhymes from the parents and community (in the context of the foundational stage)
- Holding a training workshop for the parents and community and encouraging them to act as volunteers.
- Awareness and advocacy programme in FLN for parents and community: Role play with parents and community on conducting specific FLN activities.
- Organizing a parents /community mela/fair on homemade TLM for FS children

Submission of Internship Report:

- Reflective Journal
- Lesson Plans and TLMs
- Observation records (Teacher Educator, Mentor, school heads, Teachers, Parents)
- Assessment records and Student Portfolio
- Action research report/case study
- Comprehensive internship report.

Mode of Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Artefacts created during the internship. My Learning Journey	Exhibition & Presentation	Teacher-Educator	1
Comprehensive Internship Report	Review	Teacher-Educator	1

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 CREATING TEACHING-LEARNING MATERIAL/WORK EXPERIENCE							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (History)	SE-2	Practical	2	20	30	50

Course Outcomes:

After completion of the activities, the student teachers will be able to:

- Assess the need for Teaching Learning Materials and prepare innovative TLM,
- Develop an understanding of the importance of work experience and competencies of a local crafts person, artisans and entrepreneurs,

Mode of transaction:

- Workshop
- Group discussion
- Field visits and interaction
- Analysis of existing local-specific learning resources, toys
- Exhibition of TLM and presentation of reflective reports on the use of learning resources, including toys.

Content:

- Understanding how students learn at different stages.
- Knowledge of toys and other TLMs from different parts of the countries
- Knowledge of relevant TLMs for specific groups of children- CWSN, kinesthetic learners, visual learners, auditory learners addressing individual differences.

Activities:

- Orientation workshop on work experience and development of learning resources
- Field visit for interaction with local artisans, craftspeople, and entrepreneurs.
- Observe Traditional work practices and their integration into Local Technologies and Ideas.
- Analysis of available local specific, indigenous learning resources, including toys and their use in the learning-teaching process

- Development of at least two low-cost learning resources as per the local contexts (foundational/preparatory/middle/secondary) and presentation/exhibition
- Prepare the manual of TLM highlighting the objectives that will be achieved by its use, the material used, the process of its development and its use during classroom transaction.

Mode of Assessment:

Assessment			
Competence/Artifact	Method of assessment	Assessed By	Credits
TLM developed	Presentation /Exhibition	Teacher Educators (panel of three experts including an external expert)	1.5
Manual	Presentation	Teacher Educator	0.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

4. Community Engagement & Services –(CE&S)

Course Title : 4.1 COMMUNITY ENGAGEMENT & SERVICES (PARTICIPATING IN NSS-RELATED ACTIVITY, NEW INDIA LITERACY PROGRAMME ETC.)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.A. B.Ed. (History)	CE&S-1	Practical	2	20	30	50

Course Outcomes:

On successful completion of the ‘Community Engagement and Service’ programme, the student teacher should be able to:

- recognize the socio-economic issues in the community and identify initiatives that could help solve problems faced by the community,
- demonstrate an awareness of the functions of the community, and the measures required for enlisting community participation in school-related activities,
- undertake initiatives that are required to make the community aware of the importance of education, issues associated with schooling, gender inequity, health & wellness of children, illiteracy among youth and adults in the community etc.,
- suggest actions in collaboration with community members to address the social, cultural and educational problems in the community,
- organize activities such as street plays, advocacy activities, door-to-door campaigns, and prabhat-pheris etc. to mobilize community participation in development initiatives,
- demonstrate social leadership quality through community services,
- organize interactions between schools and local communities for generating solutions to problems such as dropout and learning deficits,
- facilitate partnerships between local communities to enhance participation of the community in school-related activities such as PTA meetings,
- recognize the fault lines of the society, such as casteism, social taboos and superstitions etc. and work towards bridging them to establish harmony in the society,
- demonstrate positive feelings towards the local community and appreciate traditional knowledge and practices,
- Recognize the values of public service and active citizenship.

Approach To Curriculum Transaction:

The student teachers will be provided opportunities to have exposure to community life for ten days in total, two days in Preparation for Community Engagement & Service in the institution, seven days working with the community, and the last day in the institution for sharing their experiences and reflections. The activities may be conducted in groups or individually as appropriate.

Days 1-2: Preparation for community services (In the institution)

- Orientation of student teachers on Community Engagement & Services through discussion and group activities.
- Workshop for developing tools for different activities during the programme.

Days 3-9: Engagement with the community (Mandatory onsite stay with the community) Students will be divided into smaller groups; They would participate in the planned activities with defined roles for seven days on a rotation basis. These activities include:

- participation of student teachers in activities undertaken under the National Service Scheme (NSS), New India Literacy Programme, Student mentoring initiatives, etc.
- Survey of community resources for supporting school activities.
- Study of the situation regarding school dropout and the reason thereof (Stage wise).
- Survey of specific settlement to assess the situation about non-literates in the settlement, including identification of 4-5 non-literate youth and adults who will be supported by student teachers to become literate,
- Training of local youth in First Aid and other relevant interventions,
- Assessment of the situation about Health and wellness of children in a locality,
- Creating awareness of the importance of sustainable development, and making the community members aware of the need to support initiatives to ensure environmental protection, creating awareness of rainwater harvesting, mentoring school students with learning deficits, guidance and counselling to school students etc.)
- Visit and interact with local artisans and craftsperson.
- The above activities typically will include working with the community, collecting data, playing local games, community awareness programmes like nukkad natak, rallies, organizing and participating in the cultural programmes with the community members etc.

The student teachers shall conduct different pre-scheduled activities throughout the day. Morning sessions will be used for activities with the community and data collection. The afternoon session will be devoted to data analysis and preparation of the report, and participation in games & sports activities. Evening session will involve cultural activities with community members.

Day 10: Feedback session and Reflection (: In the Institution)

- Sharing experiences and discussion on activities carried out.
- Presentation and submission of report of the activities carried out.
- Evaluation of the activities by collecting feedback on the effectiveness of the campaign from the mentor and the students.
- Reflection of experience (individual/group) of organizing community service

Assessment components and weightage:

- Involvement and active participation in activities relating to Community Engagement and Service: (Assessment method: Observation by teacher educator, teacher, and community members); Weightage: 75%; Assessed by the teacher educator, teacher, and community members),
- Group Report & Reflections: Method of assessment: Presentation by student teachers); Weightage: 25% (Assessed by Teacher Educator)

References:

- Ministry of Education (2021). Vidyanjali: Guidelines for Promoting Community and Voluntary Participation for Enhancing Quality School Education, Government of India.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	



KARNATAK UNIVERSITY, DHARWAD

**Syllabus for I to VIII Semester for the
Integrated Teacher Education Programme
(ITEP) – B.Sc. B.Ed. Mathematics
Middle Stage (Grades 6–8)**

with effect from the **academic year 2025–26 and onwards.**

ITEP B.Sc. B.Ed . (Mathematics) Middle Stage (Grades 6-8) Course & Credit Structure

Semester	I	II	III	IV	V	VI	VII	VIII	Total
Mathematics	4+0=4	4+2=6	4+2=6	4+0=4 4+2=6	4+2=6 4+2=6	0+4=6 4+2=6	--	--	48
Chemistry	4+0=4	4+0=4	4+0=4	4+0=4					16
Physics	4+0=4	4+0=4	4+0=4	4+0=4					16
Content-Cum Pedagogy	--	--	2 2	2 2	2 2	2 2	--	--	16
Foundation Courses	4	--	4	4	--	2 2	2 2	4 2 4	30
Ability Enhancement & Value-added Courses	4 2 2	4 2 2	--	--	2	2	2 2	2 2	28
School Experience	--	--	--	--	2	2	2 10	2 2	20
Community Engagement	--	--	--	--	--	--	--	2	2
Total Credits	24	22	22	26	20	22	20	20	176

I Semester

ITEP B.Sc. B.Ed. Mathematics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
SIP- Two-week student Induction Programme						
Foundation Course of Education-FCE						
1	FCE-1	Evolution of Indian Education	4	40	60	100
Discipline Specific Course-DSC						
2.	DSC-1 (Major-1)	Algebra – I and Calculus – I	4	40	60	100
3	DSC-2 (Minor-1)	Mechanics, Properties of Matter and Sound	4	40	60	100
4	DSC-3 (Minor-2)	Chemistry-1	4	40	60	100
Ability Enhancement & Value-Added Courses- AE& VAC						
5	AE&VAC- 1	Language-I /English	4	40	60	100
6	AE&VAC- 2	A. Art Education (Performing & visual) and Creative Expressions- 1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making	2	20	30	50
7	AE&VAC -3	Understanding India Part-I (Indian Ethos & Knowledge systems)	2	20	30	50
Total Credits			24	240	360	600

I Semester
ITEP B.Sc. B.Ed. Mathematics
SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education-FCE		IBSMT1EDC01T	1.1 Evolution of Indian Education
2	Discipline Specific Course-DSC	Major-1	IBSMT1DSC01T	2.1 Algebra – I and Calculus – I
		Minor-1	IBSMT1DSC02T	2.2 Mechanics, Properties of Matter and Sound
		Minor-2	IBSMT1DSC03T	2.3 Chemistry-1
3.	Ability Enhancement & Value-Added Courses - AE&VAC		IBSMT1AB01T	3.1 Language-I /English
			IBSMT1AB02T	3.2 A. Art Education (Performing & visual) and Creative Expressions-1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions-3. Collage-Making
			IBSMT1AB03T	3.3 Understanding India Part-I (Indian Ethos & Knowledge systems)

Foundation Course of Education-(FCE)

Course Title: 1. EVOLUTION OF INDIAN EDUCATION Course Code: IBSMT1EDC01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Mathematics)	FCE-1	Theory	4	40	60	100

Course Outcomes:

After completion of this course, it is expected that the student teachers will be able to:

- discuss and understand the genesis, vision and evolution of education in India from ancient to contemporary times.
- critically revisit colonial education and its impact on the contemporary Indian education system.
- enable them to shape their educational perspective to act as an effective teacher.
- locate themselves in the larger system of education in India while discussing the contribution of Indian thinkers
- develop a road map for futuristic education system in India for addressing the need of local and global context.

UNIT-I

Ancient Indian Education: Vedic Period

- A. Vision, Objectives, and Salient Features of the Vedic Education System.
- B. Teaching and Learning Process during Vedic Period
- C. Development of Educational Institutions: Finances and Management.
- D. Famous Educational institutions and Guru-Shishya.
- E. Education at the time of Epics: Ramayana and Mahabharata.

UNIT-II

Ancient Indian Education: Buddhist and Jain Period

- A. Vision, objectives and salient features of Buddhist and Jain Education System.
- B. Teaching -Learning process
- C. Finance and Management of Educational Institutions.
- D. Contribution of Educational Institutions: Nalanda, Taxila, Vikramshila, Vallabhi.

E. Famous Guru shishya

UNIT-III

Post-Gupta Period to Colonial Period

- A. Vision, objectives, brief historical development perspective as well as salient features of Education in India
- B. Teaching and Learning Process.
- C. Pedagogical Inquiry. Community and Its Interface.
Finance and Management of educational institutions.

UNIT IV

Modern Indian Education

- A. Colonial Education in India:
 - Woods Despatch, Macaulay Minutes and Westernization of Indian Education in India.
- B. Shiksha ka Bhartiyakaran (Indigenous Interventions in Education)
(Bird's eye view of their contribution)
 - Swadeshi and Nationalist attempts of educational reforms with special reference to general contribution of Indian thinkers – Savitribai and Jyotiba Phule, Rabindranath Tagore, Swami Vivekananda, Mahatma Gandhi, Sri Aurobindo, Gijubhai Badheka, Pt. Madanmohan Malaviya, Jiddu Krishnamurti and Dr. Bhima Rao Ambedkar others – to the education systems of India.
- C. Education in Independent India
 - Overview of Constitutional values and educational provisions.
 - Citizenship Education:
 - Qualities of a good citizen.
 - Education for fundamental rights and duties.
 - Overview of 20th Century Committees, Commissions and Policies.
 - UEE, RMSA, RTE Act 2009: Overview and impact.
 - NEP 2020: vision and implementation for a vibrant India

Practicum:

Following are the suggestive practicals and activities. The teachers may design more tasks based on classroom interactions and discussions.

1. Prepare a report highlighting the significance of educational reforms in School education in the light of NEP 2020.
2. Critically analyze the role of education in understanding the concept of citizenship for democracy.
3. Compare the vision, objectives, and salient features of education during different periods.
4. Working out a plan to develop awareness, attitude and practices related to Fundamental Rights or fundamental duties or democratic citizenship qualities, execute it in the class and write the details in form of a report.
5. Sharing of student experiences (in groups) related to Indian constitutional values, help them to reshape their concept and enable them to develop vision, mission and objectives for a school and their plan to accomplish the objectives in form of a group report.
6. Analyses of current educational strengths and weaknesses of one's own locality and work out a critical report.
7. Visit places of educational significance and value centers and develop a project report.
8. Observation of unity and diversity in a social locality and matching it with unity and diversity in the class and work out a plan for awareness for national-emotional integration for class to develop awareness, attitudes, skills and participatory values, execute it in the class and report the details.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia/PowerPoint presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussions, surveys, short-term project work, etc,
- Hands-on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Board, Karnatak University of Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Arora, P., & Gandhi, H.)2021(. National education policy 2020: Paving the ways for transformational reforms. Shipra Publications.
2. Dash, B. N. (2009). Thoughts and theories of Indian educational thinkers. Dominant Publishers and Distributors.
3. Desai, S. & Amaresh, D. (2011). Caste in the 21st century India: competing narratives. Economic and Political Weekly, Vol. 46, No. 11
4. Dutt, M. N. (2008). Mahabharata: Santi parva (Vol. 7). Parimal Publications.
5. Dyer, H. S. (2018). Pandita Ramahai. Forgotten Books.
6. Ghosh, J. (2016). Inequality in India: drivers and consequences. World Social Science Report. International social science council.
7. Jain, P. S. (2000). Collected papers on Jaina studies. Motilal Banarsidass.
8. Jayaram, N. (2016). Education and emancipation: The saga and ideology of Dr. B. R. Ambedkar, In A. K. Singh. (Ed.). Education and empowerment in India: Policies and practices. Routledge India.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

2. Discipline Specific Course- (DSC)

Course Title: 2.1 ALGEBRA-I AND CALCULUS-I Course Code: IBSMT1DSC01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Mathematics)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

After completion of course students will be able to:

- Learn to solve the system of homogeneous and non-homogeneous linear equations in m variables by using concept of rank of matrix, finding eigenvalues and eigenvectors.
- Thoroughly understand the concepts of continuity and uniform continuity.
- Solve examples related to indeterminate forms.
- Sketch curves in Cartesian, polar and pedal equations.
- Learn geometrical representation of mean value theorem and Rolle's theorem.
- Identify and apply the intermediate value theorem and solve Maclaurin's expansions.
- Trace curves in Cartesian coordinates.

Unit	Course Title: Algebra - I and Calculus – I	60 Hours / Sem
Unit - I	Matrices:	15 Hrs.
	Rank of a matrix based on row reduction to echelon form, Reduction to normal form, Solution of system of linear equations: Criterion for existence of non-trivial solutions of homogeneous system of linear equations, Solution of system of non-linear equations: Criterion for existence of non-trivial solutions of non-homogeneous system of linear equations, Characteristic equation of matrices, Eigenvalues and Eigenvectors of square matrices, Cayley-Hamilton theorem, Inverse of matrices by Cayley-Hamilton theorem.	
Unit - II	Limits and Continuity:	15 Hrs.
	Definition of limit and continuity of a function in ϵ - form. Algebra of limits (with proof) and continuity. Definition of boundedness of continuous function. Properties of continuous function. Intermediate value theorem and its examples, Uniform continuity – definition. Theorems - i) Uniform continuity implies continuity and ii) Continuity on closed interval implies uniform continuity, Differentiability: Definition and problems on differentiability of a function, Indeterminate forms, Evaluation of limits using L-Hospital rule.	
Unit - III	Polar Coordinates:	15 Hrs.
	Polar coordinates, Angle between the radius vector and tangent, Angle of intersection of curves (polar forms), Length of perpendicular from pole to the tangent, Pedal equations, Derivative of an arc length in Cartesian, parametric and polar forms, Concavity, Convexity and points of inflexion, Curvature of plane curve, radius of curvature - Cartesian, Parametric, Polar, Pedal forms. Centre of curvature of plane curves. Asymptotes, Tracing of curves in Cartesian form (standard curves).	
Unit - IV	Successive Differentiation and Mean Value Theorems:	15 Hrs.
	The nth derivatives of standard functions: e^{ax+b} , $(ax + b)^n$, $\log(ax + b)$, $\sin(ax + b)$, $\cos(ax + b)$, $e^{ax}\sin(bx + c)$, $e^{ax}\cos(bx + c)$ with examples, Leibnitz theorem and its applications. Rolle's theorem, Lagrange's mean value theorem, Cauchy's mean value theorem and related problems. Taylor's theorem with Schlomitch and Roche form of remainder, Taylor's series, Maclaurin's expansions.	

References:

1. Theory of Matrices, B. S. Vatsa and S. Vatsa, New Age International (P) Ltd., 2010.
2. Matrices, A. R. Vasista and A. K. Vasista, Krishna Prakashan Media (P) Ltd., 2013.
3. Principles of Mathematical Analysis, W. Rudin, McGraw Hill Edu., 2023.
4. Mathematical Analysis, S. C. Malik and Savita Arora, New Age International (P) Ltd., 2021.
5. Introduction to Real Analysis, S. K. Mapa, Leveant Book Publishers, 2022.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title : 2.2 MECHANICS, PROPERTIES OF MATTER AND SOUND Course Code: IBSMT1DSC02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Mathematics)	DSC-2 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

After completion of course students will be able to:

- Analyze data (graphical and analytical), through estimation of errors and their sources in the experimental determination of physical quantities. Also able to fit experimental data to straight-line graph and calculate standard deviation, standard error and probable error.
- Distinguish between inertial, non-inertial and rotational frames of reference. Also able to understand and distinguish real, fictitious and Coriolis force and their importance in real life.
- Distinguish Galilean, Lorentz transformation and their applications. Understand special theory of relativity by studying variation of length, mass and time with relativistic velocity.
- Analyze collision problems through laboratory and center of mass frame of reference, also able to relate these two frames.
- Understand concept of moment of inertia of regular/irregular bodies and its variation with axes through distribution of mass.
- Find Young's modulus, rigidity modulus and their importance in understanding Materials and applications. Understand concept of sound and their experimental determination.
- Understand importance of mechanics, properties of matter and sound in real life situations (everyday life).

Unit	Title: MECHANICS, PROPERTIES OF MATTER AND SOUND	60 Hours / Sem
Unit- I	Frames of References: Inertial frames, Galilean transformation equations (derivation), Invariance of Newton's Laws under Galilean Transformations, Invariance of the laws of conservation of momentum and energy under Galilean transformations, non-inertial frames and fictitious force (in brief), rotating frame of reference(quantitative), concept of the Coriolis force and mention of its expression. Special Theory of Relativity: Postulates of special theory of relativity. The Lorentz transformation equations (Derivation), Length contraction, Time dilation, Simultaneity, Twin paradox, Addition of velocities. Mass-Energy Equivalence (with derivation). Space -Time diagram: Minkowski's four-dimensional space-time.	15hrs
Unit- II	Collisions: Two-dimensional elastic and inelastic collisions in center of mass and laboratory frames of reference: i) relation between velocities in center of mass system and laboratory system ii) relation between angle of recoil in laboratory system and angle of scattering in center of mass system. Conservation of linear momentum in case of variable mass. Gravitation: Central force, Kepler's laws of Planetary motion(derivation). Newton's Law of Gravitation. Determination of Gravitational constant by Cavendish's method. Density and mass of the Earth. Satellite in circular orbit and Geosynchronous orbits. Weightlessness. Basic idea of global positioning system (GPS). Qualitative discussions on applications of artificial satellites.	15hrs
Unit- III	Rotational Dynamics: Angular momentum of a particle and system of particles. Torque, principle of conservation of angular momentum. Rotation about a fixed axis, moment of inertia, theorem of parallel and perpendicular axes(derivation). M.I. of rectangular lamina and circular disc(derivations), hollow and solid cylinders (mention of expressions). Theory of flywheel and experimental determination of radius of gyration. Theory of compound pendulum, interchangeability of centers of suspension and oscillation, four points collinear with the C.G. about which the time period is same, conditions for maximum and minimum time periods. Bar pendulum, experimental determination of 'g' using bar pendulum. Bifilar suspension with parallel threads (derivation).	15hrs
Unit- IV	Elasticity: Relation between elastic constants(derivation), Poisson's ratio in terms of elastic constants(derivation). Twisting couple on a solid cylinder (wire), work done in twisting solid cylinder (wire). Determination of coefficient of rigidity by torsional pendulum and Maxwell needle method. Bending of beams- neutral surface, neutral axis, plane of bending, bending moment. Expression for bending moment(derivation), uniform bending (mention formula). Theory of light cantilever(derivation). Sound: Free, forced and sustained vibrations, resonance with examples. Analytical treatment of damped and forced vibrations. Theory of	15hrs

	Helmholtz resonator, condition for resonance: Expressions for amplitude and phase. Effect of damping on the phase of forced vibration.	

References:

1. Mechanics (XX-Edition)–D.S. Mathur-S. Chand & Company Ltd., New-Delhi,2007.
2. Mechanics & Electrodynamics (XVII-Edition, Course-1&2)– Brijlal, Subramanyam & Jivan Seshan, S. Chand & Company Ltd., New-Delhi,2008.
3. Properties of Matter (XIII-Edition)–Brijlal & Subramanyam, Eurasia Publishing House Pvt.Ltd., New-Delhi,2001.
4. Elements of Properties of Matter (XXVIII-Edition), D.S. Mathur-S. Chand & Company Ltd., New Delhi,2005.
5. Physics, Vol. No. I(V-Edition)–Resnick, Halliday & Krane–John Wiley & Sons Inc., New-York, Singapore,2005.
6. Berkeley Physics, Vol. No. I–ABC Publications, Bangalore & New-Delhi.
7. University Physics (XI-Edition)-Young & Freedman–PearsonEducation,2004.
8. Introduction to Relativity-R. Resnik.
9. Text book of Sound – Brijlal and Subrahmanyam
10. Refresher Course in B.Sc. Physics Volume 1– C. L. Arora, S. Chand & Company

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2.3 CHEMISTRY-I Course Code: IBSMT1DSC03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Mathematics)	DSC-3 (Minor-2)	Theory	4	40	60	100

Course Outcomes:

After completion of course (Theory), students will be able to:

- Describe the dual nature of radiation and matter; dual behavior of matter and radiation, de Broglie's equations, Heisenberg uncertainty principle and their related problems. Orbital shapes of s, p, d and f atomic orbitals, nodal planes. Electronic configurations of the atoms.
- Define periodicity, explain the cause of periodicity in properties, classify the elements into four categories according to their electronic configuration. Define atomic radii, ionisation energy, electron affinity and electro negativity.
- Explain bond lengths, bond angles, bond energies and dihedral angles, bond polarity, dipole moment and illustrate with examples of organic compounds, factors affecting bond parameters. Localized and delocalized bonds. Linear and crossed conjugation system. Electron displacement effects and their applications: inductive effect, electrometric effect, resonance effect, hyper conjugation, and steric effect
- Know the meaning of reaction mechanism. Curly arrow rules. Classification of organic reactions with suitable examples. Types of bond fission. Types of reagents. Reactive intermediates.
- Understand the meaning of stereoisomerism, molecular representation, conformational isomers and configurational isomers, geometrical isomerism, E and Z notation, determination of configuration of geometric isomers by dipole moment method and anhydride formation method, Syn and Anti isomers in compounds containing C=N and their significance.
- Understand the molecular velocity , distribution of molecular velocities, Calculation of molecular velocities. Relation between RMS, average and most probable velocities. Distribution of energy amongst molecules. Law of equi partition of energy. Collision properties and coefficient of viscosity, calculation of σ and η , variation of viscosity with temperature and pressure .Critical phenomena Relation between critical constants and van der Waals equation, principle of continuity of states, law of corresponding states.
- Know the principles of titrimetric analysis, titration curves, balancing redox equations, titration curves, theory of redox indicators and applications.

- Understand the titration curves, indicators for precipitation titrations involving silver nitrate. Indicators for EDTA titrations - theory of metal ion indicators.
- Understand stages in gravimetric analysis, conditions of precipitation. theories of precipitation, factors influencing precipitation, co-precipitation and post-precipitation. To know about Structure, specificity, conditions and applications of organic reagents. Advantages of organic reagents over inorganic reagents.

Unit	Title: CHEMISTRY 1	60 Hours / Sem
Unit- I	Unit-I : ATOMIC STRUCTURE & PERIODICITY OF ELEMENTS	15hrs
	Atomic Structure: Review of Rutherford's atomic model, Bohr's theory, Hydrogen atomic spectra. Derivation of radius and energy of an electron in hydrogen atom, limitations of Bohr's theory, dual behavior of matter and radiation, de Broglie's equations, Heisenberg uncertainty principle and their related problems. Schrodinger's wave equation for hydrogen atom and meanings of various terms in it (derivation not required). Significance of ψ and ψ^2. Radial and angular wave functions (atomic orbitals) and their distribution curves for 1s, 2s, 2p, 3s, 3p and 3d orbitals (Only graphical representation). Radial and angular nodes, nodal planes and their significance. Quantum numbers and their significances. Shapes of s, p, d and f atomic orbitals. Rules for filling electrons in various orbitals, Electronic configurations of the atoms (atomic number up to 54). Concept of exchange energy. Anomalous electronic configurations. (11 Lectures) Periodicity of elements: Brief account on the following properties of elements with reference to s and p-block and trends in groups and periods: Atomic and ionic radii, Effective nuclear charge, screening effect, Slater's rules, ionization enthalpy, electron gain enthalpy, electronegativity, Pauling / Allred Rochow scale. (4 Lectures) Numerical problems are to be solved wherever applicable.	
	FUNDAMENTALS OF ORGANIC CHEMISTRY & STEREOCHEMISTRY-I	
Unit- II	Fundamentals of Organic Chemistry: Review of hybridization (sp^3 , sp^2 and sp). Bond parameters - bond lengths, bond angles, bond energies and dihedral angles, bond polarity, dipole moment and illustrate with examples of organic compounds, factors affecting bond parameters. Localized and delocalized bonds. Electron displacement effects and their applications: inductive effect, electrometric effect, resonance effect, hyper conjugation, and steric effect. (6 Lectures)	15hrs

	Organic reaction Mechanism: Meaning of reaction mechanism. Curly arrow rules. Classification of organic reactions: substitution, addition, elimination, rearrangement, oxidation and reduction reactions with suitable examples (general mechanisms of all the reactions expected), Types of bond fission. Types of reagents: Electrophiles and nucleophiles (all types of examples to be given). Reactive intermediates: Structure, formation, stability and reactions of Carbocations, Carbanions, Free radicals, Carbenes, Nitrenes and Arynes. (5 Lectures) Stereoisomerism-I: Meaning of stereoisomerism, Molecular representation: Fischer's projection formulae, Newman's formulae, Saw horse formulae. conformational isomers and configurational isomers (distinction between conformation and configuration), Geometrical isomerism: definition, reason for geometrical isomerism, E and Z notation, determination of configuration of geometric isomers by dipole moment method and anhydride formation method, Syn and Anti isomers in compounds containing C=N and their significance. (4 Lectures)	
Unit- III	GASEOUS & LIQUID STATES Gaseous state: Review of kinetic theory of gases. Molecular velocity: Distribution of molecular velocities, Calculation of molecular velocities - , most probable, average and root mean square velocities. Relation between RMS, average and most probable velocities. Distribution of energy amongst molecules. Law of equi partition of energy. Collision properties: Collision frequency, collision diameter (σ), collision cross-section, collision number and mean free path and coefficient of viscosity, calculation of σ and η, variation of viscosity with temperature and pressure Critical phenomena: Andrews isotherms of CO₂, critical constants and their determination. Relation between critical constants and van der Waals equation (Derivation), principle of continuity of states, law of corresponding states. Numerical problems are to be solved wherever applicable. (7 Lectures) Liquid state: Molecular forces and general properties of liquids. Surface tension: surface tension, surface energy, shapes of liquid drops and soap bubbles, capillary action, determination of surface tension by capillary rise method, drop weight and drop number methods. Effect of temperature on surface tension. Parachor, Additive and constitutive properties: atomic and structural parachor. Elucidation of structure of benzene and benzoquinone. Viscosity: Viscosity coefficient, fluidity, molecular viscosity, relative viscosity and absolute viscosity, determination of viscosity using Ostwald viscometer. Effect of temperature, weight, size and shape of molecules and intermolecular forces. Refractive index: Definition, specific and molar refraction. Determination of refractive index using Abbe's refractometer. Additive and constitutive properties: Elucidation of	15hrs

	structure of molecules. Numerical problems are to be solved wherever applicable. (8 Lectures)	
Unit- IV	VOLUMETRIC & GRAVIMETRIC ANALYSIS Volumetric Analysis: Review of normality, molarity, molality, mole fraction, ppm & ppb . Standard solutions. Acid-base titration: Theory of acid – base indicators. Theory, titration curves for all types of acid – base titrations. Redox titration: Theory of redox indicators. Theory, types and applications. Precipitation titration: Theory, indicators for precipitation titrations involving silver nitrate- Volhard’s and Mohr’s methods and their differences. Complexometric titration: Theory, titration methods employing EDTA (direct, back, displacement and indirect determinations). Indicators for EDTA titrations - theory of metal ion indicators. Determination of hardness of water. (9 Lectures) Gravimetric Analysis: Stages in gravimetric analysis, conditions of precipitation, factors influencing precipitation, co-precipitation and post-precipitation. Structure, specificity, conditions and applications of organic reagents such as salicylaldoxime, oxine and dimethylglyoxime in inorganic analysis. Advantages of organic reagents over inorganic reagents. (6 Lectures) Numerical problems are to be solved wherever applicable.	15hrs

References:

1. Lee, J.D. Concise Inorganic Chemistry ELBS, 1991.
2. Cotton, F.A., Wilkinson, G. & Gaus, P.L. Basic Inorganic Chemistry, 3 rd Ed., Wiley.
3. Huheey, J. E., Keiter, E.A., Keiter, R.L. & Medhi, O. K. Inorganic Chemistry: Principles of Structure and Reactivity, Pearson Education India, 2006.
4. Rodgers, G. E. Inorganic & Solid State Chemistry, Cengage Learning India Ltd., 2008.
5. Organic Chemistry-P. Y. Bruice, 7th Edition, Pearson Education Pvt. Ltd., New Delhi (2013).
6. Heterocyclic Chemistry- R. K. Bansal, 3rd Edition, New- Age International, New Delhi, 2004.
7. McMurry, J.E. Fundamentals of Organic Chemistry, 7 th Ed. Cengage Learning India Edition, 2013.
8. Organic Chemistry Volume-I, II- I. L. Finar, 6th Edition, ELBS London (2004).

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

3. Ability Enhancement & Value-Added Course (AE&VAC)

Course Title: 3.1 LANGUAGE 1/ ENGLISH RHYTHMIC VOYAGE Course Code: IBSMT1AB01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Mathematics)	AE&VAC-1	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- Acquire the knowledge of English prose and poetry
- Acquire the knowledge of parts of speech
- Appreciate the nuances of English poetry and prose
- Use proper articles, prepositions and forms of verbs
- Use appropriate tense forms in sentences
- Acquire basic language skills

Unit- I: Prose

1. My Lord the Baby- Rabindranath Tagore
2. Old Love – Jeffery Archer
3. What I Found in My Pocket – G K Cheterton
4. The Beauty Industry – Aldous Huxley
5. The Little Girl – Kathleen Beanchamp Murry

Unit- II: Poetry

1. Our Casuarina Tree – Toru Dutt
2. Once Upon a Time – Gabriel Okara
3. A Prayer for my daughter – W B Yeats
4. On His Blindness – John Milton
5. Success is Counted Sweetest – Emily Dickenson

Unit- III: Grammer

1. Parts of Speech (With special emphasis on Verbs, Adverbs, adjectives and Prepositions)
2. Use of Articles in English
3. Cloze Test

Unit -IV

1. Tenses – (Special emphasis on Simple Present, Present Continuous and Simple Past Tense)
2. Reading Skills – Meaning, Types , Techniques
3. Synonyms and Antonyms

References:

1. Text Book : **Rhythmic Composition** An Anthology of Prose and Poetry, Board of Editors : Maruti Publications, Guntur
2. R. P. Singh's *Functional Skills in Language and Literature*, OUP
3. Murphy, Raymond. *Intermediate English Grammar*. Cambridge Univ. Press.
4. Wren and Martin. *High School English Grammar and Composition*

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 3.2 A. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 1. PUPPETRY Course Code: IBSMT1AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Mathematics)	AE&VAC-2	Theory	2	20	30	50

Puppetry:

Puppetry is an integrated art form, which takes into its fold everything from fine arts to performance. Puppetry is one of the oldest forms of performing art. Puppetry has evolved over the years into a sophisticated form of art. The journey was very interesting with a lot of ups and downs. There are thousands of forms of puppetry from simple finger puppets to highly complex puppets played by more than 3 people. Each country has a puppet form, why country, each area in a country has a puppet form. Hence, in India you will find many, many forms of puppetry. In puppetry there are two main aspects. One the designing and creating of puppets and the other playing or performing puppetry. These two skills are different. Designing will need a lot of thinking, visualization, and technical skills while performance will need high level communication skills. Hence, together they make a consolidated a high range of skills. In this course, students are exposed to different forms of puppets and puppetry. There will be a discussion around the forms and the aesthetic sense of puppetry. Later the students are encouraged to prepare, design and create puppets. They then prepare script and play the puppets. This creation of the puppets together in small groups with a lot of discussions and give and take helps the students develop working together skills and conceptual understanding.

Course Outcomes:

After completion of this course, student teachers will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of puppetry,
- design puppets,
- practice and create a short puppetry show.

UNIT – I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT – II

Designing Puppets (6 Sessions)

In this unit, students will learn about puppetry, its history and specifically about how puppets work. This unit will also discuss the imagination required to design puppets, visualize how puppets will be used and the technicalities of designing puppets. These will be learnt by designing puppets. Students will start with constructing finger puppets and move towards small shapes through papers, like Fish, birds, rat - then they will design masks, flat masks, and masks with dimensions. At the end they will design puppets with old newspaper. The puppets are designed with old newspapers and colour papers. They decorate it and design it in such a way that it can be played, performed. They prepare costumes and all other accessories.

UNIT – III

Performing the puppets (4 Sessions)

This unit will engage in performance of puppetry and the level of communication skills required to create a good engaging story and perform it with the help of puppets they have created. The performance will be expected to relate to some activity in the educational context. Students will perform the puppets they have designed. Initially each member will play their own puppets. Later they will play in pairs, later they will be formed into a small group and asked to prepare their own skits with the puppets. They conclude by performing in small groups. Their learning is consolidated and reflected.

Discussion is held on how different aspects of puppet making can be incorporated in class room processes of young children. Adapting the individual and group exercises done during the puppetry course will be discussed to be used in the classroom situation.

Pedagogy:

The Pedagogy is basically hand-on training. More emphasis is given to experiential learning. They do things and through doing learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colors, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms

Week wise break up of sessions			
Sl. no	Topics	Session flow	Remarks
	Aesthetics and art, art in everyday life.	Based on their experience	
	Importance of art. Appreciation of art.	Discussion	
	Art for art's sake. Art with social responsibility. art for social change	Debate	
	The world of puppetry. Different forms of puppetry.	Presentations	
	History of puppetry	Lecture	
	Preparation- finger puppets	Hands on	
	Preparation of masks	Hands on	
	Preparing puppets	Hands on	
	Performing individually	Practice	
	Performing in pairs	Practice	
	Performing in groups – 3, 4, 5.	Practice	
	Assignments	Written.	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

Course Title: 3.2 B. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 2.THEATRE Course Code: IBSMT1AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Mathematics)	AE&VAC-2	Theory	2	20	30	50

Theatre:

Theatre is a collaborative art form, and it is inherently interdisciplinary in its nature. It comprises many facets and skills like acting, directing, writing, designing the sets and costumes, make-up, production, lights, sounds and music. All these elements and skill sets come together and are stitched in the form of a ‘play’ which is performed live, in front of an audience. In the Indian context, theatre has a deep-rooted history with its classical, folk, and other cultural forms until other contemporary forms of theatre evolved in recent times.

Theatre education for children can play a vital role in their individual, social, and emotional development. It teaches them the values of trust and interdependence, makes them confident to express themselves and helps them learn to work in a collaborative environment. It develops their ability to contextualize, critique and discuss certain questions and thoughts they encounter in everyday life. It further helps them imagine, explore, and create their own narratives.

In this course, we will briefly talk about the aesthetics of theatre and how theatre exists in different forms. The students will learn some basic theatre tools that will help them create and perform a narrative they collaboratively arrive at.

In simple terms one can say theatre has two major aspects i.e., creating the script and then performing it. Body is the primary instrument in any theatrical performance accompanied by text, material, visual and sound. This course will introduce students to these aspects of any theatre performance, in the form of direct experience by doing this themselves.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of theatre,
- learn basic theatre tools of improvisation, ideation, and creation of a script,
- create a short performance with educational possibilities.

UNIT - I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT - II

Introduction to Theatre, and Beginning with the body (3 Sessions)

We will discuss some core essentials in the aesthetics of theatre like the performance, the makers, the audience, and the context and how we relate this to the world around us, in everyday lives. In this unit, we will discuss examples of how theatre was used in social movements that have contributed to educating the larger population about important social issues. Additionally, we will also learn from practices and approaches of theatre groups like Budhan Theatre who work with denotified tribes, and Manalmagudi who work closely with physical nonverbal theatre. Exposing students to these approaches will lead to rich discussions on the role of theatre in pedagogy and practice.

In this unit, students will learn certain principles and awareness on how to use their body and voice in a given space and time, with respect to other bodies. There will be several games, exercises that will familiarize them with certain basics of movement, voice, acting and thereby create improvisations and images in a given context. The activities and tasks will be both in individuals and groups.

UNIT - III

Arriving at a script (3 Sessions)

We will engage in some theatre making processes to arrive at a script by the end of this unit. How to adapt or devise a script with actors? How can we borrow from everyday experiences of memory, sound and visuals, without a written text or spoken word? Plays, stories, poems, newspapers articles, will be shared to read, reflect, analyse, and re-create like “Why, why Girl” by Mahashweta Devi, “Ratna Pakshi” by K Ramaiah, “Beyond the land of Hattamala and Scandal in Fairyland” by Baadal Sircar, and songs of Kabir etc. The texts chosen will have a direct relation with topics from social studies, moral and political education.

Students will use their skills of improvisation they learned in Unit 2 to explore, ideate, create, and finally arrive at a script. What kind of stories, narratives, and characters they choose to perform will lead back to the discussion of aesthetics. Students will mostly work in groups to choose or create a text, concept, or an idea which

they want to perform. Students will be encouraged to use their perspectives on the education system, in converting the text into a script.

UNIT - IV

Performing the script

This unit will engage in the actual making of the final piece they choose to make. Students will have to visualise the final text on stage and start rehearsing in their groups. Apart from using their bodies to play characters, the students will also have to think about design and other aesthetic elements like sets, props, costumes, lights, music and sounds they want to use in the performance.

Students will have to practice beyond the six classes as the class time will be utilised to discuss and provide feedback as the work progresses. The last two classes in this unit will be utilised for the final rehearsals and assessments. The final performance will take place in front of a small audience followed by a brief post-performance discussion. Students will engage in discussing and reflecting on the views, questions and comments shared by the audience.

Pedagogy:

The pedagogy is basically hands-on training. More emphasis is given to experiential learning. They do things and through doing, they learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colours, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

Week wise break up of sessions		
Week	Topics	Session flow
1	UNIT - I: Aesthetics and art, art in everyday life. Importance of art. Appreciation of art	Based on their experience
2	Art for art's sake. Art with social responsibility. Art for social change	Discussion
3	UNIT II: Aesthetics of Theatre	Discussion
4	Body work - Individual and group	Hands on
5	Body work – Improvisation	Hands on
6	UNIT - III: Adaptation of texts. Aesthetic choices.	Hands on, Discussion
7	Story making and devising	Hands on
8	Arriving at a text	Hands on
9	UNIT - IV: Visualizing the final piece. Thinking about design and aesthetic elements	Hands on, Discussion
10	Rehearsals and feedback	Hands on
11	Rehearsals and feedback	Hands on
12	Final rehearsals and assessment	
13	Final rehearsals and assessment	
14	Performance and audience discussion	

References:

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

Course Title: 3.2 C. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 3. COLLAGE- MAKING Course Code: IBSMT1AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Mathematics)	AE&VAC-2	Theory	2	20	30	50

Collage:

Collage as visual art medium A major aspect of college, and one that is sometimes overlooked, is the incredibly diverse array of materials and objects that can be used. Collecting interesting materials is an ongoing activity for artists and for those who teach college. But it is just as important for young people to hunt for and make decisions about materials they would like to incorporate into their work. All materials, and the alterations that artists make to them, are suggestive of ideas and concepts based on their surfaces, forms, textures, degree of transparency and opacity, color, and other visual characteristics. Materials also connect us, through association and reference, to social and cultural worlds and places. What ideas might a scrap of newspaper, as a collage material, express? How might these meanings differ from those of, say, feathers? Or twigs? Or a thin piece of plastic cut out from a plastic bag?

Working with and creating artwork in Collage involves various aspects: selecting materials, manipulating materials, investigating materiality, closely observing materials, discovering possibilities, composing, designing the artwork, planning, finding solutions, applying solutions, thinking flexibility, decision-making, research, using imagination, expressing, taking creative risks, develop perseverance, and much more. Students will also be introduced to various aspects of art in education: The value of art and artmaking by itself, art's use as an instrument in education, social and moral dimensions of art, and the controversial perceptions around good art and bad art. This course aims for students to understand the importance of aesthetics and art in education, the role art can play in education, and mainly to appreciate, understand and gain skills with the medium of collage and its techniques.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance and the role of aesthetics and art in education.
- understand the medium of collage and its versatility.
- design, plan, and create an expressive self-portrait collage by applying a variety of collage techniques.
- design and set up an interactive visual art exhibition to display their artworks.
- understand and appreciate art-based learning experiences.
- develop the ability to reflect and challenge their assumptions and beliefs around art and develop new understandings.

UNIT – I**Understand the importance of Aesthetics and Art in Education (2 Sessions)**

Students will be introduced to Aesthetics and Arts by engaging in experiences, discussions, and dialogues. Students will experience a session of ‘Visual thinking strategy’ (VTS) activity in which students will collectively view and engage in a series of artworks closely, share their observations, critically analyze their observations, listen to multiple perspectives from peers, suspend judgements, and draw their own understanding of the artwork. Students will recognize aesthetic and un-aesthetic experiences through compare and contrast. Through this activity and unpacking of the experience, students will start making connections and develop understandings around what aesthetics mean, aesthetic aspects of daily life, develop aesthetic judgment, and how arts evoke emotion and awaken.

UNIT – II**Exploring paper collage and its techniques (4 Sessions)**

Students will be introduced to the medium of collage and open their minds to the possibilities within this medium. Students will view and discuss examples of collage artworks, artist process and artist interview videos. Students will get a chance to compare and contrast various ways collage as a medium is used. Students will reflect upon their own past art educational experiences and observations and engage in dialogue and discussions. Students will analyze effective and ineffective ways of using the medium of collage in educational and other settings.

Through inquiry-based participatory demonstrations, students will investigate and discover a variety of ways to manipulate paper and create individual and unique two-dimensional compositions in the medium of paper Collage. They will understand and learn the techniques, artistic terminologies of the collage medium. Students

will reflect on their experience and engage in facilitated discussions to deepen their understanding on the role of art medium exploration and how it can foster various learning skills.

Students then use their knowledge and experience from the previous sessions and explore collage as a medium further. Students will investigate, discover, and learn to create visual textures, physical textures, and create their own unique patterns. They will understand the difference between textures and patterns. Students will use a variety of techniques to create unique textures and patterns, analyze their findings, give each other feedback, work in groups to problem solve, etc. They will understand how art medium explorations can be used as a pedagogical tool in learning environments. Students will bring in various materials found around them like different kinds of paper, paper-based materials, natural materials, fabric, and explore these materials and use them as materials to create collage compositions.

Students will explore a wide range of techniques and discover their own ways to manipulate these found materials to create interesting textures and patterns. Students will work in groups, problem solve, investigate, develop solutions on their own, and share their findings with each other. Through discussions, students will reflect upon this exploration experience and understand how art making processes can develop skills and abilities in a learner.

UNIT - III

Ideating for an Expressive Self-Portrait (2 Sessions)

In this session students will further explore and discover possibilities in Collage as a medium. Students will learn a variety of ways to make paper stands and create interesting paper sculpture compositions using 3D techniques. Students will draw from their previous experiences of using paper for 2D explorations and add more interest to their unique 3D explorations. Students will share their findings with peers and widen their understanding about the possibilities.

Students will reflect on all the material exploration sessions thus far and participate in a facilitated dialogue around art making and education. Students will engage in a close observation sketching and drawing activity. Through a guided process, students will create a well observed self-portrait drawing. Students will engage in discussions and dialogue to unpack the self-portrait drawing experience, the learnings, discoveries, challenges and more. Through this activity students will also be able to challenge assumptions around talent and artmaking.

UNIT - IV

Creation of an Expressive Self-Portrait Collage (3 Sessions)

Students will engage in a step-by-step process involving sketching, ideating, planning, applying their discoveries of using paper as a collage material, and finally create a large expressive self-portrait using the medium of paper collage. Throughout the process students will problem-solve, critically think, push their imagination, find multiple

solutions, make independent decisions, receive and give peer feedback, use resources effectively, draw from their own experiences, apply their learnings into creating this unique and expressive self-portrait piece.

UNIT - V

Designing and setting up an Exhibition (2 Sessions and Exhibition Day)

Students will collectively start designing and planning for the exhibition to put up their artworks for a general audience to view and engage with. Students will be planning the various aspects of a visual art exhibition: ways to display artworks, designing the layout of the exhibition space and how the audience will move within the space, design invitations, ways that the audience can engage with the artworks, various ways the artists can talk about their artmaking, and more. Students will divide the tasks among themselves, take on the various roles required, and set up the exhibition space.

Pedagogy:

- Students will engage in hands-on art making activities.
- Students will engage in discussions and dialogues with peers.
- Students will engage in giving and receiving peer feedback.
- Students will continually reflect on their learning through journaling.
- Students will work independently and collaboratively throughout the course.
- Students will receive reference materials and resources to broaden and deepen their understanding.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

References:

1. Works of Deborah Roberts, William Kentridge, Wangechi Mutu, etc
2. Marc, Cut paper collage artist - <https://www.youtube.com/watch?v=WgRZlW1-Oh0>
3. G. Subramanian: Collage art - <https://www.youtube.com/watch?v=ioRRi9R46a0>
4. Amber Fletschock, Collage artist - <https://www.youtube.com/watch?v=aa7p1vYqUc4>
5. Arturo Herrera, artist - https://www.youtube.com/watch?v=Oagx3_NZ5HU

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

Course Title: 3.3 UNDERSTANDING INDIA PART-I (INDIAN ETHOS AND KNOWLEDGE SYSTEMS) Course Code: IBSMT1AB03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Mathematics)	AE&VAC-3	Theory	2	20	30	50

Course Outcomes:

After the completion of the course, it is expected that the students will be able to:

- recognize the vast corpus of knowledge traditions of India, while developing an appreciation for it,
- apply their acquired research and critical thinking skills to multidisciplinary themes, and- appreciate the diverse belief systems and knowledge traditions in India.
- discuss the formation and evolution of knowledge of India through multidisciplinary lens.

UNIT-1

Introduction to the Knowledge of India

- Definition & Scope; Relevance of this Knowledge.
- Need to revisit our Ancient Knowledge, Traditions, and Culture.

UNIT-II

Culture-Art and Literature

- Fine Arts (Traditional Art Forms, Contemporary Arts, Arts and Spirituality, Arts Identity, and Art and Globalization)
- Performing Arts (Indian Dance Systems, Traditional Indian Pieces of Music, Visual Arts, Folk Arts, etc.,)
- Literature (Sanskrit Literature, Religious Literature, Indian Poetry, Folk Literature, Indian Fiction, Sangam Literature, Kannada, Malayalam Literature, Bengali Literature, etc.

UNIT-III

Polity and Law

- A. Kingship & Types of Government (Oligarchies, Republics); Local Administration (Village Administration);
- B. Basis of Law: Dharma & its sources; Criminal Justice: Police, and Punishments; Lessons from Chanakya Niti; Lessons for modern-day India: Towards a Tradition-Driven Equitable and Just Polity and Law System.

UNIT-IV

Economy

- A. Overview of the Indian Economy from the Stone Age to the Guptas: The new culture of Urbanization (including Castes, Guilds, and other Economic Institutions; Harappan Civilization Economy; Growth of Agriculture and Proliferation of New Occupations: Growth of Writing);
- B. Internal & External Trade and Commerce, including Trade Routes, Indo-Roman Contacts, and Maritime Trade of South India; Temple Economy.
- C. Land Ownership - Land Grants & Property Rights, Land Revenue Systems.
- D. Understanding Arthashastra: Ideas & Criticism; Locating Relevance of Ancient Indian Economic Thought in Modern-Day Indian Economy.

UNIT-V

Environment & Health

- A. Understanding Equilibrium between Society & Environment: Society's Perceptions Natural Resources like Forests, Land, Water, and Animals.
- B. Sustainable Architecture & Urban Planning; Solving Today's Environmental Challenges (Best Practices from Indigenous Knowledge, Tribes and Community-Led Efforts, etc.).
- C. India's Health Tradition: Ayurveda, Siddha, Ashtavaidya, Unani, and other Schools of Thought; Lessons from Sushruta Samhita and Charaka Samhita:
- D. Mental health in Ancient India: Towards Time-Tested Concepts of Mental Wellness (Concept of Mind, Dhyana, Mind-Body Relationship, Ayurveda, Yoga Darshan, Atman, etc.)

Practicum:

The modes of curriculum transaction will include lectures, Tutorials, and Practicum.

- Practicum will include organization of day trips that help student teachers watch events relating to visual and performing art; activities that enable student teachers to identify and record through photos, videos, etc. the elements of ancient architecture still existing in the

city around them; organization of Individual and group presentations based on themes such as Polity, Law and Economy etc., organization of a 'Knowledge of India' day in the institution to celebrate the culture (food, clothes, etc.) that they would have been explored in lectures and tutorials; interactions with family members, elders, neighbors, and other members of society about the evolution of local systems and economy etc.

Mode of Transaction:

- Lectures will include learner-driven participatory sessions, and Guest lectures through experts and practitioners, such as fine arts and performing arts practitioners along with contemporary poets & writers of Indian literature.
- Tutorials will include Screening of documentaries and films followed by a discussion; Learner-driven discussions in the form of focus group discussions (FGDs), Socratic Discussions, etc.; Debate/discussion can be organized to explain India's Vaad tradition; discuss on how some of the ancient methods of teaching are relevant in today's time; discussions that help Identify ethical dilemmas in daily lives and understanding the importance of ancient ethics and values to resolve them.

Mode of Assessment:

The approaches to learning assessment will include:

- Supporting the curiosity and interest of student teachers in the selected themes through a multi-modal approach, including regular assessments and actionable feedback that enable learners to outline and interpret the processes and events of the formation & evolution of knowledge of India through a multidisciplinary lens.
- Enabling the student teachers to demonstrate critical analysis and independent thinking of the processes and events in the formulation & evolution of different traditions that help student teachers evaluate the diverse traditions of India to distinguish its achievements and limitations.
- Use of first-hand or second-hand experiences that enable student-teachers to develop and articulate an ethics-based education rooted in Indian thought to their students in the classroom context.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Board, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Altekhar, A.S. (2009). Education in Ancient India. New Delhi: Gyan Publishing House.(Originally published in 1944 by Osmania University. Nand Kishore & Bros.
2. Dominik, W. (2001). The roots of ayurveda. Penguin Classics.
3. Mahadevan, B., Bhat, R.V. & Nagendra, P.R.N. (2021). Introduction to Indian knowledge system: Concepts and applications. PHI Learning Pvt. Ltd.
4. Nehru, J (1946).The Discovery of India. UK:Meridian Books. Reprinted (2008) by Penguin.
5. Sinha, A. (1998). Design of settlements in the vaastu shastras. Journal of Cultural Geography, 17(2), 27-41.
6. Swami Suparnananda (2016). The Cultural Heritage of India (Vol. 2). The Rama Krishna Mission Institute of Culture.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

II Semester
ITEP B.Sc. B.Ed. Mathematics

S.NO.		Course	Credits	Marks		Total Marks
				Internal	Theory	
Discipline Specific Course- DSC						
1	DSC -1 (Major-1)	Number Theory and Calculus – II	4	40	60	100
2	DSC-2 (Major-2)	Number Theory and Calculus – II Practical-I	2	20	30	50
3	DSC-3 (Minor-1)	Thermal Physics and Fluid Mechanics	4	40	60	100
4	DSC-4 (Minor-2)	Chemistry- 3	4	40	60	100
5	DSC-5 (Minor-3)	Chemistry 3 -Practical	2	20	30	50
Ability Enhancement & Value-Added Courses- AE&VAC						
5	AE&VAC-1	Language-II /Kannada/Hindi	4	40	60	100
6	AE&VAC-2	Understanding India Part-II (Indian Ethos & Knowledge systems)	2	20	30	50
7	AE&VAC-3	Teacher And Society	2	20	30	50
Total Credits			24	240	360	600

II Semester
ITEP B.Sc. B.Ed. Mathematics

SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Discipline Specific Course-DSC	Major-1	IBSMT2DSC01T	1.1 Number Theory and Calculus – II
		Major-2	IBSMT2DSC01P	1.2 Number Theory and Calculus – II Practical-I
		Minor-1	IBSMT2DSC02T	1.3 Thermal Physics and Fluid Mechanics
		Minor-2	IBSMT2DSC03T	1.4 Chemistry- 3
		Minor -3	IBSMT2DSC03P	1. 5 Chemistry- 3 Practical
2.	Ability Enhancement & Value-Added Courses-AE&VAC		IBSMT2AB01T	2.1 Language-II /Kannada/Hindi
			IBSMT2AB02T	2.2 Understanding India Part-II (Indian Ethos & Knowledge systems)
			IBSMT2AB03T	2.3 Teacher and Society

1. Discipline Specific Course (DSC)

Course Title: 1.1 NUMBER THEORY AND CALCULUS- II Course Code: IBSMT2DSC01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Mathematics)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

After completion of course (Theory), students will be able to:

- Understand the concepts of divisibility and congruence.
- Analyze the applications of Fermat's and Wilson's theorems.
- Study the applications of definite integrals to areas, volumes and surface of revolution.
- Learn maxima and minima of the functions of two variables.
- Find the extreme values of the functions.
- Solve dot and cross product of vectors.
- Understand the concepts of gradient, divergence and curl.

Unit	Title: NUMBER THEORY AND CALCULUS – II	60 Hours / Sem
Unit - I	Number Theory:	15 Hrs.
	Divisibility. Properties of divisibility. Division algorithm. GCD. Euclid's algorithm. Relatively prime numbers. Fundamental theorem of arithmetic. The number of positive divisors and sum of all the positive divisors of a number. The theory of congruence. Basic properties of congruence. Euler's theorem, Fermat's theorem. Wilson's theorem.	
Unit - II	Integral Calculus:	15 Hrs.

	Reduction Formulae, application of definite integrals to areas, volumes and surface of revolution. Length of plane curves.	
Unit - III	Multivariate Calculus:	15 Hrs.
	Functions of two or more variables, Partial derivatives of implicit and composite functions, Euler's theorem and its extension, Total differentials, Jacobians and standard properties and illustrative examples. Taylor's and Maclaurin's series for functions of two variables, Maxima-Minima of functions of two variables, Lagrange's method of undetermined multipliers.	
Unit - IV	Vector Calculus:	15 Hrs.
	Dot and cross product of vectors. Ordinary derivatives of vectors. Continuity and differentiability of a vector function. Derivatives of sum, dot product. Cross product and triple products of vectors. Differential of vectors. The vector differential operator ∇ . The gradient, Divergence and curl. Solenoidal and irrotational vectors.	

References:

1. Elementary Number Theory, D. M. Burton, McGraw Hill, 2023.
2. Number Theory, G. E. Andrews, Dover Publications, 1994.
3. Integral Calculus, Shanti Narayan and P. K. Mittal, S. Chand and Co. Pvt. Ltd., 2005.
4. Integral Calculus, S. K. Pundir and B. Singh, Pragati Prakashan, 2020.
5. Differential Calculus, Shanti Narayan and P. K. Mittal, S. Chand & Company, New Delhi, 2022.
6. Schaum's Outlines of Calculus, E. Mendelson, McGraw Hill, 2021.
7. Vector Calculus, J. N. Sharma and A. R. Vasishtha, Krishna Prakashan, 2020.
8. A Textbook of Vector Calculus, Shanti Narayan and P. K. Mittal, Visionias, 2023.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title : 1.2 NUMBER THEORY AND CALCULUS – II (Practical-I) Course Code: IBSMT2DSC01P							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Mathematics)	DSC-2 (Major-2)	Practical	2	20	30	50

Course Outcomes:

After completion of course students will be able to:

- Learn Scilab software, which is free and open-source software for computer programming.
- Solve problems on Number Theory using Scilab language.
- Acquire the knowledge of applications on the concepts of Number Theory.
- Solve reduction formulas.
- Verify Euler's theorem and its extension.
- Analyse dot and cross products.

List of Experiments

[Each will have 4rs / Week (Minimum 12 experiments)]

1. Program to solve examples using Euler's theorem.
2. Program to solve examples using Fermat's theorem.
3. Program to solve examples using Wilson's theorem.
4. Program on reduction formulas for $\int \sin^n x \, dx$ and $\int \cos^n x \, dx$ (for all positive values of n) with suitable examples.
5. Program on reduction formulas for $\int_0^{\pi/2} \sin^n x \, dx$ $\int_0^{\pi/2} \cos^n x \, dx$ (for all positive odd and even integral values of n)with suitable examples.
6. Program on reduction formulas for $\int \tan^n x \, dx$ and $\int \cot^n x \, dx$ (for all positive values of n) with suitable examples.
7. Program on reduction formulas $\int \sec^n x \, dx$ and $\int \operatorname{cosec}^n x \, dx$ (for all positive values of n) with suitable examples.

8. Program on reduction formulas for $\int x^m (\log x)^n dx$ and $\int x^n e^{ax} dx$ (for all positive values of m and n) with suitable examples.
9. Program on reduction formulas for $\int \sin^m x \cos^n x dx$ and $\int_0^{\pi/2} \sin^m x \cos^n x dx$ (for all positive values of m and n) with suitable examples.
10. Program to verify the Euler's theorem and its extension.
11. Programs to construct series using Maclaurin's expansion for functions of two variables.
12. Program to find gradient, divergence and curl.

References:

1. Scilab by Example, M. Affouf, Create Space Independent Publishing Platform, 2012.
2. Scilab (A free software to Matlab), H. Ramchandran and A. S. Nair, S. Chand & Co., 2018.
3. Scilab – A Beginner's Approach, A. K. Verma, Cengage Learning India Pvt. Ltd., 2018.
4. Programming in Scilab, R. Goyal and M. Dhingra, Narosa Publishing, 2019.
5. Computing in Scilab, C. Jain, Cambridge University Press, 2022.
6. Vector Calculus, J. N. Sharma and A. R. Vasishtha, Krishna Prakashan, 2020.
7. Integral Calculus, Shanti Narayan and P. K. Mittal, S. Chand and Co. Pvt. Ltd., 2005.
8. Differential Calculus, Shanti Narayan and P. K. Mittal, S. Chand & Co., New Delhi, 2022.
9. Schaum's Outlines of Calculus, E. Mendelson, McGraw Hill, 2021.
10. A Text Book of B.Sc. Mathematics, G. K. Ranganath, S. Chand Publications, 2009

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

Course Title: 1.3 THERMAL PHYSICS AND FLUID MECHANICS Course Code: IBSMT2DSC02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Mathematics)	DSC-3 Minor-1)	Theory	4	40	60	100

Course Outcome:

At the end of the course, students will be able to:

- Apply the laws of thermodynamics and analyze the thermal system and compare the efficiency and working of steam Otto and Diesel engine.
- Analyze the temperature entropy-diagram with physical significance.
- Study the Maxwell's thermodynamical relations with different applications.
- Analyze the significance of thermodynamic potentials and develop the relation between thermodynamical potential with their variables.
- Understand concept of surface tension and viscosity of liquids and their experimental determination.
- Understand importance of surface tension and viscosity of liquids/fluids in real life situation (everyday life).

Unit	Title: THERMAL PHYSICS AND FLUID MECHANICS	60 Hours / Sem
Unit- I	Kinetic theory of gases: Maxwell's law of distribution of velocities (with derivation). Expressions for Average, R.M.S. and most probable velocities (with derivation). Qualitative discussions on Mean free path, mention of Clausius and Maxwell's expressions for mean free path. Transport phenomena — Brief discussion on Viscosity, Thermal conductivity and Diffusion. Expressions for Coefficient of Viscosity, Coefficient of Thermal conductivity and Coefficient of Diffusion (with derivations) and relation between them. Radiation: Concept of Radiation, Stefan's law and its derivation using radiation pressure. Experimental determination of Stefan's constant. Wein's displacement law (with derivation), Rayleigh-Jeans's law (qualitative), Planck's law of radiation and its derivation.	15hrs

Unit- II	Thermodynamics-I: Review of basics of thermodynamics. Statement of second law of thermodynamics, Carnot's theorem: statement and proof. Otto engine (Internal combustion engine) and expression for its efficiency. Diesel engine and expression for its efficiency. Entropy: Concept of entropy, change of entropy in reversible cycle, change of entropy in irreversible process with examples. Temperature-entropy diagram, physical significance of entropy, entropy of a perfect gas. Second law of thermodynamics in terms of entropy. Entropy of the Universe. Third law of thermodynamics: Nernst's heat theorem statement.	15hrs
Unit- III	Thermodynamics-II: Maxwell's Thermodynamic Relations: Thermodynamic variables: extensive and intensive variables. Derivation of Maxwell's thermodynamical relations and its applications, specific heat equation for Van der Waals gas, Joule Thomson-cooling and Joule-Thomson coefficient for perfect and real gases. Clausius - Clapeyron's equation (first latent heat equation). Thermodynamic Potentials: Internal energy, Enthalpy, Helmholtz free energy, Gibb's free energy. Significance of thermodynamic potentials. Relations of thermodynamical potentials with their variables. First and second order phase transitions.	15hrs
Unit- IV	Fluid Mechanics: Surface Tension: Basic concepts. Pressure difference across a liquid surface: excess pressure inside a spherical liquid drop and excess pressure inside a soap bubble. Derivation of relation between radius of curvature, pressure and surface tension. Angle of contact: case of two liquids in contact with each other and with air, case of solid, liquid and air in contact. Experimental determination of surface tension by Jaeger's method with relevant theory. Determination of surface tension and angle of contact of mercury by Quincke's method. Viscosity: Basic concepts. Expression for critical velocity, significance of Reynolds's number. Derivation of Poiseuille's equation. Experimental determination of co efficient of viscosity for a liquid by Poiseuille's method. Motion of a spherical body in a viscous medium: expression for co-efficient of viscosity from Stoke's law (derivation).	15hrs

References:

1. Kinetic Theory of Gases(I-Edition) – V.N. Kelkar – Ideal Book Service, Pune, 1967.
2. Heat & Thermodynamics and Statistical Physics (XVIII-Edition) – Singhal, Agarwal & Satyaprakash – Pragati Prakashan, Meerut, 2006.
3. Heat & Thermodynamics and Statistical Physics (I-Edition) – Brijlal, Subramanyam & Hemne - S. Chand & Company Ltd., New-Delhi, 2008.
4. Heat and Thermodynamics (I-Edition) – D.S.Mathur - S. Chand & Company Ltd., New-Delhi, 1991. A Treatise on Heat – Saha and Srivatsava.
5. A text book of heat - J.B.Rajam.
6. Properties of Matter (XIII-Edition) – Brijlal & Subramanyam, Eurasia Publishing House Pvt. Ltd., New-Delhi, 2001.
7. Elements of Properties of Matter (XXVIII-Edition), D.S.Mathur - S. Chand & Company Ltd., New-Delhi, 2005.
8. Physics, Vol. No.I (V-Edition)– Resnick, Halliday & Krane – John Wiley & Sons Inc., New-York, Singapore, 2005.
9. Berkely Physics, Vol. No.I – ABC Publications, Bangalore & New-Delhi.
10. University Physics (XI-Edition)- Young & Freedman – Pearson Education, 2004

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 1.4 CHEMISTRY-3 Course Code: IBSMT2DSC03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Mathematics)	DSC-4 (Minor-2)	Theory	4	40	60	100

Course Outcomes:

- Explain ionic bond, Born Lande equation, Born Haber cycle and Fajan's rules, VSEPR theory, hybridisation and shapes of various molecules. Understand the concept of resonance and write resonating structures of NO_3^- & CO_3^{2-}
- Explain MO Theory and draw the MO diagrams for homonuclear diatomic molecules and ions and heteronuclear diatomic molecules such as CO, NO, physical properties of metals based on free electron theory, band theory of metals to explain conductors, insulators, extrinsic and intrinsic semiconductors
- Explain the chemistry of aliphatic hydrocarbons & basic Concept in aromaticity.
- Understand the orders of reactions, half-life period, Effect of temperature on reaction rates, temperature coefficient, activation energy and its calculation from Arrhenius equation. Theories of Reaction Rates
- Learn the Law of chemical equilibrium, factors affecting equilibria. Relations between K_p , K_c and K_x for reactions involving ideal gases. Common ion effect, solubility and solubility product. Ionization of acids and bases, hydrolysis of salts.
- Explain the optical Isomerism, chirality/asymmetric centers, enantiomers. R and S notations, CIP rules with molecules containing one, two or more asymmetric centers, diastereomers, meso compounds, R and S notations, D and L configuration and threo and erythro nomenclature, racemic mixture and racemisation, resolution of racemic mixture, formation of diastereomers, biological significance of chirality.
- Explain the preparation of benzene and alkyl benzenes, general mechanism of electrophilic aromatic substitution, examples of halogenation, nitration, sulphonation and Friedel-Craft alkylation and acylation. Oxidation of side chain (Benzene with alkyl groups $-\text{CH}_3$, $-\text{CH}_2\text{CH}_2\text{CH}_3$ and 1, 4 - dimethyl benzene).
- Learn about relative reactivities of halogen in alkyl halides, vinyl halides, allyl halides, aryl halides and aralkyl halides. Nucleophilic substitution reactions and their mechanisms, Synthesis of aryl halide Aromatic Nucleophilic Substitution reactions, effect of nitro substitution on aromatic nucleophilic substitution reactions.

Unit	Title: CHEMISTRY -3	60 Hours / Sem
Unit- I	Unit-I: CHEMICAL BONDING & MOLECULAR STRUCTURE	15hrs
	Ionic Bonding: Review of general characteristics of ionic compounds. Lattice energy and solvation energy and their importance in the context of stability and solubility of ionic compounds. Born-Landé equation and calculation of lattice energy. Born-Haber cycle and its applications .Fajan's rules, ionic character in covalent compounds and percentage of ionic character. Covalent bonding : VB approach, shapes of inorganic molecules and ions on the basis of VSEPR and hybridization with suitable examples of linear, trigonal planar, square planar, tetrahedral, trigonal bipyramidal and octahedral arrangements. Concept of resonance and resonating structures of NO_3^- and CO_3^{2-}. (7 Lectures) Molecular Orbital Theory: LCAO method, bonding and antibonding, Shapes of molecular orbitals, MO treatment of homo nuclear diatomic molecules H_2, He_2, He_2^+, N_2, O_2, O_2^+, O_2^- and hetero nuclear diatomic molecules and ion such as CO and NO (Relationship between bond length, bond order, bond energy, magnetic properties). (5 Lectures) Metallic Bond: Physical properties of metals (conductivity, lustre, malleability & ductility) based on free electron theory. Band theory of metals to explain conductors, insulators, extrinsic and intrinsic semiconductors (including temperature effect). (3 Lectures)	
Unit- II	ALIPHATIC HYDROCARBONS & BASIC CONCEPT IN AROMATICITY	15hrs
	Chemistry of Aliphatic Hydrocarbons: Aliphatic hydrocarbons: Types - alkanes, alkenes, alkynes and alkadienes. Alkenes: mechanism of addition of hydrogen halides and bromine, Markovnikoff's Rule, peroxide effect, acid catalyzed hydration of alkenes (mechanism), oxymercuration-oxidation, hydroboration - oxidation, oxidative cleavage of alkenes with KMnO_4 and ozone (ozonolysis). Alkadienes: classification, mechanism of addition of halogen and hydrogen halides in 1,3-diene, Diels Alder reaction. Alkynes: Mechanism of addition of halogen and halogen halides, hydration of alkynes, Acidic character of acetylenic protons (Acidity of 1-alkynes), Comparison of acidic strength of acetylene, ethylene and ethane. oxidative cleavage of alkynes with KMnO_4 and ozone (ozonolysis), cyclic polymerization. (8 Lectures)	

	Cycloalkanes: Relative stability of cycloalkanes (Baeyer's Strain theory). Conformational analysis of cyclopropane, cyclobutene, cyclopentane and cyclohexane, axial and equatorial bonds, conformation and stability of monosubstituted cyclohexane. (3 Lectures) Basic Concept in aromaticity: Criteria for aromaticity: heat of hydrogenation (e.g. benzene), resonance and resonance energy (e.g. benzene). Huckel's rule with examples such as benzene, furan, thiophene, pyridine, naphthalene, non-benzenoid aromatic compounds- cyclopropanol cation, cyclopentadienyl anion, and cycloheptatrienyl cation. (4 Lectures)	
Unit- III	CHEMICAL KINETICS AND CHEMICAL & IONIC EQUILIBRIA Chemical Kinetics: Review of reaction rates. Orders of reactions. Derivation of integrated rate equations for zero, first and second order reactions (both for equal and unequal concentrations of reactants). Half-life period of a reaction for various orders (numerical problems). Methods for determination of order of a reaction by half-life period and van't Hoff's differential method. Effect of temperature on reaction rates, temperature coefficient, Concept of activation energy and its calculation from Arrhenius equation. Theories of Reaction Rates: Collision theory and Activated Complex theory of bimolecular reactions. Comparison of the two theories (qualitative treatment only). (8 Lectures) Chemical and Ionic Equilibria: Law of chemical equilibrium and its thermodynamic derivation. Factors affecting equilibria (Le Chatelier's principle). Relations between K_p, K_c and K_x for reactions involving ideal gases. Common ion effect, solubility and solubility product and its applications in inorganic qualitative analysis. Ionization of acids and bases, hydrolysis of three types of salts and derivation for determination of pH of their solutions. Numerical problems are to be solved wherever required. (7 Lectures)	15hrs
Unit- IV	STEREoisomerism-II, AROMATIC HYDROCARBONS AND ALKYL AND ARYL HALIDES Stereoisomerism-II : Optical Isomerism: optical activity, specific rotation and optical purity, chirality/asymmetric centers, enantiomers. R and S notations (one asymmetric center): CIP rules with molecules containing one, two or more asymmetric centers, diastereomers, meso compounds, D and L configuration and threo and erythro nomenclature, racemic mixture and racemisation, resolution of racemic mixture through mechanical separation, formation of diastereomers. (5 Lectures)	15hrs

	Aromatic Hydrocarbons: Preparation of benzene and alkyl benzenes, General mechanism of electrophilic aromatic substitution, examples of halogenation, nitration, sulphonation and Friedel-Craft alkylation and acylation. Oxidation of side chain (Benzene with alkyl groups—CH₃, -CH₂CH₂CH₃ and 1, 4 - dimethyl benzene). (5 Lectures) Alkyl and Aryl halides: Alkyl Halides: Relative reactivities of halogen in alkyl halides, vinyl halides, allyl halides, aryl halides and aralkyl halides. Nucleophilic substitution reactions: S_N1 and S_N² reactions and their mechanisms, stereochemistry and comparison. S_N¹ reaction and mechanism. Aryl halides: Synthesis of aryl halide from phenols, Sandmeyer's reaction, Gattermann reaction, Raschig Hooker process and Balz-Schiemann reaction. Aromatic Nucleophilic Substitution reactions: S_N^{Ar}, via Benzyne intermediate along with mechanisms. Effect of nitro substitution on aromatic nucleophilic substitution reactions. (5 Lectures)	

References:

1. Lee, J.D. Concise Inorganic Chemistry ELBS, 1991.
2. Cotton, F.A., Wilkinson, G. & Gaus, P.L. Basic Inorganic Chemistry, 3 rd Ed., Wiley.
3. Huheey, J. E., Keiter, E.A., Keiter, R.L. & Medhi, O. K. Inorganic Chemistry: Principles of Structure and Reactivity, Pearson Education India, 2006.
4. Rodgers, G. E. Inorganic & Solid State Chemistry, Cengage Learning India Ltd., 2008.
5. Organic Chemistry-P. Y. Bruice, 7th Edition, Pearson Education Pvt. Ltd., New Delhi (2013).
6. Heterocyclic Chemistry- R. K. Bansal, 3rd Edition, New- Age International, New Delhi, 2004.
7. Text Book of Physical Chemistry - P. L. Soni, S. Chand & Co., 1993.
8. Principles of Physical Chemistry - B. R. Puri, L. R. Sharma and M. S. Patania, S. L. N. Chand & Co. 1987.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 1.5 CHEMISTRY - 3 Practical Course Code: IBSMT2DSC03P							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Mathematics)	DSC-5 (Minor-3)	Practical	2	20	30	50

Course Outcomes:

After completion of course (Practical), students will be able to:

- Learn crystallization, fractional crystallization, sublimation, reflux, distillation, fractional distillation, distillation under reduced pressure, steam distillation and determination of melting point of the crystallized solid & boiling point of the liquid.
- Develop the techniques involved in the preparation and determination of organic compounds.

Syllabus- Chemistry- 3 (Practical)	56 Hrs
Explanation regarding crystallization, fractional crystallization, sublimation, reflux, distillation, fractional distillation, distillation under reduced pressure, steam distillation and determination of melting point of the crystallized solid & boiling point of the liquid. (Students should write in the journal regarding the above). Preparation of organic compounds: 1. Nitration – Nitration of salicylic acid using calcium nitrate and acetic acid (Green method) 2. Bromination – Acetanilide to p-bromo acetanilide 3. Nitration - Acetanilide to p-nitro acetanilide 4. Hydrolysis – Benzamide to benzoic acid 5. Oxidation – Benzaldehyde to benzoic acid. 6 Preparation of urea formaldehyde resin. Determination of Organic compounds: 7. Determination of phenol by bromination method 8. Determination of aniline by bromination method.	

9. Determination of acetamide by hydrolysis method.
10. Determination of ethyl benzoate by hydrolysis method.
11. Determination of aspirin in the tablet by hydrolysis method.
12. Determination of formaldehyde using sodium sulphite.

Note: In the preparation experiment, student has to write mechanism of reactions, calculation of quantitative yield, determination of melting point and to perform recrystallization.

Distribution of marks for preparation experiments: (15 marks.) Calculation of theoretical yield – 03 marks, observed yield -10 marks, M.P- 02 marks,

Deduction of marks for observed yield: Less than 10% - 10 marks, 11-15% - 8 marks, 16-20% - 6 marks, 21-25 % - 4 marks & above 25% - 2 marks.

Distribution of marks for determination experiments: (15 marks.) Accuracy - 10(5+5) marks, Technique and presentation - 02 marks, Reactions and Calculations - 03 marks. Journal -05marks, Viva: 05 marks Total = 40 marks

Deduction of marks for accuracy : ± 0.2 CC – 5 marks, ± 0.4 CC- 04 marks, ± 0.6 CC- 03 marks, ± 0.8 CC - 02 marks. Above ± 1.0 CC -01 mark

General instructions:

In the practical examination, minimum two different preparation and determination experiments may be given. In a batch of twenty students, each student will be performing preparation and determination experiments. Selection of experiments may be done by the students based on lots. Viva questions may be asked on any of the experiments prescribed in the practical syllabus. Manual is not allowed in the examination.

References:

1. Vogel's quantitative Organic Analysis, G.Svehla, 7th Ed, Longman (2001).
2. Advanced Practical Chemistry, Jagadamba Singh, Pragathi, Publications (2017).
3. College Practical Chemistry: V K Ahluwalia, Sunitha Dhingra and Adarsh Gulati. University Press-2011.

2. Ability Enhancement & Value-Added Course (AE&VAC)

Course Title: 2.1 LANGUAGE-II /KANNADA Course Code: IBSMT2AB01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Mathematics)	AE&VAC-1	Theory	4	40	60	100

Course Outcomes (COs):Attheend ofthecoursestudentswillbeableto:

CO1: ವಿಜ್ಞಾನ ವಿದ್ಯಾರ್ಥಿಗೆ ಭಾಷೆಯ ಮಹತ್ವದ ಅರಿವು

CO2:ನಾಡು ನುಡಿ ಚಿಂತನೆಗಳ ಅರಿವು

CO3: ಮೌಢ್ಯಗಳನ್ನು ಮೀರುವ ವೈಜ್ಞಾನಿಕ ಮನೋಭಾವದ ತರಬೇತಿ

CO4: ಸ್ವತಂತ್ರವಾಗಿ ಆಲೋಚಿಸುವ ಸಾರ್ಥ್ಯಧಾರಣೆ

CO5: ನಿಸರ್ಗದ ಸಹಜ ಸ್ಥಿತಿಯ ತಿಳುವಳಿಕೆಯ ಧಾರಣೆ

CO6: ಸೂಕ್ಷ್ಮ ವಾಸ್ತವಗಳ ತಿಳುವಳಿಕೆ ಸಾಧ್ಯ

CO7: ಸಾಹಿತ್ಯದ ವಿವಿಧ ಪ್ರಕಾರಗಳ ಅರಿವು ದಕ್ಕುತ್ತದೆ.

Unit	Title: ವಿಸ್ಮಯ ೧ (AECC ಕನ್ನಡ)	60 hrs/sem
Unit I	ಕನ್ನಡ ನಾಡು ನುಡಿ ಚಿಂತನೆ ೧. ಕನ್ನಡ ಭಾಷೆ ಮತ್ತು ಸವಾಲು - ಹಂಪನಾ ೨. ರಕ್ಷಿಸು ಕರ್ನಾಟಕ ದೇವಿ - ಶಾಂತಕವಿ ೩. ಕಲಿಕೆಯ ನುಡಿ; ಗೊಂದಲಗಳ ಹಿಂದಿರುವ ಹುನ್ನಾರಗಳು - ರಂಗನಾಥ ಕಂಟನಕುಂಟೆ ೪. ಹೆಸರಾಯಿತು ಕರ್ನಾಟಕ - ಚೆನ್ನವೀರ ಕಣವಿ	15 hrs
Unit II	ವೈಚಾರಿಕತೆ ೧. ಬಸವಣ್ಣನವರ ೫ ವಚನಗಳು ೨. ವಿಚಾರ ಕ್ರಾಂತಿಗೆ ಆಹ್ವಾನ - ಕುವೆಂಪು ೩. ಅವತಾರಗಳು - ಸಿದ್ದಲಿಂಗಯ್ಯ ೪. ಜಾತಿಗಳ ಹೆಸರುಗಳ ವಿನಾಶವೋ, ಜಾತಿ ಅಸಮಾನತೆಯ ವಿನಾಶವೋ- ಬಿ. ಎಂ. ಪುಟ್ಟಯ್ಯ	15 hrs

UnitIII	ಪರಿಸರ ಪ್ರಜ್ಞೆ ೧. ಮನೋಕಲ್ಪರ್ ಮಾಯೆಯ ವಿಶ್ವಪ್ರದರ್ಶನ - ಶಿವಾನಂದ ಕಳವೆ ೨. ಪರಿಸರ ನಿರ್ವಹಣೆ ಮತ್ತು ಮಹಿಳೆ - ಸತ್ಯ ಎಸ್. ೩. ನಿಸರ್ಗವೇ ಘೋಷಿಸುವ ಲಾಕ್‌ಡೌನ್‌ಗಳು - ನಾಗೇಶ ಹೆಗಡೆ ೪. ವ್ಯಕ್ತಮಾತೆ ತಿಮ್ಮಕ್ಕ - ಶ್ರೀಧರ ಬನವಾಸಿ	15 hrs
UnitIV	ಬಾಲ್ಯ ೧. ಚಾರ್ಲಿ ಚಾಪ್ಲಿನ್ - ಕುಂವೀ ೨. ಜೀತ - ಬೆಸಗರಹಳ್ಳಿ ರಾಮಣ್ಣ ೩. ಬನ್ನಿ ಗುಬ್ಬಿಗಳ ಸಾಲುಗಟ್ಟಿ - ಮಾಲತಿ ಪಟ್ಟಣಶೆಟ್ಟಿ ೪. ಕಾಗೆ ಮುಟ್ಟಿದ ನೀರು (ಆತ್ಮಕಥೆ) ಬಾಲ್ಯದ ಭಾಗ - ಪುರುಷೋತ್ತಮ ಬಿಳಿಮಲೆ	15hrs

Recommended books:

1. ಮೊದಲು ಮಾನವನಾಗು - ಸಿದ್ಧಯ್ಯ ಪುರಾಣಿಕ
2. ಕವಿರಾಜಮಾರ್ಗ - ಶ್ರೀವಿಜಯ
3. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಸಮೀಕ್ಷೆ - ಹೆಚ್. ತಿಪ್ಪೇರುದ್ರಸ್ವಾಮಿ
4. ವಿಚಾರಕ್ರಾಂತಿಗೆ ಆಹ್ವಾನ - ಕುವೆಂಪು
5. ಕಾಗೆ ಮುಟ್ಟಿದ ನೀರು (ಆತ್ಮಕಥೆ) - ಪುರುಷೋತ್ತಮ ಬಿಳಿಮಲೆ

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2.1 LANGUAGE-II /HINDI Course Code: IBSMT2AB01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Mathematics)	AE&VAC-1	Theory	4	40	60	100

Course Outcomes (COs): At the end of the course students will be able to:

- CO1: साहित्य के प्रति रूचि विकसित होगी ।
CO2: शब्द, सूक्ति, मुहावरें आदि के भंडार को समृद्ध कर पाएँगे।
CO3: विवेचन एवं विश्लेषण की क्षमता का विकास होगा ।
CO4: एकाग्रता विकसित होगी ।
CO5: आधुनिक संदर्भ में विज्ञान एवं तकनीकी के महत्व को प्राप्त कर सकते हैं ।
CO6: प्रमुख वैज्ञानिकों के जीवनी या आत्मकथा को पढ़कर खुद के व्यक्तित्व का विकास कर सकते हैं।
CO7: अनुवाद करने में सक्षम होंगे।
CO8: अनुवाद के द्वारा अपने रोजगार को प्राप्त कर सकते हैं।

Unit	Title: GADYA SAURABH AUR ANUVAD गद्य सौरभ और अनुवाद	60hrs/sem
Unit I	गद्य सौरभ – सं. डॉ. नागरत्ना एन. राव (राजपाल एण्ड सन्स, दिल्ली) 1. एकलव्य ने गुरु को अंगूठा दिखाया (व्यंग्य) – हरिशंकर परसाई 2. क्या भूलूँ क्या याद करूँ (आत्मकथा) – हरिवंशराय बच्चन 3. प्रेमचंद: लमही में जन्म और अंतिम बीमारी (जीवनी) – अमृत राय	15hrs
Unit II	4. त्यागमूर्ति 'निराला' (संस्मरण) – शिवपूजन सहाय 5. मैं और मैं (रिपोर्ताज) – कन्हैयालाल मिश्र 'प्रभाकर' 6. शांतिनिकेतन में (यात्रावृत्त) – राहुल सांकृत्यायन	15hrs

UnitIII	7. गपशप (चर्चा) – डॉ. नामवर सिंह 8. श्रमदेवता की उपासना (विचार) – विनोबा भावे	15hrs
UnitIV	अनुवाद का सामान्य परिचय कन्नड और अंग्रेजी से हिंदी में परिच्छेद अनुवाद	15hrs

Recommended books:

1. गद्य सौरभ – सं. डॉ. नागरत्ना एन. राव, राजपाल एण्ड सन्स, दिल्ली
2. साहित्य सप्तक (गद्य संग्रह)- सं. प्रो. प्रतिभा मुदलियार, अमन प्रकाशन, कानपुर
3. गद्यगरीमा- सं. डॉ. एन्. मोहनन्, डॉ. दीपक के. आर्., राजपाल एण्ड सन्स, दिल्ली.
4. संस्मरण- महादेवीवर्मा, राजपाल एण्ड सन्स, दिल्ली.
5. साहित्यिक निबंध- गणपतिचंद्र गुप्त
6. प्रयोजनमूलक हिंदी-डा-नरेश मिश्र, राजपाल एण्ड सन्स नई दिल्ली ।
7. प्रयोजनमूलक हिंदी-डा-बशीरुद्दीन मदरी, गीता प्रकाशन हैदराबाद
8. सरकारी कार्यालयों में हिंदी का प्रयोग-गोपिनाथ श्रीवास्तव, लोकभारती प्रकाशन।
9. प्रयोजनमूलक हिंदी- राष्ट्राभाषा प्रचार समिति, वर्धा।

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2.2 UNDERSTANDING INDIA PART-II (INDIAN ETHOS AND KNOWLEDGE SYSTEMS) Course Code: IBSMT2AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Mathematics)	AE&VAC- 2	Theory	2	20	30	50

Course Outcomes:

After the completion of the course, the students will be able to:

- recognize the vast corpus of knowledge traditions of India, while developing an appreciation for it,
- apply their acquired research and critical thinking skills in multidisciplinary themes,
- summarize and pass on their learnings to their students of different Indian traditions in an easily digestible manner.

UNIT-I

Introduction of Knowledge of India

- Recap of the previous semester's definition and introduction.
- Recap of previous knowledge.

UNIT-II

Philosophy, Ethics & Values: Schools of Philosophy

- Vaishesika, Nyaya, Samkhya, Yoga, Purva Mimansa and Vedanta or Uttara Mimansa (theory and the major thinkers) – and Jain, Buddhist, and Charvak traditions.
- Vedanta: philosophical systems (Advaita, Vishishtadvaita, Dvaita).
- Ethics, morality, and social dilemma (including self-leadership) and their relevance in today's time.
- How do Indians value spirituality? Spirituality and Social Responsibility; Importance of Spirituality in current times.
- Using ethics in a technologically volatile world: leading an ethical and modern life.
- Practical Vedanta for well-being (mindfulness, inter-connectedness, society-self relationship, etc.).

UNIT-III

Culture- Lifestyle

- A. Food (regional cuisines, ayurvedic diet, food and festival, vegetarianism, Jainism in food, food and hospitality, and globalization).
- B. Clothes (traditional Indian clothing, textile arts, religious costumes, clothing status, clothing, gender, globalization in clothing).
- C. Sports (traditional Indian sports, martial arts, sports, and gender, sports & globalization).
- D. The lifestyle of Yoga; adapting ancient lifestyle – A path towards longevity.

UNIT-IV

Science & Technology

- A. Arithmetic and logic.
- B. Natural sciences: math, physics, metallurgy, and chemistry.
- C. Astronomy: India's contributions to the world.
- D. Indian notions of time and space.
- E. Technology in the economy: agriculture, transportation, etc.

UNIT-V

Linguistic Traditions

- A. History of linguistics in India (conceptualizing ancient Indian linguistics, oral traditions, etc.).
- B. Language as Culture: Evolution of Languages over the years & language as building blocks to different cultures and society
- C. Language: Identity, culture, and History.

Practicum:

The modes of curriculum transaction will include lectures, Tutorials, and Practicum.

- Practicum will include organization of day trips that help student teachers watch events relating to visual and performing art; activities that enable student teachers to identify and record through photos, videos, etc. the elements of ancient architecture still existing in the city around them; organization of Individual and group presentations based on themes such as Polity, Law and Economy etc., organization of a 'Knowledge of India 'day in the institution to celebrate the culture (food, clothes, etc.) that they would have been explored in lectures and tutorials; interactions with family members, elders, neighbors, and other members of society about the evolution of local systems and economy etc

Mode of Transaction:

Lectures will include learner-driven participatory sessions, and Guest lectures through experts and practitioners, such as fine arts and performing arts practitioners along with contemporary poets & writers of Indian literature.

Tutorials will include Screening of documentaries and films followed by a discussion; Learner-driven discussions in the form of focus group discussions (FGDs), Socratic Discussions, etc.; Debate/discussion can be organized to explain India's Vaad tradition; discuss on how some of the ancient methods of teaching are relevant in today's time; discussions that help Identify ethical dilemmas in daily lives and understanding the importance of ancient ethics and values to resolve them.

Mode of Assessment:

The approaches to learning assessment will include:

- Supporting the curiosity and interest of student teachers in the selected themes through a multi-modal approach, including regular assessments and actionable feedback that enable learners to outline and interpret the processes and events of the formation & evolution of knowledge of India through a multidisciplinary lens.
- Enabling the student teachers to demonstrate critical analysis and independent thinking of the processes and events in the formulation & evolution of different traditions that help student teachers evaluate the diverse traditions of India to distinguish its achievements and limitations.
- Use of first-hand or second-hand experiences that enable student-teachers to develop and articulate an ethics-based education rooted in Indian thought to their students in the classroom context.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Board, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Balasubramanian, R. (2000). Introduction. In Chattopadhyana, D. P. (Ed.), History of science, philosophy and culture in Indian civilization. Advaita Vedanta. [Vol. 2 (II)]. Centre for Studies in Civilizations.
2. Bhagat, G. (1990, April-June). Kautilya revisited and re-visioned. The Indian Journal of Political Science. 31(2), 186-212.
3. Bhattacharya, R. (2002). Carvaka fragments: A new collection. Journal of Indian Philosophy, 30, 597-640.

4. Kangle, R. P. (2019). Kautiliya Artha sastra. Motilal Banarsidass Publishers Pvt. Ltd.
5. Rangarajan, L. N. (1987). The Artha shastra. Penguin Books.
6. Sen, S. N., & Shukla, K. S. (Eds.). (2000). History of astronomy in India (2 ed.). Indian National Science Academy.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

Course Title: 2.3 TEACHER AND SOCIETY Course Code: IBSMT2AB03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Mathematics)	AE&VAC- 3	Theory	2	20	30	50

Course Outcomes:

After completion of the course, the student teachers will be able to:

- examine the relationship between teacher beliefs, values, character, social and cultural context, and teaching critically.
- conceptualize teacher agency, its individual, contextual, and structural dimensions, and how it gets impacted and in turn shapes education.
- explain the teacher's roles and characteristics; the personal and professional self, the reflective practitioner, and their significant role in shaping self, school, and society,
- differentiate between the narrow curricular aims of education and the broader educational aims and their role in shaping self, school and society,
- demonstrate an ability to develop positive classrooms through engaging in the ethic of care,
- demonstrate an ability to critically reflect on personal and collective practice so as to improve learning and teaching,
- conceptualize teacher agency, its individual, contextual, and structural dimensions and how it gets impacted and in turn shapes education.

UNIT-I

Understanding the Teacher: Exploring the Personal and Professional Teacher

- Exploring the wider Personal and General Social Context of Teacher: Life History, Teacher Beliefs, Values and Aspirations, Diverse Identities, Social Contexts and Commitment to Learning and Education.
- Exploring the Professional Teacher: Qualifications, Education in teaching, Attitude, Aptitude, Experience and Exposure.
- The Charismatic Teacher, the Communicator Teacher, The Missionary Teacher, The Competent Practitioner, The Reflective Practitioner, The Learning Teacher.

- D. Reflexive Practice: Nurturing the Professional Capital through collaborative and/or collective engagement with self, others, the social context.

UNIT-II

Nurturing the Teacher: A Dialogue Beyond the Curricular Goals, for Life and Posterity

- A. Teaching: One profession, many roles
- B. Teaching Character: Nurturing Teachers for Human Flourishing.
- C. Holistic Teacher Development: Nurturing the Panchakoshas.
- D. Teacher Values, Beliefs, and current Philosophy of Teaching: A Reflective Dialogue.
- E. Developing an Ethic of Care in Teacher Education: Nurturing Teachers towards a pedagogy of care.

UNIT-III

Understanding and Fostering Teacher Agency: Role in shaping Education Systems of Tomorrow

- A. Teacher Agency: What is it and why does it matter?
- B. Individual, Cultural and Structural Dimensions of Teacher Agency.
- C. Teacher discourses, Philosophy, Relationships, Networks and Professional Development: Shaping teacher agency and Creative insubordination.
- D. Challenges and Issues in fostering Teacher Agency: Performativity, Non-academic engagements, Systemic apathy, Policy and Practice gaps and others.
- E. Role of Teacher in shaping the educational policy, practice, and reforms

UNIT - IV

Teacher as an Architect of the New India: Shaping the Society of Tomorrow

- C. Engaging in Critical Education: Dialogues on power relations associated with Gender, Ethnicity, Culture, Disability, Class, Poverty, the reproduction of disadvantage and realizing the true human potential.
- D. Being a Critical Teacher: Raising debates around rapid technological advancement and impact on individual, family and social life; the growing isolation and impact on mental and social health and well-being, changing relationships between the 'state' and the 'market' and their impact on formal education; the conceptualization of teacher, teaching and teacher roles, 'globalization' and the reconstructed nationalism shaping the socio-political milieu and impact on social psyche, growing materialistic urge, sensory drives and the gradual deterioration of the individual and societal character.

Practicum:

- Take up a case study of any one teacher education Institution.
- Write a biography of any one of your favorite teachers/ Educationists.

Mode of Transaction:

Teacher and Society is a reflection-based course that invites teachers to re-think teachers and teaching. It awakens and inspires teachers to realize broader educational aims through an action and reflection cycle. The approach therefore would include a blend of lectures, in-class seminars, thinking exercises, critical reflections, group work, case-based approaches, and enquiry-based learning.

- Learners would also be exposed to case studies featuring teachers from a representative cross-section of Schools in India and critically analyse their exercise of agentic force in school improvement and the improvement of teaching practice.
- Situating themselves in the geo-political context, the learners will get to critically engage in some of the policy dialogues.
- Learners would reflect on their practice as pre-service interns, knowledge, skills, and understandings-and identify opportunities to apply course learnings to their school context.

Mode of Assessment:

The entire syllabus is based on practical exercises. Being a very thought-provoking course, the assessment would largely include critical thinking kind of assignments. The following are some exemplars.

- Write your current teaching philosophy based on your beliefs and values.
- Choose any one area of immediate societal concern like environmental degradation, increasing crime against women, cybercrimes, bullying or any other and draw an action plan that you as a teacher would undertake to mobilize self, school and society towards betterment.
- Critical Reflections on popular debates around power relations associated with Gender, Ethnicity, Culture, Disability, Class. Poverty, and others

These are just prototypes and institutes may choose either of these or think of other innovative assignments that would inculcate in future teachers a sense of belonging to society.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Board, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Ashton, K. (2021). Novice teacher agency in the multi-level language classroom. *Language, Culture and Curriculum*, 34(3), 242-256.
2. Axline, M.A. (2018). *Dibs: In Search of Self*. Lexington, Massachusetts: Plunkett Lake Press
3. Biesta, G., Priestley, M., & Robinson, S. (2015). The role of beliefs in teacher agency. *Teachers and Teaching: Theory and Practice*, 21(6), 624-640.
4. Kumar, S. (2023, January). Reconceptualizing teacher education from an emancipatory perspective. *Journal of Educational Planning and Administration*. 37(1), 31-45.
5. Lasky, S. (2005). A sociocultural approach to understanding teacher identity, agency and professional vulnerability in a context of secondary school reform. *Teaching and Teacher Education*, 21(8), 899-916.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

III Semester

ITEP B.Sc. B.Ed Mathematics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
SIP- Two-week student Induction Programme						
Foundation Course of Education-FCE						
1	FCE-1	Child development & Educational Psychology	4	40	60	100
Discipline Specific Course-DSC						
2.	DSC-1 (Major-1)	Algebra – II and Real Analysis – I	4	40	60	100
	DSC-2 (Major-2)	Algebra – II and Real Analysis – I Practical- II	2	20	30	50
3	DSC-3 (Minor-1)	Geometrical and Physical Optics, Electricity-I and Basic Electronics	4	40	60	100
4	DSC-4 (Minor-2)	Chemistry- 4	4	40	60	100
Stage Specific Content Cum Pedagogy- SSCCP						
5	SSCCP-1	Pedagogy of Mathematics-I	2	20	30	50
6	SSCCP-2	Pedagogy of Science-I	2	20	30	50
Total Credits			22	220	330	550

III Semester

ITEP B. Sc B.Ed Mathematics

SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education-FCE			1.1 Child development & Educational Psychology
2	Discipline Specific Course-DSC	Major-1		2.1 Algebra – II and Real Analysis – I
		Major-2		2.2 Algebra – II and Real Analysis – I Practical- II
		Minor-1		2.3 Geometrical and Physical Optics, Electricity-I and Basic Electronics
		Minor-2		2.4 Chemistry- 4
3.	Stage Specific Content Cum Pedagogy-SSCCP			3.1 Pedagogy of Mathematics- I
				3.2 Pedagogy of Science- I

1. Foundation Course of Education- (FCE)

Course Title: 1.1 CHILD DEVELOPMENT & EDUCATIONAL PSYCHOLOGY							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B. Sc B.Ed (Mathematics)	FCE-1	Theory	4	40	60	100

Course Outcomes:

- After completion of this course, student teachers will be able to:
- describe the meaning, concept, characteristics, and factors affecting growth and development,
- use the knowledge of Indian concept of self,
- apply various problem solving and learning strategies in real classroom settings,
- identify the various approaches of the process of learning,
- explain group dynamics and apply strategies to facilitate group learning.

UNIT - I

Child Development

A. Meaning and significance of understanding the process of Child Development

- Biological, cognitive, socio-emotional, and moral.

B. Developmental characteristics of a child during:

- Infancy stage
- Early Childhood stage
- Middle to Late Childhood stage
- Adolescence stage

C. The Indian concept of self: Mind (मनस्), Intellect (बुद्धि), Memory (द्विज्ज). Panch-koshIya Vikas (पञ्चकोशीय द्विज्जिकास).

D. Educational Implications.

UNIT - II

Developmental Process

A. Development across domains:

- Physical Development
- Cognitive Development
- Language Development
- Socio-Emotional Development
- Aesthetic Development
- Moral Development

During each of the above-mentioned developmental stages of a child.

B. Factors affecting development.

C. Individual differences:

- Children with special needs including developmental disorders.
- Tools and Techniques for Identifying Learner with different abilities.

D. Teachers' role and strategies to address the needs of learners with different learning abilities.

UNIT - III

Process of Learning

A. Conceptual Clarity and significance.

B. Approaches:

- Behaviorist
- Cognitivist
- Constructivist
- Developmental
- Information processing Model of learning
- Shri Aurobindo's Integral approach

C. Problem Solving and Learning Strategies: Inquiry and problem-based learning, Steps and Strategies in problem solving, Factors hindering problem solving.

D. How to Learn: Significance and Strategies

UNIT - IV

Motivation and Classroom Management

B. Motivation

- Conceptual clarity, nature, and significance
- Intrinsic and Extrinsic Motivation
- Strategies for Motivation

B. Classroom management

- Creating a positive learning environment
- Planning space for learning
- Managing behavioral problems

C. Group dynamics:

- Classroom as a social group
- Characteristics of group
- Understanding group interaction-sociometry
- Strategies to facilitate group learning.

Practicum:

1. Spending day with a child and preparing a report based on our observations of children for:
 - A day from different economic status (low and affluent)
 - Focus on various factors: Physical, emotional, social, language, cultural and religious influencing the child on daily basis.
2. Observing children to understand the styles of children learning process.
3. Identifying the Learning Difficulties of Students in Different learning areas and the Possible Reason for them- Case Study Report.
4. Preparing Personalized Intervention plan for Students with Learning Difficulties.
5. Plan to use advanced technology to encourage talented / gifted children.
6. Encouraging gifted / talented students beyond the general school curriculum.
7. Familiarization and Reporting of Individual Psychological Tests.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally

marginalized communities and groups, through focus group discussion, surveys, short term project work etc.

- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. Bates. B. (2019). Learning Theories Simplified. Sage Publications Ltd.
2. Berk. L. E. (2011). Child Development. (8th ed.). New Delhi: Pearson Prentice Hall.
- Cornelissen. M. & Misra, G.(2013). Foundations and Applications of Indian Psychology. Pearson Education
3. Dehaene, S.(2021). How We Learn: The New Science of Education and The Brain, Penguin Publication
4. Eggen, P. & Kauchak, D. (1999). Educational Psychology: Windows on Classrooms. (4th ed.). New Jersey : Prentice Hall
5. Feldman. R.S. & Babu, N. (2018). Development Across the Life Span (8e). Pearson .
6. Hurlock, E.B. (2017). Developmental Psychology (6e). McGraw Hill, Indian Edition.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

2. Discipline Specific Course- (DSC)

Course Title: 2.1 ALGEBRA – II AND REAL ANALYSIS – I							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B. Sc B.Ed (Mathematics)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

After completion of course (Theory), students will be able to:

- Interpret the fundamental concepts of groups.
- Explain the significance of the notions of cosets, normal subgroups and factor groups.
- Learn countable and uncountable sets.
- Understand the concepts of open set, closed set, etc.
- Learn the concept of convergence and divergence of a sequence.
- Understand limits and their use in sequence, series, differentiation, and integration.
- Analyse the ratio test, root test, alternating series, limit comparison tests for convergence and absolute convergence of an infinite series.

Unit	Title: Algebra – II and Real Analysis – I	60 Hours / Sem
Unit – I	Groups: Groups, Abelian group, Standard examples of groups, Properties of groups, Subgroup, Permutation group, Cyclic groups, Cosets, Lagrange's theorem, Normal sub-groups, Quotient groups, Homomorphism and Isomorphism of groups.	15 hrs.
Unit – II	Introduction to Real Analysis: Real line, Field and order axioms, Existence of $\sqrt{2}$, Intervals, Bounded and unbounded sets, Supremum and infimum of a set, Completeness property of $\mathbb{R}$, Archimedean property of $\mathbb{R}$. Absolute value of $\mathbb{R}$ – Standard theorems, Neighborhood of a point, Interior point of a set, Open set, Closed set, Limit points of a set, Bolzano-Weierstrass theorem (statement only), Countable and uncountable sets - Standard theorems.	15 hrs.
Unit – III	Sequences: Sequences of real numbers, Bounded sequences, Limit of a sequence, Convergent, Divergent, and Oscillatory sequences, Monotonic sequences, Algebra of convergent sequences, Limit points of a sequence, Bolzano - Weierstrass theorem for sequence, Cauchy's first and second theorem on limits of a sequence, Cauchy's general principle for convergence of a sequence (Statement).	15 hrs.
Unit – IV	Infinite Series: Definition of convergent, divergent, and oscillatory series, Geometric series, Cauchy's general principle of convergence of series, p-series, Comparison tests for positive term series. D'Alembert's ratio test, Raabe's test, Cauchy's Root test and Cauchy's integral test, Alternating series, Leibnitz's theorem, Absolute convergence and conditional convergence of a series.	15 hrs.

References:

1. Topics in Algebra, I. N. Herstein, Wiley Eastern Ltd., New Delhi, 2006.
2. Modern Algebra – Surjeet Singh and Q. Zameeruddin, Vikas Publishing House Pvt. Ltd., 2006.
3. Algebra, S. K. Pundir and B. Singh, Pragati Prakashan, 2020.
4. Mathematical Analysis, S. C. Malik and Savita Arora, New Age International (P) Ltd., 2021.
5. Real Analysis, N. P. Bali (Golden Maths Series), New Age International Publishers, 2023.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.2 ALGEBRA – II AND REAL ANALYSIS – I Practical- II							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B. Sc B.Ed (Mathematics)	DSC-2 (Major-2)	Practical	2	20	30	50

Course Outcomes:

After completion of course (Practical), students will be able to:

- Learn Maxima software, which is free and open-source software for computer programming.
- Explain the significance of the notions of groups.
- Recognize the countable set and groups.
- Acquire knowledge of applications of real analysis through Maxima software.
- Attain the information of applications of sequences.
- Verify the convergence/divergence of different types of series.

List of Experiments

[Each will have 4rs / Week (Minimum 12 experiments)]

1. Program to construct Cayley table and test abelian for given finite set.
2. Program to find generators and corresponding possible subgroups of a cyclic group.
3. Program to verify Lagrange's theorem with suitable example.
4. Program to find infimum and supremum of a set by suitable examples.
5. Program to verify Cauchy's first and second theorems on limits by suitable examples.
6. Program to verify geometric series with suitable examples.
7. Program to verify p-series with suitable examples.
8. Program to verify D'Alembert's test with suitable examples.
9. Program to verify Raabe's test with suitable examples.
10. Program to verify Cauchy's root test with suitable examples.
11. Program to verify Cauchy's integral test with suitable examples.
12. Program to verify alternating series using Leibnitz's theorem with suitable examples.

References:

1. Mathematics using Maxima Software, A. S. Pandhari and S. S. Jadhav, Vision, 2019.
2. Computational Mathematics using Maxima Software, K. Takale & Others, Nirali Prakashan, 2020.
3. Introduction to Maxima for Scientific Computers, M. Kanagasabapathy, BPB Publishers, 2018.
4. Maxima: The Computer Algebra System, Vaisakh, Notion Press, 2022.
5. Scientific Programming, J. A. Calvo, Cambridge Scholars Publishing, 2018.
6. Modern College Algebra, D. C. Pavate, Macmillan Publications, 1968.
7. Real Analysis, N. P. Bali (Golden Maths Series), New Age International Publishers, 2023.
8. Real Analysis, M.L. Khanna and S. K. Pundir, Jai Prakash Nath & Co. Meerut, 2014.
9. Introduction to Real Analysis, R. G. Bartle and D. R. Sherbert, Wiley, 2021.
10. Mathematical Analysis, T. M. Apostol, Narosa Publishing House, 2002.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.3 GEOMETRICAL AND PHYSICAL OPTICS, ELECTRICITY-I AND BASIC ELECTRONICS							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B. Sc B.Ed (Mathematics)	DSC-3 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course, students will be able to:

- Explain basics of laws of reflection and refraction.
- Describe different types of aberrations, cardinal points of optical instruments.
- Demonstrate interference of light due to division of wavefront and amplitude by Fresnel's biprism and Newton's rings experimental setup. Measurement of wavelength of light using experiments like Michelson interferometer.
- Understand and distinguish application of Gauss law in vacuum and dielectric medium.
- Determine dielectric constant of solid/liquid materials by experiments in laboratory.
- Apply the resonant circuits in the field of communication and signal oscillator building.
- Apply concepts of AC and DC bridges to determine values of resistance, capacitance of capacitor and self-inductance of a coil.

Unit	Title: Geometrical and Physical Optics, Electricity-I and Basic Electronics	60 hrs/ Sem
Unit- I	Geometrical Optics: Fermat principle: Derivation of laws of reflection and refraction, sign convention, refraction at a spherical surface, derivation of Lagrange's law and Helmholtz relation, Abbe's sine condition derivation, aplanatic points of a spherical surface(qualitative). Aberrations: Spherical aberrations: methods to reduce spherical aberration (qualitative). Chromatic aberrations: Conditions for achromatism of two thin lenses in contact, two thin lenses separated by finite distance. Cardinal points: Cardinal points of an optical system. Equivalent focal length of two thin lenses separated by a distance. Location of cardinal points of a thick lens (derivation). Experimental determination of cardinal points of a lens system using Searle's Goniometer and Turn Table (Nodal slide).	15hrs

Unit- II	Physical Optics-1: Interference due to division of wave front: Fresnel's biprism. Determination of wavelength of monochromatic light & thickness of a thin film using biprism. Interference due to division of amplitude: Interference phenomenon with a plane parallel thin film in reflected and transmitted light (with derivation). Interference using wedge shaped film (air wedge). Theory of Newton's rings. Experimental determination of wavelength of monochromatic light using Newton's rings. Michelson interferometer: Principle, construction and working. Formation of circular and straight fringes(qualitative). Mention of the applications of Michelson's Interferometer. Michelson-Morley experiment and its significance.	15 hrs
Unit- III	Theory of Dielectrics: Introduction to dielectric materials. Polar and non-polar molecules with examples. Gauss law in a dielectric medium. Dielectric in an electric field, electric polarization (P), electric displacement (D), electric susceptibility (χ) and atomic polarizability(α), relation between D , E and P . Mechanism of polarization. Boundary condition at a dielectric surface(derivation). Derivation of Clausius–Mosotti equation and its limitations. Dielectric constant and its experimental determination. Moving coil Galvanometer: Conditions for a moving coil galvanometer to be ballistic and dead beat. Theory of moving coil ballistic galvanometer (BG). Charge and current sensitivity and their relationship. Measurement of capacitance of a capacitor by absolute method using B.G. Measurement of high resistance by leakage method using B.G.	15 hrs
Unit- IV	DC Power Supply: Block diagram of regulated power supply, Zener diode characteristics and Zener diode as voltage regulator, Introduction to integrated circuit (IC) and its types, Dual power Supply using 78xx and 79xx ICs. Bipolar Junction Transistor: BJT characteristics in CE mode, Operating point. DC h -parameters and their determination using low frequency transistor model. Single stage RC coupled CE amplifier, Expression for current gain, voltage gain, input and output impedance, frequency response. Brief explanation of positive and negative feedback. Transistor as an oscillator: Hartley and Phase shift oscillators. Junction Field Effect Transistor: Types, characteristics and parameters of JFET. Common source FET amplifier.	15 hrs

References:

1. Principles of Optics (I-Edition) – B.K. Mathur – New Gopal Printing Press, 1962.
2. Fundamentals of Optics (V-Edition) – Khanna & Bedi – R. Chand & Co., New-Delhi, 1971.
3. A Text book of Optics (I-Edition) – Brijlal & Subramanyam - S. Chand & Company Ltd., New-Delhi, 2006.
4. Fundamentals of optics- Khanna and Gulati.
5. Optics (IV-Edition) – Ajay Ghatak –Tata Mc Graw-Hill, New-Delhi, 2006

6. Fundamentals of Optics (III-Edition) – Jenkins & White - Mc Graw-Hill, 1957.
7. Geometrical Optics (I-Edition) – D.P. Acharya – Oxford & IBH Pub. Co., New-Delhi, 1970.
8. Optics & Spectroscopy (VI-Edition) – Murugesan, Kirutiga & Shivaprasath - S. Chand & Company Ltd., New-Delhi, 2006.
9. Geometrical Optics – A. Verstraeten.
10. Fundamentals of Electricity and Magnetism – Basudev Ghosh – Books & Allied New Central Book Agency, Calcutta, 2009.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.4 CHEMISTRY-4							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.Sc. B.Ed (Mathematics)	DSC – 4 (Minor-2)	Theory	4	40	60	100

Course Outcomes:

After completion of course, Chemistry (Theory) - V students will be able to:

1. Explain the Chemistry of s- and p- block elements .Preparation and bonding in diborane, borazine & boron nitride. Silicates-Classification and structures. Preparation and structure of oxyacids of nitrogen. Preparation and bonding in oxoacids of phosphorus, sulphur and chlorine. Preparation and bonding in inter halogen compounds ClF_3 , BrF_5 , IF_7 and Pseudo halogens. Preparation and bonding in Xenon compounds- XeF_2 , XeF_4 , XeF_6 and XeO_3
2. Explain Chemistry of d- and f- block elements general characteristics of d-block elements with reference to electronic configuration, colors, variable oxidation states, magnetic, catalytic properties and ability to form complexes. IUPAC nomenclature of elements with atomic number greater than hundred. General characteristics of f-block elements with reference to electronic configuration, oxidation states, colors and magnetic properties. Lanthanide contraction and its consequences. Separation of lanthanoids by ion-exchange method.
3. Synthesis of primary, secondary and tertiary alcohols . Reduction of aldehydes and ketones, carboxylic acids and esters. Reactions of alcohols Preparation of glycol from ethene and glycerol from propene, Oxidation of ethylene glycol, Mechanism of Pinacol-Pinacolone rearrangement.
4. Understand the acidic character of phenol, effect of substituent on acidity of phenol Reactions of Phenol.
5. Know the preparation of ethers, reaction of ethers. Epoxides: Synthesis from alkenes using peroxides, acid and base catalyzed ring opening of epoxides with mechanism and polyether formation. Crown Ethers: Formation and properties (PhaseTransfer Catalyst).
6. Know internal energy and first law of thermodynamics, concept of enthalpy, derivation of work done in isothermal and adiabatic expansion of an ideal gas for reversible and irreversible processes. Joule-Thomson effect and its derivation. Joule-Thomson co-efficient and its derivation. Effect of temperature on enthalpy of reaction
7. Learn the concept of phases, components and degrees of freedom, derivation of Gibbs Phase

Rule; Clausius-Clapeyron equation and its applications to solid-liquid, liquid-vapour and solid-vapour equilibria, phase diagram for one component systems (H_2O and S), with applications. Phase diagrams for two component systems: solid-liquid equilibria involving eutectic, congruent and incongruent melting points.

8. Learn the Nernst distribution law and thermodynamic derivation of partition co-efficient. Applications of solvent extraction- simple and multiple extractions. Derivation for multiple extractions.
9. Understand the steps in metallurgy Characteristics, uses and limitations of Ellingham diagrams for reduction of metal oxides using carbon as reducing agent. Extraction of titanium from ilmenite, chromium from chromite & nickel by Mond's process, Extraction of thorium from monazite sand, and uranium from pitchblende.
10. Learn the nuclear particles (positron, neutrino, mesons, pions, and quarks), nuclear instability, nuclear fission and fusion, nuclear reactors, Different types of nuclear reactors, nuclear reactions (α, n), (n, α), (α, p), (p, α), (p, n) and (n, p). Preparation of transuranic elements (Np, Pu, Am and Ru). Applications of radioisotopes in tracer technique, neutron activation analysis and carbon dating (numerical problems).

	CHEMISTRY- 4	60 Hrs
UNIT-I	CHEMISTRY OF s , p , d & f -BLOCK ELEMENTS	15 hrs
	Chemistry of s- and p- block elements: General characteristics, anomalous properties of lithium. Diagonal relationship of Li with Mg, and Be with Al. Preparation and bonding in diborane, borazine & boron nitride. Silicates-Classification and structures. Preparation and structure of oxyacids of nitrogen. Preparation and bonding in oxoacids of phosphorus, sulphur and chlorine. Preparation and bonding in inter halogen compounds ClF₃, BrF₅, IF₇ and Pseudo halogens. Preparation and bonding in Xenon compounds- XeF₂, XeF₄, XeF₆ and XeO₃ . (10 Lectures) Chemistry of d- and f- block elements: General characteristics of d-block elements with reference to electronic configuration, colors, variable oxidation states, magnetic, catalytic properties and ability to form complexes. IUPAC nomenclature of elements with atomic number greater than hundred. General characteristics of f-block elements with reference to electronic configuration, oxidation states, colors and magnetic properties. Lanthanide contraction and its consequences. Separation of lanthanoids by ion-exchange method. (5 Lectures)	
UNIT-II	ALCOHOLS, PHENOLS AND ETHERS	15 hrs
	Alcohols: Synthesis of primary, secondary and tertiary alcohols using Grignard reagent, ester hydrolysis. Reduction of aldehydes and ketones, carboxylic acids and esters. Reactions of alcohols with halo acids, esterification reaction and oxidation of alcohols with PCC, KMnO₄, HNO₃, K₂Cr₂O₇ and Oppenauer oxidation. Polyhydric alcohols: Preparation of glycol from ethene and glycerol from propene, Oxidation of ethylene glycol, Mechanism of Pinacol-Pinacolone rearrangement. (6 Lectures) Phenols: Acidic character, comparative acid strengths of alcohols and phenols, effect of substituent on acidity of phenol (Explain with –NO₂ , -CH₃ groups and ortho effect). Reactions of Phenol: Kolbe's reaction, Claisen rearrangement, Fries rearrangement, Ledrer-Mannase reaction, Reimer-Tiemann reaction. Schotten – Baumann Reaction(Mechanism to be discussed for all the reactions). (4 Lectures)	

	Ethers: Preparation of ethers, mechanism of Williamson's ether synthesis Reaction of ethers: mechanism of C-O bond cleavage by HI (Explain with symmetric and asymmetric ethers containing tertiary alkyl group and benzene ring). Epoxides: Synthesis from alkenes using peroxides, acid and base catalyzed ring opening of epoxides with mechanism and polyether formation. Crown Ethers: Formation and properties of 18- Crown 6-Ethers. (5 Lectures)	
UNIT-III	THERMODYNAMICS-I, PHASE EQUILIBRIA AND DISTRIBUTION LAW	15 hrs
	Thermodynamics I: Internal energy and first law of thermodynamics. Concept of enthalpy, derivation of work done in isothermal and adiabatic expansion (T-V and P-V relationships) of an ideal gas for reversible and irreversible processes. Joule-Thomson effect and its derivation. Joule-Thomson co-efficient and its derivation. Effect of temperature on enthalpy of reaction (Kirchhoff's equation), numerical problems are to be solved wherever required. (5 Lectures) Phase Equilibria: Concept of phases, components and degrees of freedom, derivation of Gibbs Phase Rule; Clausius-Clapeyron equation and its applications to solid-liquid, liquid-vapour and solid-vapour equilibria, phase diagram for one component systems (H₂O and S), with applications. Phase diagrams for two component systems: solid-liquid equilibria involving eutectic, congruent and incongruent melting points. (6 Lectures) Distribution law: Nernst distribution law and thermodynamic derivation of partition co-efficient. Distribution law for changes in molecular state (Association and dissociation). Applications of solvent extraction- simple and multiple extractions. Derivation for multiple extractions, numerical problems. (4 Lectures)	
UNIT-IV	METALLURGY AND NUCLEAR CHEMISTRY	15 hrs
	Principles and processes of metallurgy: Minerals, ores, stages in metallurgy (crushing, concentration, calcination, roasting, smelting/reduction, refining). Characteristics, uses and limitations of Ellingham diagrams for reduction of metal oxides using carbon as reducing agent. Extraction of titanium from ilmenite, chromium from chromite & nickel by Mond's process, Extraction of thorium from monazite sand, and uranium from pitchblende. (9 Lectures) Nuclear chemistry Nuclear particles (positron, neutrino, mesons, pions, and quarks), nuclear	

	instability, nuclear fission and fusion, nuclear reactors- power and breeder, nuclear reactions (α , n), (n, α), (α , p), (p, α), (p, n) and (n, p). Preparation of transuranic elements (Np, Pu and Am). Applications of radioisotopes- tracer technique, neutron activation analysis and carbon dating (numerical problems). (6 Lectures)	

References:

1. Modern Inorganic Chemistry: R.D.Madan, S.Chand and Co.Ltd, New Delhi, 2019
2. Chemistry of degree students, R.L.Madan, S.Chand and Co.Ltd, New Delhi.
3. Lee, J.D. Concise Inorganic Chemistry ELBS, 1991.
4. Cotton, F.A., Wilkinson, G. & Gaus, P.L. Basic Inorganic Chemistry, 3rd Ed., Wiley.
5. Huheey, J. E., Keiter, E.A., Keiter, R.L. & Medhi, O. K. Inorganic Chemistry: Principles of Structure and Reactivity, Pearson Education India, 2006.
6. Rodgers, G. E. Inorganic & Solid State Chemistry, Cengage Learning India Ltd., 2008.
7. Organic Chemistry-P. Y. Bruice, 7th Edition, Pearson Education Pvt. Ltd., New Delhi (2013).
8. Heterocyclic Chemistry- R. K. Bansal, 3rd Edition, New- Age International, New Delhi, 2004.
9. McMurry, J.E. Fundamentals of Organic Chemistry, 7th Ed. Cengage Learning India Edition, 2013.
10. Morrison, R.T. & Boyd, R.N. Organic Chemistry, Pearson, 2010.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

3. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 3.1 PEDAGOGY OF MATHEMATICS-I							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B. Sc B.Ed (Mathematics)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- describe the nature, scope, and values of mathematics and its place in the school curriculum,
- state comprehensively the objectives of teaching and learning Mathematics at the middle stage of school education,
- explain the contribution of eminent mathematicians,
- evaluate the curriculum used in mathematics at the middle stage according to latest NCF,
- analyze the mathematics curriculum at the middle stage level and explore the diverse backgrounds and interests that children bring to the classroom,
- demonstrate the various methods of teaching mathematics,
- classify different approaches and methods of teaching and learning Mathematics,

UNIT – I: Nature and Scope of Mathematics Education

- A. Nature of Mathematics- abstractness, precision, brevity, language, and symbolism.
- B. Structure of Mathematics (axioms, postulates, undefined terms, defined terms, theorems, proofs).
- C. The role of intuition and logic in mathematical thinking, Axiomatic Nature of mathematics, Language of mathematics.
- D. How mathematical ideas grow- concrete to abstract, particular to general, hierarchical structures.
- E. Values of Mathematics: cultural, disciplinary, moral, social, and utilitarian values.
- F. Scope of Mathematics, correlation of mathematics with other subjects.
- G. Aims and objectives of teaching and learning Mathematics at middle stage.
- H. General and specific learning objective according to Bloom's Taxonomy with Anderson revision, writing the objective in behavioristic terms. Meaning and characteristics of instructional objective.

UNIT – II: Historical/ Policy Perspective of the Mathematics

- A. Historical development of Mathematics: historical development of notations and number systems, contribution of Mathematicians (with emphasis on Indian Mathematicians - Aryabhata, Brahmagupta, Bhaskar I, Srinivasa Ramanujan), Vedic Mathematics and its application.
- B. Mathematics as an art, music, beauty, and aesthetic experience in Indian context
- C. Analyzing NEP 2020 with reference to pedagogical issues of Mathematics teaching at middle stage.
- D. Place of the Mathematics in middle stage curriculum.,
- E. Policies on creating inclusive classrooms for Mathematics education.
- F. Critical evaluation of the curriculum used in mathematics at the middle stage according to NCF 2005, NCF 2006& NCF 2022.
- G. Recommendations of various agencies: National and International documents on Mathematics Education with specific reference to middle stage of school.

UNIT – III: Pedagogical Concerns of Mathematics

- A. Content categories in Mathematics: (Facts, Concepts, Illustrations, Generalization).
- B. Content analysis in Mathematics, concept mapping in Mathematics (taking sample contents from Arithmetic, Algebra, Geometry).
- C. Approaches of Teaching Mathematics: Constructivist, Experiential Learning, Art Integrated Learning, Sports- Integrated Learning, Interdisciplinary and Multidisciplinary Approaches.
- D. Models: Inquiry Training Model (ITM), Concept attainment Model (CAM), Mastery Learning Model.
- E. Methods of Teaching Mathematics: Teacher centric- Lecture cum Demonstration, Discussion, Inductive-Deductive, Learner centric - Activity Based, Hands on Activity, Play-Way method, Group-Centric: Problem-Solving, Project Based, Inquiry based, Collaborative and Cooperative Learning, Problem-Solving, STEM and STEAM, Blended Learning.

Practicum:

- Preparation of a report of observation of children doing Mathematics every day, playing folk games or community numeracy practice.
- Design the concept map of any topics of middle stage Mathematics.
- Prepare the biographic sketches of any one of Indian Mathematicians.
- Developing rubrics for problem solving, assignment, group work, project etc.

- Prepare a seminar paper on ‘Mathematics in Everyday life’.
- Analyzing the structure of Mathematics present in selected chapter/unit.

Mode of Transaction:

Experimental method, Demonstration, Field-based experience, Laboratory method, Storytelling/success stories, classroom discussions, Self-study, classroom presentations, discussion forums, observation, research report, engaging in dialogue.

Mode of Assessment:

Written test, classroom presentation, practice teaching, workshop, assignments, practicum, sessional and terminal semester examination.

References:

- NCERT (2012), Pedagogy of Mathematics- Textbook for Two-Year B.Ed Course, New Delhi.
- NCERT (2005). National Curriculum Framework. New Delhi: NCERT

*Teachers may suggest books/readings as per the need of the learners and learning content.

<i>Formative Assessment for Theory</i>	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 PEDAGOGY OF SCIENCE-I Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B. Sc B.Ed (Mathematics)	SSCCP-2	Theory	2	20	30	50

Course outcomes:

After completion of this course, student teachers will be able to:

- state the nature, scope, and importance of science as a subject in the middle stage of schooling,
- identify the necessity of science as a special subject at the middle stage and pedagogy of science in the teacher education programme,
- narrate the objectives of teaching science at the middle stage as a preparatory programme,
- identify the linkages of science with other school subjects,
- narrate the value inculcation process through science teaching,
- explain the usefulness of the subject in a child's day-to-day life,
- describe the recommendations of the Indian education commission and education policy and NCFSE 2023 for strengthening science education in the school process,
- describe the process of making science teaching interesting,
- identify the contribution of a few Indian personalities in the field of science to use their work and life as tools of inspiration for school children.

UNIT – I: Understanding Emergence of Science as a Subject

- A. Meaning, nature, and importance of science as a subject at the middle stage.
- B. Developing concept to form Science as a subject at the middle stage different from Environmental Studies at the preparatory stage.
- C. Objectives of teaching Science as a base program for teaching Science at the secondary level.
- D. Science process skills and its indicators.
- E. Science outside the classroom through activity and scientific study.

UNIT – II: Understanding Linkages of Science with other Subjects and Values Inculcation

- A. Objectives of pedagogy of science at the middle stage.
- B. The linkages and correlation of science in other subjects.
- C. Roles and types of communication in science teaching.
- D. Engaging children in active Science with selected activities from the textbook at the middle stage.
- E. Values inculcated by science teaching at the concrete operational stage.
- F. Value of Science education in human life: arousing and maintaining interest in children in science such as practical values, cultural values, and recreational values.

UNIT – III: Understanding Pedagogy of Science and Related Challenges

- A. Pedagogy of Science: meaning, nature, scope. Factors influencing pedagogy of science. The process of making Science interesting in the middle stage.
- B. Necessity of pedagogy of science at the middle school stage.
- C. Development of children's Science concepts, process skills, and attitude.
- D. Recommendations of the Education Commission (1964-66), NCFSE 2023, and NEP 2020 for teaching Science in schools.
- E. Challenges of implementation of pedagogy of science in schools.
- F. Some great Indian personalities in the field of Science – Varaha Mihira, Charaka, Aryabhatta, Maharshi Patanjali, C.V. Raman, Homi Jahangir Bhabha, Sir Jagdish Chandra Bose, A. P. J. Abdul Kalam.

Practicum:

- 1. Differentiating scope and level of difficulty of science-related concepts in the environmental studies textbook of Class V and science concepts in the textbook of Class VI
- 2. Find out the challenges involved in science pedagogy at the middle stage.
- 3. Select a chapter from science texts and develop values-related activities from it.
- 4. List the recommendations of the Education Commission Report, NCFSE2023 and NEP 2020 relating to science teaching.
- 5. Suggest/develop the means to achieve the recommendations through the implementation of the Policy.
- 6. Find out with examples the relationship of science as a subject with other subjects at the middle stage.
- 7. List the contribution of Indian scientists to enrich the status of Indian society as a tool of inspiration for school children.

8. Identify the underlying values from any chapter of Science textbooks in the light of types of values as indicated in Unit 2 at the middle stage.

Mode of Transaction:

Discussion, Brainstorming session, Group discussion, Assignment, Group activity, Classroom presentation by student teachers.

Mode of Assessment:

Assignment, Classroom presentation, Peer assessment, Objective based, restricted response and essay type tests, Internal and external tests as required by the system.

References:

1. National Curriculum Framework for School Education 2023
2. National Education Policy. (2020). Ministry of Education. Govt. of India. New Delhi.
3. Report of The Education Commission (1964-66). Ministry of Education. New Delhi

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

IV Semester

ITEP B. Sc B.Ed Mathematics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
SIP- Two-week student Induction Programme						
Foundation Course of Education-FCE						
1	FCE-1	Philosophical & Sociological Perspectives of Education -I	4	40	60	100
Discipline Specific Course-DSC						
2.	DSC-1 Major	Differential Equations and Integral Transforms	4	40	60	100
	DSC-2 (Major)	Differential Equations and Integral Transforms Practical-III	2	20	30	50
3	DSC- 3 (Major)	Real Analysis – II and Topology	4	40	60	100
4	DSC- 4 (Minor-1)	Wave Optics, Electricity-II and Electromagnetic Theory	4	40	60	100
5.	DSC-5 (Minor-2)	Chemistry- 5	4	40	60	100
Stage Specific Content Cum Pedagogy- SSCCP						
5	SSCCP-1	Pedagogy of Mathematics-II	2	20	30	50
6	SSCCP-2	Pedagogy of Science-II	2	20	30	50
Total Credits			26	260	390	650

IV SEMESTER

ITEP B. Sc B.Ed Mathematics

SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education-FCE			1.1 Philosophical & Sociological Perspectives of Education -I
2	Discipline Specific Course-DSC	Major-1		2.1 Differential Equations and Integral Transforms
		Major-2		2.2 Differential Equations and Integral Transforms Practical-III
		Major-3		2.3 Real Analysis – II and Topology
		Minor-1		2.4 Wave Optics, Electricity-II and Electromagnetic Theory
		Minor-2		2.5 Chemistry- 5
3.	3. Stage Specific Content Cum Pedagogy - SSCCP			3.1 Pedagogy of Mathematics-II
				3.2 Pedagogy of Science-II

1. Foundation Course of Education-(FCE)

Course Title: 1.1 PHILOSOPHICAL & SOCIOLOGICAL PERSPECTIVES OF EDUCATION -I							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B. Sc B.Ed (Mathematics)	FCE-1	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- To encourage students to explore the nature of knowledge, the nature of human beings, the nature of society and its aims and the educational implications of these understandings.
- To engage the prospective teachers to read and acquaint themselves with the meaning of terms like Vidya, Avidya, Shiksha, Education etc. and to facilitate them to understand and differentiate them through reflections on these terms on the basis of ancient Indian texts.
- To facilitate prospective teachers to engage themselves in peer groups for sharing of their real-life reflective experiences regarding socio-cultural and philosophical living and facilitate them to conceptualize the meaning of terms like philosophical, social and cultural traditions in Indian educational context.
- To orient and engage prospective teachers to read, observe and understand the vision of some great Indian and global educators and categorically reflect on vision/aim, process of education and the contemporary relevance.

UNIT – I: Education and Philosophy

A. Conceptual clarity, nature and relationships.

B. Aims of studying philosophical perspective of education.

C. Branches of Philosophy and their educational implications: Metaphysics (तत् िमीमा ा सा)

Epistemology (ज्ञ ानमीमा ा सा), Axiology (मूल यमीमा ा सा)

D. Understanding Indian Perspective of Education

- Meaning, nature and aims of education with special reference to Vedic, Buddhist, Jain, Sikh and Islamic traditions.
- Understanding the terms Darshana, Para and Apra Vidya, Avidya, Shiksha, Samvaad, Panchkosha, Gurukulam, Acharya, Guru, Shishya, Upadhyaya, Jigyasa, Swadhyaya.

E. Understanding Western Perspective of Education

- Meaning, Nature and aims of education with reference to Cognitive, Behaviorist and Developmental theories of Education.

UNIT – II

Philosophical Schools and Education

A. Conceptual Clarity of the following schools of thoughts with their implications for educational practices:

- Bharatiya: Samakhya, Yoga, Nyaya, Vaisheshika, Mimansa, Vedanta
- Western: Idealism, Naturalism, Pragmatism, Progressivism.

UNIT - III

Educational Thinkers

A. Deliberations on aims, process and educational institutions developed on thoughts of following thinkers and practitioners:

- Bharatiya: Swami Vivekananda, Sri Aurobindo Ghosh, Gurudev Rabindra Nath Tagore, J. Krishnamurti, Mahamana Madan Mohan Malaviya, Mahatma Gandhi, Gijubhai Badheka.
- Western: J. Rousse, Maria Montessori, Friedrich Froebel, John Dewey.

UNIT - IV

Value Education

- A. Conceptual Clarity, Significance and Types of Values.
- B. Indian Traditional Values.
- C. Guru-Shishya-Parampara and Educational Values.
- D. Convocation message in Taittiriya Upanishad.
- E. Values enshrined in Indian Constitution.
- F. NEP, 2020 and Values with special reference to 21st Century.
- G. Pedagogical Issues.

Practicum:

1. Individual/group assignments/tasks in various forms like writing small paragraphs/brief notes, conceptualizations on specific terms etc.
2. Institutional visits in small groups in coordination to institutions related to different thinker/s and preparation of a report followed by individual/group presentation.
3. Sharing of student experiences (in groups) related to readings on great thinkers help the to reshape their concept and enable them to develop vision, mission and objectives for a school and their plan to accomplish the objectives in form of a group report.
4. Identification and reporting of Indian perspective related to educational aims, student-teacher characteristics, methods, evaluation procedure, convocation etc. based on critical study of life and thoughts of thinkers.

Mode of Transaction:

- Organized lectures using variety of media.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, engagement of in reading of primary or secondary sources of literature (Original texts, reference books etc.) related to different aspects of life and education of Great Educators, case studies, short term project work etc.
- Critically examining their experiences to carve out their world and life view and further analyze them from philosophical point of view to reshape their perspective. They will engage prospective teachers in the development of comparative educational charts related to vision, aims, process, institution etc. They will also lead to reading-based interactions and critical reflections related to process and significance of entry/admission rituals, convocation system etc.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

2. Discipline Specific Course- (DSC)

Course Title: 2.1 DIFFERENTIAL EQUATIONS AND INTEGRAL TRANSFORMS							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B. Sc B.Ed (Mathematics)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

After completion of the course (Theory), students will be able to:

- Get the knowledge of exact differential equations.
- Solve Complimentary Function and Particular Integrals of given differential equations.
- Formulate partial differential equations.
- Solve linear and non-linear partial differential equations.
- Understand convolution theorem and its consequences.
- Interpret Fourier series and transforms.
- Solve differential equations by Laplace transforms.

Unit	Title: Differential Equations and Integral Transforms	60 Hrs / Sem
Unit – I	Ordinary Differential Equations:	15 Hrs.
	Bernoulli's differential equations. Exact differential equations: Necessary and sufficient condition for the equations to be exact, Reducible to the exact differential equations. Differential equations of the first order and higher degree: Equations solvable for p, x, y. Clairaut's equation, Linear differential equations of the n th order with constant coefficients. Particular Integrals when the RHS is of the form e^{ax} , $\sin(ax+b)$, $\cos(ax+b)$, x^n , e^{ax} . V and x. V (with proofs), where V is a function of x.	
Unit – II	Partial Differential Equations:	15 Hrs.
	Formation of partial differential equations by elimination of arbitrary constants and functions, Condition of integrability of $Pdx+Qdy+Rdz=0$, Solution of partial	

	differential equations of first order, Lagrange's linear equations of the form $Pp + Qq = R$, Standard types of first order non-linear partial differential equations. The integrals of the non-linear equation by Charpit's method. Homogeneous linear partial differential equations with constant coefficients.	
Unit – III	Laplace Transforms:	15 Hrs.
	Definition, Basic Properties, Laplace transforms of some standard functions, Laplace transform of Periodic functions, Laplace transform of derivative and integral of a function, Heaviside function, Dirac-delta function, Convolution theorem, Inverse Laplace transforms and its properties, Solution of differential equations by using Laplace transforms.	
Unit – IV	Fourier Series and Transforms:	15 Hrs.
	Periodic functions, Fourier coefficients, Fourier series of functions with period 2π and period $2L$. Fourier series of even and odd functions, Half range cosine and sine series, Fourier Transforms: Finite Fourier cosine and sine transforms, Transforms of derivatives.	

References:

1. Ordinary Differential Equations and Partial Differential Equations, M. D. Rai Singhania, S. Chand & Company, New Delhi, 2020.
2. Introductory Course in Differential Equations, D. A. Murray, Khosla Publishing, 2021.
3. Ordinary Differential Equations, M. Tenenbaum and H. Pollard, Dover Publications, 1986.
4. Differential Equations, B. Singh and S. K. Pundir, Pragati Prakashan, 2020.
5. Elements of Partial differential equations, I. N. Sneddon, Dover Publications, 2006.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.2 DIFFERENTIAL EQUATIONS AND INTEGRAL TRANSFORMS PRACTICAL-III							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B. Sc B.Ed (Mathematics)	DSC-2 (Major-2)	Practical	2	20	30	50

Course Outcomes:

- After completion of course (Practical), students will be able to:
- Solve exact differential equations.
- Find complementary functions and particular integral of linear and homogeneous differential equations.
- Solve total differential equation.
- Analyse Laplace transforms and inverse Laplace transforms.
- Solve problems related to Convolution theorem.
- Solve differential equations by Laplace Transforms and Fourier Transforms.

List of Experiments

[Each will have 4rs / Week (Minimum 12 experiments)]

1. Program to verify the exactness of a differential equation.
2. Program to get the solutions of differential equations that are solvable for x, y, p.
3. Program to find the Complementary Function and Particular Integral of linear differential equations with constant coefficients.
4. Program to get solutions of linear partial differential equations of type 1 to type 4 and Lagrange's method.
5. Program to find the solution of total differential equation.
6. Program to get solutions of the partial differential equation using Charpit's method.
7. Program to find the Laplace transforms of some standard and periodic functions.
8. Program to verify Convolution theorem.
9. Program to solve ordinary linear differential equations using Laplace transforms.
10. Program to find full range Fourier series of some simple functions with period 2π and $2L$.

11. Program to find half range sine and cosine series of some simple functions.
12. Program to find sine and cosine Fourier transforms.

References:

1. Mathematics using Maxima Software, A. S. Pandhari and S. S. Jadhav, Vision, 2019.
2. Computational Mathematics using Maxima Software, K. Takale & Others, Nirali Prakashan, 2020.
3. Introduction to Maxima for Scientific Computers, M. Kanagasabapathy, BPB Publishers, 2018.
4. Maxima: The Computer Algebra System, Vaisakh, Notion Press, 2022.
5. Scientific Programming, J. A. Calvo, Cambridge Scholars Publishing, 2018.

General Instructions

Software to be used: **MAXIMA**

Scheme of Practical Examination (Distribution of Marks)

Formative Assessment for Practical	
Assessment Occasion /Type	Marks
Program writing and problem solving (1 Program)	03
Program Execution	03
Viva	02
Journal	02
Total	10Marks
<i>Formative Assessment as per guidelines.</i>	

Summative Assessment for Practical	
Assessment Occasion /Type	Marks
Program writing and problem solving (2 Programs)	$(5+5)*2 = 20$
Program Execution (Any 1 Program)	10
Viva	05
Journal	05
Total	40 Marks
<i>Summative Assessment as per guidelines.</i>	

Course Title: 2.3 REAL ANALYSIS – II AND TOPOLOGY							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B. Sc B.Ed (Mathematics)	DSC-3 (Major-3)	Theory	4	40	60	100

Course Outcomes:

After completion of the course (Theory), students will be able to:

- Compute upper and lower Riemann sums as well as integrals.
- Describe various criteria for the integrability of functions.
- Analyse double and triple integrals.
- Understand the concepts of Beta and Gamma functions.
- Learn the concepts of closure, interior and boundary of a set.
- Understand the concepts of basis and sub-basis.
- Analyse T_0 , T_1 and T_2 spaces.

Unit	Title: REAL ANALYSIS – II AND TOPOLOGY	60 hrs / Sem
Unit – I	Riemann Integration-I: Definition and examples for partition of an interval, Refinement of a partition and common refinement, Upper and lower Darboux sums, Upper and lower integrals, Riemann integral, Criterion for integrability, Integrability of sum, difference, product, quotient and modulus of integrable functions. Integral as a limit of sum (Riemann sum) – Problems.	15 Hrs.
Unit – II	Riemann Integration-II and Improper Integrals: Integrability of continuous functions, Monotonic functions, Bounded functions with finite number of discontinuities, Fundamental theorem of Calculus – related problems, Change of variables, Integration by parts, First and second mean value theorems of integral calculus. Improper Integrals - Improper integrals of the first, second and third kind with examples, Improper integral as the limit of proper integral, Comparison test, Abel's test and Dirichlet's test for the convergence of the integral of a product of two functions.	15 Hrs.

Unit – III	Multiple Integrals and Beta-Gamma Functions: Double integral: Definition and evaluation, Double integrals by changing the order of integration and change of variables, Computation of plane surface areas. Triple integral: Definition and evaluation, Triple integrals by change of variables, Volume as triple integral. Beta-Gamma Functions: Definitions, Properties and examples, Relations between Beta and Gamma functions, Standard theorems, Duplication formula and related problems.	15 Hrs.
Unit – IV	Topology: Definition of topological space, Closure, Neighbourhood, Limit points and Derived sets, Interior, Exterior and Boundary, Bases and sub-bases, Sub-spaces, T_0 , T_1 and T_2 spaces.	15 Hrs.

References:

1. Principles of Real Analysis, S. C. Malik, New Age International Publishers, 2021.
2. Mathematical Analysis, S. C. Malik and Savita Arora, New Age International (P) Ltd., 2021.
3. Real Analysis, N. P. Bali (Golden Maths Series), New Age International Publishers, 2023.
4. Integral Calculus, Shanti Narayan and P. K. Mittal, S. Chand Publications, 2005.
5. Integral Calculus, A. R. Vasishtha, R. Dangwal and R. Sharma, Krishna Prakashan, 2020.
6. Topology, J. R. Munkres, Pearson, 2021.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.4 WAVE OPTICS, ELECTRICITY-II AND ELECTROMAGNETIC THEORY							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B. Sc B.Ed (Mathematics)	DSC-4 (Minor-1)	Theory	4	40	60	100

Course Outcome:

At the end of the course, students will be able to:

- Explain diffraction due to different objects like single slit, two slits, diffraction of grating, oblique incidence, circular aperture and give the theory and experimental setup for the same.
- Explain the polarization of light and obtain how the polarization occurs due to quarter wave plates, half wave plates, and through the optical activity of a medium.
- Understand how to produce magnetic field from electric current.
- Understand magnetic field produced by current in toroid and solenoid.
- Distinguish Seeback and Peltier effect and their applications to real life. Also able to distinguish different type of thermocouples as temperature sensors.
- Explain Maxwell's equations to articulate the relationship between varying electric and magnetic field. Also able to explain electromagnetic waves and their characteristics.

Unit	Title: Wave Optics, Electricity-II and Electromagnetic Theory	60 hrs/sem
Unit- I	Wave optics: Fresnel diffraction: Fresnel's treatment of the wavefront and Fresnel assumptions. Theory of half period zones considering plane wave fronts. Zone plate: construction, theory and expression for focal length. Comparison between zone plate and convex lens. Fraunhofer diffraction: Fraunhofer diffraction at a single slit and at a double slit. Diffraction grating. Theory of Plane transmission grating. Dispersive power of grating. Comparison of grating and Prism spectra. Polarization: Malus law. Huygen's theory of double refraction. Positive and negative crystals. Wave plates: quarter wave plate and half wave plate. Optical activity, specific rotation. Laurent's Half Shade Polarimeter: Construction and working.	15 hrs

Unit- II	Resonance Circuits, D. C. and AC Bridges: Resonance Circuits: Operator j, Argand diagram. LCR series circuit- Expression for current, impedance and phase (using j-operator method). Condition for resonance, resonant frequency, bandwidth, quality factor and the relation between them. LCR parallel circuit (Series L-R in parallel with C): Expression for admittance and the condition for resonance (using j-operator method). Comparison between series and parallel resonant circuits. D.C. & A.C. Bridges: D.C. Wheatstone Bridge and its demerits (qualitative discussion without derivation). Measurement of inductance, Theory of Maxwell's bridge and Anderson's bridge. Comparison of capacities of two condensers by de Sauty's method.	15 hrs
Unit- III	Magnetostatics and Thermoelectricity: Magnetostatics: Overview of basics of Magnetostatics: Statement of Biot-Savart's law, derive the expression for magnetic field due to a straight conductor carrying current, mention the expression for the field along the axis of a circular coil and discuss the special cases. Tangent law, Helmholtz galvanometer-principle, construction and working. Ampere's circuital law-statement, proof and its applications (for D. C.) to derive the magnetic field due to Solenoid and Toroid. Thermoelectricity: Seebeck effect, Variation of thermo-emf with temperature. Neutral temperature and temperature of inversion. Thermoelectric series. Peltier effect, Thomson effect. Thermoelectric laws. Derivation of the relations $\pi = T (de/dT)$ and $\sigma_a - \sigma_b = T (d^2e/dT^2)$. Tait diagram and its uses. Thermoelectric generators (TEG), Peltier-cooling, Thermoelectric cooler (TEC).	15 hrs
Unit- IV	Electromagnetic Induction and Electromagnetic Theory: Overview of basics of EMI. Determination of self-inductance by Rayleigh's method. Determination of mutual inductance by direct method. Electromagnetic Theory: Fields, types of fields, flux and circulation of a vector field, gradient of a scalar field and its significance, vector point function (electric field intensity) and scalar point function (electric potential) and relation between them for an electrostatic charge distribution. Divergence and curl of a vector field and their significance; Gauss divergence theorem (derivation) and Stokes theorem (derivation). Electromotive force (emf) as the circulation of electric field intensity (derivation); continuity equation (proof) and its significance. Concept of displacement current. Setting up of the differential form of Maxwell's equations (derivations). Poynting's theorem (statement and derivation).	15hrs

References:

1. Principles of Optics (I-Edition) – B.K. Mathur – New Gopal Printing Press, 1962.
2. Fundamentals of Optics (V-Edition) – Khanna & Bedi – R. Chand & Co., New-Delhi, 1971.
3. A Text book of Optics (I-Edition) – Brijlal & Subramanyam - S. Chand & Company Ltd.,

New-Delhi, 2006.

4. Fundamentals of optics- Khanna and Gulati.
5. Optics (IV-Edition) – Ajay Ghatak –Tata Mc Graw-Hill, New-Delhi, 2006
6. Fundamentals of Optics (III-Edition) – Jenkins & White - Mc Graw-Hill, 1957.
7. Geometrical Optics (I-Edition) – D.P. Acharya – Oxford & IBH Pub. Co., New Delhi,1970.
8. Optics & Spectroscopy (VI-Edition) – Murugesan, Kirutiga & Shivaprasath - S. Chand & Company Ltd., New-Delhi, 2006.
9. Geometrical Optics – A. Verstraeten.
10. Fundamentals of Electricity and Magnetism – Basudev Ghosh – Books & Allied New Central Book Agency, Calcutta, 2009.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.5 CHEMISTRY -5 Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B. Sc B.Ed (Mathematics)	DSC-5 (Minor-4)	Theory	4	40	60	100

Course Outcomes :

After completion of course (Theory), students will be able to:

- ❖ Understand the types of solids, symmetry elements, unit cells, crystal systems, Laws of Crystallography - Law of constancy of interfacial angles, Miller indices. X-Ray diffraction by crystals, Structures of NaCl, KCl and CsCl. Defects in crystals.
- ❖ Learn about the theories of coordination compounds, IUPAC system of nomenclature. Isomerism in coordination compounds
- ❖ Gain the knowledge in inorganic polymers like Silicones & Phosphazines
- ❖ Acquire the knowledge in properties and typical reactions in liquid ammonia and liquid Sulphur dioxide.
- ❖ Understand the structure, properties and mechanisms of the reactions in the carbonyl compounds.
- ❖ Understand the preparation, properties and the mechanism of the reactions in Carboxylic acid and amines.
- ❖ Learn the about entropy, free energy, second law of thermodynamics, and variation of free energy with several variables.
- ❖ Understand the classification of polymers degree of polymerization, the mechanism of polymerization Molecular weight of polymers and determination
- ❖ Learn about thermodynamics of ideal solution, Gibb's Duhem – Margules equation and its applications, theory of fractional distillation: completely immiscible liquids, solutions of solid in liquids, solid solution Know types of adsorption isotherms, types of catalysis and their theories with examples and autocatalysis.

UNIT	CHEMISTRY -5	60 Hrs
UNIT-I	COORDINATION CHEMISTRY-I , INORGANIC POLYMERS & NON - AQUEOUS SOLVENT	15 hrs
	Solids: Types of solids. Symmetry elements, unit cells, crystal systems, Bravais lattice types and identification of lattice planes. Laws of Crystallography - Law of constancy of interfacial angles, Law of rational indices. Miller indices. X-ray diffraction by crystals, Bragg's law. Structures of NaCl, KCl and ZnS. Defects in crystals. (5Lectures) Coordination chemistry-I Classification of ligands. Werner's theory of coordination compounds with reference to Cobalt ammine complexes. IUPAC system of nomenclature. Isomerism in coordination compounds (ionization, hydrate, linkage, geometrical and optical) with respect to coordination number 4 and 6. Valence bond theory- strong and weak field complexes of Cr, Fe, Co, Ni and Cu with coordination number 4 and 6 and their magnetic properties. Limitations of valence bond theory. (5 Lectures) Inorganic polymers: General properties and types of inorganic polymers. Comparison with organic polymers. Silicones: Classifications, preparation and structure. Phosphazines: Preparation and structure of phospho nitrilic chloride (trimer). (3 Lectures) Non-aqueous solvents: Solvent properties and typical reactions studied in liquid ammonia and liquid sulphur dioxide. (2 Lectures)	
UNIT-II	CARBONYL COMPOUNDS AND AMINES	15 hrs
	Carbonyl Compounds: Structure of carbonyl compounds, General mechanism of nucleophilic addition to the carbonyl compounds, mechanism of addition of hydrogen cyanide and hydroxyl amine, addition of alcohol, amines. Acidity of α-hydrogens, mechanism of aldol condensation, crossed aldol condensation, Perkin's reaction, Claisen's condensation, Dieckman condensation and Darzen's condensation. Reactions of compounds with no α-hydrogens: mechanism of Benzoin condensation and Cannizaro's reaction, crossed Cannizaro's reaction. Reduction	

	of carbonyl groups via Wolf-Kishner reduction and Meerwein-Ponndorf-Verley reduction. (6 Lectures) Carboxylic acids and their derivatives: Acidity of carboxylic acid, effect of substituents on acidity of aliphatic and aromatic acids. Hell – Vohlard - Zelinsky (HVZ) reaction. Carboxylic acid derivatives: Preparation from Acid chlorides, Anhydrides, and Esters, synthesis of Amides from acids and their interconversion. Reactions: Reformatsky Reaction, Hydrolysis of esters, A_{AC}, B_{AC} reaction mechanism, definition and examples keto-enol tautomerism in ethyl acetoacetate (EAA), Knoevenagel's Reaction and Michael addition with mechanism. (5 Lectures) Amines: Structure of amines, basicity of aliphatic amines, aryl amines and effect of substituent on basicity of aliphatic and aromatic amine, basicity of amines versus amides, preparation of amines by Gabriel phthalimide synthesis, through reduction of nitro compound by Hofmann and Curtius reaction with mechanism, reactions of aliphatic and aromatic amines with nitrous acid, replacement reaction of arenediazonium salt (replacement by $-Cl/-Br$, $-CN$, $-I$, $-F$, $-OH$, $-H$), coupling reaction of arenediazonium salts. (4 Lectures)	
UNIT-III	THERMODYNAMICS-II, POLYMERS AND SOLUTIONS Thermodynamics II: Carnot Cycle, Concept of entropy and its physical significance, thermodynamic scale of temperature, statements of second law of thermodynamics, calculation of entropy change for reversible and irreversible processes. Free energy functions: Gibbs and Helmholtz energy, variation of S, G, A with T, V and P. Gibbs-Helmholtz equation, free energy change and spontaneity. Statement of third law, calculation of absolute entropy of molecules. Numerical problems are to be solved wherever applicable (6 Lectures). Polymers: Introduction, definition, classification, degree of polymerization. Mechanism of polymerization- Free radical, ionic and Zeigler – Natta polymerization. Molecular weight of polymers- Number average molecular weight and mass average molecular weight, Determination of molecular weight by Viscometry and	15 hrs

	Osmotic pressure method (5 Lectures) Solutions Thermodynamics of ideal solution, Gibb's Duhem – Margules equation and its applications, theory of fractional distillation: fractional azeotropic distillations, the nature of azeotropic mixtures, partially miscible liquids, critical solution temperature (CST), completely immiscible liquids, solutions of solid in liquids, solid solutions (qualitative treatment). (4 Lectures)	
UNIT-IV	ELECTROCHEMISTRY-I & PHOTOCHEMISTRY Electrochemistry-I Arrhenius's theory of electrolytic dissociation and its limitations. Migration of ions - Transport number, Determination of transport number by Hittorf's and Moving boundary methods. Problems on transport number. Kohlrausch's law and its applications. Conductivity: Conductance of an electrolyte, specific conductance, equivalent conductance and molar conductance. Conductivity cell, cell constant and measurement of conductance. Applications of conductivity measurements in various acid-base titrations, and precipitation titrations. Advantages of conductometric titration. Determination of solubility and solubility product of sparingly soluble salts. Determination of dissociation constant of a weak acid. Theory of strong electrolytes: Debye – Huckel theory of strong electrolytes, relaxation effect, electrophoretic effect, Debye–Huckel-Onsagar equation and its significance (no derivation). (8 Lectures) Photochemistry Absorbance, transmittance, Beer-Lambert law and its limitations, Calculation of molar extinction coefficient. Laws of photochemistry–Grotthus-Draper law, Stark–Einstein's law of photochemical equivalence, difference between photochemical and thermal reactions. Quantum yield - reasons for high and low quantum yields with examples. Determination of quantum yield by thermocouple method and chemical actinometry. Photosensitization with examples. Photophysical process - definition, fluorescence, phosphorescence, chemiluminescence and bioluminescence with examples, Difference between	15 hrs

	photophysical and photochemical process. Numerical problems are to be solved wherever applicable. (7 Lectures)	

References:

1. Concise Inorganic Chemistry-J. D. Lee, 5th Edn, New Age International (1996)
2. Modern Inorganic Chemistry Sathya Prakash's by R.D.Madan, S.Chand and Co.Ltd, New Delhi.
3. Inorganic Chemistry-Principles of Structure and Reactivity, 4thEdn-J. E. Huheey, E.A. Keiter, R. L. Keiter and O.K. Medhi. Pearson Education (2009).
4. A Guidebook to Mechanism in Organic Chemistry Sykes, P., Orient Longman, New Delhi (1988).
5. Stereochemistry-Conformation and Mechanism-P. S. Kalsi, Wiley-Eastern Ltd, New Delhi.
6. Organic Chemistry Morrison, R.T. & Boyd, R.N., Pearson, 2010.
7. Advanced Organic Chemistry Bahl, A. & Bahl, B.S., S. Chand, 2010.
8. Organic Chemistry - M. K. Jain, Nagin & Co., 1987.
9. Organic Chemistry- Mehta and Mehta, 2005.
10. Physical Chemistry P.W. Atkins:, 2002.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

3. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 3.1 PEDAGOGY OF MATHEMATICS-II							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B. Sc B.Ed (Mathematics)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

- After completion of this course, student teachers will be able to:
- select appropriate teaching learning material for concept of Mathematics,
- design teaching learning material suitable for students of middle stage,
- develop different type of audio-visual aids related to Mathematics teaching,
- demonstrate the learning resources used in teaching of Mathematics,
- prepare unit plan and lesson plan for effective Mathematics teaching,
- analyze quality of good textbook and reading material in middle stage Mathematics.

UNIT – I: Teaching Learning Aids / Materials

- A. Teaching Learning aids/materials: concept & definition.
- B. Role and importance of teaching learning material in Mathematics classroom.
- C. Types of teaching learning aids/ materials for Mathematics Teaching: charts, models, overhead projector, films with their specific use and limitations non-print and digital media for offline/ online classroom teaching learning, reflective journals, charts, 2-D and 3-D models, games, toys, flash cards, worksheets, multimedia etc.
- D. Creation of visual aids-charts, models, graphs; usage of graphical tools- calculator, logo, Geo Gebra, sketch pad, ready reckoners; selection and integration of tools in relation to content and learning environment.
- E. Identification and use of teaching aids/ teaching learning materials for teaching Mathematics from the environment.

UNIT – II: Learning Resources in Mathematics

- A. Uses of learning resources, free learning resources for Mathematics.
- B. Non-print and digital resources – radio, TV, websites, animations, audios, videos, images, simulations, digital repository, AR, VR and AI based digital resources and OERs utility in Mathematics teaching and learning.
- C. Mathematics Laboratory - Design, Setting and Function, Need for and importance of virtual laboratories.
- D. Mathematics kit, Mathematics-Club, Mathematics Fairs, Mathematics Exhibitions, Educational Parks, Excursions, Community Resources and Pooling of Resources.
- E. National Mathematics Talent Search, Mathematics Olympiad.

UNIT – III: Textbook Analysis and Planning for Teaching Mathematics

- A. Mathematics textbooks: characteristics and functions of a good Mathematics textbook,
- B. Evaluation of Mathematics textbooks: Physical aspects, concept load, Presentation styles- diagrams, graphs, boxes, anecdotes, interesting clarity and precision, activities, practice, and enrichment.
- C. Understanding the textbook, analyzing subject matter from the pedagogical content knowledge (PCK) perspective, selecting the content, identifying facts, concepts, analyzing, organizing, and planning appropriate learning strategies and learning experiences.
- D. Designing learning experiences in Mathematics: yearly plan, unit plan, lesson plan, elaborating specific steps of each type of plan.
- E. Different models of lesson plan appropriate for middle stage Mathematics teaching.

Practicum:

- 1. Analysis of middle stage Mathematics textbooks to identify various categories of mathematical knowledge presented and their horizontal and vertical linkages from higher standard textbooks.
- 2. Develop the teaching learning material for any two topics of class content.
- 3. Development of learning activities on different topics of Mathematics (at least 5 activities on any 2 topics of Algebra, 2 from Geometry and 2 from any other area).
- 4. Preparation of one Annual plan and minimum three Unit Plans for teaching-learning Mathematics.
- 5. Writing a report on Mathematics Exhibition or Mathematics fair in a school or locality.
- 6. Develop innovative teaching -learning material and activities in Mathematics.
- 7. Design and develop at least two learning resources for mathematics teaching.

Mode of Transaction:

Experiential method, demonstration method, field-based experience, classroom discussions, field observations, preparation of study report, classroom presentations, discussion forums, observation, mock teaching.

Mode of Assessment:

Written test, classroom presentation workshop, assignments, practicum, sessional and terminal semester examination.

Reference:

- NCERT. (2012). Pedagogy of Mathematics: Textbook for Two-Year B.Ed Course. New Delhi
- NCERT. (1984). A Textbook of Content-Cum-Methodology of Teaching Mathematics. New Delhi: NCERT.
- *Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 PEDAGOGY OF SCIENCE-II							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B. Sc B.Ed (Mathematics)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- explain the role and importance of teaching-learning aids in classroom teaching learning of science,
- differentiate different types of teaching-learning aids,
- identify appropriate teaching aids for effective teaching-learning,
- develop different types of teaching aids for the classroom teaching-learning process,
- use different types of teaching aids for the classroom teaching-learning process,
- use print, non-print and digital resources for effective teaching and learning,
- plan laboratories and virtual laboratories for providing practical experience to students,
- analyze textbooks and subject matter for organizing and planning appropriate learning strategies and experiences,
- plan and develop Unit plans and lesson Plans based on Learning outcomes and Experiential learning,
- compare different types of lesson plans,
- plan and develop ICT Integrated Lesson Plans for Classroom categorize approaches, activities, and resources for teaching-learning,
- identify learning resources from the immediate environment,
- use online, digital, and other resources in the teaching-learning process.

UNIT – I: Teaching Learning Aids / Materials

- A. Teaching Learning Aids/Materials: concept, definition, role, and importance in classroom teaching learning the subject.
- B. Types of Teaching Learning Aids/Materials: non-print and digital media for offline/ online classroom teaching learning (reflective journals, charts, 2d and 3d models, games, toys, flash cards, worksheets, multimedia etc.).

- C. Identification and use of teaching aids/teaching learning materials from the environment.
- D. Identification and use of teaching learning material from the Indian knowledge system.

UNIT – II: Learning Resources in Science

- A. Identification and use of learning resources in subject from the environment, textbook, teachers' manual/ handbook, laboratory manual, and other print materials.
- B. Non-Print and Digital Resources – radio, tv, websites, animations, audios, videos, images, simulations, digital repository, audio resources, video resources and artificial intelligence based digital resources and open education resources.
- C. Laboratory – types, design, management, and practices; virtual laboratories.
- D. Teaching learning kits, science clubs, fairs, exhibitions, educational parks, excursions, community resources and pooling of resources.

UNIT – III: Textbook Analysis and Planning for Teaching the Subject

- A. Understanding the textbook, Analyzing Subject Matter from the Pedagogical Content Knowledge (PCK) Perspective and Analyzing the Indian Knowledge System including tribal knowledge and indigenous and traditional ways of learning (Class VI, VII and VIII), selecting the content, identifying facts, concepts, Analyzing, organizing, and planning appropriate learning strategies and learning experiences.
- B. Analyzing NEP 2020 with reference to pedagogical issues of the Subject.
- C. Concept, types, importance and basic steps of teaching unit and lesson planning with special emphasis on the identification of concepts of science.
- D. Developing unit plans and lesson plans for developing critical thinking, inquiry- based, discovery-based, discussion- based, and analysis-based learning.
- E. Developing unit plans and lesson plans based on learning outcomes, experiential learning including hands-on learning, arts-integrated, sports integrated education, storytelling, and exploration of relations among different subjects.
- F. Developing ICT integrated lesson plans for classrooms for online teaching using digital resources and multimedia.

Practicum:

1. Textbook analysis (Class VI, VII & VIII) incorporating the Indian knowledge system.
2. Develop Teaching Learning Aids/Materials for offline and online classroom teaching and learning.
3. Designing ICT-based learning material in science.
4. Demonstrate different pedagogical approaches and strategies.
5. Digital content creation on any two concepts of science at the middle stage.
6. Develop a repository with AR, VR, AI-based digital resources and OER.
7. Designing laboratory for middle school.
8. Analyze NEP 2020 with reference to Pedagogical issues of Science.
9. Preparation of a Lesson plan based on learning outcomes and experiential learning keeping in view
10. blended learning approach for the concepts of science followed by seminar/presentation.
11. Develop a Unit plan based on learning outcomes and experiential learning.

Mode of Transaction:

Lecture cum discussion/demonstration, hands-on activities, demonstration of discovery approach, project approach, inquiry approach, experimentation, problem-solving, concept mapping, experiential learning, art and environment integrated learning, sports integrated learning.

Mode of Assessment:

Written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester examination

References:

1. NCERT (2014). Laboratory Manuals at Upper Primary Stage: Science Classes VI to VII. NCERT, New Delhi.
2. NCERT (2017). Learning Outcomes at the Elementary Stage. NCERT, New Delhi.
3. NCERT (2018). Upper Primary Science Kit. NCERT, New Delhi.
4. NCERT (2022). Toy-Based Pedagogy- A Handbook (Learning for Fun, Joy and Holistic Development) Part- I. MOE, Govt. of India.

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion / Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks

V Semester
ITEP B.Sc. B. Ed Mathematics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Discipline Specific Course-DSC						
1.	DSC-1 (Major)	Mechanics and Mathematical Modelling	4	40	60	100
2	DSC-2 (Major)	Mechanics and Mathematical Modelling -Practical	2	20	30	50
3	DSC-3 (Major)	Classical and Quantum mechanics-I, Modern Physics-I	4	40	60	100
4	DSC-4 (Major)	Classical and Quantum mechanics-I, Modern Physics-I Practical IV	2	20	30	50
Stage Specific Content Cum Pedagogy-SSCCP						
4	SSCCP-1	Pedagogy of Mathematics-III	2	20	30	50
5	SSCCP-2	Pedagogy of Science-III	2	20	30	50
Ability Enhancement & Value-Added Course-AE&VAC						
6	AE&VAC-1	ICT / AI in Education	2	20	30	50
School Experience-SE						
7	SE-1	Pre-Internship Practice (Demonstration lessons)	2	20	30	50
Total Credits			20	200	300	500

V Semester
ITEP B.Sc. B. Ed Mathematics
SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1.	Discipline Specific Course-DSC	Major-1		1.1 Mechanics and Mathematical Modelling
		Major-2		1.2 Mechanics and Mathematical Modelling –(Practical)
		Major-3		1.3 Classical and Quantum Mechanics-I, Modern Physics-I
		Major-4		1.4 Classical and Quantum mechanics-I, Modern Physics-I (Practical- IV)
2.	Stage Specific Content Cum Pedagogy-SSCCP			2.1 Pedagogy of Mathematics-III
				2.2 Pedagogy of Science-III
3.	Ability Enhancement & Value - added Course-AE&VAC			3.1 ICT / AI in Education
4.	School Experience-SE			4.1 Pre-Internship Practice (Demonstration lessons)

1. Discipline Specific Course- (DSC)

Course Title:1.1 MECHANICS AND MATHEMATICAL MODELLING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B. Sc B.Ed (Mathematics)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

After completion of the course (Theory), students will be able to:

- Analyse the concepts of couple and moment of couple.
- Solve problems on Radial and Transverse velocity as well as acceleration.
- Understand the concepts of direct and oblique impacts.
- Evaluate problems related to Tangential and Normal components of acceleration.
- Understand the need of mathematical modelling.
- Model problems in Algebra, Geometry, etc.
- Prepare variety of growth and decay models.

Unit	Title: MECHANICS AND MATHEMATICAL MODELLING	60 hours / Sem
Unit – I	Statics	15 Hrs.
	Couples, moment of a couple, Varignon's theorem. Resultant of coplanar couples. Resultant of a force and a couple. Resultant of a system of coplanar forces acting at different points of a rigid body. Catenary and common catenary.	
Unit – II	Dynamics – I	15 Hrs.
	Velocity and acceleration of a particle along a plane curve. Radial and transverse components of velocity and acceleration. Tangential and Normal components of velocity and acceleration.	

Unit – III	Dynamics – II	15 Hrs.
	Motion of a projectile in a non-resisting medium under gravity. Motion of a particle under a central force. Use of polar co-ordinates and pedal coordinates. Elastic impact-Direct and oblique impact of elastic bodies.	
Unit – IV	Mathematical Modelling	15 Hrs.
	Need for mathematical modelling, Brachistochrone problem with historical developments. Techniques and classification of mathematical models. Mathematical modelling through Geometry, Algebra (Compound Interest Model), Trigonometry and Calculus. Mathematical modelling through differential equations of first order. Growth and Decay models (linear and non-linear). Prey and predator model.	

References:

1. Statics, B. C. Das and B. N. Mukherjee, U. N. Dhar & Sons Pvt. Ltd., 2018.
2. Statics, H. Kishan, Atlantic Publishers, 2023.
3. Engineering Mechanics Statics, J. L. Meriam, L. G. Kraige and J. N. Bolton, Wiley, 2017.
4. The Elements of Statics and Dynamics, S. L. Loney, Arihant Publication, 2023.
5. Dynamics, H. Kishan, Atlantic Publishers, 2023.
6. Engineering Dynamics, M. R. Islam, A. K. M. Mazumder and M. Ahmed, CRC Press, 2022.
7. Mechanics, B. Singh and S. K. Pundir, Pragati Prakashan, 2020.
8. Engineering Mechanics, A. Nelson, McGraw Hill Edu., 2017.

Formative Assessment for Theory	
Assessment Occasion / Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 1.2 MECHANICS AND MATHEMATICAL MODELLING –(Practical)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B. Sc B.Ed (Mathematics)	DSC-2 (Major-2)	Practical	2	20	30	50

Course Outcomes:

After completion of course (Practical), students will be able to:

- Understand the advantage of python software in solving various problems of mechanics.
- Solve Transverse velocity and acceleration components.
- Solve problems on Tangential and Normal acceleration.
- Calculate time of flight and horizontal range.
- Prepare various mathematical models.
- Analyse mathematical models through python software.

List of Experiments

[Each will have 4rs / Week (Minimum 12 experiments)]

1. Program to find magnitude and direction of the resultant, when some forces are provided, which act at one of the angular points of a regular hexagon towards the five others in order.
2. Program to find the least possible sag in the middle of a uniform chain of length l , if the maximum tension is n times its weight (Chain is stretched between two points in the same horizontal line).
3. Program to find radial velocity and acceleration.
4. Program to find transverse velocity and acceleration.
5. Program to find tangential velocity.
6. Program to find tangential acceleration.
7. Program to find normal acceleration.
8. Program to find time of flight and horizontal range.

9. Program to find the time taken by a projectile to reach maximum height and maximum horizontal range.
10. Program to find greatest height reached by a projectile.
11. Program on mathematical modelling of growth and decay population model.
12. Program on prey – predator mathematical model.

References:

1. Automate the Boring Stuff with Python, A. Sweigart, No Starch Press, 2019.
2. Python Cookbook, D. Beazley and B. K. Jones, Shroff O'Reilly, 2013.
3. Basic Python Programming for Beginners, K. V. Rajkumar, M. Krishna, and J. Prakash, Bluerose Publishers Pvt. Ltd., 2021.
4. Python, J. Shovic and A. Simpson, For Dummies, 2024.
5. Learning Python, M. Lutz, Shroff O'Reilly, 2017.
6. Statics, H. Kishan, Atlantic Publishers, 2023.
7. The Elements of Statics and Dynamics, S. L. Loney, Arihant Publication, 2023.
8. Dynamics, H. Kishan, Atlantic Publishers, 2023.
9. A Textbook on Dynamics, M. Ray and G. C. Sharma, S. Chand & Company, 2005.

General Instructions

Software to be used: PYTHON

Scheme of Practical Examination (Distribution of Marks)

Formative Assessment for Practical	
Assessment Occasion /Type	Marks
Program writing and problem solving (1 Program)	03
Program Execution	03
Viva	02
Journal	02
Total	10 Marks
Formative Assessment as per guidelines	

Summative Assessment for Practical	
Assessment Occasion /Type	Marks
Program writing and problem solving (2 Program)	$(5+5)*2 = 20$
Program Execution (Any 1 Program)	10
Viva	05
Journal	05
Total	40 Marks
Summative Assessment as per guidelines	

Course Title:1.3 CLASSICAL AND QUANTUM MECHANICS-I, MODERN PHYSICS-I							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B. Sc B.Ed (Mathematics)	DSC-3 (Major-3)	Theory	4	40	60	100

Course Outcome:

At the end of the course, students will be able to:

1. Identify the failure of classical physics at the microscopic level.
2. Alternate approach towards the study of classical mechanics by Lagrangian, Variational and Hamiltonian formulations.
3. Find the relationship between the normalization of a wave function and the ability to calculate expectation values or probability densities.
4. Explain the minimum uncertainty of measuring both observables on any quantum state.
5. Describe the time-dependent and time-independent Schrödinger equation for simple potentials like for instance one-dimensional potential well and Harmonic oscillator.
6. Describe the processes of alpha, beta and gamma decays based on well-established theories.
7. Explain the basic aspects of interaction of gamma radiation with matter by photoelectric effect, Compton scattering and pair production.
8. Explain the different nuclear radiation detectors such as ionization chamber, Geiger-Mueller counter etc.
9. Get hands on training in wiring a circuit, soldering, making a measurement using an electronic circuit used in instrumentation.
10. Have an understanding of the basic electronic components viz., resistors, capacitors, inductors, discrete and integrated circuits, colour codes, values and pin diagram, their practical use.

Unit	Title: Classical and Modern Physics-I	60 hrs/ sem
Unit- I	<u>Classical Mechanics-I:</u> Constraints (Holonomic, Non-holonomic, Scleronomic, and Rheonomic constraints with examples), Degrees of freedom, space point and configuration space, virtual displacement and principle of virtual work, Generalized co-ordinates, generalized displacement, generalized velocity and generalized force, D'Alembert's Principle, Derivation of Lagrange's equation of motion using D'Alembert's Principle (For holonomic case), Applications of the Lagrangian formulation: Simple pendulum, Atwood's machine and Linear Harmonic Oscillator(one dimension).	15 hrs
Unit- II	<u>Quantum Mechanics-I:</u> Brief discussion on failure of classical physics to explain black body radiation, Photoelectric effect, Compton effect, stability of atoms and spectra of atoms. Compton Scattering: Expression for energy of the scattered photon, kinetic energy of the recoil electron and Compton shift (with derivation). Matter Waves: de Broglie hypothesis. Expression for group velocity and Phase velocity of matter waves. Davisson and Germer experiment and its significance. Uncertainty principle: Statement and illustration by Gamma ray microscope and diffraction of electrons at a single slit. Wave Mechanics: Setting up of time independent Schrodinger's equation. Physical interpretation of wave function. Eigen function and Eigen values. Expression for energy of a Particle in a one-dimensional infinite potential well(derivation), One-dimensional simple harmonic oscillator (qualitative)- concept of zero-point energy.	15 hrs
Unit- III	<u>Nuclear Physics:</u> Radioactivity: Half-life, activity and decay constant. Alpha decay: Gamow's theory of Alpha decay (Without derivation). Derivation of expression for alpha disintegration energy. Range of Alpha particles. Experimental determination of range of alpha particles. Geiger-Nuttall relation and its significance (qualitative). Beta decay: Types of beta decay with examples. The neutrino theory of beta decay (qualitative). Decay scheme of $Tl-204$. Gamma decay: Origin of Gamma rays. Decay schemes of $Cs-137$ and $Na-22$. Nuclear forces: Meson theory of nuclear forces. Nuclear models: Liquid-drop model: Semi-empirical mass formula and explanation of the terms, nuclear fission on the basis of liquid-drop model. Shell model (qualitative), Magic numbers. Nuclear Reactions: Energy balance in nuclear reactions and the Q-value. Detectors: Geiger-Muller counter: Characteristics, dead time, working and applications. Accelerators: Theory, construction and working of Cyclotron.	15 hrs

Unit- IV	Electronics: Integrated Circuits (ICs): IC741 and its characteristics (both ideal and practical). Voltage transfer characteristics of op-amp and its significance. Inverting and non-inverting amplifier, Wein bridge and Phase shift oscillators using op-amp. IC555 timer: internal configuration; operation of IC555 as Astable multivibrator (qualitative). Digital Electronics: Basic theorems of Boolean algebra, Basic and Universal gates. Demorgan's theorems. IC7400: Pin configuration and applications. Digital to Analog (D/A) and Analog to Digital (A/D) converters, Ladder type (R-2R) D/A converter using Op-amp. Communication: Mention the types of radio wave propagation. Radio wave propagation through ionosphere: Critical frequency, critical angle, MUF, virtual height, secant law. Amplitude modulation (AM): Modulation index, frequency spectrum of AM, AM modulator using BJT. Frequency Modulation (FM): Modulation index, FM spectrum, Comparison between FM and AM. Demodulation: AM detection using PIN diode (qualitative).	15hrs

References:

1. Classical Mechanics, H. Goldstein, C.P. Poole, J.L. Safko, 3rd Edn. 2002, Pearson Education.
2. Classical Mechanics: An introduction, Dieter Strauch, 2009, Springer Physics Vol. No.I (V Edition)
3. Classical Mechanics (XVII ed)- Goldstein-Narosa Publishing New Dhli,1998.
4. Quantum Mechanics vol 1 and vol 2(I ed)- Shrivatsav-Pragati Prakashan, Meerat,1977
5. Quantum Mechanics- Gupta,Kumar & Sharma- Jayprakashnath &Co,Meerat,2004

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 1.4 CLASSICAL AND QUANTUM MECHANICS-I, MODERN PHYSICS-I PRACTICAL							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B. Sc B.Ed (Mathematics)	DSC-4 (Major-4)	Practical	2	20	30	50

List of fifth semester (DSC-4) Physics Experiments:

1. To study the effect of amplitude of oscillation on the time period of a simple pendulum.
2. Determine the acceleration due to gravity by using Atwood's machine.
3. To study the spectral characteristics of a photo-voltaic cell (solar cell) by using different filters.
4. To study the I-V characteristics of a solar cell and determination of its fill factor.
5. To study the tunnelling phenomenon in a tunnel diode by using I-V characteristics.
6. Determination of quantum efficiency of a photodiode.
7. Study of op-amp as an inverting and non-inverting amplifier (DC / AC)
8. Determination of modulation index (amplitude modulation)
9. Astable multivibrator using IC 555.
10. Voltage Transfer Characteristics of op-amp (in negative feedback/ amplifier mode, for two different gains after feedback (A_f)).
11. Digital to Analog Converter using Ladder (R-2R) network
12. Basic gates using IC 7400.
13. Verification of Boolean expressions using IC 7400.
14. Study of GM counter characteristics and dead time of a GM Counter/ Determination of mass attenuation coefficient of aluminium for beta rays from Tl-204.
15. Phase Shift/ Wein bridge oscillator using op-amp.

Note:

1. Experiments of four hours duration.
2. Minimum of Eight experiments to be performed

References:

1. Physics For Degree Students B. Sc. First Year, S. Chand & Company.
2. Electronics Instrumentation by H S Kalasi.
3. B.Sc. practical Physics – C.L. Arora.
4. Advanced practical Physics – Samir Kumar Ghosh.
5. Advanced practical Physics – Worsnop and Flint.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

2. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 2.1 PEDAGOGY OF MATHEMATICS-III							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B. Sc B.Ed (Mathematics)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

- After completion of this course, student teachers will be able to:
- design and develop tools for continuous and comprehensive assessment of learning in the school situation,
- analyze and interpret result of the assessment using elementary statistical methods,
- create activity-based classroom for effective mathematics teaching,
- organize different hands-on activity for creating interest of the student in mathematics teaching,
- acquire the knowledge of different ICT tools used in mathematics teaching,
- develop Teaching-learning e-content of the mathematics teaching.

UNIT – I: Assessment and Evaluation

- A. Assessment and Evaluation of learning Mathematics: difference between assessment and evaluation. Assessment based on learning outcomes, strategies for continuous assessment, school-based assessment, qualitative assessment: formative and summative assessment, formal, informal, and 360-degree assessment, self and peer assessment. (assessment of learning, assessment for learning and assessment as learning).
- B. Performance assessment (non-testing methods): assessment of group activities, field observations, recording and reporting, creating platform and portfolio management, assessment of lab skills, assignments, projects, and presentations.
- C. Standardized test, Achievement test and development of blueprint, Feedback mechanism in teaching learning.
- D. Creation of rubric, portfolios, criterion reference test, norm referenced test.
- E. Construction, administration, scoring, interpretation of a unit test and providing feedback to learners.

UNIT – II: Activity Oriented Classrooms

- A. Meaning, need and scope of Activity Oriented Classrooms in Mathematics Teaching.
- B. Aims and objectives of using activities in mathematics Classroom.
- C. Psychological, Sociological and Philosophical Perspective of Activity Oriented Classrooms in Mathematics Teaching.
- D. Types of Activities (Online/ Offline): quizzes, buzz groups, snowballing, brainstorming, discussion and group learning, debates, recitations and storytelling, clay modeling and toy making, presentations, role play, training games for learners, case study, asking and framing questions including higher order thinking questions.
- E. Analyzing NEP 2020 with special Reference to Activity Oriented Classrooms.

UNIT – III: ICT Integration in Mathematics Teaching

- A. Meaning and scope of using ICT in teaching learning Mathematics.
- B. Need of Technological, Pedagogical Content Knowledge (TPACK) in Mathematics.
- C. Use of Computer and other ICT equipment in Mathematics.
- D. Use of ICT in the Classroom: Artificial Intelligence, Machine Learning, Block Chains, Smart Boards, Handheld Computing Devices and Adaptive Computer Testing for Student Development.
- E. Functions of ICT, Specific Features and Limitations of using ICT in Mathematics classroom.
- F. Developing Teaching-learning e-content of the concerned subject.
- G. Use of Tools and Platforms along with National Teacher's Portal, DIKSHA SWAYAM etc.

Practicum:

- 1. Prepare unit plan and lesson plans from Mathematics textbook of class 6,7,8.
- 2. Plan and execute simulated teaching at class 6 to 8.
- 3. Construction of unit test (administration, scoring, statistical analysis and reporting) on a selected unit analyzing the errors committed by learners at middle stage, in regular test (FA 1 or FA 2) and analyzing its causes and suggesting various remedial measures.
- 4. Prepare a blueprint for achievement test in Mathematics teaching.
- 5. Developing rubrics for problem solving, assignment, group work, project etc.
- 6. Plan for action research of any problem related to Mathematics teaching and learning.
- 7. Creating e –portfolio
- 8. Organize storytelling, clay modeling and toy making, competition based on Mathematical concept.

Mode of Transaction:

Demonstration method, Experimental method, Field-based experience, Laboratory method, Storytelling/success stories, Classroom discussions, Self-study, Field observations, and preparation of study reports. Classroom presentations, discussion forums, observation, research report, engaging in dialogue organize hands on activity.

Mode of Assessment:

Written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester examination

References:

1. NCERT. (2012). Pedagogy of Mathematics: Textbook for Two-Year B.Ed Course. New Delhi
2. NCERT. (1984). A Textbook of Content-Cum-Methodology of Teaching Mathematics. New Delhi.
3. National University of Educational Planning and Administration (India). 2013. “Elementary Education in India: Where Do We Stand? State Report Cards, 2013-2014.” New Delhi: NUEPA.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 PEDAGOGY OF SCIENCE -III							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B. Sc B.Ed (Mathematics)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- explain the need for and importance of assessment and evaluation in teaching learning Science,
- develop different assessment strategies,
- conduct different types of assessment during teaching and learning Science,
- prepare questions papers of Science using different types of test items,
- create activity- oriented classroom in science,
- analyze NEP 2020 with special reference to activity-oriented classrooms,
- develop teaching-learning e-content for science,
- use ICT in Science teaching learning,
- use different online platforms for teaching learning Science.

UNIT – I: Assessment and Evaluation

- Assessment and Evaluation: concept, need for and importance in teaching learning the science, difference between Assessment and Evaluation.
- Assessment Based on learning outcomes, strategies for continuous assessment, school-based assessment, qualitative assessment; formative and summative assessment, formal, informal and 360-degree assessment, self and peer assessment.
- Performance Assessment: assessment of group activities, field observations, recording and reporting, creating platform and portfolio management, assessment of lab skills, assignments, projects, and presentations.
- Unit Test Based on Table of Specification (TOS) and its importance; basic steps of question paper setting, types of test items and preparing answer key and feedback mechanism in teaching learning.

UNIT – II: Activity Oriented Classrooms

- A. Meaning, need and scope of activity-oriented classrooms in science.
- B. Psychological, Sociological and Philosophical perspective of Activity Oriented Classrooms in Science.
- C. Aims and objectives of using activities in Classroom.
- D. Types of Activities (Online/ Offline): quizzes, buzz groups, snowballing, brainstorming, discussion and group learning, debates, recitations and storytelling, clay modelling and toy making, art forms of Indian tradition, presentations, role play, training games for learners, case study, asking and framing questions including higher order thinking questions.
- E. Analyzing NEP 2020 with special reference to Activity Oriented Classrooms.

UNIT – III: ICT Integration

- A. Meaning and Scope of using ICT in the teaching learning process.
- B. Use of ICT in the Classroom: artificial intelligence, machine learning, block chains, smart boards, handheld computing devices, adaptive computer testing for student development.
- C. Specific Features and limitations of using ICT.
- D. Functions of ICT (to improve multiple aspects of teaching and learning, a platform for the exchange of ideas, to enhance learning, assessment, planning, administration, admission, and attendance, to support teacher preparation and professional development, to enhance educational access, provide leadership to education institutions, State and Central governments, and other stakeholders to provide the latest knowledge and share best practices with each other)
- E. Developing Teaching-learning e-content in science.
- F. Use of Tools and Platforms along with DIKSHA, and SWAYAM.

Practicum:

1. Develop one achievement test of science for each class (Class VI, VII and VIII).
2. Develop strategies for performance assessment in science, followed by seminar/presentation.
3. Develop different types of online/offline activities in science, followed by seminar/presentation.
4. Exploration of AI-based assessment tools.
5. Organize different types of activities in science, followed by report presentation.
6. Script writing for role-playing, storytelling, and other activities in concepts of sciences.
7. Analyzing NEP 2020 with special Reference to Activity Oriented Classrooms.
8. Develop teaching learning e-content in science.

Mode of Transaction:

Lecture cum discussion/demonstration, hands-on activities, demonstration of discovery approach, project approach, inquiry approach, experimentation, problem-solving, concept mapping, experiential learning, art and environment integrated learning, sports integrated learning.

Mode of Assessment:

Written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester examination.

References:

- NCERT (2019). Continuous and Comprehensive Evaluation Guidelines. NCERT
- NCERT (2022). Toy- Based Pedagogy- A Handbook (Learning for Fun, Joy and Holistic Development) Part- I. MOE, Govt. of India.
- NCERT (2023). Draft- National Curriculum Framework for School Education (2023). National Steering Committee for National Curriculum Frameworks. NCERT.
- NCERT (2023). Draft- National Curriculum Framework for School Education (2023). National Steering Committee for National Curriculum Frameworks. NCERT.

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

3. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 3.1 ICT / AI IN EDUCATION Course Code :							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B. Sc B.Ed (Mathematics)	AE&VAC-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- Understand Educational Technology and ICT
- Analyse ICT and Instructional Design
- Understand emerging technologies in Education
- Understand emerging technologies of AI
- Analyse ICT in Teaching Learning
- Work on Subject specific ICT tools and for Assessment

Unit	Content	75 hrs/sem
Unit -I	Introduction to ICT in Education: Meaning, Nature, importance of Information Technology, Communication Technology & Information and Communication Technology (ICT) and Instructional Technology- Educational Technology and ICT in Education (Difference, Scope of ICT- Teaching, learning, Research & Publication Educational Administration and Assessment)-	15Hrs
Unit- II	Emerging Technologies in Education: E-learning Concept, methods, and media (LMS, Virtual Universities, Massive Open Online Course (MOOCs), Indian MOOCs, Types of MOOCs: cMOOCs, xMOOCs & LMOOCs)- Open Education Resources (Creative Commons, Concept, and application)- Augmented reality, Virtual reality, Artificial intelligence, Mixed Reality & Gamification in education (Meaning, history, importance, tools and uses)- Cloud Computing & Internet of Things - Meaning, importance and uses- Ethical issues &	15 Hrs

	safety in ICT- (Teaching, Learning and Research, Cyberbullying, Cyber security literacy & data protection, Online identity and privacy)	
Unit-III	Possibilities of AI Technology and AI Ethics: Possibilities: AI Possibilities in Health, AI possibilities in technology, AI Possibilities for customer experience, For Vehicles, Media, AI Ethics: Ethical Concerns of AI, Bias, Components of good AI policy, AI	15 Hrs

Activities/ Internal Assessment Tasks:

1. Prepare a report on the trends and developments in Educational Technology
2. Prepare an instructional design script following any of the instructional design models.
3. Explore any one online platform for MOOCs and prepare a report highlighting its structure and courses.
4. Prepare an assessment tool on any one chapter of the textbook.
5. Create an Image using **Gemini** AI App
6. Solving math problem using **math.now** AI Tool
7. Generating Presentation or PPT using **Presentation.AI** Tool
8. Preparing Notes using **Notebook LLM** AI Tool
9. Drafting a letter using **ChatGPT** AI Tool

References:

1. Bharihoke Deepak. (2000). Fundamentals of Information Technology, Pentagon Press: New Delhi
2. Conrad, Keri (2001). Instructional Design for Web based Training. HRD Press
3. Crumlish Christian (1999). The Internet No Experience Required. BPB Publications: New Delhi
4. Evant, M: The International Encyclopedia of Educational Technology.
5. Jain Amit; Sharma Samart; & Banerji Saurab (2002). Microsoft Word for Beginners. NISCOM, CSIR: New Delhi.
6. Learning Theories: Understanding How People Learn – Instruction in Libraries and Information Centers (illinois.edu)
7. Introduction – Everyday Instructional Design (pressbooks.pub)
8. Models of Design – Instructional Designer's Handbook (unizin.org)

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

4. School Experience-(SE)

Course Title: 4.1 PRE-INTERNSHIP PRACTICES (DEMONSTRATION LESSONS)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.Sc. B.Ed. (Mathematics)	SE-1	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- describe the prerequisites of the internship,
- demonstrate knowledge of pedagogic practices, classroom management skills, assessment tools and learning standards,
- develop lessons plans and relevant Teaching Learning Materials (TLMs),
- develop readiness to take up an internship programme.

Mode of Transaction:

- Demonstration lesson (minimum 1 in each pedagogical subject)
- Peer Group teaching and peer observation (minimum 5 in each pedagogical subject)
- Observation of lessons by teacher educators during peer group teaching
- Reflective group discussions/workshops/seminars
- Preparation and presentation of the video content illustrating best classroom practices.

Content:

The pre-internship will include activities relating to the stage-specific pedagogy courses, ability enhancement and value-added courses and foundation courses transacted during previous semesters. It will also include knowledge of pedagogy, formats of lesson plans, different ICT tools, schooling systems in India, principles of classroom management, assessment, and other relevant content.

Activities:

- Orientation of student teachers to different pedagogic practices like experiential learning, inter-relationship amongst different subjects, integration of Indian Knowledge Systems (IKS) and values in school subjects, and classroom management skills
- Observation of the lesson demonstrated by teacher educators/experts in the institute.
- Designing guided activities for each class/subject based on learning outcomes.
- Study Middle Stage Learning Standards in the NCF
- Content analysis and development of the unit plan, concept map and lesson plan.
- Discussion on unit plan and lesson plan with teacher educators/experts
- Preparation of a Portfolio (for self-work) that the student-teacher will use to keep all her/his work.
- Participate in discussions/reflective sessions for conceptualizing teaching-learning practices.
- Exploring available learning resources and educational videos
- Developing local, low-cost, and innovative TLMs
- Reading and reflecting on inspiring books on pedagogic practices

Assessment

Competence/Artifact	Method of assessment	Assessed By	Credits
Classroom teaching skills and assessment tools (including learning standards)	Simulated Presentation	Teacher-Educator	1
Reflective group discussions/workshop	Observations	Teacher-Educator	0.5
Artefacts (Lesson Plans, TLM, Curated Videos) and action research procedures.	Evaluation	Teacher-Educator	0.5

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

VI Semester
ITEP B.Sc. B. Ed Mathematics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Assessment & Evaluation	2	20	30	50
2	FCE-2	Inclusive Education	2	20	30	50
Discipline Specific Course - DSC						
3	DSC-1 (Major)	Numerical Analysis	4	40	60	100
4	DSC-2 (Major)	Numerical Analysis Practical- V	2	20	30	50
5	DSC-3 (Major)	Project/Dissertation	4	40	60	100
Stage Specific Content Cum Pedagogy - SSCCP						
4	SSCCP-1	Pedagogy of Mathematics - IV	2	20	30	50
5	SSCCP-2	Pedagogy of Science-IV	2	20	30	50
Ability Enhancement & Value-Added Course - AE&VAC						
6	AE&VAC-1	Mathematical & Quantitative Reasoning	2	20	30	50
School Experience- SE						
7	SE-1	School Observation (Field Practice)	2	20	30	50
Total Credits			22	220	330	550

VI Semester

B.Sc. B.Ed Mathematics

SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education- FCE			1.1 Assessment & Evaluation
				1.2 Inclusive Education
2	Discipline Specific Course- DSC	Major-1		2.1 Numerical Analysis
		Major-2		2.2 Numerical Analysis Practical-V
		Major-3		2.3 Project/Dissertation
3.	Stage Specific Content Cum Pedagogy -SSCCP			3.1 Pedagogy of Mathematics-IV
				3.2 Pedagogy of Science-IV
4	Ability Enhancement & Value-Added Course-AE&VAC			4.1 Mathematical & Quantitative Reasoning
5	School Experience-SE			5.1 School Observation (Field Practice)

1. Foundation Course of Education- (FCE)

Course Title: 1.1 ASSESSMENT & EVALUATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Mathematics)	FCE-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- use different approaches to assess and evaluate of student performance such as time constrained examinations; closed/open-book tests; problem-based assignments; practical assignment reports; observation of practical skills; individual and group project reports; oral presentations; viva voce interviews; computerized adaptive testing; peer and self-assessment etc.,
- develop and use informal and formal diagnostic, formative, and summative assessment strategies to monitor student learning levels and help the teacher continuously revise teaching-learning processes to optimize learning and development for all students,
- develop an understanding among student teachers of the approaches to provide timely, effective, and appropriate feedback to students about their performance relative to the expected learning outcomes and organizing learning enhancement initiatives that are required to bridge the gap in student learning levels,
- present report on student achievement, making use of accurate and reliable records etc.
- develop assessment “as”, “of”, and “for” learning that are aligned to the expected learning outcomes,
- design the progress card of students based on school-based assessment to make it a holistic, 360-degree, multidimensional report that reflects the progress as well as the performance of learners assessed through self-assessment and peer assessment, project based and inquiry-based learning, quizzes, role plays, group work, portfolios, etc., along with teacher assessment that would provide students with valuable information on their strengths, areas of interest, and needed areas of improvement.

UNIT - I

Assessment and Education

A. Assessment and Evaluation

- Meaning and significance of assessment and evaluation in educational field.
- Conceptual Clarity and purpose of Measurement, Assessment, Examination, Appraisal and Evaluation in Education.
- Learning outcomes across the stages and assessment.
- Taxonomy of Objectives (Revised in 2001) and Implications.

B. Forms of Assessment

- Formative, Summative, diagnostic, prognostic.
- Internal and External assessment.
- Assessment For learning, of learning and as learning.
- Authentic Assessment; Online Assessment.

C. Improving Assessment and Evaluation in Schools: Brief Historical Review (1975, 1988, 2000, 2005, 2020)

UNIT - II

Process of Assessment and Evaluation

A. Formative and Summative Assessment: Concept and Characteristics.

B. Approaches to assess and evaluate student performance such as time-constrained examinations; closed/open-book tests; problem-based assignments; practical assignment reports; observation of practical skills; individual and group project reports; oral presentations; viva-voce interviews; computerized adaptive testing; peer and self-assessment etc.

C. Assessing Higher Order Thinking Abilities: Problem solving, critical thinking, creative thinking, communication skills, judgement and decision making, ethical and moral reasoning.

D. Tools and Techniques

- Observation, rating scale, check list, anecdotes, interviews.
- Assessment of attitudes and interests.
- Socio-metric techniques.
- Criteria for assessment of social and personal behaviour.
- Self-assessment and Peer Assessment.

UNIT - III

Analysis and Interpretation

- A. Analysis of students' performance and scores: credit and grading
- B. Graphical representation (Histogram, Frequency Curves)
- C. Interpretation of student's performance based on the analysis and their further uses in improving learner's performance: credit and grading, constructive feedback.
- D. Reporting student's performance: 360-degree progress reports, cumulative records and their uses, portfolios, PTA meetings, qualitative reporting based on the observations, descriptive indicators in report-cards.

Practicum:

1. Review of various education commission, Policies and reports and NCF 2005 to get a brief view of the recommendations on Assessment and Evaluation.
2. Constructing a unit test using table of specifications.
3. Construction of any one of the tools (rating scale, check list, observation schedule, etc.) and administering it to group of students or using it to observe the school and classroom environment and interpreting it.
4. Analysis of question papers of various Boards.
5. Analysis of report cards - State and Central (CBSE)
6. Preparing format of 360-degree report Card.
7. Review of learning outcomes by NCERT in different subject areas.
8. Interviews with teachers and students to study the assessment practices, issues and problems related to it followed by presentation.
9. Reviewing Assessment Discussions in NPE (2020).

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.

- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Andrade, H. L. (2013). Classroom assessment in the context of learning theory and research. J. H. McMillan (Ed.), Suge handbook of research on classroom assessment. California, USA: Sage.
2. Aggarwal, J. C. (2005). Essentials of Examination System: Evaluation, Tests and Measurement. New Delhi: Vikas Publishing House Pvt. Ltd.
3. Bhatnagar. A. B. & Bhatnagar. Anurag (2014). Measurement and Evaluation (Tyranny of Testing). Meerut: R. Lall Book Depot.
4. Black, P. (2015). Formative assessment - an optimistic but incomplete vision. Assessment in Education: Priapicles, Policy & Practice, 22(I).
5. Broadfoot, P. (1979). Assessment. schools, and society. London, USA: Methuen & Co.
6. Deshpande, J.V. Examining the Examination System, Economic & Political Weekiy. April 17, 2004, Vol. XXXIX, No. I6.
7. Natrajan V. And Kulshreshta S.P. (1983). Assessing non-Scholastic Aspects- Learners Behavior. New Delhi: Association of Indian Universities.
8. Nitko, A.J. (2001). Educational assessment of students (3rd Ed.). Upper Saddle River, NJ: Prentice Hall.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 1.2 INCLUSIVE EDUCATION Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Mathematics)	FCE-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- ensure inclusion and equal participation in education of children with disabilities in the regular schooling process that allows students with and without disabilities learn together, ensuring their retention in the school system, and enabling them to achieve the defined learning outcomes,
- adapt teaching and learning process to meet the learning needs of different students with disabilities, including providing education and opportunities for participating in arts, sports, and vocation-related activities, making school buildings and compounds as well as other facilities barrier free and accessible for children with disabilities, supporting activities that help the provision of individualized learning environment and learning activities/resources, making available assistive devices and appropriate technology-based tools, as well as adequate and language-appropriate teaching-learning materials (e.g., textbooks in accessible formats such as large print and Braille) to help children with disabilities integrate more easily into classrooms and engage with teachers and their peers, using appropriate modes and means of communication, detecting specific learning disabilities in children at the earliest and taking appropriate measures to overcome them, monitoring completion of education and learning levels of students with disabilities etc.

UNIT - I

Inclusion and Education

A. Conceptual Clarity, relation, and significance with special reference to:

- UNCRPD, 2006,
- RPWD Act, 2016,

With special reference to Indian Context.

B. Clarity of various terms and phrases associated with Inclusive Education: Integrated Education, Special Education, Impairment and Disability, Assessment and Evaluation, Curriculum, adaptation, modification and differentiation, universal design of learning

C. Shifting from Disability to the Inclusive view.

D. Shifting Paradigms from Bio centric to Human Rights.

E. Introductory reference of Policies/Acts with reference to educational implications for Children with Disabilities: Right to Education Act, 2009/ 2012, RPWD Act, 2016, UNCRPD, National Trust Act, 1999, National Educational Policy, 2020.

UNIT – II

Children with Disabilities and Marginalized Groups

A. Nature and needs of children with sensory impairments: cognitive impairments and intellectual disability, physical disabilities, cerebral palsy, multiple disabilities.

B. Specific needs of children with behavioral, emotional learning disabilities

C. Health Problems.

D. Educational needs of children belonging to Marginalized Groups.

UNIT - III

Pedagogical Issues

A. Conceptual clarity and significance.

B. Meeting the specific needs of Children with Disabilities with special reference to:

- education and opportunities for participating in arts, sports, and vocation-related activities,
- making school buildings and compounds as well as another facilities barrier free and accessible

- supporting the learning activities and resources for individualized learning environment making available assistive devices and appropriate technology-based tools,
- language-appropriate teaching-learning materials (e.g., textbooks in accessible formats such as large print and Braille)
- assessing strategies

C. Designing strategies assessment for inclusive classrooms.

Practicum:

1. Developing a checklist for identifying the various needs of children with disabilities.
2. Visiting schools of different categories and talking to parents, teachers, and Children with and without disabilities and list the problems faced by these children and the families at the local level in gaining access to education.
3. Analyzing RPWD Act 2016 and list its implications for CWD in inclusive settings.
4. Outlining the problems faced by children with Visual Disabilities while learning mathematics and EVS.
5. Giving a few exemplary adaptations based on the Preparatory Level textbooks.
6. Outlining the problems faced by children with hearing impairments while learning language. Give a few exemplar adaptations based on the primary level textbooks.
7. Students work in small groups of 10 or so to prepare a street play highlighting the meaning and provisions of inclusive education.
8. Analyzing the Context of NPE 2020 in the light of Inclusive Education.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings and learning contents as per the needs of the learners.

1. Arthur E. Del Orto. Paul w. Power (2007) The Psychological and Social Impact of illness and Disability.
2. Bhattacharya. T. (2010). Re-examining issues of inclusion in Education. Economic & Political Weekly. Vol. XIV (16): 18-23
3. Clough. P. & Corbett, J. (2000). Theories of inclusive Education. Paul Chapman Publishing. London
4. Jha M. M. (2002). School Without Walls: Inclusive Education for All. Oxford, Heinemann.
- Jorgensen, C. M., Mc Sheehan. M., & Sonnenmeier, R. M. (2009). Essential best practices in inclusive school. Institute on Disability/UCED. University of New Hampshire
5. Jain, A. and Singh, R.R. (2014). Seemant Varg Kee Balikaon Ke Shaikshik Shashaktikaran Main Kastoomba Gandhi Balika Vidyalay Kee Bhumika Ka Moolyankan (Ekal Adhyayan), Pariprekshya, NUEPA, New Delhi, ISSN 0972-7515. Varsh 22, Ank 02 August 2014

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

2. Discipline Specific Course- (DSC)

Course Title: 2.1 NUMERICAL ANALYSIS							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Mathematics)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

After completion of the course (Theory), students will be able to:

- Understand the concept of errors.
- Find roots of equations using various iterative methods.
- Analyse system of linear equations using direct and iterative methods.
- Describe various operators such as difference operators, shift operators and so on.
- Apply numerical techniques in other areas of mathematics.
- Understand the application of finite differences in finding derivatives.
- Find the value of definite integrals using numerical schemes.

Unit	Title: NUMERICAL ANALYSIS	60 Hours / Sem
Unit - I	Algebraic and Transcendental Equations	15 Hrs.
	Errors: Significant digits, Absolute, Relative, Percentage errors, Rounding off and Truncation errors, Solutions of algebraic and transcendental equations: Bisection method, Regula-false method, Secant method, Newton-Raphson method and Fixed-point iterative method.	
Unit - II	System of Linear Algebraic Equations	15 Hrs.
	Direct Methods: Gauss elimination method, Gauss-Jordan method and Triangularization method. Iterative methods: Gauss-Jacobi method, Gauss-Seidel method, Successive – Over Relaxation (SOR) method.	

Unit – III	Finite Differences	15 Hrs.
	Finite differences, Forward, Backward and Central differences, Shift Operators: Definitions, Properties and Problems; Polynomial Interpolation: Newton – Gregory forward and backward interpolation formulas, Lagrange interpolation polynomial, Divided differences and Newton’s general interpolation formula.	
Unit - IV	Numerical Differentiation and Integration	15 Hrs.
	Formula for derivatives (first and second order) based on Newton-Gregory forward and backward interpolations, General quadrature formula, Trapezoidal rule, Simpson’s $(1/3)^{\text{rd}}$ rule, Simpson’s $(3/8)^{\text{th}}$ rule and Weddle’s rule, Romberg integration and their applications.	

References:

1. Analysis of Numerical Methods, E. Isaacson and H. B. Keller, Dover Publications, 2012.
2. Introductory Methods of Numerical Analysis, S. S. Sastry, PHI Learning Pvt. Ltd., 2012.
3. Advanced Engineering Mathematics, E. Kreyszig, Wiley, 2006.
4. Numerical Methods for Scientists and Engineers, K. Sankara Rao, PHI Learning, 2018.
5. Numerical Methods for Scientists and Engineers, R. W. Hamming, Dover Publications, 1987.
6. Numerical Methods for Scientists and Engineers, J. D. Hoffman, CRC Press, 2001.
7. Numerical Methods in Engineering and Science, B. S. Grewal, Khanna Publishers, 2013.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 NUMERICAL ANALYSIS - PRACTICAL -V Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Mathematics)	DSC-2 (Major-2)	Practical	2	20	30	50

Course Outcomes:

After completion of course (Practical), students will be able to:

- Learn Free and Open-Source software (FOSS) tools for computer programming.
- Solve problems on Numerical Analysis using Python language.
- Acquire knowledge of applications of numerical analysis.
- Find roots of equations using various numerical techniques.
- Solve system of equations using direct and iterative methods.
- Find the derivative and integral of a function using numerical methods.

List of Experiments

[Each will have 4rs / Week (Minimum 12 experiments)]

1. Program to find the root of an equation using Bisection and Regula-Falsi methods.
2. Program to find the root of an equation using Newton-Raphson and Secant methods.
3. Program to solve the system of algebraic equations using the Gauss-elimination method.
4. Program to solve the system of algebraic equations using the Gauss-Jordan method.
5. Program to solve the system of algebraic equations using the Gauss-Jacobi method.
6. Program to solve the system of algebraic equations using the Gauss-Seidel method.
7. Program to solve the system of algebraic equations using the SOR method.
8. Program to evaluate integral using Trapezoidal and Simpson's 1/3 rules.

9. Program to evaluate integral using Simpson's $\frac{3}{8}$ and Weddle rules.
10. Program to find the value of $y = f(x)$ for the given data using Newton–Gregory technique.
11. Program to find derivative of $y = f(x)$ at specified point using the Newton–Gregory interpolation method.
12. Program to find the polynomial equation from the given data using the Lagrange's formula for unequal intervals

References:

1. Automate the Boring Stuff with Python, A. Sweigart, No Starch Press, 2019.
2. Python Cookbook, D. Beazley and B. K. Jones, Shroff O'Reilly, 2013.
3. Basic Python Programming for Beginners, K. V. Rajkumar, M. Krishna, and J. Prakash, Bluerose Publishers Pvt. Ltd., 2021.
4. Python, J. Shovic and A. Simpson, For Dummies, 2024.
5. Learning Python, M. Lutz, Shroff O'Reilly, 2017.
6. Analysis of Numerical Methods, E. Isaacson and H. B. Keller, Dover Publications, 2012.
7. Introductory Methods of Numerical Analysis, S. S. Sastry, PHI Learning Pvt. Ltd., 2012.
8. Advanced Engineering Mathematics, E. Kreyszig, Wiley, 2006.
9. Numerical Methods for Scientists and Engineers, K. Sankara Rao, PHI Learning, 2018.
10. Finite Differences and Numerical Analysis, H. C. Saxena, S. Chand Publication, 2010.

General Instructions
Software to be used: PYTHON
Scheme of Practical Examination (Distribution of Marks)

Formative Assessment for Practical	
Assessment Occasion /Type	Marks
Program writing and problem solving (1 Program)	03
Program Execution	03
Viva	02
Journal	02
Total	10 Marks
Formative Assessment as per guidelines.	

Summative Assessment for Practical	
Assessment Occasion /Type	Marks
Program writing and problem solving (2 Programs)	$(5+5)*2 = 20$
Program Execution (Any 1 Program)	10
Viva	05
Journal	05
Total	40 Marks
Summative Assessment as per guidelines.	

Course Title: 2.3 PROJECT/DISSERTATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Mathematics)	DSC-3 (Major-3)	Theory	4	40	60	100

Course Outcomes:

After the end of the course, the student teachers will be able to:

- present contextual problems, an appropriate research design and the plan of action for undertaking school-based research,
- demonstrate the tools and techniques used for the collection of relevant data,
- summarize the analyze data used to identify the causes,
- demonstrate the interventions used for addressing the problems,
- present the effectiveness of the intervention(s),
- share research experiences through reports and presentation.

Mode of Transaction:

The following strategies will be used during the project:

- Discussions with teacher educator, school head, mentors, and peers for identification of problem and development of intervention(s).
- Finalize the project proposal outline through discussion with mentor teachers/teacher educators.
- Document analysis, interaction with all stakeholders, and field visits.
- Sharing and presentation of the outcomes of Project.

Content:

The student teachers during previous semesters have studied different courses in Foundations of Education, Disciplinary Courses, Stage-specific pedagogy courses, Ability Enhancement and Value-Added Courses. The required knowledge of action research and case study includes- the concept and importance of action research/case study, the steps of conducting action research/case study (objectives, methods, research design, design tools, data

collection, and data analysis) and report writing. The research problem will be taken from the day-to-day teaching-learning process of the school. Some of the significant areas may cover:

- Learning progress and outcomes in different subjects
- assessment
- Learners' diversity and inclusion
- Participation in arts, games, sports

Mode of Assessment:

The assessment of the project will be continuous. The teacher educators, as well as mentors, will be involved in the assessment of the activities. The following rating scale may be used to assess the student teachers:

Assessment

Competence/Artifact	Method of assessment	Assessed By	Credits
Observation during the execution of action research	Observations	Teacher Educator	1.5
Research Report	Presentation of Report	Teacher-Educators (panel of three experts)	2.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

3. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 3.1 PEDAGOGY OF MATHEMATICS-IV							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B. Sc B.Ed (Mathematics)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- adopt ways in enhancing quality of Mathematics learning,
- classify the learning styles and patterns of middle stage student,
- develop competency in the use of learner friendly information and communication technologies for widening scope and enhancing quality of Mathematics learning,
- recognize the student of special need in learning Mathematics,
- acquire expertise in development, adoption, and use of different types of innovative practice for effective Mathematics learning and teaching,
- analyze the various ways of continuing professional development as Mathematics teacher.

UNIT – I: Learning about How to Learn Mathematics

- A. Learning to learn concept, educational implication and development of self-regulated learning skills for Mathematics.
- B. Ways of management of time and information; organization of knowledge; Techniques of Learning to Learn.
- C. How the quantitative concepts are learned: strategies to learn quantitative skills; Basic numeracy learning strategies (cognitive and meta-cognitive strategy).
- D. Philosophical and psycho-social context of teaching and learning Mathematics: learning styles; factors affecting Mathematics learning.
- E. Role of a Teacher: As a leader in classroom; as facilitator; as a creator of appropriate democratic and constructivist learning environment.
- F. Mathematics for life - self-directed learning.
- G. Slow learners in mathematics- their characteristics, identification and supporting them learn.

- H. Gifted children in mathematics- characteristics, identification, and enrichment programs.

UNIT – II: Innovative Practices

- A. Meaning, need, importance and scope of Innovative Practices in Mathematics at middle stage.
- B. Qualities of an innovative teacher in the context of National Professional Standards for Teachers (NPST) and National Mentoring Mission (NMM).
- C. Effective communication with special reference to the language of Mathematics to be used in the classroom in multilingual context.
- D. Developing innovative materials and games in Mathematics, collaborative peer activities, peer learning groups for brainstorming and developing alternative ways of solving problems and framing Mathematical problems and activities.
- E. Teaching of Mathematics in the socio-cultural context, recreation in Mathematics, activities for Mathematical creativity, varying teaching approaches; thinking Mathematically; pattern recognition; generalization.
- F. Informal or exploratory activities; Mathematical games, puzzles and stories involving number.
- G. Problem-Based projects and investigations, integrating multiple approaches; cooperative group learning; encouraging Mathematical conversations.

UNIT – III: Continuous Professional Development of Teacher

- A. Meaning and need, professional and ethical competencies and need for updating content and pedagogical competencies, in-service courses available for Mathematics teachers to develop their professional competencies.
- B. Professional Development Activities: seminars, conferences, orientation programs, workshops, online and offline courses, teacher exchange programs, competitions, publications, development of teaching portfolio, capacity building programs.
- C. Developing professional competencies in dealing with gender issues, equity and inclusion, ethical issues, environmental issues, human health, population, human rights, and various Issues in relation to teaching of mathematics (Emotional, Mental, Physical Issues Related to Pandemic (For Example COVID-19).
- D. Areas for action research in Mathematics, reflection and evidence-based practice, importance of self-directed professional development.
- E. Teacher Leadership: using transformative pedagogical practices. professional development of Mathematics teachers.
- F. Types of continuing professional development (CPD) of Mathematics teachers.

G. Importance of self-directed professional development for a Mathematics teacher.

Practicum:

1. Preparation of an assignment for Mathematics concept used in daily life.
2. Report writing on playing folk games that develop Mathematics skills and competencies, community numeracy practices.
3. Case study of slow learners and / or children with dyscalculia.
4. Develop innovative teaching-learning tools for teaching of specific Mathematical concept.
5. Develop Mathematics games and puzzles based on middle stage mathematical concepts.
6. Real –world Mathematics project

Mode of Transaction:

Experimental method, S Demonstration, Field-based experience, Laboratory method, Storytelling/success stories, Classroom discussions, Self-study, Field observations, and preparation of study reports. Classroom presentations, discussion forums, observation, research report, engaging in dialogue.

Mode of Assessment:

Written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester examination.

Reference:

• NCERT (1971) Education and National Development, Report of The Education Commission 1964-66. New Delhi: NCERT.

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 3.2 PEDAGOGY OF SCIENCE-IV							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B. Sc B.Ed (Mathematics)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- explain terms such as socio-constructivism, active learning, metacognition, multiple intelligence, and artificial intelligence,
- explain terms such as curiosity, emotion, and motivation,
- explain morality and demonstrate moral behaviour,
- derive conclusion from observed examples with logic,
- explain the cognitive and biological developmental stages,
- demonstrate the attributes of an effective facilitator,
- demonstrate the attributes of a professional science teacher,
- demonstrate the attributes of a good mentor,
- demonstrate the strategies to handle multilingual classrooms,
- demonstrate the skills of an effective communicator,
- attend seminars, workshops, and online/offline courses for professional competency development,
- organize brainstorming sessions and discussions,
- explain concepts/views with facts.

UNIT – I: Learning About How to Learn

- A. Meaning, nature, need and scope of how to learn: Socio-Constructivism, Active Learner versus Abstract Thinker, Metacognition, Reflection, Deductive Logic, Howard Gardner's Multiple Intelligence, Relationship between Effort and Ability, Independent Thinking, Cognitive Sciences, Artificial Intelligence.
- B. Psychological, Sociological and Philosophical Perspective of Teaching and Learning a Subject: curiosity in children, attention span of children at middle stage, emotion and motivation, cognitive learning, biological and developmental perspectives of learning, self-directed and lifelong learning, role of parents, society and school in learning, psycho social development, moral development.
- C. Role of a Teacher in Facilitating Learning the Concepts of the Subject: teacher versus facilitator, attributes of a good facilitator, strategies for effective facilitation in learning.

UNIT – II: Innovative Practices

- A. Meaning, need, importance and scope of Innovative Practices: Innovative practices what, why, where, and how.
- B. Qualities of an Innovative Teacher in the context of National Professional Standards for Teachers (NPST) and National Mentoring Mission (NMM): Four Career Stages in NPST, Professional Attributes of a Science Teacher at the Middle Stage, Professional Competence for Teaching Science, Professional Ethics, Attributes of a Mentor, Attributes of Mentees, Mentor-Mentee Relationship, Processes of Mentoring
- C. Effective Communication with Special Reference to the language to be used in the classroom in multilingual context: components of communication, types of communication, communication theory, barriers in communication, basic communication skills, techniques to develop communication skills, role of language in communication, advantages of being a multilingual, home language and communication, other language and communication, advantages of a multilingual classroom, effective strategies to handle a multilingual classroom/situation

UNIT – III: Continuous Professional Development of Teachers

- A. Meaning and need, professional and ethical competencies and need for updating content and pedagogical competencies, in-service courses available for subject teachers to develop their professional competencies: online and offline.
- B. Professional Development Activities: seminars, conferences, orientation programmes, workshops, online and offline courses, teacher exchange programmes, competitions, publications, development of teaching portfolio, capacity building programmes, participation in academic dialogue and discussion at the workplace, sharing of experiences with neighboring schools.
- C. Developing Professional Competencies in dealing with gender issues, equity and inclusion, ethical issues, environmental issues, human health, population, human rights, and various issues (emotional, mental, and physical issues related to the pandemic (for example COVID-19), respect, care and protection of children, parent teacher meet, school community interface, school.
- D. Action Research, methodical observation, reflection and evidence-based thinking and practice, importance of self-directed professional development.
- E. Teacher Leadership: using transformative pedagogical practices, leading from the front and behind in thinking as well as application.

Practicum:

- 1. Visit to a nearby village/mohalla/field/pond/ and prepare an observation note, sharing and discussion on the note.
- 2. Hands-on activities, simple experiments in science using locally available resources, simple Science project in group.
- 3. Development of kitchen garden, plantation, and Care.
- 4. Participation in waste management.
- 5. Participation in Science fair, exhibition, quiz, debate, and essay competition.

Mode of Transaction:

Integrated and Multidisciplinary Approach, Inquiry-based learning-teaching, Adaptive Exercises, Cooperative Learning, Project-based Method, Small and Large Group Discussion, Dialogue questioning-feedback-sharing criteria-peer and self-assessment, learning how to learn through assessment for learning, Demonstration, Assignments, Field Experience/Community Work, Case Studies, Survey, Debate, E-content presentation and discussion, Readings, Journaling.

Mode of Assessment:

Assessment for learning/formative assessment, assessment of learning, self-assessment, peer assessment, activity-based, performance-based, assignments and written tests.

References:

1. National Curriculum Framework for School Education, 2023
2. National Education Policy 2020, MoE, Government of India

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

4. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 4.1 MATHEMATICAL & QUANTITATIVE REASONING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B. Sc B.Ed (Mathematics)	AE&VAC-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- adapt mathematical reasoning to solve problems in the real world and explain some fundamental ideas and tenets in this field,
- analyze and interpret quantitative data,
- interpret & deduce the right conclusions from numerical representations like formulas, graphs, or tables,
- demonstrate critical thinking and problem-solving skills using mathematical and quantitative reasoning methods,
- evaluate operational matrix,
- analyze educational data and create educational model & use them in decision making,
- analyze and evaluate mathematical and quantitative reasoning problems and solutions.

UNIT - I

Introduction to mathematical and quantitative reasoning

- A. Meaning, nature and scope of mathematical and quantitative reasoning.
- B. Importance of mathematical and quantitative reasoning in various fields.
- C. Types of quantitative reasoning.
- D. Usage of mathematical and quantitative reasoning.
- E. Concept of mathematization.

UNIT – II

Introduction to data in Education

- A. Data requirement, different sources of data
- B. School enrolment: gross enrolment ratios, net enrolment ratios, educational progression: dropout rate, literacy: measures of literacy

- C. Indian censuses, details of different items on which Indian censuses collect data.
- D. Nationwide sample surveys, National family health survey, District level household survey, UDISE

UNIT - III

Data Analysis & Interpretation

- A. Concept of data interpretation (equation, diagram, graph, tables)
- B. Statistical analysis of data in educational context and its applications (measures of central tendency, measures of variability, percentile)
- C. Visual and numerical representation of data and its application (bar diagram, histogram, pie charts)
- D. Learning analytics: concept, significance, types, levels, and its applications in educational context.

Practicum:

1. Take last 5 years of UDISE data and analyze various indicators related to schools, teachers, and students.

Mode of Transaction:

The approaches to curriculum transaction will focus on developing the analytical and critical thinking skills of students, as well as their ability to apply mathematical and quantitative reasoning in real-life situations. Some of the approaches to curriculum transaction will include the following:

- Active Learning which involves active participation of student teachers in problem-solving situations, group discussions, and hands-on activities that help student teachers engage with the material and apply mathematical thinking and reasoning to solve problems.
- Real-World Applications involving the use of real-world examples to demonstrate the practical applications of mathematical concepts that help student teachers see the relevance of what they are learning and how it can be applied in various fields.
- Collaborative learning encourages student teachers to work together in small groups, where they can share ideas and help each other learn. This fosters a sense of community in the classroom and helps students develop teamwork and communication skills.
- Technology Integration involves the incorporation of technology tools such as calculators, spreadsheets, and interactive software to help student teachers visualize and solve mathematical problems more easily.

- Overall, a pedagogy that combines active learning, real-world applications, collaborative learning, technology integration, and effective assessment strategies that help student teachers develop a strong foundation in mathematical and quantitative reasoning.

Mode of Assessment:

Use of a variety of assessment methods such as quizzes, exams, group projects, and presentations to evaluate student learning. Providing timely feedback and offering opportunities for students to revise their work and improve their understanding.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Abramovich. S., & Freiman, V. (2022). Fostering collateral creativity in school mathematics: Paying attention to students' emerging ideas in the age of technology. *Mathematics Education in the Digital Era*. Springer Cham. <https://doi.org/10.1007/978-3-031-40639-3>
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6. Education for All in India (n.d.). Analysing the education landscape in India: School numbers, enrolment distribution (2023). <https://educationforallinindia.com/education-landscape-india-until-2021-22/>

7. Education for All in India (n.d.). Dropout rates in schools in India: An analysis of UDISE+ 2021-22 Data. <https://educationforallinindia.com/dropout-rates-in-schools-in-india/>
8. Educational Testing Service. (2010). Introduction to the quantitative measure. Graduate Record Examination. United States.
9. International Institute for Population Sciences & ICF(2022). National Family Health Survey (NFHS-5), 2019-21: India
10. Johnson, B.. & Christensen. L. (2017). Educational research: Quantitative. qualitative, and mixed approaches. (6th ed.). Sage.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

5. School Experience- (SE)

Course Title: 5.1 SCHOOL OBSERVATION (FIELD PRACTICE)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Mathematics)	SE-1	Practical	2	20	30	50

Course Outcomes:

Student teachers will be able to:

- Describe various schooling systems,
- Describe the processes, practices, and overall environment of the school,
- Establish rapport with the stakeholders of the school system state the process of conducting different activities in the school,
- Describe the available school infrastructure (classrooms, libraries, laboratories, playground, sanitation, drinking water facility, mid-day meal facility, inclusive facilities, safety and security, rainwater harvesting),
- Describe the availability and usage of ICT and TLMs,
- Summarize the available documents in both physical and digital modes, including UDISE data,
- Reflect upon relationships among the stakeholders,
- Analyze various assessment processes adopted in different types of schools,
- Prepare and present a comprehensive profile of the schools observed (including classroom processes).

Mode of Transaction:

- Observation
- Interaction
- Discussion
- Reviewing the available literature on the different schooling system
- Collection of relevant documents and data

Preparation for school observation:

- Orientation on the school observation process
- Development of the observation formats/tools

School Observation (minimum three types of schools):

- Student teachers will go for school observation in small groups to observe and collect data by using the developed formats/tools.
- Analysis of the collected data
- Preparing a comprehensive profile of the schools observed

Post-school observation session:

- Group-wise presentation of the school profile
- Discussion and Feedback
- Reflection on the understanding of various types of schooling systems.

Content:

The school observation as a field-based activity will cover observation of school and classroom processes. The student teachers under the mentorship of teacher educators will visit schools, interact with teachers and students and other stakeholders, and relate the observation with the courses studied during the previous semesters, i.e. Foundations of Education, Disciplinary Courses, Pedagogy courses and Ability Enhancement & Value-Added Courses.

- Meaning and Nature of school observation process
- Difference between monitoring and observation
- Theory and practices of school observation components such as:
 1. Schooling system
 2. Rapport with all the stakeholders
 3. Office management procedures of different types of schools
 4. School environment in all perspectives
 5. Process of conducting curricular activities in the schooling process
 6. Existing infrastructure available in the school
 7. Utility of ICT and TLM facilities
 8. Interpersonal relationships among the stakeholders
 9. Various assessment processes adopted in different types of schools.
 10. Engagement of parents and other community members in school activities.

Activities:

- Visit three types of middle schools with observation formats developed in the institute and get acquainted with various schooling systems. Establish rapport with all stakeholders.
- Collect information about the demography of students in classes VI to VIII and understand the linkage of the middle stage with the secondary and preparatory stages through interaction with teachers, students, and staff.
- Observe school processes and curriculum transactions through experiential learning and prepare a report.
- Interact with teachers and students and report on implementing ten bag-less days and skill development courses.
- Reflect on effective classroom teaching learning strategies.
- Observe integration of IKS, values, local resources in teaching learning process
- Observe practice and assessment of vocational education in the school.
- Observe the availability and usage of library resources, laboratories (General Science, Mathematics, Languages, Social Science, Computer), sports facilities, and art and music learning facilities.
- Study the provision of other student support services- guidance and counselling, scouts and guides, and health and wellness programme.

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Involvement and active participation during the school visit	Observations	Teacher Educator	0.5
Comprehensive school profile	Presentation & reflection	Teacher- Educator	1.5

Components for school observation report:

- School information (Context, Vision and Mission, Association with the Board)
- School Infrastructure
- Provision for CWSN/Divyang Children
- Inclusiveness at all levels

- Teacher-Student Ratio
- Teaching-Learning process
 - Academic plan
 - Classroom Activities
 - Assessment
- School Development Plan (SDP)
- Academic Calendar
- Administrative processes
 - Maintenance of students records
 - Maintenance of teachers records
- Cultural activities
- Sports activities
- Annual Day
- National and Social functions
- School Management
- School Discipline
- Interpersonal Relationships
- Understanding different types (socio-economic status, ability) of students and their needs
- Development of ICT and TLMs Engagement of parents and community members in the school activity
- Office Management
- The assessment process includes provision and practices for 360-degree holistic assessment.
- The overall progress of the school (planning, organizing, staffing, directing, motivating and controlling)
- Challenges faced and overcoming them.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

VII Semester

ITEP B.Sc. B.Ed Mathematics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Perspectives On School Leadership & Management	2	20	30	50
2	FCE-2	Curriculum Planning Development (Textbook & material Development)	2	20	30	50
Ability Enhancement & Value-Added Course- AE&VAC						
3	AE&VAC-1	A. Art Education (Performing & visual) and Creative Expressions- 1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making	2	20	30	50
4	AE&VAC-2	Sports, Nutrition & Fitness	2	20	30	50
School Experience- SE						
5	SE-1	School-Based Research Projects	2	20	30	50
6	SE-2	Internship in Teaching	10	100	150	250
Total Credits			20	200	300	500

VII Semester

ITEP B.Sc. B.Ed Mathematics

SYLLABUS

S.NO.	Type of Course	Course Code	Course Title
1	Foundation Course of Education- FCE		1.1 Perspectives on School Leadership & Management
			1.2 Curriculum Planning Development (Textbook & Material Development)
2	Ability Enhancement & Value-Added Courses- AE&VAC		2.1 A. Art Education (Performing & visual) and Creative Expressions-1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2.Theatre OR C. Art Education (Performing & visual) and Creative Expressions-3. Collage-Making
			2.2 Sports, Nutrition & Fitness
3	School Experience- SE		3.1 School-Based Research Projects
			3.2 Internship in Teaching

1. Foundation Course of Education- (FCE)

Course Title: 1.1 PERSPECTIVES ON SCHOOL LEADERSHIP & MANAGEMENT							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	BSc. B.Ed. (Mathematics)	FCE-1	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- describe the diversity of schools in India, its structure, its governance, issues, challenges, and school leadership needs,
- critically examine the different leadership theories and practices and its relationship with the governance structures, the autonomy and accountability mechanisms and the larger educational policy context,
- critically think in relation to education leadership and its potential application to different contexts,
- reflect critically on school-based data for reflection and improvement,
- develop a culture of cooperation collaboration and teamwork,
- synthesize effectively to develop coherent and compelling arguments in the area of study,
- develop school vision, mission, goals, and School Development Plans.

UNIT - I

Understanding Indian School System

- A. School as a normative organization vis-a-vis school as a socio-emotional-cultural space for learning.
- B. Studying the diversity of schools in India; their structure, governance, socio-political and cultural context, funding, management, autonomy and accountability mechanisms, support systems.
- C. Relationship between school leadership and school diversity issues, challenges, and needs.
- D. Engagement with diversity discourses, educational policies, reforms and practices and role in developing inclusive schools.

UNIT - II

Understanding School Leadership

- A. School Leadership: concept as defined, and concept as practiced.
- B. Being a School Leader: exploring the multiple roles and responsibilities, issues and challenges of school leadership in the Indian context.
- C. What works in schools: sharing National and International best practices on School leadership.

UNIT - III

Schools as Learning Organizations: Role of School Leadership

- A. Schools as motivating learning spaces: Developing inspiring school ethos.
- B. Schools as learning organization: promoting personal mastery, examining mental models, and developing a shared vision, team learning and a system's thinking perspective.
- C. Development of a shared vision and shaping of the school culture.
- D. Use of data for school improvement focused on students' learning, addressing equity challenges, and building an equitable school culture that promotes excellence for all.
- E. Nurturing school belongingness: engaging students, teachers, staff, parents, SMC, and community in the formulation of a whole school development plan.
- F. Designing professional and collaborative learning opportunities for self and others (teachers, parents, and SMC members) and improving teaching and learning.

Mode of Transaction:

Perspectives on school leadership and management is a practitioner-centric course and aims to enable future teachers to be efficient school leaders. The approach to curriculum transaction therefore would include a blend of lectures, tutorials, group-work, case-based approaches, and enquiry-based learning.

- Student teachers would engage in case-based learning on topics like improving student learning, classroom observation and feedback, planning and budgeting for school improvement, leadership in diversified school contexts and such others.
- Exposure of student teachers to virtual case studies featuring leaders from a representative cross-section of Schools in India and analyze their experiences, insights, and best practices.
- Learning activities that help student teachers to understand the entire structure and functioning of school organization through interactive lectures and panel discussion with education officers who hold leadership positions at different levels from schools to cluster,

block, and district and state levels and understand their leadership issues, challenges and needs and thus get a perspective of the school ecosystem.

- Learners would reflect on their practice as pre-service interns, knowledge, skills, and understandings—and identify opportunities to apply course learnings to their school context.

Mode of Assessment:

Being a practitioner centric course, the assessment would largely include application-based tasks. This includes exploring the work and life of a school principal and writing a detailed report on the observations and the learning.

The following are some exemplars. The institutes may choose either of these or think of other innovative assignment that would enhance the leadership learning experience:

- Preparing school vision, mission, goals, and school development plan.
- Shadowing school principals: a critical observation of the principal's daily work life.
- A critical examination of the diversity of schools; their governance structure, leadership, autonomy and accountability mechanisms, issues and challenges and work life of the school principal

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

- A Handbook on School Leadership Development (2014). NUEPA, New Delhi.
- Ajayi, I.A (2007). Issues in School Management. Lagos: Bolabay publishers.
- Altrichter. H. and Elliot, J. (2000) Images of Educational Change. Buckingham Open University.
- Baldrige, J. V. (1978). Policy making and effective Leadership. San Francisco: Jossey Bass.
- Bush. T., Bell. L., Bolam. R., Glatte, R. and Robbins, P. (1999). Educational Management. London: Paul Chapman Publishing Ltd.
- Diwan, Rashmi. (2013). Educational Leadership: A Conceptual Framework (NUEPA).
- Diwan. Rashmi and Panda, B.K. (2013). Guiding through the preparation of School Development Plan: A handbook for school heads. (NUEPA).

- Mukherji. S.N. (1970) Administration of Educational Planning and Finance, (Theory and Practices) Baroda: Acharya Book Depot.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.2 CURRICULUM PLANNING DEVELOPMENT (TEXTBOOK & MATERIAL DEVELOPMENT)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	BSc. B.Ed. (Mathematics)	FCE-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- discuss aims of education,
- identify and formulate of desirable values and dispositions,
- explain capacities and knowledge,
- outline curricular areas,
- demonstrate teaching-learning assessment processes and
- practice the relevance in terms of achieving the aims of school education.

UNIT - I

Education and Curriculum

- Meaning, need, relationship and significance.
- Types of Curriculums: subject-centered, activity-centered, environmental centered, community-centered
- Relationship and difference between curriculum, curriculum framework, syllabus and textbooks.

UNIT – II

Developing the Curriculum

- Basic principles of Curriculum Development
- Concerns for developing the Curriculum - aims to be achieved, structure and nature of discipline, different perspectives on learning and their implications to curriculum development, socio-cultural aspects and aspirations of society, value transitions, social efficiency and needs, environmental concerns, gender concerns, inclusiveness, technological advancement.
- Impact of Globalization.

UNIT - III

Approaches, Planning, and Implementation

- A. Approaches to Curriculum Development: Learner and activity centered, Constructivist, Knowledge Construction
- B. Curriculum planning as a cyclic process.
- C. Curriculum Implementation: Operationalizing curriculum into learning situations, Converting curriculum into syllabus, Curriculum engagement activities, Role of school at Regional, State and National level for implementation.
- D. Role of teachers in operationalizing and evaluating the curriculum with special reference to: textbooks and teachers handbooks, source books, workbooks and manuals, other learning material such as kits, AV and software materials, library, laboratory, playground, neighborhood etc.

Practicum:

1. Arranging discussion on:
 - Basis of National curriculum frame works (1975, 1988, 2000, and 2005).
 - Document: Learning without burden” by Prof. Yashpal
2. Preparing of Report based on observation of:
 - Facilities and infrastructure to implement the present curriculum.
3. Interviewing teachers to understand their role in:
 - Implementing and assessment of the curriculum.
4. Analysis of the following in the context of principles of developing the Curriculum:
 - Guidelines of NEP, 2020.
 - Curriculum of 4 Years B.Ed. Integrated Programme
 - Learning without Burden, MHRD, and India.
 - Position paper (2006). National Focus Group on ‘Curriculum, Syllabus, Textbooks’, NCERT.
 - NCERT (1988) National Curriculum for Elementary and Secondary Education: A framework.
 - NCERT (2000) National Curriculum Framework for school Education.
 - NCERT (2005) National Curriculum Framework. NCERT publications.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

- The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

1. Apple. M.W. (199). The Politics of Curriculum and Teaching. NASSP Bulletin 75(532), 39-50.
2. Beauchamp, G (1982) Curriculum Theory: Meaning, Development & Use. Theory Into Practice, 21, 1. 23-28.
3. Connelly. F. M.. and Clendenin, D. J. (1988). Teachers as Curriculum Planners: Narratives of Experience. NY: Teachers College Press.
4. Marsh, C.J. (2009). Key Concepts for Understanding Curriculum. T aylor and Francis.
5. Marsh. C.J. & Willis. G. (2007). Curriculum: Alternative Approaches, Ongoing Issues (4th Ed.). Upper Saddle River. NJ: Prentice Hall.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

2. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 2.1 A. ART EDUCATION (PERFORMING & VISUAL) AND CREATIVE EXPRESSIONS-1. PUPPETRY							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	BSc. B.Ed. (Mathematics)	AE&VAC-1	Theory	2	20	30	50

Puppetry:

Puppetry is an integrated art form, which takes into its fold everything from fine arts to performance. Puppetry is one of the oldest forms of performing art. Puppetry has evolved over the years into a sophisticated form of art. The journey was very interesting with a lot of ups and downs. There are thousands of forms of puppetry from simple finger puppets to highly complex puppets played by more than 3 people. Each country has a puppet form, why country, each area in a country has a puppet form. Hence, in India you will find many, many forms of puppetry. In puppetry there are two main aspects. One the designing and creating of puppets and the other playing or performing puppetry. These two skills are different. Designing will need a lot of thinking, visualization, and technical skills while performance will need high level communication skills. Hence, together they make a consolidated a high range of skills. In this course, students are exposed to different forms of puppets and puppetry. There will be a discussion around the forms and the aesthetic sense of puppetry. Later the students are encouraged to prepare, design and create puppets. They then prepare script and play the puppets. This creation of the puppets together in small groups with a lot of discussions and give and take helps the students develop working together skills and conceptual understanding.

Course Outcomes:

After completion of this course, student teachers will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of puppetry,
- design puppets,
- practice and create a short puppetry show.

UNIT – I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT – II

Designing Puppets (6 Sessions)

In this unit, students will learn about puppetry, its history and specifically about how puppets work. This unit will also discuss the imagination required to design puppets, visualize how puppets will be used and the technicalities of designing puppets. These will be learnt by designing puppets. Students will start with constructing finger puppets and move towards small shapes through papers, like Fish, birds, rat - then they will design masks, flat masks, and masks with dimensions. At the end they will design puppets with old newspaper. The puppets are designed with old newspapers and colour papers. They decorate it and design it in such a way that it can be played, performed. They prepare costumes and all other accessories.

UNIT – III

Performing the puppets (4 Sessions)

This unit will engage in performance of puppetry and the level of communication skills required to create a good engaging story and perform it with the help of puppets they have created. The performance will be expected to relate to some activity in the educational context. Students will perform the puppets they have designed. Initially each member will play their own puppets. Later they will play in pairs, later they will be formed into a small group and asked to prepare their own skits with the puppets. They conclude by performing in small groups. Their learning is consolidated and reflected.

Discussion is held on how different aspects of puppet making can be incorporated in class room processes of young children. Adapting the individual and group exercises done during the puppetry course will be discussed to be used in the classroom situation.

Pedagogy:

The Pedagogy is basically hand-on training. More emphasis is given to experiential learning. They do things and through doing learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colors, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms

Week wise break up of sessions			
Sl. no	Topics	Session flow	Remarks
	Aesthetics and art, art in everyday life.	Based on their experience	
	Importance of art. Appreciation of art.	Discussion	
	Art for art's sake. Art with social responsibility. art for social change	Debate	
	The world of puppetry. Different forms of puppetry.	Presentations	
	History of puppetry	Lecture	
	Preparation- finger puppets	Hands on	
	Preparation of masks	Hands on	
	Preparing puppets	Hands on	
	Performing individually	Practice	
	Performing in pairs	Practice	
	Performing in groups – 3, 4, 5.	Practice	
	Assignments	Written.	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.1 B. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 2. THEATRE Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	BSc. B.Ed. (Mathematics)	AE&VAC-1	Theory	2	20	30	50

Theatre:

Theatre is a collaborative art form, and it is inherently interdisciplinary in its nature. It comprises many facets and skills like acting, directing, writing, designing the sets and costumes, make-up, production, lights, sounds and music. All these elements and skill sets come together and are stitched in the form of a ‘play’ which is performed live, in front of an audience. In the Indian context, theatre has a deep-rooted history with its classical, folk, and other cultural forms until other contemporary forms of theatre evolved in recent times.

Theatre education for children can play a vital role in their individual, social, and emotional development. It teaches them the values of trust and interdependence, makes them confident to express themselves and helps them learn to work in a collaborative environment. It develops their ability to contextualise, critique and discuss certain questions and thoughts they encounter in everyday life. It further helps them imagine, explore, and create their own narratives.

In this course, we will briefly talk about the aesthetics of theatre and how theatre exists in different forms. The students will learn some basic theatre tools that will help them create and perform a narrative they collaboratively arrive at.

In simple terms one can say theatre has two major aspects i.e., creating the script and then performing it. Body is the primary instrument in any theatrical performance accompanied by text, material, visual and sound. This course will introduce students to these aspects of any theatre performance, in the form of direct experience by doing this themselves.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of theatre,
- learn basic theatre tools of improvisation, ideation, and creation of a script,
- create a short performance with educational possibilities.

UNIT - I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT - II

Introduction to Theatre, and Beginning with the body (3 Sessions)

We will discuss some core essentials in the aesthetics of theatre like the performance, the makers, the audience, and the context and how we relate this to the world around us, in everyday lives. In this unit, we will discuss examples of how theatre was used in social movements that have contributed to educating the larger population about important social issues. Additionally, we will also learn from practices and approaches of theatre groups like Budhan Theatre who work with denotified tribes, and Manalmagudi who work closely with physical nonverbal theatre. Exposing students to these approaches will lead to rich discussions on the role of theatre in pedagogy and practice.

In this unit, students will learn certain principles and awareness on how to use their body and voice in a given space and time, with respect to other bodies. There will be several games, exercises that will familiarise them with certain basics of movement, voice, acting and thereby create improvisations and images in a given context. The activities and tasks will be both in individuals and groups.

UNIT - III

Arriving at a script (3 Sessions)

We will engage in some theatre making processes to arrive at a script by the end of this unit. How to adapt or devise a script with actors? How can we borrow from everyday experiences of memory, sound and visuals, without a written text or spoken word? Plays, stories, poems, newspapers articles, will be shared to read, reflect, analyse, and re-create like “Why, why Girl” by Mahashweta Devi, “Ratna Pakshi” by K Ramaiah, “Beyond the land of Hattamala and Scandal in Fairyland” by Baadal Sircar, and songs of Kabir etc. The texts chosen will have a direct relation with topics from social studies, moral and political education.

Students will use their skills of improvisation they learned in Unit 2 to explore, ideate, create, and finally arrive at a script. What kind of stories, narratives, and characters they choose to perform will lead back to the discussion of aesthetics. Students will mostly work in groups to choose or create a text, concept, or an idea which

they want to perform. Students will be encouraged to use their perspectives on the education system, in converting the text into a script.

UNIT - IV

Performing the script

This unit will engage in the actual making of the final piece they choose to make. Students will have to visualise the final text on stage and start rehearsing in their groups. Apart from using their bodies to play characters, the students will also have to think about design and other aesthetic elements like sets, props, costumes, lights, music and sounds they want to use in the performance.

Students will have to practice beyond the six classes as the class time will be utilised to discuss and provide feedback as the work progresses. The last two classes in this unit will be utilised for the final rehearsals and assessments. The final performance will take place in front of a small audience followed by a brief post-performance discussion. Students will engage in discussing and reflecting on the views, questions and comments shared by the audience.

Pedagogy:

The pedagogy is basically hands-on training. More emphasis is given to experiential learning. They do things and through doing, they learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colours, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

Week wise break up of sessions		
Week	Topics	Session flow
1	UNIT - I: Aesthetics and art, art in everyday life. Importance of art. Appreciation of art	Based on their experience
2	Art for art's sake. Art with social responsibility. Art for social change	Discussion
3	UNIT II: Aesthetics of Theatre	Discussion
4	Body work - Individual and group	Hands on
5	Body work – Improvisation	Hands on
6	UNIT - III: Adaptation of texts. Aesthetic choices.	Hands on, Discussion
7	Story making and devising	Hands on
8	Arriving at a text	Hands on
9	UNIT - IV: Visualizing the final piece. Thinking about design and aesthetic elements	Hands on, Discussion
10	Rehearsals and feedback	Hands on
11	Rehearsals and feedback	Hands on
12	Final rehearsals and assessment	
13	Final rehearsals and assessment	
14	Performance and audience discussion	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.1 C. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 3. COLLAGE-MAKING Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	BSc. B.Ed. (Mathematics)	AE&VAC-1	Theory	2	20	30	50

Collage:

Collage as visual art medium A major aspect of collage, and one that is sometimes overlooked, is the incredibly diverse array of materials and objects that can be used. Collecting interesting materials is an ongoing activity for artists and for those who teach collage. But it is just as important for young people to hunt for and make decisions about materials they would like to incorporate into their work. All materials, and the alterations that artists make to them, are suggestive of ideas and concepts based on their surfaces, forms, textures, degree of transparency and opacity, colour, and other visual characteristics. Materials also connect us, through association and reference, to social and cultural worlds and places. What ideas might a scrap of newspaper, as a collage material, express? How might these meanings differ from those of, say, feathers? Or twigs? Or a thin piece of plastic cut out from a plastic bag?

Working with and creating artwork in Collage involves various aspects: selecting materials, manipulating materials, investigating materiality, closely observing materials, discovering possibilities, composing, designing the artwork, planning, finding solutions, applying solutions, thinking flexibly, decision-making, research, using imagination, expressing, taking creative risks, develop perseverance, and much more. Students will also be introduced to various aspects of art in education: The value of art and artmaking by itself, art's use as an instrument in education, social and moral dimensions of art, and the controversial perceptions around good art and bad art.

This course aims for students to understand the importance of aesthetics and art in education, the role art can play in education, and mainly to appreciate, understand and gain skills with the medium of collage and its techniques.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance and the role of aesthetics and art in education.
- understand the medium of collage and its versatility.
- design, plan, and create an expressive self-portrait collage by applying a variety of collage techniques.
- design and set up an interactive visual art exhibition to display their artworks.
- understand and appreciate art-based learning experiences.
- develop the ability to reflect and challenge their assumptions and beliefs around art and develop new understandings.

UNIT – I

Understand the importance of Aesthetics and Art in Education (2 Sessions)

Students will be introduced to Aesthetics and Arts by engaging in experiences, discussions, and dialogues. Students will experience a session of ‘Visual thinking strategy’ (VTS) activity in which students will collectively view and engage in a series of artworks closely, share their observations, critically analyze their observations, listen to multiple perspectives from peers, suspend judgements, and draw their own understanding of the artwork. Students will recognize aesthetic and un-aesthetic experiences through compare and contrast. Through this activity and unpacking of the experience, students will start making connections and develop understandings around what aesthetics mean, aesthetic aspects of daily life, develop aesthetic judgment, and how arts evoke emotion and awaken.

UNIT – II

Exploring paper collage and its techniques (4 Sessions)

Students will be introduced to the medium of collage and open their minds to the possibilities within this medium. Students will view and discuss examples of collage artworks, artist process and artist interview videos. Students will get a chance to compare and contrast various ways collage as a medium is used. Students will reflect upon their own past art educational experiences and observations and engage in dialogue and discussions. Students will analyze effective and ineffective ways of using the medium of collage in educational and other settings.

Through inquiry-based participatory demonstrations, students will investigate and discover a variety of ways to manipulate paper and create individual and unique two-dimensional compositions in the medium of paper Collage. They will understand and learn the techniques, artistic terminologies of the collage medium. Students

will reflect on their experience and engage in facilitated discussions to deepen their understanding on the role of art medium exploration and how it can foster various learning skills.

Students then use their knowledge and experience from the previous sessions and explore collage as a medium further. Students will investigate, discover, and learn to create visual textures, physical textures, and create their own unique patterns. They will understand the difference between textures and patterns. Students will use a variety of techniques to create unique textures and patterns, analyze their findings, give each other feedback, work in groups to problem solve, etc. They will understand how art medium explorations can be used as a pedagogical tool in learning environments. Students will bring in various materials found around them like different kinds of paper, paper-based materials, natural materials, fabric, and explore these materials and use them as materials to create collage compositions.

Students will explore a wide range of techniques and discover their own ways to manipulate these found materials to create interesting textures and patterns. Students will work in groups, problem solve, investigate, develop solutions on their own, and share their findings with each other. Through discussions, students will reflect upon this exploration experience and understand how art making processes can develop skills and abilities in a learner.

UNIT - III

Ideating for an Expressive Self-Portrait (2 Sessions)

In this session students will further explore and discover possibilities in Collage as a medium. Students will learn a variety of ways to make paper stands and create interesting paper sculpture compositions using 3D techniques. Students will draw from their previous experiences of using paper for 2D explorations and add more interest to their unique 3D explorations. Students will share their findings with peers and widen their understanding about the possibilities.

Students will reflect on all the material exploration sessions thus far and participate in a facilitated dialogue around art making and education. Students will engage in a close observation sketching and drawing activity. Through a guided process, students will create a well observed self-portrait drawing. Students will engage in discussions and dialogue to unpack the self-portrait drawing experience, the learnings, discoveries, challenges and more. Through this activity students will also be able to challenge assumptions around talent and artmaking.

UNIT - IV

Creation of an Expressive Self-Portrait Collage (3 Sessions)

Students will engage in a step-by-step process involving sketching, ideating, planning, applying their discoveries of using paper as a collage material, and finally create a large expressive self-portrait using the medium of paper collage. Throughout the process students will problem-solve, critically think, push their imagination, find multiple solutions, make independent decisions, receive and give peer feedback, use resources effectively, draw from their own experiences, apply their learnings into creating this unique and expressive self-portrait piece.

UNIT - V

Designing and setting up an Exhibition (2 Sessions and Exhibition Day)

Students will collectively start designing and planning for the exhibition to put up their artworks for a general audience to view and engage with. Students will be planning the various aspects of a visual art exhibition: ways to display artworks, designing the layout of the exhibition space and how the audience will move within the space, design invitations, ways that the audience can engage with the artworks, various ways the artists can talk about their artmaking, and more. Students will divide the tasks among themselves, take on the various roles required, and set up the exhibition space.

Pedagogy:

- Students will engage in hands-on art making activities.
- Students will engage in discussions and dialogues with peers.
- Students will engage in giving and receiving peer feedback.
- Students will continually reflect on their learning through journaling.
- Students will work independently and collaboratively throughout the course.
- Students will receive reference materials and resources to broaden and deepen their understanding.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

References:

1. Works of Deborah Roberts, William Kentridge, Wangechi Mutu, etc
2. Marc, Cut paper collage artist - <https://www.youtube.com/watch?v=WgRZlWl-Oh0>
3. G. Subramanian: Collage art - <https://www.youtube.com/watch?v=ioRRi9R46a0>

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.2 SPORTS, NUTRITION & FITNESS							
Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.Sc. B.Ed. (Mathematics)	AE&VAC-2	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- explain the importance of sports, and the need and impact of sport for maintaining,
- discuss physical fitness, and the methods of teaching and organization of different types of sports,
- explain the importance of physical fitness, describe different components of physical fitness, and identify activities that help maintain physical fitness,
- Recognize the importance of basic health and nutrition and healthy lifestyles and identify food items that help maintain basic health and nutrition among children of different age groups.

UNIT - I

Sports

- Meaning of sports, importance of sports, types of sports.
- Different stages of sports (primary and secondary).
- Psychology of sports, methods of teaching different sports (indoor, outdoor, team and individual), different sports activities (individual and team games).
- Sports for children with disabilities and inclusion.

UNIT - II

Physical Fitness

- Meaning and importance of Physical fitness, components of physical fitness, Muscular Strength, Endurance, Flexibility, Body Composition, Cardiovascular Endurance, importance of healthy lifestyle.
- Coordination of Health and Fitness

UNIT – III

Nutrition

- A. Meaning of nutrition, types of nutrition, importance of nutrition, need of nutrition, methods for teaching nutrition,
- B. Nutrition for different age groups, nutritious food for sports personalities and common individuals, nutrition and health, nutrition and fitness, nutritious food in schools (midday meals), hostels.

Practicum:

Reflective Reading of different Sports Personalities. Collections of different types of games (Indoor, Outdoor, Individual, Team); Organizing different games (Play) for different age-groups, Organizing Group Games for cooperation, Organizing fitness programmes, Exercises at various levels. Collection of different nutritious items food. (Charts, Things, Objects, Models). Programmes organized to promote the use of nutritious food.

Mode of Transaction:

The mode of transaction should be designed to ensure that should provide a balance between theoretical knowledge and practical skills. The approaches to curriculum transaction may include the following:

- Active learning encourages student teachers to participate in discussions, brainstorming sessions, and problem-solving activities that help them develop critical thinking and problem-solving skills.
- Collaborative learning involves group projects and tasks that encourage student teachers to work collaboratively and learn from each other.

Mode of Assessment:

Assessment of theoretical aspects and Practicum.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. Agashe, S.R. (2013). Introduction to health education. New Delhi, India: Khel Sahitya Kedra.
2. Agashe, S.R. (2013). Introduction to physical education, fitness & sports. New Delhi, India: Khel Sahitya Kedra.
3. Chelladurai. P. (2001). Managing organizations for sport and physical activity: A systems perspective. Scottsdale, Ariz.: Holcomb Hathaway Publishers.
4. Gupta, M.C. (2012). Physical fitness and health. New Delhi, India: Khel Sahitya Kedra.
Human Kinetics (2012). Introduction to recreation and leisure (2nd Ed). Champaign, IL: Human Kinetics.
5. Jackson, A.W. (2003). Physical activity for health and fitness. Champaign, : Human Kinetics.
6. Kilander, H.E. (1971). School health education. New York McMillan Company. Mudambi. S. R. and Rajagopal. M. V. (2001). Fundamentals of foods and nutrition. New Age International Private L.td. New Delhi.
7. Navdeve. B.K. (2013) Health education and recreation in physical education. New Delhi. India: Khel Sahitya Kendra.
8. NCERT (2016). Text book of home science (Human Ecology and Family Science). Textbook for Class XI and XII. NCERT. New Delhi.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.1 SCHOOL BASED RESEARCH PROJECTS							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	BSc. B.Ed. (Mathematics)	SE-1	Practical	2	20	30	50

Course Outcomes:

At the end of the course the student teachers will:

- present contextual problems, an appropriate research design and the plan of action for undertaking school-based research,
- demonstrate the tools and techniques used for the collection of relevant data,
- summarize the analyze data used to identify the causes,
- demonstrate the interventions used for addressing the problems,
- present the effectiveness of the intervention(s),
- share school-based research experiences through reports and presentation.

Mode of Transaction:

The following strategies will be used during the school-based research project:

- Discussions with teacher educator, school head, mentors, and peers for identification of problem and development of intervention(s).
- Finalize the school-based research project proposal outline through discussion with mentor teachers/teacher educators.
- Document analysis, interaction with all stakeholders, and field visits.
- Sharing and presentation of the outcomes of school-based research.

Content:

The student teachers during previous semesters have studied different courses in Foundations of Education, Disciplinary Courses, Stage-specific pedagogy courses, Ability Enhancement and Value-Added Courses. The required knowledge of action research and case study includes- the concept and importance of action research/case study, the steps of conducting action research/case study (objectives, methods, research design, design tools, data

collection, and data analysis) and report writing. The research problem will be taken from the day-to-day teaching-learning process of the school. Some of the significant areas may cover:

- Learning progress and outcomes in different subjects
- School-based assessment
- Learners' diversity and inclusion
- Participation in arts, games, sports

Mode of Assessment:

The assessment of the school-based research project will be continuous. The teacher educators, as well as mentors, will be involved in the assessment of the activities. The following rating scale may be used to assess the student teachers:

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Observation during the execution of action research	Observations	Teacher Educator	0.5
Research Report	Presentation of Report	Teacher-Educators (panel of three experts)	1.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 INTERNSHIP IN TEACHING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (Mathematics)	SE-2	Practical	10	100	150	250

Course Outcomes:

On completion of the internship, student teachers will be able to:

- Explain the overall functioning of the school.
- Describe and appreciate the different roles played by a teacher in the school.
- Develop age-appropriate pedagogic skills.
- Use different pedagogies learnt in real-life classrooms.
- Create appropriate teaching-learning materials.
- Create rapport with the stakeholders and understand their roles in the school system.
- Create student portfolios and comprehensive 360-degree (holistic) progress reports.
- Develop research aptitude and ability to conduct action research for the situations/problems faced during their school internship experience.

Mode of Transaction:

- Observation
- Interaction
- Discussion
- Teaching in the classroom
- Analysis and reporting
- Collection of relevant documents and data

Content:

- Pedagogies' different methods and strategies
- Scheme of lessons
- Peer lesson observation
- Management of substitute classes
- Various TLMs (including ICT tools) and their uses in teaching-learning.

- Achievement test
- Diagnostic tests
- Analysis of the result of the achievement test
- Assembly activities
- Action research and case studies.

Activities:

1. Meet the subject-based mentors, collect timetables of classes VI to VIII and develop a scheme of lessons from the syllabus to be covered during the internship.
2. Get acquainted with the school within 2-3 days. Observe classroom teaching of school teachers.
3. Plan and transact minimum 80 lessons (40+40), including 4 stray lessons (2+2). Stray lessons are class appropriate lessons on any topic(s) to be transacted by student teachers as per their convenience to build up confidence gradually. The last 5 lessons in each pedagogy course may be transacted using lesson notes.
 - Lesson plans should include activities to promote creativity, inquiry, inquisitiveness, experimentation, exploration, analytical thinking, synthesis to understand the coherent whole, problem-solving, and application of knowledge in real-life situations.
 - Lesson plans must promote education for sustainability, including equity, environment, global citizenship, pride and rootedness in Indian culture and character building.
4. Participate in post-lesson discussions with peers, mentor(s) and teacher educators.
5. Observe peer lessons and discuss with the group.
6. Conduct laboratory activities (Atal Tinkering Lab, Science, Mathematics, Languages, Social Science, Computer), sports, and arts and crafts activities.
7. Participate in student support services- guidance and counselling, NCC, health and wellness programme.
8. Create teaching-learning materials, including ICT tools for opted pedagogic courses.
9. Plan assessment, prepare material and formative and summative assessment tools, and analyze the results.
10. Prepare and conduct diagnostic tests to identify learning difficulties, analyze data and prepare learning enhancement plan.
11. Experience classes as a substitute teacher.
12. Participate in library functioning and literary activities.

13. Participate in teacher development and training activities.
14. Organize school assemblies and other events (cultural, sports, yoga, and other development activities).
15. Attend Parents-Teachers Association (PTA) meetings if held during the internship.
16. Attend School Management Committee (SMC) meeting if held during the internship.
17. Study the process of parent and community engagement for the school development programme.
18. Conduct action research /case study.
19. Prepare a sample student portfolio, 20. Write a reflective diary daily and prepare a report of each activity.

Mode of Assessment:

The activities conducted / skills acquired during the internship by the student teachers will be assessed as per the following scheme.

Competence/Artifact	Method of assessment	Assessed By	Credits
Observation of classroom practices	• Observation of a Minimum of 6 lessons of School Teachers (3+3) • Observation of a Minimum of 10 lessons of Peers (5+5)	Teacher-Educator	Non-evaluative
Unit planning, Lesson Planning & Transaction	40 lessons transaction for each pedagogical subject * Unit plans and lesson plans * Minimum 2 Innovative lesson plans in each pedagogy subject (Eg: Storytelling, Drama based, Arts and crafts, Use of Technology)	Teacher-Educator, School Mentor	6.0
Assessment Planning and execution	Preparation of report on assessment plan in each lesson transacted i.e., within lesson transaction and lesson end activities. Preparation of a Blue Print (For one/two Pedagogical course/s) and preparation of Assessment tools Conduct of Unit Test & analysis of results (for both Pedagogical course/s) Development of plan for learning enhancement of students related to subjects (for both Pedagogical course/s)	Teacher- Educator, School- Mentor	1.5

Preparation of Logbook /Teachers diary Min 5 lessons for each pedagogical method	Observation & Interaction	School Mentor	0.5
Overall feedback on student-teacher performance by School Head	Review	Teacher- Educator, School Mentor	0.5
Test lesson (one in each pedagogical method)	Observation and Interaction	School Head	0.5
Preparation of Logbook /Teachers diary Min 5 lessons for each pedagogical method	Presentation	Teacher- Educator	1.0

Stakeholders Responsibilities:

Role of Head of ITEP Institution

- Identification of the adequate number of internship schools
- Signing the MoU with the schools 1.0
- Sharing of mutual expectations of ITEP institutions and the participating schools
- Identification of the internship programme coordinator
- Monitor the progress of the entire School Experience Programme

Role of Teacher-Educators of the ITEP Institution:

- Guide the student teachers in preparing lessons and activities, assessment, observation of lessons on peer teaching, action research, and case studies conducting school activities preparation and report writing on Teaching Learning Materials.
- Conduct pre- and post-lesson discussions regularly.
- Assess the transaction of lessons for the complete duration of the lesson in the rating proforma developed by the teacher education institute and give feedback/remarks to the student teachers for lesson improvement.
- Submission of monitoring and supervision reports to the institute in time.
- Discuss with the student teachers frequently and organize a phase-end meeting of the student teachers and mentors to assess the progress and performance of the student teachers.

Role of School Head:

- To introduce the student teachers to the students and staff of the school in the assembly on the first day.
- To facilitate student teachers to take classes as per stage requirements- Foundational, Preparatory, Middle, and Secondary.
- Ensure the alignment of the timetable, scheme of lessons and plan of activities/ assignments of the student teachers to be carried out during the programme in the school.
- Countersign on the attendance register maintained by the group leader/ mentor of the school.
- Ensure that all facilities and provisions are available to the student teachers to teach their lessons and carry out their assignments smoothly.
- grant of leave applications of the student teachers in exceptional circumstances.
- Involve student teachers in different activities of the school.
- Facilitate phase-end meetings of the student teachers and the mentors to assess the progress and removal of difficulties.
- Countersign/ certify the report/ documents of the activities/ assignments conducted by the student teachers towards the end of the internship programme.
- Provide input about student-teacher performance.
- Provide suggestions for improvement of the programme to the ITEP institution.

Role of Mentors:

- Guide student teachers to prepare detailed lesson plans, brief lesson notes and plans of activities/ assignments to be conducted by them in school.
- Review the lesson plan before a student-teacher transacts the lesson in the class.
- Observe the classes of student teachers.
- Assess each lesson on the prescribed proforma and write remarks in the lesson plan book provided by the student teachers.
- Give feedback continuously to the student teachers for their improvement in their teaching and other curricular activities.
- Conduct post-lesson discussions regularly.
- Countersign in the peer-teaching observation schedules after their observations in the classroom.
- Organize frequent meetings with the student teachers and supervisors to discuss the progress, difficulties faced, and experience gained by student teachers.

Role of Student-Teacher:

- Report to the school head of the participating school at least one day before the start of the internship placement.
- Seek information about the classes, timetable, and topics to teach in stage-specific pedagogic courses from the mentors on the first day of the internship programme.
- Mark your attendance as per the school practice.
- Plan all the assignments/ activities with the help of the mentor/ supervisors.
- Seek cooperation from mentors and supervisors in case of difficulty.
- Prepare the lesson plan and get approval from the mentor/ supervisor before transacting every lesson.
- Take classes according to the timetable of the participating school.
- Take substitute classes and participate in other school duties assigned by the school.
- Follow the conduct and dress code of the participating school.
- Get prior leave approval from the head of the participating school in case of emergency.
- Maintain a diary and regularly list all the innovations, challenges faced and reflections for improvement.
- Check with your mentor before attempting learning activities that depart from routine classroom procedures.
- Carry out the activities you plan for school students according to your approved plans.
- Maintain cordial relationships with the students and staff of the school.
- Refrain from making negative comments about the school or the school's personnel, especially when talking with fellow student teachers.
- Submit student teaching profiles, one each, to the supervisor and mentor who supervises your teaching.
- Before the completion of the internship programme, make sure to return all textbooks and materials to the school.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	40
Internal Assessment Test 2	40
Assignment	20
Total	100 Marks
<i>Formative Assessment as per guidelines.</i>	

VIII Semester
ITEP B.Sc. B.Ed Mathematics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Philosophical & Sociological Foundations of Education-II	4	40	60	100
2	FCE-2	Education Policy Analysis	2	20	30	50
3	FCE-3 (Elective)	Elective (Anyone From below) 1. Adolescence Education 2. Education for Mental Health 3. Education For Sustainable Development 4. Gender Education 5. Guidance & Counselling	4	40	60	100
Ability Enhancement & Value-Added Course- AE&VAC						
4	AE&VAC-1	Yoga & Understanding Self	2	20	30	50
5	AE&VAC-2	Citizenship Education Sustainability & Environmental Education	2	20	30	50
School Experience- SE						
6	SE-1	Post-Internship (Review Analysis)	2	20	30	50
7	SE-2	Creating Teaching-Learning Material/Work Experience	2	20	30	50
Community Engagement & Services- CE&S						
8	CE&S	Community Engagement & Services (Participating in NSS-related activity, New India Literacy Programme etc.)	2	20	30	50
Total Credits			20	200	300	500

VIII Semester
B.Sc. B.Ed Mathematics
SYLLABUS

S.NO.	Type of Course	Course Code	Course Title
1	Foundation Course of Education- FCE		1.1 Philosophical & Sociological Foundations of Education-II
			1.2 Education Policy Analysis
			1.3 Elective (Anyone From below) 1. Adolescence Education 2. Education for Mental Health 3. Education For Sustainable Development 4. Gender Education 5. Guidance & Counselling
2.	Ability Enhancement & Value-Added Courses - AE&VAC		2.1 Yoga & Understanding Self
			2.2 Citizenship Education Sustainability & Environmental Education
3	School Experience- SE		3.1 Post-Internship (Review Analysis)
			3.2 Creating Teaching-Learning Material/Work Experience
4	Community Engagement & Services- CE&S		4.1 Community Engagement & Services (Participating in NSS-related activity, New India Literacy Programme etc.)

1. Foundation Course of Education- (FCE)

Course Title: 1.1 PHILOSOPHICAL & SOCIOLOGICAL FOUNDATIONS OF EDUCATION-II Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Mathematics)	FCE-1	Theory	4	40	60	100

Course Outcomes:

After completion of this course, student teachers will be able to:

- Recognize the social context of education,
- Outline the meaning, nature, and scope of educational sociology,
- Establish the link between education and socialization,
- Analyze the main agents of socialization, such as family, school, community and peer groups,
- Analyze the impact of culture on education through a study of dimensions of culture and their importance to education practices,
- Recognize the different aspects of social stratification,
- Identify the close relationship between education and modernization, the role of education in Modernization, and factors and constraints to social change.

UNIT - I: Education and Society

- A. Conceptual clarity, relationship, significance and aims of studying relationship between these two.
- B. Educational sociology and social perspective of education: meaning and functions.
- C. Education as a Social System.
- D. Conceptual clarity of the following terms: society, social behavior, status, institution, ideology, system, sub-system, socialization, social system, social values and norms, conflict, modernization.
- E. Understanding the relation between individual and group behavior with special reference to purpose of education.

UNIT - II: Education and Social Change

- A. Meaning, relation, and dimensions of Social Change.
- B. Factors affecting Education and Social Change: technology, social and educational movements, curricular innovations, value conflict, legal provisions.
- C. Constitution of India and Education.
- D. Education and Modernity. E. Role of education with reference to social change.

UNIT - III: Education, Culture and Socialization

- A. Relationship between Education and Culture.
- B. Education as a process of Socialization.
- C. Impact of following on Culture and Educational Process: Social Welfare, Social Reform Movements, Legal interventions on Child Marriage and child labor Act, Educational Policies and Acts, Adult Literacy, New Technology of communication, Equality.
- D. Constitutional Provisions and Education with special reference to Social Equality and Equity.

UNIT - IV: Education and Values

- A. Conceptual Clarity, Relationship and Significance.
- B. Types of Values.
- C. Constitutional Values and its impact on our Education.
- D. Human Rights and Values.
- E. Environment and Education.
- F. Pedagogical issues.

Practicum:

1. Critical/Reflective study of contemporary aims of education and their social determinants.
2. Observation and critical study on how textbooks determine every activity of teacher and learner in the school.
3. A critique of textbook culture in school.
4. Observing the process of knowledge construction by children in structured and unstructured environments to appreciate their learning processes and nature.
5. A critical analysis of Constitution of India in the context of process of Education in India/ Educational Policies / Educational Commissions)

6. Critically observing nearby society/ locality in groups of 4-5 students and sharing observations related to cultural/ social influences on educational practice.
7. Analyzing social purpose of NEP, 2020.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.2 EDUCATION POLICY ANALYSIS							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Mathematics)	FCE-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- discuss knowledge and capacity to engage in education policy analysis and evaluate their effectiveness,
- explain processes involved in policy analysis including undertaking situation analysis and research.
- To identify possible policy options,
- Describing these possible options,
- Comparing the potential policy options,
- Ranking the possible policy options and
- Choosing the most effective option that could address issues and problems confronting school education.

UNIT - I

Planning an Educational Policy

- A. Meaning and significance of 'Policy on Education'.
- B. Purpose and Dimensions of an Educational Policy at local and Global level.
- C. Philosophical and Sociological Perspective of planning an Educational Policy.
- D. Historical development of Educational Policies in India.
- E. Basic steps involved in planning.
- F. Constitutional provision for Policy on Education.
- G. Fundamental principles for analyzing an Educational Policy.

UNIT - II

Educational Policies in India

- A. Critical analysis of Policies on Education since Independence: 1968, 1986 (Modified in 1992), 2020 in the context of: need and significance, goals and frameworks of educational policies, content of policies, issues raised in policies, constitutional provisions, special stress, modification of policies, implementation strategies.
- B. Issue of modifying an Educational Policy.

UNIT - III

Implementation of an Educational Policy

- A. Meaning, need and significance.
- B. Mechanism of Policy Implementation.
- C. Strategies to Implement an Educational Policy.
- D. Programme of action and implementation: conceptual clarification and significance.
- E. Role of different Organization / Groups: Legislature/ Judiciary/ Political Will and Parties/ Voluntary Organizations/ Non-governmental organizations (NGOs)/ Pressure Groups/ Public.
- F. Challenges for Implementation.

Practicum:

- 5. Reviewing and presenting report on NEP, 2020 in reference to Policy Implementation.
- 6. To present a critical review of the Programme of Action (1987).
- 7. Preparing a list of challenges to implement the present new National Education Policy, 2020 in our States.
- 8. Preparing a list of Measures to be taken or taken to implement National Education Policy, 2020 in our State.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally

marginalized communities and groups, through focus group discussion, surveys, short term project work etc.

- Hands on experience of engaging with diverse communities, children and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. Adams, Paul (2014). Policy und Education. Foundations of Education Studies Series: Routledge-Taylor & Francis Group. London.
2. Ghosh,S.C.(2009). The Hi GOI. (1966). Report of the education commission: Education and national development. New Delhi: Ministry of Education.
3. Handbook of Education Policy Studies, ISBN: 978-981-13-8342-7 Handbook of Education Policy Studies: School/university, Curriculum. and Assessment, Volume 21 SpringerLink <https://ink.springer.com/book/IO.1007/978-981-13-8347->
4. Ministry of Education. (2020]. National Education Policy 2020 <https://www.education.gov, in/sites/upload files imhrd/files NEP Final English 0.pdf>.
5. NCERT. (2005). National curriculum framework. (NCF 2005). New Delhi: NCERT.
6. NCERT (2022) National curriculum framework for foundational stage. New Delhi: NCERT.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective /1. ADOLESCENCE EDUCATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Mathematics)	FCE-3 (Elective -1)	Theory	4	40	60	100

Course Outcomes:

After the completion of this course students will be able to:

- develop sensitivity, understanding and knowledge about Adolescence and Adolescence Education,
- know the historical development of Adolescent Educational Programme in India,
- know the role of local as well as international agencies towards Adolescent Educational Programme,
- develop a positive attitude towards the importance of Adolescence Education Programmes at the school level,
- develop knowledge and sensitivity on matters related to reproductive health, sex and sexuality and communicate effectively on these issues,
- develop understanding about intellectual, emotional, physiological, socio-cultural, and interpersonal issues related to the processes of growing-up,
- inculcate a healthy attitude towards sex and sexuality, respect for the opposite gender and an understanding of responsible sexual behavior,
- develop an understanding about the desired life skills,
- acquire pedagogical related skills for Adolescence Education Programmes.

UNIT - I

Adolescence and Adolescence Education

- Understanding Adolescence: intellectual, emotional, social, and physiological aspects of Adolescence, issues and challenges during Adolescence, myths and realities.
- Adolescence Education: concept, nature, and significance of Adolescence Education in Indian context, aims and objectives of Adolescence Education.

- C. Role of school, family, media, and community as social agencies in Adolescence Education. Challenges of Adolescence Education.

UNIT - II

Life Skills and Adolescence Education

- A. Concept, nature, and significance of Life Skills for Adolescence Education
- B. Relationship between Life Skills and Adolescence Education.
- C. Core Life Skills and their significance.
- D. Understanding sexual and reproductive health.
- E. STIs and HIV/AIDS: causes, prevention, cure, and skills of coping.

UNIT – III

Adolescence Education Programme in India (AEP)

- A. Historical Development of Adolescence Education Programme in India.
- B. Goals and Significance of Adolescence Education Programme in India.
- C. Role of Teachers in Adolescence Education in India (AEP).
- D. Challenges to Educational Programmes in India.
- E. Myths / Misconceptions

UNIT – IV

Pedagogical Issues

- A. Meaning, goals and significance.
- B. Challenges of teaching adolescence education: understanding student's behavior, dealing with personal self-constraints, socio- cultural issues, class-room issues and challenges, material production, methodology
- C. Preparation of teachers
- D. Approaches to adolescence education: case studies and critical incidents, brainstorming, role-playing, gaming, value clarifications, question box, discussions and debates, puppet shows, role reversal, video shows.

Practicum:

1. Study of Case studies and Critical Incidents. a) Field visit/s
2. Review and analysis of the work done by Government and Non-Government.
3. Study of Organizations (NGO) at national and international level.
4. A research study or detailed case study: Adolescents' behavior in different socio economic settings, a study on child abuse victims, adolescents in drug rehabilitation centers, adolescents residing in the precincts of industrial areas and factory establishments, adolescents in the educational regions showing either higher or lower drop-out rate, adolescents belonging to communities in which social evils affecting them are manifested like child marriages, conducting Adolescence Education sessions in School.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed the Examination Branch. Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings and learning content as per the needs of the learners.

- Arnett, J. G, Hall's Adolescence: Brilliance and Nonsense. Hist Psychol. 2006 Aug;9(3): I 86-197. doi: 10.1037/1093-4510.9.3I86. PMID: 17153143.
- Berk, L. E. (2011).Child Development. (8th ed.). New Delhi: Pearson Prentice Hall.
- Choudhary, G.B. (2014) Adolescence Education, Delhi: PHI

- Department of Education & State AIDS Control Society (2005) YUVA- School Adolescence Education Programme- Handbook for Teachers. Delhi.
- Murray. J. L., & Arnett, J. J. (2019). Emerging adulthood and higher education. A new student development paradigm. New York: Routledge
- Ralhan. R. (2022) Life Skill Education Hardcover, Ludhiana: Tandon Publication
- Rao, K.R. & Dinkar P. (2016) Life Skills Education, New Delhi: Neel Kamal Publication.
- Santrock, John. (2016). Adolescence. 16th ed. New York: McGraw-Hill Saraswathi, T.S. Brown, B. B. and Larson, KW Press 5 New York: University). The Eight Regions of the Globe. Cambridge: Cambridge University Press. Youth: Adolescence in

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective /2. EDUCATION FOR MENTAL HEALTH							
Course Code							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Mathematics)	FCE-3 Elective -2	Theory	4	40	60	100

Course Outcomes:

After studying this course, student teachers will be able to:

- express the meaning and significance of mental health,
- describe social and psychological determinants of mental health,
- analyze the causes of stress and process of stress management,
- analyze the significance of adjustment in life,
- analyze the needs and importance of global mental health education programme,
- explain the special role of teachers and parents to maintain the good mental health of children,
- suggest prevention and promotional measures to maintain good mental health of society,
- express the need for health policies globally.

UNIT – I Mental Health

- Meaning and determinants of Mental Health.
- Mental Health Vs Mental Hygiene.
- Mental disorders: Characteristics and Types.
- Causes of poor Mental Health.
- Myths Vs Facts about Mental Health.
- Legal perspectives of Mental Health in India.
- Concept of Healthy Personality

Unit-II

Stress, Stress Management and Adjustment

- A. Stress: meaning, nature and symptoms, types of stress, social and psychological perspectives, remedial measures.
- B. Stress management and adjustment: meaning and significance of stress management and adjustment, prevention and promotion, role of parents, peer group and teachers.

UNIT – III

Mental Health Education Programme

- A. Meaning and significance of Mental Health Education Programme.
- B. Dimensions of Mental Health Education Programme in India.
- C. Historical development of Mental Health Education Programmes in India.
- D. Local and Global Perspective of Mental Health Education Programme.
- E. Organizations at local and international level.
- F. Characteristics of a good Mental Health Education Programme.
- G. Role of Educational Institutions.

UNIT - IV

Challenges to Pedagogical Issues

- A. Home Vs. school
 - Diverse school and home contexts
 - Lifestyles of teachers and parents
 - Stereo-type roles
 - Mental health concerns of teachers and parents
- B. Material availability/ production
- C. Guidance and Counselling Programme:
 - Concept, need and techniques.
 - Teacher as a counsellor
- D. Designing and evaluating Mental Health Programmes

Practicum:

1. Visiting of Mental hospital and preparing list of four cases admitted in Hospital.
2. Preparation of two case histories on causes of abnormal behavior.
3. Critical analysis of laws and Public Health Policies.
4. Critical analysis of National Educational Policy, 2020 in the context of Health of children at school.
5. Critical analysis of Legal perspectives Mental Health Education in India.
6. Preparing comprehensive report on Mental Health Education Programme in India.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings and learning contents as per the needs of the learners.

1. Brady, G. (2021) Anxiety and Depression. How to help. understand and support children and young people, Pavilion Publishing and Media Limited
2. Baron, Robert. (2000). Psychology. (3rd ed.). New Delhi: Prentice Hall.
3. Charlesworth. E.A. & Nathan, R.G. (2004). Stress Management, Ballantine Books Caverro, O.B. & Calvet, N.L. (2018). New Pedagogical Challenges in the 21st Century, Intech Open, UK

4. Patel, V. and Thara, R. (Ed).(2003). Meeting the Mental Health Needs of Developing Countries. New Delhi: Sage Publications
5. Sharma, A.S. (2023). Counselling Psychology. Commonwealth Publishers, New Delhi
- Wilson, J. (2010) Education and the Concept of Mental Health, Routledge Library Edition, Psychology of Education

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 3. EDUCATION FOR SUSTAINABLE DEVELOPMENT Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Mathematics)	FCE-3 (Elective -3)	Theory	4	40	60	100

Course Outcomes:

After studying this course, student teachers will be able to:

- clarify the meaning and significance of sustainable development,
- explore the relationship among education, development and environment,
- appreciate the relation between education and sustainable development,
- describe the characteristics of ESD,
- explain the role of education in sustainable development,
- critically analyze the meaning and importance of education in the context of sustainable development.,
- explain the role of education to achieve sustainable development,
- analyze the pedagogical issues related to ESD.

UNIT - I

Education and Sustainable Development

- Meaning, relationship, goals, and significance.
- Characteristics of ESD
- Education for Sustainable Development: Historical Perspective
- Philosophical, Sociological and Psychological Perspective.
- Role of Education for Sustainable Development.
- Decolonizing Knowledge for Sustainable Development.
- Challenges of Education for Sustainable Development.

UNIT - II

Sustainable Development Goals (SDGs)

- A. Meaning, nature and significance of SDGs.
- B. 17 Sustainable Development Goals (SDGs): UNESCO agenda.
- C. SDGs and Social Transformation as Universal Commitment.
- D. Education as a Human Right to achieve Sustainable Development.
- E. Sustainable Development and Peace.
- F. Role of Educational Institutions and Challenges to achieve SDGs.

UNIT - III

SD Goal-4: Quality Education for All

- A. Meaning, Nature, and Significance.
 - NEP, 2020 on SDG-4: Sustainable lifestyle, Gender equality, Promotion of peace & non-violence, Global citizenship, Good mental health & wellbeing, Justice in society.
- B. Pedagogical issues for SDG-4.

UNIT - IV

Sustainable Development: Politics and Policies

- A. Understanding the Policy-Making Process.
- B. Policy Analysis.
- C. Democratizing Science and Technology.
- D. Globalization and the Environment: Capitalism, Ecology and Power.
- E. Perspectives, Methods, and Skills.
- F. Innovation for Sustainability.
- G. Key Issues from an International perspective.
- H. Critical issues involved in sustainability.

Practicum:

- 1. To present critical review on NEP, 2020 in the context of SDGs.
- 2. Critical study of Delors Commission Report, 1996: Learning: The Treasure within with reference to SDGs.
- 3. To review and present a critical report on legal perspective on SDGs.
- 4. To prepare Toolkit for Educations for Sustainable Development.

5. To organize discussions/ seminars of Teachers of all streams to present their views on SDGs and to present Action Plan for this.
6. To prepare and present a short Video/film to promote SDGs.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

1. Kothari, R. (1982), Environment and Development in Asia and the Pacific: Experiences and Prospects. UNEP.
2. NCERT (2024). Environment and Sustainable Development, New Delhi: NCERT [Chapter 9] (pp 162-178) Additional Readings
3. Samuelsson, I., & Lindström, N. (2020). On the Practical Goal of Ethics Education: Ethical Competence as the Ability to Master Methods for Moral Reasoning. Teaching Philosophy, 43(2). 157-178.
4. UNESCO (2019a). Education for Sustainable Development: Partners in Action - Global Action Programme (GAP) Key Partners' Report (2015-2018). UNESCO.
5. UNESCO (2019b). What is Education for Sustainable Development? UNESCO.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 4. GENDER EDUCATION Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Mathematics)	FCE-3 (Elective -4)	Theory	4	40	60	100

Course Outcomes:

After completion of this course the students will be able to:

- clarify key concepts like gender, transgender, gender bias, gender stereotype, empowerment, gender parity, equity and equality and patriarchy,
- explain the shifting from women studies to gender studies,
- clarify gender issues in school, curriculum, and textual materials across disciplines, pedagogical processes and its intersection with class, caste, religion, and region,
- examine school environment, curriculum, and pedagogy with reference to gender related issues,
- address issues related to sexuality, sexual violence, and abuse,
- draw framework for gender sensitized classroom and school environment.

UNIT - I

Gender and Education

- A. Meaning, relationship, and significance of studying.
- B. Conceptual clarity of related terms: Gender, gender perspective, sexuality, patriarchy, masculinity, feminist, gender bias, transgender, gender stereotyping and empowerment.
- C. Gender as the basis in school education.
- D. Constitutional Provisions with special reference to equity and equality, rights of girls.
- E. Education and women's empowerment. F. Shifting from women's studies to Gender Studies.

UNIT – II
Learning Gender Roles

- A. Social and Cultural Perspectives of Gender Identity: role of family and school, media, and other formal and informal organizations/ agencies
- B. Socialization and learning gender roles.
- C. Gender stereotyping/Role models.
- D. Preventing Measures: role of school and home

UNIT - III
Gender, Sexuality, Sexual Violence and Abuse

- A. Development of sexuality and its impact on children with reference to gender, body image, role-models.
- B. Sexual violence in formal and informal institutions.
- C. Child sexual abuse from pre-primary stage to secondary stage: providing accurate information on child sexual abuse, helping, and identifying signs of sexual abuse in children.
- D. Providing dos and don'ts about sexual abuse.
- E. Legal perspective: Laws for safety and Security of girls and women, Implementation of the POCSO Act.

UNIT – IV
Pedagogical Issues

- A. Analyzing classroom practices.
- B. Creating gender friendly classrooms and school environment.
- C. Analyzing Curriculum from gender perspective: learning outcomes, textual material, teaching-learning processes, language used, teaching aids, assessment strategies.
- D. ICT pedagogy for gender sensitive school curriculum.
- E. Challenges for pedagogical issues.

Practicum:

1. Preparing a Report on National Educational Policies, (1986/1992 and 2020) in the context of gender issues in Education.
2. Preparation of projects on:
 - Analysis of textual materials from the gender perspective for identifying gender bias and gender stereotype in textual materials.
 - Recommendations of commissions and policies on education to empower girls/women.
 - Mahila Samakhya Programme.
 - Women Role Models in various fields with emphasis on women in unconventional roles.
 - Video clipping on portrayal of women.
 - Folklores reflecting socialization process.
 - How students perceive sexuality and their own body images.
3. Field visits to schools to observe the schooling processes from a gender perspective.
4. Preparing Analytical Report on portrayal of men and women in print and electronic media.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Blumberg, R. L. (2008). The invisible obstacle to educational equality: Gender bias in textbooks. *Prospects*. 38. 345-36 I.
2. Butler, J. (2022). Selection From Gender Trouble: Feminism and the Subversion of Identity. *Transgender Studies Reader Remix* pp. 191-201: Routledge.
3. Chanana. K. (2001). Hinduism and female sexuality: Social control and education of girls in India. *Sociological Bulletin*. 50(1), 37-63.
4. Chopra. R. (2006). Invisible Men: Masculinity. Sexuality and Male Domestic Labour, Men and Masculinities, Sage, Vol. 9, No. 2. I October, pp. I52-67
5. Dhar, D., Jain, T.. & Jayachandran. S. (2022). Reshaping adolescents' gender attitudes: Evidence from a school-based experiment in India. *American Economic Review*. I12(3). 899-927.
6. Dogra. A. & Jayaraj. N. (2023). Lab Hopping: Women Scientists in India. Penguin Random House. India

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 5. GUIDANCE & COUNSELLING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Mathematics)	FCE-3 (Elective -5)	Theory	4	40	60	100

Course Outcomes:

After completion of this course the students will be able to:

- explain the basic meaning, need and significance of Guidance and Counselling in the context of education,
- differentiate between Guidance and Counselling with special reference to the purpose and strategies,
- clarify the general social, psychological, and historical perspective of Guidance and Counselling,
- describe the basic features of Guidance and Counselling with reference to students needs at school level,
- explain the basic principles of Guidance and Counselling,
- organize guidance program,
- analyze the reports of educational commission and educational policies with reference to Guidance and Counselling.

UNIT - I

Guidance

- A. Meaning, need, nature and scope of Guidance.
- B. Brief historical background of Guidance movement in India.
- C. Individual and Group Guidance.
- D. Basic assumptions and principles of Guidance.
- E. Need to understand the needs of the individual and group in the context of Guidance.
- F. Essential information for Effective Guidance.
- G. Vocational Guidance and Role of teachers.

UNIT - II

Counselling

- A. Meaning, importance, areas, and types of Counselling.
- B. Approaches to Counselling: directive, non-directive and eclectic, behaviourally, and cognitively oriented.
- C. Process of Counselling: initiating counselling, preparation, and intake procedures, establishing rapport, termination of and response to initial interview.
- D. Establishing Structure: attending behaviour, observation, non-verbal behaviour, listening, verbal patterning and communication responses, silence, use of questions. transference and countertransference. regarding and respect in counseling relationships. involuntary clients, client expectation.
- E. Role of family and community.

UNIT - III

Tools and Techniques to Collect Data

- A. Psychological Testing and Diagnosis: Need and Nature.
- B. Test use and interpretation, appraisal techniques.
- C. Counselling Interview: Essential aspects, basis procedures, problems, and their handling.
- D. Personality Assessment: Historical perspective
- E. Material administration, scoring, interpretation, and evaluation of frequently used personality inventories/ questionnaire and projective tests. Personal Orientation Tests and Rating Scales: Type a behaviour, Locus of Control, Attitude scale, ST AI etc., and other clinical rating scales.
- F. Case Study: Need and Importance.

UNIT – IV

Issues Related to Guidance and Counselling

- A. Factors affecting Guidance and Counselling.
- B. Ethical issues in Guidance and Counselling.
- C. Limitation of diagnosis with special reference to Counselling.
- D. Challenges to organize Guidance and Counselling programmes in schools.
- E. Counselling and Guidance of persons with learning disabilities, visual and hearing impairment.
- F. Challenges related to counselling services in schools.

Practicum:

1. Prepare a case study on students with learning difficulties.
2. Prepare a report on challenges of organizing guidance and counselling programmes in school.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings and learning content as per the needs of the learners.

- Aiken, L. R. (2009). Psychological testing and assessment. Pearson Education India.
- Crow. L. and Crow. A.(1962) Introduction to Guidance. New Delhi: Eurasia.
- Geldard. K. and Geldard, D. (1997) Counselling Children: A Practical Introduction, New Delhi: Sage Publications
- Gibson, R.L. and Mitchell, M.H. (1995) Introduction to Counselling and Guidance. New Jersey: Meril Prentice Hall, 1995.
- Guidance and School Counselling (2020). A Brief History of School Guidance and Counselling in the United States- Counsellors, Students, and Education. Retrieved from <https://education,staleuniversity.compages2023/Guidance>
- Holland. J. L. (1973). Making vocational choices: A theory of careers. Englewood Cliffs. J. Holland. [https://www.yOurarticelibrary.com/education/importance-of_guidance-in-education/Kabir, S.M.S. \(2017\). Essentials of Counselling. Banglabazar, Dhaka :Abosar Prokashana Sangstha](https://www.yOurarticelibrary.com/education/importance-of_guidance-in-education/Kabir,S.M.S.(2017).EssentialsofCounselling.Banglabazar,Dhaka:AbosarProkashanaSangstha)
- Morgan-Jones. R. (2002). Counseling ater hearing loss. Rehubiliation counseling in plphysical und mental health. 109.
- Okolic. U. C. Nwajiuba, C. A., Binuomote, M. O., Osuji. C. U. Onajite. G. O., & Igwe. P. A. (2020). How careers advice and guidance can facilitate career development in technical, vocational education. and training graduates: The case in Nigeria. Australian Journal uf Career Development, 29(2), 97-106.
- Pal. H.R. & Sharma, M. (2007) Education of Gifed. New Delhi: Shipra Publication

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

2. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 2.1 YOGA & UNDERSTANDING SELF Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Mathematics)	AE&VAC-1	Theory	2	20	30	50

Course Outcomes:

After completion of the course, the student teachers will be able to

- explain the importance of Yoga and how it helps an individual in understanding Self,
- describe the importance of practicing Yoga Asana,
- practice basic Yoga Asanas/ Kriyas.

UNIT - I

Philosophy and Historical Perspective of Yoga

- A. Concept and Meaning of Yoga, Philosophy of Yoga,
- B. Brief history and development of Yoga (Classical Yoga, Post Classical Yoga and Modern Period)
- C. Importance of Yoga for healthy living, Yoga and its relevance in the modern times, Traditions in Yoga.

UNIT - II

Schools of Yoga

- A. Different streams \schools of Yoga (Gnana, Bhakthi, Karma).
- B. Construction of Yoga Practice for all round development.
- C. Principals of Yoga: - Ahimsa, Satya, Asteya, Brachmacharya, Aparigraha, Shoucha, Santhosha, Tapas, swadyaya and Isvara Paridhana.

UNIT – III

Modern Principles of Yoga and Meditation

- A. Modern Principles: Human Body is a holistic entity, Individuals and their need are Dhāraṇa & Dhyāna, etc, meditation and reflective practices, and the importance of these aspects in becoming an effective teacher, unique Self-empowering, the quality and state of an individual mind is crucial to healing.
- B. Meditation: - its Importance, Types, and Process, Pranayama: its importance, types and process, Yoga as a Way of life for Peace, Harmony, Health love and happiness. Yoga in Indian philosophy for understanding Self.

Practicum:

1. Practice of Basic Yoga Asanas/ Kriyas.

Mode of Transaction:

Reflective reading of different Yoga practicing Personalities, Learning by doing, Relaxation Techniques for imparting concentration, Understanding Self, and personality development.

Mode of Assessment:

Assessment of practicum; Assessment of practice of basic Yoga Asanas/ Kriyas; Assessment of Reflective level Readings

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University, Dharwad. from time to time.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. Alter. Joseph S. (2004). Yoga in Modern India: The Body between Science and Philosophy. Princeton. NJ: Princeton university Press.
2. De Michelis, Elizabeth (2004). A History of Modern Yoga. Patanjali and Western Esotericism. New York and London: Continuum.
3. Eliade, Mircea (2009). Yoga: Immortality and Freedom, 2d ed. Princeton. NJ: Princeton University Press.
4. Franco, Eli (2009). Introduction. In Yogic Perception, Meditation and Altered States of Consciousness (Ed.). Eli Franco and Dagmar Einar. p. 1-51

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.2 CITIZENSHIP EDUCATION SUSTAINABILITY & ENVIRONMENTAL EDUCATION							
Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Mathematics).	AE&VAC-2	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- explain the concept of citizenship and citizenship education,
- describe the aims of and approaches to citizenship education,
- explain the concept and aims of Global Citizenship and Global Citizenship Education,
- describe the aims of and approaches to global citizenship education,
- explain the concept of ‘Sustainability’ in all fields of human activities, and approaches to achieving sustainable development in its three dimensions – economic, social and environmental – in a balanced manner,
- demonstrate an awareness of environmental issues, and actions required for mitigating the effects of climate change, environmental degradation and pollution, and initiatives required for effective waste management, conservation of biological diversity, management of biological/natural resources, forest and wildlife conservation, and sustainable development and living.

UNIT – I

Citizenship Education

- Concept of citizenship and citizenship education.
- Aims of and approaches to citizenship education.
- Concept of Global Citizenship and Global Citizenship Education.
- Aims of and approaches to global citizenship education.
- Concept of Vasudhaiva Kutumbakam, its importance in development of a holistic perspective towards local and global communities.

UNIT – II

Sustainability

- A. Concept of ‘Sustainability’ in all fields of human activities.
- B. Approaches to achieving sustainable development in its three dimensions – economic, social, and environmental.
- C. Sustainable development goals.
- D. Sustainable management of natural resources.
- E. School- and community-based activities.
- F. Education for sustainable development

UNIT – III

Environmental Education

- A. Environmental issues.
- B. Actions required for mitigating the effects of climate change, reducing environmental degradation, pollution etc.
- C. Initiatives required for effective waste management, conservation of biological diversity, management of biological/natural resources, forest and wildlife conservation, and sustainable development and living.
- D. Approaches to delivering Environmental Education
- E. Role of Mass Media and Technology in delivering environmental education.
- F. Roles Governmental and Non-Governmental Organizations in promoting Environmental Education.
- G. School and community-based environmental education activities.

Practicum:

1. Write a report on the roles of governmental and non-governmental organizations in promoting Environmental Education.

Mode of Transaction:

Lecture-cum- discussion, Focus Group discussions, in-class seminars, Library Work, Assignments, Project Work, Lesson Plan Development, Interaction with different stakeholders, ICT based educational materials, Group Work, critical reflections, group-work, case-based approaches, and enquiry-based learning.

Mode of Assessment:

Assessment of practicum and assessment of reflective level readings.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the examination Branch, Karnatak University Dharwad. from time to time.

References:

- "Vasudhaiva Kutumbakam: Relevance of India's Ancient Thinking to Contemporary Strategic Reality" (1st ed.). (2020), New Delhi. India: Aryan Books International.
- Bhamra, T., & Lofthouse, V. (2016). Design for sustainability: a practical approach. Routledge.
- Dalal-Clayton, B. & Bass. S. (2012). Sustainable development strategies: a resource book. Routledge.
- Sharma, N. (2020). Value-creating global citizenship education for sustainable development: Strategies and approaches. Springer Nature.
- Smith, G. A., & Sobel. D. (2014). Place-und community-based education in schools. Routledge.
- Srinivasan, T. N. (201). Growth. Sustainability: and India's Economic Reform. New Delhi, India: Oxford University Press India.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

3. School Experience-(SE)

Course Title: 3.1 POST-INTERNSHIP (REVIEW ANALYSIS) Course Code:							
Course	Semester	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Mathematics)	SE-1	Practical	2	20	30	50

Course Outcomes:

The student teachers will be able to:

- demonstrate/Exhibit/Manifest comprehensive understanding of the school ecosystem.
- reflect on school internship experiences in a report.
- share their learning from school internship with peers and teacher educators.

Mode of Transaction:

- Discussion
- Presentation, Gallery walks and Exhibition.
- Report Writing

Activities:

Experience Sharing and Reflective Learning

- Presentation of reflective journal summary
 - My Learning Journey: by each student-teacher Gallery walks (Exhibition): TLMs, display of participation in school activities (photos/stories) and other artefacts created during the internship by student teachers.
- Sharing of best practices (PPTs, Videos.)
- Survey and collect the local stories and rhymes from the parents and community (in the context of the foundational stage)
- Holding a training workshop for the parents and community and encouraging them to act as volunteers.
- Awareness and advocacy programme in FLN for parents and community: Role play with parents and community on conducting specific FLN activities.
- Organizing a parents /community mela/fair on homemade TLM for FS children

Submission of Internship Report:

- Reflective Journal
- Lesson Plans and TLMs
- Observation records (Teacher Educator, Mentor, school heads, Teachers, Parents)
- Assessment records and Student Portfolio
- Action research report/case study
- Comprehensive internship report.

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Artefacts created during the internship. My Learning Journey	Exhibition & Presentation	Teacher-Educator	1
Comprehensive Internship Report	Review	Teacher-Educator	1

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 CREATING TEACHING-LEARNING MATERIAL/WORK EXPERIENCE							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Mathematics)	SE-2	Practical	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- ❖ Assess the need for Teaching Learning Materials and prepare innovative TLM,
- ❖ Develop an understanding of the importance of work experience and competencies of a local crafts person, artisans and entrepreneurs,
- ❖ demonstrate the use of TLM for enhanced learning,
- ❖ explain the importance of work experience and competencies of local crafts person.

Mode of transaction:

- Workshop
- Group discussion
- Field visits and interaction
- Analysis of existing local-specific learning resources, toys
- Exhibition of TLM and presentation of reflective reports on the use of learning resources, including toys.

Content:

- Understanding how students learn at different stages.
- Knowledge of toys and other TLMs from different parts of the countries
- Knowledge of relevant TLMs for specific groups of children- CWSN, kinesthetic learners, visual learners, auditory learners addressing individual differences.

Activities:

- Orientation workshop on work experience and development of learning resources
- Field visit for interaction with local artisans, craftspeople, and entrepreneurs.
- Observe Traditional work practices and their integration into Local Technologies and Ideas.
- Analysis of available local specific, indigenous learning resources, including toys and their use in the learning-teaching process
- Development of at least two low-cost learning resources as per the local contexts (foundational/preparatory/middle/secondary) and presentation/exhibition
- Prepare the manual of TLM highlighting the objectives that will be achieved by its use, the material used, the process of its development and its use during classroom transaction.

Mode of Assessment:

Assessment			
Competence/Artifact	Method of assessment	Assessed By	Credits
TLM developed	Presentation /Exhibition	Teacher Educators (panel of three experts including an external expert)	1.5
Manual	Presentation	Teacher Educator	0.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

4. Community Engagement & Services –(CE&S)

Course Title : 4.1 COMMUNITY ENGAGEMENT & SERVICES (PARTICIPATING IN NSS-RELATED ACTIVITY, NEW INDIA LITERACY PROGRAMME ETC.)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Mathematics)	CE&S-1	Practical	2	20	30	50

Course Outcomes:

On successful completion of the ‘Community Engagement and Service’ programme, the student teacher should be able to:

- recognize the socio-economic issues in the community and identify initiatives that could help solve problems faced by the community,
- demonstrate an awareness of the functions of the community, and the measures required for enlisting community participation in school-related activities,
- undertake initiatives that are required to make the community aware of the importance of education, issues associated with schooling, gender inequity, health & wellness of children, illiteracy among youth and adults in the community etc.,
- suggest actions in collaboration with community members to address the social, cultural and educational problems in the community,
- organize activities such as street plays, advocacy activities, door-to-door campaigns, and prabhat-pheris etc. to mobilize community participation in development initiatives,
- demonstrate social leadership quality through community services,
- organize interactions between schools and local communities for generating solutions to problems such as dropout and learning deficits,
- facilitate partnerships between local communities to enhance participation of the community in school-related activities such as PTA meetings,
- recognize the fault lines of the society, such as casteism, social taboos and superstitions etc. and work towards bridging them to establish harmony in the society,
- demonstrate positive feelings towards the local community and appreciate traditional knowledge and practices,
- Recognize the values of public service and active citizenship.

Approach To Curriculum Transaction:

The student teachers will be provided opportunities to have exposure to community life for ten days in total, two days in Preparation for Community Engagement & Service in the institution, seven days working with the community, and the last day in the institution for sharing their experiences and reflections. The activities may be conducted in groups or individually as appropriate.

Days 1-2: Preparation for community services (In the institution)

- Orientation of student teachers on Community Engagement & Services through discussion and group activities.
- Workshop for developing tools for different activities during the programme.

Days 3-9: Engagement with the community (Mandatory onsite stay with the community) Students will be divided into smaller groups; They would participate in the planned activities with defined roles for seven days on a rotation basis. These activities include:

- participation of student teachers in activities undertaken under the National Service Scheme (NSS), New India Literacy Programme, Student mentoring initiatives, etc.
- Survey of community resources for supporting school activities.
- Study of the situation regarding school dropout and the reason thereof (Stage wise).
- Survey of specific settlement to assess the situation about non-literates in the settlement, including identification of 4-5 non-literate youth and adults who will be supported by student teachers to become literate,
- Training of local youth in First Aid and other relevant interventions,
- Assessment of the situation about Health and wellness of children in a locality,
- Creating awareness of the importance of sustainable development, and making the community members aware of the need to support initiatives to ensure environmental protection, creating awareness of rainwater harvesting, mentoring school students with learning deficits, guidance and counselling to school students etc.)
- Visit and interact with local artisans and craftsperson.
- The above activities typically will include working with the community, collecting data, playing local games, community awareness programmes like nukkad natak, rallies, organizing and participating in the cultural programmes with the community members etc.

The student teachers shall conduct different pre-scheduled activities throughout the day. Morning sessions will be used for activities with the community and data collection. The afternoon session will be devoted to data analysis and preparation of the report, and participation in games & sports activities. Evening session will involve cultural activities with community members.

Day 10: Feedback session and Reflection (: In the Institution)

- Sharing experiences and discussion on activities carried out.
- Presentation and submission of report of the activities carried out.
- Evaluation of the activities by collecting feedback on the effectiveness of the campaign from the mentor and the students.
- Reflection of experience (individual/group) of organizing community service

Assessment components and weightage:

- Involvement and active participation in activities relating to Community Engagement and Service: (Assessment method: Observation by teacher educator, teacher, and community members); Weightage: 75%; Assessed by the teacher educator, teacher, and community members),
- Group Report & Reflections: Method of assessment: Presentation by student teachers); Weightage: 25% (Assessed by Teacher Educator)

Reference:

- Ministry of Education (2021). Vidyanjali: Guidelines for Promoting Community and Voluntary Participation for Enhancing Quality School Education, Government of India. https://vidyanjali.education.gov.in/assets/pdf/Final_Guidelines_Vidyanjali_%20December.pdf
- RIE Bhubaneswar (2020). Handbook on Field Engagement in Pre-service Teacher Education, Bhubaneswar, Regional Institute of Education.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	



KARNATAK UNIVERSITY, DHARWAD

Syllabus for I to VIII Semester for the
Integrated Teacher Education Programme
(ITEP) – B.Sc. B.Ed. Physics
Middle Stage (Grades 6–8)

with effect from the **academic year 2025–26 and onwards.**

ITEP B.Sc. B.Ed . (Physics) Middle Stage (Grades 6-8) Course & Credit Structure

Semester	I	II	III	IV	V	VI	VII	VIII	Total
Physics	4+0=4	4+2=6	4+2=6	4+0=4 4+2=6	4+2=6 4+2=6	0+4=6 4+2=6	--	--	48
Mathematics	4+0=4	4+0=4	4+0=4	4+0=4					16
Chemistry	4+0=4	4+0=4	4+0=4	4+0=4					16
Content-Cum Pedagogy	--	--	2 2	2 2	2 2	2 2	--	--	16
Foundation Courses	4	--	4	4	--	2 2	2 2	4 2 4	30
Ability Enhancement & Value-added Courses	4 2 2	4 2 2	--	--	2	2	2 2	2 2	28
School Experience	--	--	--	--	2	2	2 10	2 2	20
Community Engagement	--	--	--	--	--	--	--	2	2
Total Credits	24	22	22	26	20	22	20	20	176

I Semester
ITEP B.Sc., B.Ed. Physics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
SIP- Two-week student Induction Programme						
Foundation Course of Education-FCE						
1	FCE-1	Evolution of Indian Education	4	40	60	100
Discipline Specific Course- DSC						
2.	DSC-1 (Major-1)	Mechanics, Properties of Matter and Sound	4	40	60	100
3	DSC-2 (Minor-1)	Algebra – I and Calculus – I	4	40	60	100
4	DSC-3 (Minor-2)	Chemistry-1	4	40	60	100
Ability Enhancement & Value-Added Courses- AE& VAC						
5	AE&VAC- 1	Language-I /English	4	40	60	100
6	AE&VAC- 2	A. Art Education (Performing & visual) and Creative Expressions- 1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making	2	20	30	50
7	AE&VAC- 3	Understanding India Part-I (Indian Ethos & Knowledge systems)	2	20	30	50
Total Credits			24	240	360	600

I Semester
ITEP B.Sc. B.Ed. Physics
SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education-FCE		IBSPH1EDC01T	1.1 Evolution of Indian Education
2	Discipline Specific Course- DSC	Major-1	IBSPH1DSC01T	2.1 Mechanics, Properties of Matter and Sound
		Minor-1	IBSPH1DSC02T	2.2 Algebra – I and Calculus – I
		Minor-2	IBSPH1DSC03T	2.3 Chemistry-1
3.	Ability Enhancement & Value-Added Courses – AE&VAC		IBSPH1AB01T	3.1 Language-I /English
			IBSPH1AB02T	3.2 A. Art Education (Performing & visual) and Creative Expressions-1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making
			IBSPH1AB03T	3.3 Understanding India Part-I (Indian Ethos & Knowledge systems)

1. Foundation Course of Education-(FCE)

Course Title: 1.1 EVOLUTION OF INDIAN EDUCATION Course Code: IBSPH1EDC01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Physics)	FCE-I	Theory	4	40	60	100

Course Outcomes:

After completion of this course, the student teachers will be able to:

- discuss and understand the genesis, vision and evolution of education in India from ancient to contemporary times.
- critically revisit colonial education and its impact on the contemporary Indian education system.
- enable them to shape their educational perspective to act as an effective teacher.
- locate themselves in the larger system of education in India while discussing the contribution of Indian thinkers
- develop a road map for futuristic education system in India for addressing the need of local and global context.

UNIT-I

Ancient Indian Education: Vedic Period

- A. Vision, Objectives, and Salient Features of the Vedic Education System.
- B. Teaching and Learning Process during Vedic Period
- C. Development of Educational Institutions: Finances and Management.
- D. Famous Educational institutions and Guru-Shishya.
- E. Education at the time of Epics: Ramayana and Mahabharata.

UNIT-II

Ancient Indian Education: Buddhist and Jain Period

- A. Vision, objectives and salient features of Buddhist and Jain Education System.
- B. Teaching -Learning process
- C. Finance and Management of Educational Institutions.
- D. Contribution of Educational Institutions: Nalanda, Taxila, Vikramshila, Vallabhi.
- E. Famous Guru shishya

UNIT-III

Post-Gupta Period to Colonial Period

- A. Vision, objectives, brief historical development perspective as well as salient features of Education in India
- B. Teaching and Learning Process.
- C. Pedagogical Inquiry. Community and Its Interface.
Finance and Management of educational institutions.

UNIT- IV

Modern Indian Education

- A. Colonial Education in India:
 - Woods Despatch, Macaulay Minutes and Westernization of Indian Education in India.
- B. Shiksha ka Bhartiyaakaran (Indigenous Interventions in Education)
(Bird's eye view of their contribution)
 - Swadeshi and Nationalist attempts of educational reforms with special reference to general contribution of Indian thinkers – Savitribai and Jyotiba Phule, Rabindranath Tagore, Swami Vivekananda, Mahatma Gandhi, Sri Aurobindo, Gijubhai Badheka, Pt. Madanmohan Malaviya, Jiddu Krishnamurti and Dr. Bhima Rao Ambedkar others – to the education systems of India.
- C. Education in Independent India
 - Overview of Constitutional values and educational provisions.
 - Citizenship Education:
 - Qualities of a good citizen.
 - Education for fundamental rights and duties.

- Overview of 20th Century Committees, Commissions and Policies.
- UEE, RMSA, RTE Act 2009: Overview and impact.
- NEP 2020: vision and implementation for a vibrant

Practicum:

Following are the suggestive practicals and activities. The teachers may design more tasks based on classroom interactions and discussions.

1. Prepare a report highlighting the significance of educational reforms in School education in the light of NEP 2020.
2. Critically analyze the role of education in understanding the concept of citizenship for democracy.
3. Compare the vision, objectives, and salient features of education during different periods.
4. Working out a plan to develop awareness, attitude and practices related to Fundamental Rights or fundamental duties or democratic citizenship qualities, execute it in the class and write the details in form of a report.
5. Sharing of student experiences (in groups) related to Indian constitutional values, help them to reshape their concept and enable them to develop vision, mission and objectives for a school and their plan to accomplish the objectives in form of a group report.
6. Analyses of current educational strengths and weaknesses of one's own locality and work out a critical report.
7. Visit places of educational significance and value centers and develop a project report.
8. Observation of unity and diversity in a social locality and matching it with unity and diversity in the class and work out a plan for awareness for national-emotional integration for class to develop awareness, attitudes, skills and participatory values, execute it in the class and report the details.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia/PowerPoint presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement

with educationally marginalized communities and groups, through focus group discussions, surveys, short-term project work, etc,

- Hands-on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Board, Karnatak University, Dharwad. from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

- Arora, P., & Gandhi, H.)2021(. National education policy 2020: Paving the ways for transformational reforms. Shipra Publications.
- Dash, B. N. (2009). Thoughts and theories of Indian educational thinkers. Dominant Publishers and Distributors.
- Desai, S. & Amaresh, D. (2011). Caste in the 21st century India: competing narratives. Economic and Political Weekly, Vol. 46, No. 11
- Ghosh, J. (2016). Inequality in India: drivers and consequences. World Social Science Report. International social science council.
- Jain, P. S. (2000). Collected papers on Jaina studies. Motilal Banarsidass.
- Jayaram, N. (2016). Education and emancipation: The saga and ideology of Dr. B. R. Ambedkar, In A. K. Singh. (Ed.). Education and empowerment in India: Policies and practices. Routledge India.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

2. Discipline Specific Course (DSC)

Course Title: 2.1 MECHANICS, PROPERTIES OF MATTER AND SOUND Course Code: IBSPH1DSC01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Physics)	DSC-1 (Major)	Theory	4	40	60	100

Course Outcomes:

At the end of the course, students will be able to:

- Analyze data (graphical and analytical), through estimation of errors and their sources in the experimental determination of physical quantities. Also able to fit experimental data to straight-line graph and calculate standard deviation, standard error and probable error.
- Distinguish between inertial, non-inertial and rotational frames of reference. Also able to understand and distinguish real, fictitious and Coriolis force and their importance in real life.
- Distinguish Galilean, Lorentz transformation and their applications. Understand special theory of relativity by studying variation of length, mass and time with relativistic velocity.
- Analyze collision problems through laboratory and center of mass frame of reference, also able to relate these two frames.
- Understand concept of moment of inertia of regular/irregular bodies and its variation with axes through distribution of mass.
- Find Young's modulus, rigidity modulus and their importance in understanding Materials and applications.
- Understand concept of sound and their experimental determination.
- Understand importance of mechanics, properties of matter and sound in real life situations (everyday life).

Unit	Title: MECHANICS, PROPERTIES OF MATTER AND SOUND	60 hrs/ sem
Unit- I	Frames of References: Inertial frames, Galilean transformation equations (derivation), Invariance of Newton's Laws under Galilean Transformations, Invariance of the laws of conservation of momentum and energy under Galilean transformations, non-inertial frames and fictitious force (in brief), rotating frame of reference(quantitative), concept of the Coriolis force and mention of its expression. Special Theory of Relativity: Postulates of special theory of relativity. The Lorentz transformation equations (Derivation), Length contraction, Time dilation, Simultaneity, Twin paradox, Addition of velocities. Mass-Energy Equivalence (with derivation). Space -Time diagram: Minkowski's four-dimensional space-time.	15 hrs
Unit- II	Collisions: Two-dimensional elastic and inelastic collisions in center of mass and laboratory frames of reference: i) relation between velocities in center of mass system and laboratory system ii) relation between angle of recoil in laboratory system and angle of scattering in center of mass system. Conservation of linear momentum in case of variable mass. Gravitation: Central force, Kepler's laws of Planetary motion(derivation). Newton's Law of Gravitation. Determination of Gravitational constant by Cavendish's method. Density and mass of the Earth. Satellite in circular orbit and Geosynchronous orbits. Weightlessness. Basic idea of global positioning system (GPS). Qualitative discussions on applications of artificial satellites.	15 hrs
Unit- III	Rotational Dynamics: Angular momentum of a particle and system of particles. Torque, principle of conservation of angular momentum. Rotation about a fixed axis, moment of inertia, theorem of parallel and perpendicular axes(derivation). M.I. of rectangular lamina and circular disc(derivations), hollow and solid cylinders (mention of expressions). Theory of flywheel and experimental determination of radius of gyration. Theory of compound pendulum, interchangeability of centers of suspension and oscillation, four	15 hrs

	points collinear with the C.G. about which the time period is same, conditions for maximum and minimum time periods. Bar pendulum, experimental determination of 'g' using bar pendulum. Bifilar suspension with parallel threads (derivation).	
Unit- IV	Elasticity: Relation between elastic constants(derivation), Poisson's ratio in terms of elastic constants(derivation). Twisting couple on a solid cylinder (wire), work done in twisting solid cylinder (wire). Determination of coefficient of rigidity by torsional pendulum and Maxwell needle method. Bending of beams- neutral surface, neutral axis, plane of bending, bending moment. Expression for bending moment(derivation), uniform bending (mention formula). Theory of light cantilever(derivation). Sound: Free, forced and sustained vibrations, resonance with examples. Analytical treatment of damped and forced vibrations. Theory of Helmholtz resonator, condition for resonance: Expressions for amplitude and phase. Effect of damping on the phase of forced vibration.	15 hrs

References:

1. Mechanics (VI-Edition)-J.C. Upadhyay–Ramprasad & Sons, Agra,2005.
2. Mechanics (XX-Edition)–D.S. Mathur-S. Chand & Company Ltd., New-Delhi,2007.
3. Introduction to Relativity-R. Resnik.
4. Relativistic Mechanics-Gupta and Kumar.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2. 2 ALGEBRA-I AND CALCULUS-I							
Course Code: IBSPH1DSC02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Physics)	DSC-2 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

After completion of course students will be able to:

- Learn to solve the system of homogeneous and non-homogeneous linear equations in m variables by using concept of rank of matrix, finding eigenvalues and eigenvectors.
- Thoroughly understand the concepts of continuity and uniform continuity.
- Solve examples related to indeterminate forms.
- Sketch curves in Cartesian, polar and pedal equations.
- Learn geometrical representation of mean value theorem and Rolle's theorem.
- Identify and apply the intermediate value theorem and solve Maclaurin's expansions.
- Trace curves in Cartesian coordinates.

Unit	Title: ALGEBRA - I AND CALCULUS – I	60 Hours / Sem
Unit - I	Matrices:	15 Hrs.
	Rank of a matrix based on row reduction to echelon form, Reduction to normal form, Solution of system of linear equations: Criterion for existence of non-trivial solutions of homogeneous system of linear equations, Solution of system of non-linear equations: Criterion for existence of non-trivial solutions of non-homogeneous system of linear equations, Characteristic equation of matrices, Eigenvalues and Eigenvectors of square matrices, Cayley-Hamilton theorem, Inverse of matrices by Cayley-Hamilton theorem.	
Unit - II	Limits and Continuity:	15 Hrs.
	Definition of limit and continuity of a function in ϵ - form. Algebra of limits (with proof) and continuity. Definition of boundedness of continuous function. Properties of continuous function. Intermediate value theorem and its examples, Uniform continuity – definition. Theorems - i) Uniform continuity implies continuity and ii)	

	Continuity on closed interval implies uniform continuity, Differentiability: Definition and problems on differentiability of a function, Indeterminate forms, Evaluation of limits using L-Hospital rule.	
Unit - III	Polar Coordinates:	15 Hrs.
	Polar coordinates, Angle between the radius vector and tangent, Angle of intersection of curves (polar forms), Length of perpendicular from pole to the tangent, Pedal equations, Derivative of an arc length in Cartesian, parametric and polar forms, Concavity, Convexity and points of inflexion, Curvature of plane curve, radius of curvature - Cartesian, Parametric, Polar, Pedal forms. Centre of curvature of plane curves. Asymptotes, Tracing of curves in Cartesian form (standard curves).	
Unit - IV	Successive Differentiation and Mean Value Theorems:	15 Hrs.
	The nth derivatives of standard functions: e^{ax+b} , $(ax + b)^n$, $\log(ax + b)$, $\sin(ax + b)$, $\cos(ax + b)$, $e^{ax}\sin(bx + c)$, $e^{ax}\cos(bx + c)$ with examples, Leibnitz theorem and its applications. Rolle's theorem, Lagrange's mean value theorem, Cauchy's mean value theorem and related problems. Taylor's theorem with Schlomitch and Roche form of remainder, Taylor's series, Maclaurin's expansions.	

References:

- Theory of Matrices, B. S. Vatsa and S. Vatsa, New Age International (P) Ltd., 2010.
- Matrices, A. R. Vasista and A. K. Vasista, Krishna Prakashan Media (P) Ltd., 2013.
- Principles of Mathematical Analysis, W. Rudin, McGraw Hill Edu., 2023.
- Mathematical Analysis, S. C. Malik and Savita Arora, New Age International (P) Ltd., 2021.
- Introduction to Real Analysis, S. K. Mapa, Leveant Book Publishers, 2022.
- Differential Calculus, Shanti Narayan and P. K. Mittal, S. Chand & Co., 2022.
- The Elements of Calculus, D. C. Pavate and G. V. Bhagwat, Popular Prakashan, 1956.
- Schaum's Outlines of Calculus, E. Mendelson, McGraw Hill, 2021.
- A Course in B.Sc. Mathematics-I, S. S. Bhoosnurmath, C. S. Salimath and V. S. Shetiya EBPB, 2015.
- Objective Mathematics – Differential Calculus and Integral Calculus, K. B. Pandey, A. K. Singh and V. Yadav, Pragati Prakashan, 2020.
- A Course in B.Sc. Mathematics-I, C. S. Salimath, EBPB, 2020.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2.3 CHEMISTRY-I Course Code: IBSPH1DSC03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Physics)	DSC-3 (Minor-2)	Theory	4	40	60	100

Course Outcome:

- Describe the dual nature of radiation and matter; dual behavior of matter and radiation, de Broglie's equations, Heisenberg uncertainty principle and their related problems. Orbital shapes of s, p, d and f atomic orbitals, nodal planes. Electronic configurations of the atoms.
- Define periodicity, explain the cause of periodicity in properties, classify the elements into four categories according to their electronic configuration. Define atomic radii, ionization energy, electron affinity and electro negativity.
- Explain bond lengths, bond angles, bond energies and dihedral angles, bond polarity, dipole moment and illustrate with examples of organic compounds, factors affecting bond parameters. Localized and delocalized bonds. Linear and crossed conjugation system. Electron displacement effects and their applications: inductive effect, electrometric effect, resonance effect, hyper conjugation, and steric effect
- Know the meaning of reaction mechanism. Curly arrow rules. Classification of organic reactions with suitable examples. Types of bond fission. Types of reagents. Reactive intermediates.
- Understand the meaning of stereoisomerism, molecular representation, conformational isomers and configurational isomers, geometrical isomerism, E and Z notation, determination of configuration of geometric isomers by dipole moment method and anhydride formation method, Syn and Anti isomers in compounds containing C=N and their significance.
- Understand the molecular velocity , distribution of molecular velocities, Calculation of molecular velocities. Relation between RMS, average and most probable velocities. Distribution of energy amongst molecules. Law of equi partition of energy. Collision properties and coefficient of viscosity, calculation of σ and η , variation of viscosity with temperature and pressure .Critical phenomena Relation between critical constants and van der Waals equation, principle of continuity of states, law of corresponding states.
- Know the principles of titrimetric analysis, titration curves, balancing redox equations, titration curves, theory of redox indicators and applications.
- Understand the titration curves, indicators for precipitation titrations involving silver nitrate. Indicators for EDTA titrations - theory of metal ion indicators.

- Understand stages in gravimetric analysis, conditions of precipitation. theories of precipitation, factors influencing precipitation, co-precipitation and post-precipitation. To know about Structure, specificity, conditions and applications of organic reagents. Advantages of organic reagents over inorganic reagents.

Unit	Title: CHEMISTRY- 1	60 Hours / Sem
Unit- I	ATOMIC STRUCTURE & PERIODICITY OF ELEMENTS	15hrs
	Atomic Structure: Review of Rutherford's atomic model, Bohr's theory, Hydrogen atomic spectra. Derivation of radius and energy of an electron in hydrogen atom, limitations of Bohr's theory, dual behavior of matter and radiation, de Broglie's equations, Heisenberg uncertainty principle and their related problems. Schrodinger's wave equation for hydrogen atom and meanings of various terms in it (derivation not required). Significance of ψ and ψ^2. Radial and angular wave functions (atomic orbitals) and their distribution curves for 1s, 2s, 2p, 3s, 3p and 3d orbitals (Only graphical representation). Radial and angular nodes, nodal planes and their significance. Quantum numbers and their significances. Shapes of s, p, d and f atomic orbitals. Rules for filling electrons in various orbitals, Electronic configurations of the atoms (atomic number up to 54). Concept of exchange energy. Anomalous electronic configurations. (11 Lectures) Periodicity of elements: Brief account on the following properties of elements with reference to s and p-block and trends in groups and periods: Atomic and ionic radii, Effective nuclear charge, screening effect, Slater's rules, ionization enthalpy, electron gain enthalpy, electronegativity, Pauling / Allred Rochow scale . (4 Lectures) Numerical problems are to be solved wherever applicable.	
Unit- II	FUNDAMENTALS OF ORGANIC CHEMISTRY & STEREOCHEMISTRY-I	15hrs
	Fundamentals of Organic Chemistry: Review of hybridization (sp^3, sp^2 and sp). Bond parameters - bond lengths, bond angles, bond energies and dihedral angles, bond polarity, dipole moment and illustrate with examples of organic compounds, factors affecting bond parameters. Localized and delocalized bonds. Electron displacement effects and their applications: inductive effect, electrometric effect, resonance effect, hyper conjugation, and steric effect. (6 Lectures) Organic reaction Mechanism: Meaning of reaction mechanism. Curly arrow rules. Classification of organic reactions: substitution, addition, elimination, rearrangement, oxidation and reduction reactions with suitable examples (general	

	mechanisms of all the reactions expected), Types of bond fission. Types of reagents: Electrophiles and nucleophiles (all types of examples to be given). Reactive intermediates: Structure, formation, stability and reactions of Carbocations, Carbanions, Free radicals, Carbenes, Nitrenes and Arynes. (5 Lectures) Stereoisomerism-I: Meaning of stereoisomerism, Molecular representation: Fischer's projection formulae, Newman's formulae, Saw horse formulae. conformational isomers and configurational isomers (distinction between conformation and configuration), Geometrical isomerism: definition, reason for geometrical isomerism, E and Z notation, determination of configuration of geometric isomers by dipole moment method and anhydride formation method, Syn and Anti isomers in compounds containing C=N and their significance. (4 Lectures)	
Unit -III	GASEOUS & LIQUID STATES Gaseous state: Review of kinetic theory of gases. Molecular velocity: Distribution of molecular velocities, Calculation of molecular velocities - , most probable, average and root mean square velocities. Relation between RMS, average and most probable velocities. Distribution of energy amongst molecules. Law of equi partition of energy. Collision properties: Collision frequency, collision diameter (σ), collision cross-section, collision number and mean free path and coefficient of viscosity, calculation of σ and η , variation of viscosity with temperature and pressure Critical phenomena: Andrew's isotherms of CO₂, critical constants and their determination. Relation between critical constants and van der Waals equation (Derivation), principle of continuity of states, law of corresponding states. Numerical problems are to be solved wherever applicable. (7 Lectures) Liquid state: Molecular forces and general properties of liquids. Surface tension: surface tension, surface energy, shapes of liquid drops and soap bubbles, capillary action, determination of surface tension by capillary rise method, drop weight and drop number methods. Effect of temperature on surface tension. Parachor, Additive and constitutive properties: atomic and structural parachor. Elucidation of structure of benzene and benzoquinone. Viscosity: Viscosity coefficient, fluidity, molecular viscosity, relative viscosity and absolute viscosity, determination of viscosity using Ostwald viscometer. Effect of temperature, weight, size and shape of molecules and intermolecular forces. Refractive index: Definition, specific and molar refraction. Determination of refractive index using Abbe's refractometer. Additive and constitutive properties:	15hrs

	Elucidation of structure of molecules. Numerical problems are to be solved wherever applicable. (8 Lectures)	
Unit- IV	VOLUMETRIC & GRAVIMETRIC ANALYSIS Volumetric Analysis: Review of normality, molarity, molality, mole fraction, ppm & ppb . Standard solutions. Acid-base titration: Theory of acid – base indicators. Theory, titration curves for all types of acid – base titrations. Redox titration: Theory of redox indicators. Theory, types and applications. Precipitation titration: Theory, indicators for precipitation titrations involving silver nitrate- Volhard’s and Mohr’s methods and their differences. Complexometric titration: Theory, titration methods employing EDTA (direct, back, displacement and indirect determinations). Indicators for EDTA titrations - theory of metal ion indicators. Determination of hardness of water. (9 Lectures) Gravimetric Analysis: Stages in gravimetric analysis, conditions of precipitation, factors influencing precipitation, co-precipitation and post-precipitation. Structure, specificity, conditions and applications of organic reagents such as salicylaldehyde, oxine and dimethylglyoxime in inorganic analysis. Advantages of organic reagents over inorganic reagents. (6 Lectures) Numerical problems are to be solved wherever applicable.	15hrs

References:

1. Lee, J.D. Concise Inorganic Chemistry ELBS, 1991.
2. Cotton, F.A., Wilkinson, G. & Gaus, P.L. Basic Inorganic Chemistry, 3 rd Ed., Wiley.
3. Huheey, J. E., Keiter, E.A., Keiter, R.L. & Medhi, O. K. Inorganic Chemistry: Principles of Structure and Reactivity, Pearson Education India, 2006.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

3. Ability Enhancement & Value-Added Courses (AE&VAC)

Course Title: 3.1 LANGUAGE 1/ ENGLISH RHYTHMIC VOYAGE Course Code: IBSPH1AB01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Physics)	AE&VAC-1	Theory	4	40	60	100

Course Outcomes:

- At the end of the course students will be able to:
- Acquire the knowledge of English prose and poetry
- Acquire the knowledge of parts of speech
- Appreciate the nuances of English poetry and prose
- Use proper articles, prepositions and forms of verbs
- Use appropriate tense forms in sentences
- Acquire basic language skills

Unit- I: Prose

1. My Lord the Baby- Rabindranath Tagore
2. Old Love – Jeffery Archer
3. What I Found in My Pocket – G K Cheterton
4. The Beauty Industry – Aldous Huxley
5. The Little Girl – Kathleen Beanchamp Murry

Unit- II: Poetry

1. Our Casuarina Tree – Toru Dutt
2. Once Upon a Time – Gabriel Okara
3. A Prayer for my daughter – W B Yeats

4. On His Blindness – John Milton
5. Success is Counted Sweetest – Emily Dickenson

Unit- III: Grammer

1. Parts of Speech (With special emphasis on Verbs, Adverbs, adjectives and Prepositions)
2. Use of Articles in English
3. Cloze Test

Unit- IV

1. Tenses – (Special emphasis on Simple Present, Present Continuous and Simple Past Tense)
2. Reading Skills – Meaning, Types , Techniques
3. Synonyms and Antonyms

References:

1. Text Book : **Rhythmic Composition** An Anthology of Prose and Poetry, Board of Editors : Maruti Publications, Guntur
2. R. P. Singh's *Functional Skills in Language and Literature*, OUP
3. Murphy, Raymond. *Intermediate English Grammar*. Cambridge Univ. Press.
4. Wren and Martin. *High School English Grammar and Composition*

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 3.2 A. ART EDUCATION (PERFORMING & VISUAL) AND CREATIVE EXPRESSIONS-1. PUPPETRY Course Code: IBSPH1AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Physics)	AE&VAC-2	Theory	2	20	30	50

Puppetry:

Puppetry is an integrated art form, which takes into its fold everything from fine arts to performance. Puppetry is one of the oldest forms of performing art. Puppetry has evolved over the years into a sophisticated form of art. The journey was very interesting with a lot of ups and downs. There are thousands of forms of puppetry from simple finger puppets to highly complex puppets played by more than 3 people. Each country has a puppet form, why country, each area in a country has a puppet form. Hence, in India you will find many, many forms of puppetry. In puppetry there are two main aspects. One the designing and creating of puppets and the other playing or performing puppetry. These two skills are different. Designing will need a lot of thinking, visualization, and technical skills while performance will need high level communication skills. Hence, together they make a consolidated a high range of skills. In this course, students are exposed to different forms of puppets and puppetry. There will be a discussion around the forms and the aesthetic sense of puppetry. Later the students are encouraged to prepare, design and create puppets. They then prepare script and play the puppets. This creation of the puppets together in small groups with a lot of discussions and give and take helps the students develop working together skills and conceptual understanding.

Course Outcomes:

After completion of this course, student teachers will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of puppetry,
- design puppets,
- practice and create a short puppetry show.

UNIT – I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT – II

Designing Puppets (6 Sessions)

In this unit, students will learn about puppetry, its history and specifically about how puppets work. This unit will also discuss the imagination required to design puppets, visualize how puppets will be used and the technicalities of designing puppets. These will be learnt by designing puppets. Students will start with constructing finger puppets and move towards small shapes through papers, like Fish, birds, rat - then they will design masks, flat masks, and masks with dimensions. At the end they will design puppets with old newspaper. The puppets are designed with old newspapers and colour papers. They decorate it and design it in such a way that it can be played, performed. They prepare costumes and all other accessories.

UNIT – III

Performing the puppets (4 Sessions)

This unit will engage in performance of puppetry and the level of communication skills required to create a good engaging story and perform it with the help of puppets they have created. The performance will be expected to relate to some activity in the educational context. Students will perform the puppets they have designed. Initially each member will play their own puppets. Later they will play in pairs, later they will be formed into a small group and asked to prepare their own skits with the puppets. They conclude by performing in small groups. Their learning is consolidated and reflected.

Discussion is held on how different aspects of puppet making can be incorporated in class room processes of young children. Adapting the individual and group exercises done during the puppetry course will be discussed to be used in the classroom situation.

Pedagogy:

The Pedagogy is basically hand-on training. More emphasis is given to experiential learning. They do things and through doing learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colours, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms

Week wise break up of sessions			
Sl. no	Topics	Session flow	Remarks
	Aesthetics and art, art in everyday life.	Based on their experience	
	Importance of art. Appreciation of art.	Discussion	
	Art for art's sake. Art with social responsibility. art for social change	Debate	
	The world of puppetry. Different forms of puppetry.	Presentations	
	History of puppetry	Lecture	
	Preparation- finger puppets	Hands on	
	Preparation of masks	Hands on	
	Preparing puppets	Hands on	
	Performing individually	Practice	
	Performing in pairs	Practice	
	Performing in groups – 3, 4, 5.	Practice	
	Assignments	Written.	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 B. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 2. THEATRE Course Code: IBSPH1AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Physics)	AE&VAC-2	Theory	2	20	30	50

Theatre:

Theatre is a collaborative art form, and it is inherently interdisciplinary in its nature. It comprises many facets and skills like acting, directing, writing, designing the sets and costumes, make-up, production, lights, sounds and music. All these elements and skill sets come together and are stitched in the form of a ‘play’ which is performed live, in front of an audience. In the Indian context, theatre has a deep-rooted history with its classical, folk, and other cultural forms until other contemporary forms of theatre evolved in recent times.

Theatre education for children can play a vital role in their individual, social, and emotional development. It teaches them the values of trust and interdependence, makes them confident to express themselves and helps them learn to work in a collaborative environment. It develops their ability to contextualise, critique and discuss certain questions and thoughts they encounter in everyday life. It further helps them imagine, explore, and create their own narratives.

In this course, we will briefly talk about the aesthetics of theatre and how theatre exists in different forms. The students will learn some basic theatre tools that will help them create and perform a narrative they collaboratively arrive at.

In simple terms one can say theatre has two major aspects i.e., creating the script and then performing it. Body is the primary instrument in any theatrical performance accompanied by text, material, visual and sound. This course will introduce students to these aspects of any theatre performance, in the form of direct experience by doing this themselves.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of theatre,
- learn basic theatre tools of improvisation, ideation, and creation of a script,
- create a short performance with educational possibilities.

UNIT - I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT - II

Introduction to Theatre, and Beginning with the body (3 Sessions)

We will discuss some core essentials in the aesthetics of theatre like the performance, the makers, the audience, and the context and how we relate this to the world around us, in everyday lives. In this unit, we will discuss examples of how theatre was used in social movements that have contributed to educating the larger population about important social issues. Additionally, we will also learn from practices and approaches of theatre groups like Budhan Theatre who work with denotified tribes, and Manalmagudi who work closely with physical nonverbal theatre. Exposing students to these approaches will lead to rich discussions on the role of theatre in pedagogy and practice.

In this unit, students will learn certain principles and awareness on how to use their body and voice in a given space and time, with respect to other bodies. There will be several games, exercises that will familiarise them with certain basics of movement, voice, acting and thereby create improvisations and images in a given context. The activities and tasks will be both in individuals and groups.

UNIT - III

Arriving at a script (3 Sessions)

We will engage in some theatre making processes to arrive at a script by the end of this unit. How to adapt or devise a script with actors? How can we borrow from everyday experiences of memory, sound and visuals, without a written text or spoken word? Plays, stories, poems, newspapers articles, will be shared to read, reflect, analyse, and re-create like “Why, why Girl” by Mahashweta Devi, “Ratna Pakshi” by K Ramaiah, “Beyond the land of Hattamala and Scandal in Fairyland” by Baadal Sircar, and songs of Kabir etc. The texts chosen will have a direct relation with topics from social studies, moral and political education.

Students will use their skills of improvisation they learned in Unit 2 to explore, ideate, create, and finally arrive at a script. What kind of stories, narratives, and characters they choose to perform will lead back to the discussion of aesthetics. Students will mostly work in groups to choose or create a text, concept, or an idea which

they want to perform. Students will be encouraged to use their perspectives on the education system, in converting the text into a script.

UNIT - IV

Performing the script

This unit will engage in the actual making of the final piece they choose to make. Students will have to visualise the final text on stage and start rehearsing in their groups. Apart from using their bodies to play characters, the students will also have to think about design and other aesthetic elements like sets, props, costumes, lights, music and sounds they want to use in the performance.

Students will have to practice beyond the six classes as the class time will be utilised to discuss and provide feedback as the work progresses. The last two classes in this unit will be utilised for the final rehearsals and assessments. The final performance will take place in front of a small audience followed by a brief post-performance discussion. Students will engage in discussing and reflecting on the views, questions and comments shared by the audience.

Pedagogy:

The pedagogy is basically hands-on training. More emphasis is given to experiential learning. They do things and through doing, they learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colours, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

Week wise break up of sessions		
Week	Topics	Session flow
1	UNIT - I: Aesthetics and art, art in everyday life. Importance of art. Appreciation of art	Based on their experience
2	Art for art's sake. Art with social responsibility. Art for social change	Discussion
3	UNIT II: Aesthetics of Theatre	Discussion
4	Body work - Individual and group	Hands on
5	Body work – Improvisation	Hands on
6	UNIT - III: Adaptation of texts. Aesthetic choices.	Hands on, Discussion
7	Story making and devising	Hands on
8	Arriving at a text	Hands on
9	UNIT - IV: Visualizing the final piece. Thinking about design and aesthetic elements	Hands on, Discussion
10	Rehearsals and feedback	Hands on
11	Rehearsals and feedback	Hands on
12	Final rehearsals and assessment	
13	Final rehearsals and assessment	
14	Performance and audience discussion	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 C. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS – 3.COLLAGE-MAKING Course Code: IBSPH1AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Physics)	AE&VAC-2	Theory	2	20	30	50

Collage:

Collage as visual art medium A major aspect of college, and one that is sometimes overlooked, is the incredibly diverse array of materials and objects that can be used. Collecting interesting materials is an ongoing activity for artists and for those who teach college. But it is just as important for young people to hunt for and make decisions about materials they would like to incorporate into their work. All materials, and the alterations that artists make to them, are suggestive of ideas and concepts based on their surfaces, forms, textures, degree of transparency and opacity, colour, and other visual characteristics. Materials also connect us, through association and reference, to social and cultural worlds and places. What ideas might a scrap of newspaper, as a collage material, express? How might these meanings differ from those of, say, feathers? Or twigs? Or a thin piece of plastic cut out from a plastic bag?

Working with and creating artwork in Collage involves various aspects: selecting materials, manipulating materials, investigating materiality, closely observing materials, discovering possibilities, composing, designing the artwork, planning, finding solutions, applying solutions, thinking flexibility, decision-making, research, using imagination, expressing, taking creative risks, develop perseverance, and much more. Students will also be introduced to various aspects of art in education: The value of art and artmaking by itself, art's use as an instrument in education, social and moral dimensions of art, and the controversial perceptions around good art and bad art.

This course aims for students to understand the importance of aesthetics and art in education, the role art can play in education, and mainly to appreciate, understand and gain skills with the medium of collage and its techniques.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance and the role of aesthetics and art in education.
- understand the medium of collage and its versatility.
- design, plan, and create an expressive self-portrait collage by applying a variety of collage techniques.
- design and set up an interactive visual art exhibition to display their artworks.
- understand and appreciate art-based learning experiences.
- develop the ability to reflect and challenge their assumptions and beliefs around art and develop new understandings.

UNIT – I

Understand the importance of Aesthetics and Art in Education (2 Sessions)

Students will be introduced to Aesthetics and Arts by engaging in experiences, discussions, and dialogues. Students will experience a session of ‘Visual thinking strategy’ (VTS) activity in which students will collectively view and engage in a series of artworks closely, share their observations, critically analyze their observations, listen to multiple perspectives from peers, suspend judgements, and draw their own understanding of the artwork. Students will recognize aesthetic and un-aesthetic experiences through compare and contrast. Through this activity and unpacking of the experience, students will start making connections and develop understandings around what aesthetics mean, aesthetic aspects of daily life, develop aesthetic judgment, and how arts evoke emotion and awaken.

UNIT – II

Exploring paper collage and its techniques (4 Sessions)

Students will be introduced to the medium of collage and open their minds to the possibilities within this medium. Students will view and discuss examples of collage artworks, artist process and artist interview videos. Students will get a chance to compare and contrast various ways collage as a medium is used. Students will reflect upon their own past art educational experiences and observations and engage in dialogue and discussions. Students will analyze effective and ineffective ways of using the medium of collage in educational and other settings.

Through inquiry-based participatory demonstrations, students will investigate and discover a variety of ways to manipulate paper and create individual and unique two-dimensional compositions in the medium of paper Collage. They will understand and learn the techniques, artistic terminologies of the collage medium. Students

will reflect on their experience and engage in facilitated discussions to deepen their understanding on the role of art medium exploration and how it can foster various learning skills.

Students then use their knowledge and experience from the previous sessions and explore collage as a medium further. Students will investigate, discover, and learn to create visual textures, physical textures, and create their own unique patterns. They will understand the difference between textures and patterns. Students will use a variety of techniques to create unique textures and patterns, analyze their findings, give each other feedback, work in groups to problem solve, etc. They will understand how art medium explorations can be used as a pedagogical tool in learning environments. Students will bring in various materials found around them like different kinds of paper, paper-based materials, natural materials, fabric, and explore these materials and use them as materials to create collage compositions.

Students will explore a wide range of techniques and discover their own ways to manipulate these found materials to create interesting textures and patterns. Students will work in groups, problem solve, investigate, develop solutions on their own, and share their findings with each other. Through discussions, students will reflect upon this exploration experience and understand how art making processes can develop skills and abilities in a learner.

UNIT - III

Ideating for an Expressive Self-Portrait (2 Sessions)

In this session students will further explore and discover possibilities in Collage as a medium. Students will learn a variety of ways to make paper stands and create interesting paper sculpture compositions using 3D techniques. Students will draw from their previous experiences of using paper for 2D explorations and add more interest to their unique 3D explorations. Students will share their findings with peers and widen their understanding about the possibilities.

Students will reflect on all the material exploration sessions thus far and participate in a facilitated dialogue around art making and education. Students will engage in a close observation sketching and drawing activity. Through a guided process, students will create a well observed self-portrait drawing. Students will engage in discussions and dialogue to unpack the self-portrait drawing experience, the learnings, discoveries, challenges and more. Through this activity students will also be able to challenge assumptions around talent and artmaking.

UNIT - IV

Creation of an Expressive Self-Portrait Collage (3 Sessions)

Students will engage in a step-by-step process involving sketching, ideating, planning, applying their discoveries of using paper as a collage material, and finally create a large expressive self-portrait using the medium of paper collage. Throughout the process students will problem-solve, critically think, push their imagination, find multiple solutions, make independent decisions, receive and give peer feedback, use resources effectively, draw from their own experiences, apply their learnings into creating this unique and expressive self-portrait piece.

UNIT - V

Designing and setting up an Exhibition (2 Sessions and Exhibition Day)

Students will collectively start designing and planning for the exhibition to put up their artworks for a general audience to view and engage with. Students will be planning the various aspects of a visual art exhibition: ways to display artworks, designing the layout of the exhibition space and how the audience will move within the space, design invitations, ways that the audience can engage with the artworks, various ways the artists can talk about their artmaking, and more. Students will divide the tasks among themselves, take on the various roles required, and set up the exhibition space.

Pedagogy:

- Students will engage in hands-on art making activities.
- Students will engage in discussions and dialogues with peers.
- Students will engage in giving and receiving peer feedback.
- Students will continually reflect on their learning through journaling.
- Students will work independently and collaboratively throughout the course.
- Students will receive reference materials and resources to broaden and deepen their understanding.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

References:

1. Works of Deborah Roberts, William Kentridge, Wangechi Mutu, etc
2. Marc, Cut paper collage artist - <https://www.youtube.com/watch?v=WgRZlWl-Oh0>
3. G. Subramanian: Collage art - <https://www.youtube.com/watch?v=ioRRi9R46a0>
4. Amber Fletschock, Collage artist - <https://www.youtube.com/watch?v=aa7p1vYqUc4>
5. Arturo Herrera, artist - https://www.youtube.com/watch?v=Oagx3_NZ5HU

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.3 UNDERSTANDING INDIA PART-I (INDIAN ETHOS AND KNOWLEDGE SYSTEMS) Course Code: IBSPH1AB03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
I	B.Sc. B.Ed. (Physics)	AE&VAC-3	Theory	2	20	30	50

Course Outcomes:

After the completion of the course, it is expected that the students will be able to:

- recognize the vast corpus of knowledge traditions of India, while developing an appreciation for it,
- apply their acquired research and critical thinking skills to multidisciplinary themes, and- appreciate the diverse belief systems and knowledge traditions in India.
- discuss the formation and evolution of knowledge of India through multidisciplinary lens.

UNIT-1

Introduction to the Knowledge of India

- Definition & Scope; Relevance of this Knowledge.
- Need to revisit our Ancient Knowledge, Traditions, and Culture.

UNIT-II

Culture-Art and Literature

- Fine Arts (Traditional Art Forms, Contemporary Arts, Arts and Spirituality, Arts Identity, and Art and Globalization)
- Performing Arts (Indian Dance Systems, Traditional Indian Pieces of Music, Visual Arts, Folk Arts, etc.,)
- Literature (Sanskrit Literature, Religious Literature, Indian Poetry, Folk Literature, Indian Fiction, Sangam Literature, Kannada, Malayalam Literature, Bengali Literature, etc.

UNIT-III

Polity and Law

- A. Kingship & Types of Government (Oligarchies, Republics); Local Administration (Village Administration);
- B. Basis of Law: Dharma & its sources; Criminal Justice: Police, and Punishments; Lessons from Chanakya Niti; Lessons for modern-day India: Towards a Tradition-Driven Equitable and Just Polity and Law System.

UNIT-IV

Economy

- A. Overview of the Indian Economy from the Stone Age to the Guptas: The new culture of Urbanization (including Castes, Guilds, and other Economic Institutions; Harappan Civilization Economy; Growth of Agriculture and Proliferation of New Occupations: Growth of Writing);
- B. Internal & External Trade and Commerce, including Trade Routes, Indo-Roman Contacts, and Maritime Trade of South India; Temple Economy.
- C. Land Ownership - Land Grants & Property Rights, Land Revenue Systems.
- D. Understanding Arthashastra: Ideas & Criticism; Locating Relevance of Ancient Indian Economic Thought in Modern-Day Indian Economy.

UNIT-V

Environment & Health

- A. Understanding Equilibrium between Society & Environment: Society's Perceptions Natural Resources like Forests, Land, Water, and Animals.
- B. Sustainable Architecture & Urban Planning; Solving Today's Environmental Challenges (Best Practices from Indigenous Knowledge, Tribes and Community-Led Efforts, etc.).
- C. India's Health Tradition: Ayurveda, Siddha, Ashtavaidya, Unani, and other Schools of Thought; Lessons from Sushruta Samhita and Charaka Samhita:
- D. Mental health in Ancient India: Towards Time-Tested Concepts of Mental Wellness (Concept of Mind, Dhyana, Mind-Body Relationship, Ayurveda, Yoga Darshan, Atman, etc.)

Practicum:

The modes of curriculum transaction will include lectures, Tutorials, and Practicum.

- Practicum will include organization of day trips that help student teachers watch events relating to visual and performing art; activities that enable student teachers to identify and record through photos, videos, etc. the elements of ancient architecture still existing in the city around them; organization of Individual and group presentations based on themes such as Polity, Law and Economy etc., organization of a 'Knowledge of India' day in the institution to celebrate the culture (food, clothes, etc.) that they would have been explored in lectures and tutorials; interactions with family members, elders, neighbors, and other members of society about the evolution of local systems and economy etc.

Mode of Transaction:

- Lectures will include learner-driven participatory sessions, and Guest lectures through experts and practitioners, such as fine arts and performing arts practitioners along with contemporary poets & writers of Indian literature.
- Tutorials will include Screening of documentaries and films followed by a discussion; Learner-driven discussions in the form of focus group discussions (FGDs), Socratic Discussions, etc.; Debate/discussion can be organized to explain India's Vaad tradition; discuss on how some of the ancient methods of teaching are relevant in today's time; discussions that help Identify ethical dilemmas in daily lives and understanding the importance of ancient ethics and values to resolve them.

Mode of Assessment:

The approaches to learning assessment will include:

- Supporting the curiosity and interest of student teachers in the selected themes through a multi-modal approach, including regular assessments and actionable feedback that enable learners to outline and interpret the processes and events of the formation & evolution of knowledge of India through a multidisciplinary lens.
- Enabling the student teachers to demonstrate critical analysis and independent thinking of the processes and events in the formulation & evolution of different traditions that help student teachers evaluate the diverse traditions of India to distinguish its achievements and limitations.

- Use of first-hand or second-hand experiences that enable student-teachers to develop and articulate an ethics-based education rooted in Indian thought to their students in the classroom context.

References:

- Altekari, A.S. (2009). Education in Ancient India. New Delhi: Gyan Publishing House.(Originally published in 1944 by Osmania University. Nand Kishore & Bros.
- Dominik, W. (2001). The roots of ayurveda. Penguin Classics.
- Mahadevan, B., Bhat, R.V. & Nagendra, P.R.N. (2021). Introduction to Indian knowledge system: Concepts and applications. PHI Learning Pvt. Ltd.
- Nehru, J (1946).The Discovery of India. UK:Meridian Books. Reprinted (2008) by Penguin.
- Sinha, A. (1998). Design of settlements in the vastu shastras. Journal of Cultural Geography, 17(2), 27-41.
- Swami Suparnananda (2016). The Cultural Heritage of India (Vol. 2). The Rama Krishna Mission Institute of Culture.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

II Semester

ITEP B.Sc. B.Ed. Physics

S.NO.		Course	Credits	Marks		Total Marks
				Internal	Theory	
Discipline Specific Course- DSC						
1	DSC -1 (Major-1)	Thermal Physics and Fluid Mechanics	4	40	60	100
2	DSC-2 (Major-2)	Thermal Physics and Fluid Mechanics- Practical	2	20	30	50
3	DSC-3 (Minor-1)	Number Theory and Calculus – II	4	40	60	100
4	DSC-4 (Minor-2)	Chemistry-3	4	40	60	100
5	DSC-5 (Minor -3)	Chemistry-3 Practical	2	20	30	50
Ability Enhancement & Value-Added Course- AE&VAC						
5	AE&VAC-1	Language-II /Kannada/Hindi	4	40	60	100
6	AE&VAC-2	Understanding India Part-II (Indian Ethos & Knowledge systems)	2	20	30	50
7	AE&VAC-3	Teacher And Society	2	20	30	50
Total Credits			24	240	360	600

II Semester
ITEP B.Sc. B.Ed. Physics

SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Discipline Specific Course- DSC	Major-1	IBSPH2DSC01T	1.1 Thermal Physics and Fluid Mechanics
		Major-2	IBSPH2DSC01P	1.2 Thermal Physics and Fluid Mechanics-Practical
		Minor-1	IBSPH2DSC02T	1.3 Number Theory and Calculus – II
		Minor-2	IBSPH2DSC03T	1.4 Chemistry-3
		Minor -3	IBSPH2DSC03P	1.5 Chemistry -3 Practical
2	Ability Enhancement & Value-Added Courses – AE&VAC		IBSPH2AB01T	2.1 Language-II /Kannada/Hindi
			IBSPH2AB02T	2.2. Understanding India Part-II (Indian Ethos & Knowledge systems)
			IBSPH2AB03T	2.3 Teacher and Society

1. Discipline Specific Course- (DSC)

Course Title: 1.1 THERMAL PHYSICS AND FLUID MECHANICS Course Code: IBSPH2DSC01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Physics)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcome:

At the end of the course, students will be able to:

- Apply the laws of thermodynamics and analyze the thermal system and compare the efficiency and working of steam Otto and Diesel engine.
- Analyze the temperature entropy-diagram with physical significance.
- Study the Maxwell's thermodynamical relations with different applications.
- Analyze the significance of thermodynamic potentials and develop the relation between thermodynamical potential with their variables.
- Understand concept of surface tension and viscosity of liquids and their experimental determination.
- Understand importance of surface tension and viscosity of liquids/fluids in real life situation (everyday life).

Unit	Title: THERMAL PHYSICS AND FLUID MECHANICS	60 Hours / Sem
Unit- I	Kinetic theory of gases: Maxwell's law of distribution of velocities (with derivation). Expressions for Average, R.M.S. and most probable velocities (with derivation). Qualitative discussions on Mean free path, mention of Clausius and Maxwell's expressions for mean free path. Transport phenomena — Brief discussion on Viscosity, Thermal conductivity and Diffusion. Expressions for Coefficient of Viscosity, Coefficient of Thermal conductivity and Coefficient of Diffusion (with derivations) and relation between them. Radiation: Concept of Radiation, Stefan's law and its derivation using radiation pressure. Experimental determination of Stefan's constant. Wein's displacement law	15hrs

	(with derivation), Rayleigh-Jeans's law (qualitative), Planck's law of radiation and its derivation.	
Unit- II	Thermodynamics-I: Review of basics of thermodynamics. Statement of second law of thermodynamics, Carnot's theorem: statement and proof. Otto engine (Internal combustion engine) and expression for its efficiency. Diesel engine and expression for its efficiency. Entropy: Concept of entropy, change of entropy in reversible cycle, change of entropy in irreversible process with examples. Temperature-entropy diagram, physical significance of entropy, entropy of a perfect gas. Second law of thermodynamics in terms of entropy. Entropy of the Universe. Third law of thermodynamics: Nernst's heat theorem statement.	15hrs
Unit- III	Thermodynamics-II: Maxwell's Thermodynamic Relations: Thermodynamic variables: extensive and intensive variables. Derivation of Maxwell's thermodynamical relations and its applications, specific heat equation for Van der Waals gas, Joule Thomson-cooling and Joule-Thomson coefficient for perfect and real gases. Clausius - Clapeyron's equation (first latent heat equation). Thermodynamic Potentials: Internal energy, Enthalpy, Helmholtz free energy, Gibb's free energy. Significance of thermodynamic potentials. Relations of thermodynamical potentials with their variables. First and second order phase transitions.	15hrs
Unit- IV	Fluid Mechanics: Surface Tension: Basic concepts. Pressure difference across a liquid surface: excess pressure inside a spherical liquid drop and excess pressure inside a soap bubble. Derivation of relation between radius of curvature, pressure and surface tension. Angle of contact: case of two liquids in contact with each other and with air, case of solid, liquid and air in contact. Experimental determination of surface tension by Jaeger's method with relevant theory. Determination of surface tension and angle of contact of mercury by Quincke's method. Viscosity: Basic concepts. Expression for critical velocity, significance of Reynolds's number. Derivation of Poiseuille's equation. Experimental determination of coefficient of viscosity for a liquid by Poiseuille's method. Motion of a spherical body in a viscous medium: expression for coefficient of viscosity from Stoke's law (derivation).	15hrs

References:

1. Kinetic Theory of Gases(I-Edition) – V.N. Kelkar – Ideal Book Service, Pune, 1967.
2. Heat & Thermodynamics and Statistical Physics (XVIII-Edition) – Singhal, Agarwal & Satyaprakash – Pragati Prakashan, Meerut, 2006.
3. Heat & Thermodynamics and Statistical Physics (I-Edition) – Brijlal, Subramanyam & Hemne - S. Chand & Company Ltd., New-Delhi, 2008.
4. Heat and Thermodynamics (I-Edition) – D.S.Mathur - S. Chand & Company Ltd., New-Delhi, 1991. A Treatise on Heat – Saha and Srivatsava.
5. A text book of heat - J.B.Rajam.
6. Properties of Matter (XIII-Edition) – Brijlal & Subramanyam, Eurasia Publishing House Pvt. Ltd., New-Delhi, 2001.
7. Elements of Properties of Matter (XXVIII-Edition), D.S.Mathur - S. Chand & Company Ltd., New-Delhi, 2005.
8. Physics, Vol. No.I (V-Edition)– Resnick, Halliday & Krane – John Wiley & Sons Inc., New-York, Singapore, 2005.
9. Berkely Physics, Vol. No.I – ABC Publications, Bangalore & New-Delhi.
10. University Physics (XI-Edition)- Young & Freedman – Pearson Education, 2004

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 1.2 THERMAL PHYSICS AND FLUID MECHANICS- (PRACTICAL) Course Code: IBSPH2DSC01P							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Physics)	DSC-2 (Major-2)	Practical	2	20	30	50

List of second semester Physics Experiments:

1. Verification of Clausius–Clapeyron equation and determination of specific enthalpy.
2. Specific Heat by cooling.
3. Thermal conductivity of a bad conductor by Lee’s method/Charlton’s method.
4. Thermal conductivity of copper by Searle’s apparatus/Angstrom’s method.
5. Verification of Stefan’s Law (Electrical method).
6. Determination of Stefan’s constant.
7. ‘J’ by continuous flow method.
8. ‘J’ by electrical method.
9. Mechanical equivalent of heat using Callender and Barnes method.
10. To find the ratio of specific heats at constant pressure and constant volume for air using Clement and Desorme’s apparatus.
11. Surface Tension by Jeager’s method.
12. Surface Tension by Quincke’s method.
13. To determine the Coefficient of Viscosity of water by Capillary Flow method (Poiseuille’s method).
14. Stokes method to determine the coefficient of viscosity.
15. Problem based learning in physics: Problems on entropy, heat engines, fluid mechanics and statistical physics.

Note:

1. Experiments are of four hours duration each.
2. Minimum of Eight experiments to be performed.

References:

1. Physics For Degree Students B. Sc. First Year, S. Chand & Company.
2. B.Sc. practical Physics – C.L. Arora.
3. Advanced practical Physics – Samir Kumar Ghosh.
4. Advanced practical Physics – Worsnop and Flint.
5. Advanced practical Physics-I, S.P.Singh.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

Course Title: 1.3 NUMBER THEORY AND CALCULUS- II Course Code: IBSPH2DSC02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Physics)	DSC-3 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

After completion of course (Theory), students will be able to:

- Understand the concepts of divisibility and congruence.
- Analyse the applications of Fermat's and Wilson's theorems.
- Study the applications of definite integrals to areas, volumes and surface of revolution.
- Learn maxima and minima of the functions of two variables.
- Find the extreme values of the functions.
- Solve dot and cross product of vectors.
- Understand the concepts of gradient, divergence and curl.

Unit	Title: NUMBER THEORY AND CALCULUS – II	60 Hours / Sem
Unit - I	Number Theory: Divisibility. Properties of divisibility. Division algorithm. GCD. Euclid's algorithm. Relatively prime numbers. Fundamental theorem of arithmetic. The number of positive divisors and sum of all the positive divisors of a number. The theory of congruence. Basic properties of congruence. Euler's theorem, Fermat's theorem. Wilson's theorem.	15 Hrs.
Unit - II	Integral Calculus: Reduction Formulae, application of definite integrals to areas, volumes and surface of revolution. Length of plane curves.	15 Hrs.
Unit - III	Multivariate Calculus: Functions of two or more variables, Partial derivatives of implicit and composite functions, Euler's theorem and its extension, Total differentials, Jacobians and standard properties and illustrative examples. Taylor's and Maclaurin's series for functions of two variables, Maxima-Minima of functions of two variables, Lagrange's method of undetermined multipliers.	15 Hrs.

Unit - IV	Vector Calculus: Dot and cross product of vectors. Ordinary derivatives of vectors. Continuity and differentiability of a vector function. Derivatives of sum, dot product. Cross product and triple products of vectors. Differential of vectors. The vector differential operator ∇ . The gradient, Divergence and curl. Solenoidal and irrotational vectors.	15 Hrs.

References:

1. Elementary Number Theory, D. M. Burton, McGraw Hill, 2023.
2. Number Theory, G. E. Andrews, Dover Publications, 1994.
3. Integral Calculus, Shanti Narayan and P. K. Mittal, S. Chand and Co. Pvt. Ltd., 2005.
4. Integral Calculus, S. K. Pundir and B. Singh, Pragati Prakashan, 2020.
5. Differential Calculus, Shanti Narayan and P. K. Mittal, S. Chand & Company, New Delhi, 2022.
6. Schaum's Outlines of Calculus, E. Mendelson, McGraw Hill, 2021.
7. Vector Calculus, J. N. Sharma and A. R. Vasishtha, Krishna Prakashan, 2020.
8. A Textbook of Vector Calculus, Shanti Narayan and P. K. Mittal, Visionias, 2023.
9. Vector Calculus, R. K. Pandey, Oxford Publications, 2012.
10. A Course in B.Sc. Mathematics-II, S. S. Bhoosnurmath, C. S. Salimath and V. S. Shetiya, EBPB, 2016

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 1.4 CHEMISTRY-3 Course Code: IBSPH2DSC03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Physics)	DSC-4 (Minor-2)	Theory	4	40	60	100

Course Outcomes:

- Explain ionic bond, Born Lande equation, Born Haber cycle and Fajan's rules, VSEPR theory, hybridization and shapes of various molecules. Understand the concept of resonance and write resonating structures of NO_3^- & CO_3^{2-} .
- Explain MO Theory and draw the MO diagrams for homonuclear diatomic molecules and ions and heteronuclear diatomic molecules such as CO, NO, physical properties of metals based on free electron theory, band theory of metals to explain conductors, insulators, extrinsic and intrinsic semiconductors.
- Explain the chemistry of aliphatic hydrocarbons & basic Concept in aromaticity.
- Understand the orders of reactions, half-life period, Effect of temperature on reaction rates, temperature coefficient, activation energy and its calculation from Arrhenius equation. Theories of Reaction Rates.
- Learn the Law of chemical equilibrium, factors affecting equilibria. Relations between K_p , K_c and K_x for reactions involving ideal gases. Common ion effect, solubility and solubility product. Ionization of acids and bases, hydrolysis of salts.
- Explain the optical Isomerism, chirality/asymmetric centers, enantiomers. R and S notations, CIP rules with molecules containing one, two or more asymmetric centers, diastereomers, meso compounds, R and S notations, D and L configuration and threo and erythro nomenclature, racemic mixture and racemisation, resolution of racemic mixture, formation of diastereomers, biological significance of chirality.
- Explain the preparation of benzene and alkyl benzenes, general mechanism of electrophilic aromatic substitution, examples of halogenation, nitration, sulphonation and Friedel-Craft alkylation and acylation. Oxidation of side chain (Benzene with alkyl groups $-\text{CH}_3$, $-\text{CH}_2\text{CH}_2\text{CH}_3$ and 1, 4 - dimethyl benzene).
- Learn about relative reactivities of halogen in alkyl halides, vinyl halides, allyl halides, aryl halides and aralkyl halides. Nucleophilic substitution reactions and their mechanisms, Synthesis of aryl halide. Aromatic Nucleophilic Substitution reactions, effect of nitro substitution on aromatic nucleophilic substitution reactions.

Unit	Title: CHEMISTRY- 3	60 Hours / Sem
Unit- I	Unit-I: CHEMICAL BONDING & MOLECULAR STRUCTURE	15hrs
	Ionic Bonding: Review of general characteristics of ionic compounds. Lattice energy and solvation energy and their importance in the context of stability and solubility of ionic compounds. Born-Landé equation and calculation of lattice energy. Born-Haber cycle and its applications .Fajan’s rules, ionic character in covalent compounds and percentage of ionic character. Covalent bonding : VB approach, shapes of inorganic molecules and ions on the basis of VSEPR and hybridization with suitable examples of linear, trigonal planar, square planar, tetrahedral, trigonal bipyramidal and octahedral arrangements. Concept of resonance and resonating structures of NO_3^- and CO_3^{2-}. (7 Lectures) Molecular Orbital Theory: LCAO method, bonding and antibonding, Shapes of molecular orbitals, MO treatment of homo nuclear diatomic molecules H_2, He_2, He_2^+, N_2, O_2, O_2^+, O_2^- and hetero nuclear diatomic molecules and ion such as CO and NO (Relationship between bond length, bond order, bond energy, magnetic properties). (5 Lectures) Metallic Bond: Physical properties of metals (conductivity, lustre, malleability & ductility) based on free electron theory. Band theory of metals to explain conductors, insulators, extrinsic and intrinsic semiconductors (including temperature effect).	
Unit- II	ALIPHATIC HYDROCARBONS & BASIC CONCEPT IN AROMATICITY	15hrs
	Chemistry of Aliphatic Hydrocarbons: Aliphatic hydrocarbons: Types - alkanes, alkenes, alkynes and alkadienes. Alkenes: mechanism of addition of hydrogen halides and bromine, Markovnikoff’s Rule, peroxide effect, acid catalyzed hydration of alkenes (mechanism), oxymercuration–oxidation, hydroboration - oxidation, oxidative cleavage of alkenes with KMnO_4 and ozone (ozonolysis). Alkadienes: classification, mechanism of addition of halogen and hydrogen halides in 1,3-diene, Diels Alder reaction. Alkynes: Mechanism of addition of halogen and halogen halides, hydration of alkynes, Acidic character of acetylenic protons (Acidity of 1-alkynes), Comparison of acidic strength of acetylene, ethylene and ethane. oxidative cleavage of alkynes with KMnO_4 and ozone (ozonolysis), cyclic polymerization. (8 Lectures)	

	Cycloalkanes: Relative stability of cycloalkanes (Baeyer's Strain theory). Conformational analysis of cyclopropane, cyclobutane, cyclopentane and cyclohexane, axial and equatorial bonds, conformation and stability of monosubstituted cyclohexane. (3 Lectures) Basic Concept in aromaticity: Criteria for aromaticity: heat of hydrogenation (e.g. benzene), resonance and resonance energy (e.g. benzene). Huckel's rule with examples such as benzene, furan, thiophene, pyridine, naphthalene, non- benzanoid aromatic compounds- cyclopropenyl cation, cyclopentadienyl anion, and cycloheptatrienyl cation. (4 Lectures)	
Unit- III	CHEMICAL KINETICS AND CHEMICAL & IONIC EQUILIBRIA Chemical Kinetics: Review of reaction rates. Orders of reactions. Derivation of integrated rate equations for zero, first and second order reactions (both for equal and unequal concentrations of reactants). Half-life period of a reaction for various orders (numerical problems). Methods for determination of order of a reaction by half-life period and van't Hoff's differential method. Effect of temperature on reaction rates, temperature coefficient, Concept of activation energy and its calculation from Arrhenius equation. Theories of Reaction Rates: Collision theory and Activated Complex theory of bimolecular reactions. Comparison of the two theories (qualitative treatment only). (8 Lectures) Chemical and Ionic Equilibria: Law of chemical equilibrium and its thermodynamic derivation. Factors affecting equilibria (Le Chatelier's principle). Relations between K_p, K_c and K_x for reactions involving ideal gases. Common ion effect, solubility and solubility product and its applications in inorganic qualitative analysis. Ionization of acids and bases, hydrolysis of three types of salts and derivation for determination of pH of their solutions. Numerical problems are to be solved wherever required. (7 Lectures)	15hrs
Unit- IV	STEREOISOMERISM-II, AROMATIC HYDROCARBONS AND ALKYL AND ARYL HALIDES Stereoisomerism-II : Optical Isomerism: optical activity, specific rotation and optical purity, chirality/asymmetric centers, enantiomers. R and S notations (one asymmetric center): CIP rules with molecules containing one, two or more asymmetric centers, diastereomers, meso compounds, D and L configuration and threo and erythro nomenclature, racemic mixture and racemisation, resolution of racemic mixture through mechanical separation, formation of diastereomers. (5 Lectures)	15hrs

	Aromatic Hydrocarbons: Preparation of benzene and alkyl benzenes, General mechanism of electrophilic aromatic substitution, examples of halogenation, nitration, sulphonation and Friedel-Craft alkylation and acylation. Oxidation of side chain (Benzene with alkyl groups – CH₃, -CH₂CH₂CH₃ and 1, 4 - dimethyl benzene). (5 Lectures) Alkyl and Aryl halides: Alkyl Halides: Relative reactivities of halogen in alkyl halides, vinyl halides, allyl halides, aryl halides and aralkyl halides. Nucleophilic substitution reactions: S_N1 and S_N² reactions and their mechanisms, stereochemistry and comparison. S_N¹ reaction and mechanism. Aryl halides: Synthesis of aryl halide from phenols, Sandmeyer's reaction, Gattermann reaction, Raschig Hooker process and Balz-Schiemann reaction. Aromatic Nucleophilic Substitution reactions: S_N^{Ar}, via Benzyne intermediate along with mechanisms. Effect of nitro substitution on aromatic nucleophilic substitution reactions. (5 Lectures)	

References:

1. Lee, J.D. Concise Inorganic Chemistry ELBS, 1991.
2. Cotton, F.A., Wilkinson, G. & Gaus, P.L. Basic Inorganic Chemistry, 3 rd Ed., Wiley.
3. Huheey, J. E., Keiter, E.A., Keiter, R.L. & Medhi, O. K. Inorganic Chemistry: Principles of Structure and Reactivity, Pearson Education India, 2006.
4. Rodgers, G. E. Inorganic & Solid State Chemistry, Cengage Learning India Ltd., 2008.
5. Organic Chemistry-P. Y. Bruice, 7th Edition, Pearson Education Pvt. Ltd., New Delhi (2013).
6. Organic Chemistry Volume-I, II- I. L. Finar, 6th Edition, ELBS London (2004).

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 1.5 CHEMISTRY - 3 (PRACTICAL) Course Code: IBSPH2DSC03P							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Physics)	DSC-5 (Minor-3)	Practical	2	20	30	50

Course Outcomes:

After completion of course (Practical), students will be able to:

- Learn crystallization, fractional crystallization, sublimation, reflux, distillation, fractional distillation, distillation under reduced pressure, steam distillation and determination of melting point of the crystallized solid & boiling point of the liquid.
- Develop the techniques involved in the preparation and determination of organic compounds.

Syllabus- CHEMISTRY- 3 (Practical)	56 Hrs
Explanation regarding crystallization, fractional crystallization, sublimation, reflux, distillation, fractional distillation, distillation under reduced pressure, steam distillation and determination of melting point of the crystallized solid & boiling point of the liquid. (Students should write in the journal regarding the above). Preparation of organic compounds: 1. Nitration – Nitration of salicylic acid using calcium nitrate and acetic acid (Green method) 2. Bromination – Acetanilide to p-bromo acetanilide 3. Nitration - Acetanilide to p-nitro acetanilide 4. Hydrolysis – Benzamide to benzoic acid 5. Oxidation – Benzaldehyde to benzoic acid. 6 Preparation of urea formaldehyde resin.	

Determination of Organic compounds:

7. Determination of phenol by bromination method
8. Determination of aniline by bromination method.
9. Determination of acetamide by hydrolysis method.
10. Determination of ethyl benzoate by hydrolysis method.
11. Determination of aspirin in the tablet by hydrolysis method.
12. Determination of formaldehyde using sodium sulphite.

Note: In the preparation experiment, student has to write mechanism of reactions, calculation of quantitative yield, determination of melting point and to perform recrystallization.

Distribution of marks for preparation experiments: (15 marks.)

Calculation of theoretical yield – 03 marks, observed yield -10 marks, M.P- 02 marks,

Deduction of marks for observed yield: Less than 10% - 10 marks, 11-15% - 8 marks, 16-20% - 6 marks, 21-25 % - 4 marks & above 25% - 2 marks.

Distribution of marks for determination experiments: (15 marks.) Accuracy - 10(5+5) marks, Technique and presentation - 02 marks, Reactions and Calculations - 03 marks. Journal -05marks, Viva: 05 marks Total = 40 marks

Deduction of marks for accuracy : ± 0.2 CC – 5 marks, ± 0.4 CC- 04 marks, ± 0.6 CC- 03 marks, ± 0.8 CC - 02 marks. Above ± 1.0 CC -01 mark

General instructions:

In the practical examination, minimum two different preparation and determination experiments may be given. In a batch of twenty students, each student will be performing preparation and determination experiments. Selection of experiments may be done by the students based on lots. Viva questions may be asked on any of the experiments prescribed in the practical syllabus. Manual is not allowed in the examination.

References:

1. Vogel's quantitative Organic Analysis, G.Svehla, 7th Ed, Longman (2001).
2. Advanced Practical Chemistry, Jagadamba Singh, Pragathi, Publications (2017).
3. College Practical Chemistry: V K Ahluwalia, Sunitha Dhingra and Adarsh Gulati. University Press-2011.

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

2. Ability Enhancement & Value-Added Course –(AE&VAC)

Course Title: 2.1 LANGUAGE-II /KANNADA Course Code: IBSMT2AB01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Physics)	AE&VAC-1	Theory	4	40	60	100

Course Outcomes (COs):Attheend ofthecoursestudentswillbeableto:

CO1: ವಿಜ್ಞಾನ ವಿದ್ಯಾರ್ಥಿಗೆ ಭಾಷೆಯ ಮಹತ್ವದ ಅರಿವು

CO2:ನಾಡು ನುಡಿ ಚಿಂತನೆಗಳ ಅರಿವು

CO3: ಮೌಢ್ಯಗಳನ್ನು ಮೀರುವ ವೈಜ್ಞಾನಿಕ ಮನೋಭಾವದ ತರಬೇತಿ

CO4: ಸ್ವತಂತ್ರವಾಗಿ ಆಲೋಚಿಸುವ ಸಾರ್ಥ್ಯಧಾರಣೆ

CO5: ನಿಸರ್ಗದ ಸಹಜ ಸ್ಥಿತಿಯ ತಿಳುವಳಿಕೆಯ ಧಾರಣೆ

CO6: ಸೂಕ್ಷ್ಮ ವಾಸ್ತವಗಳ ತಿಳುವಳಿಕೆ ಸಾಧ್ಯ

CO7: ಸಾಹಿತ್ಯದ ವಿವಿಧ ಪ್ರಕಾರಗಳ ಅರಿವು ದಕ್ಕುತ್ತದೆ.

Unit	Title: ವಿಸ್ಮಯ ೧ (AECC ಕನ್ನಡ)	60 hrs/sem
Unit I	ಕನ್ನಡ ನಾಡು ನುಡಿ ಚಿಂತನೆ ೧. ಕನ್ನಡ ಭಾಷೆ ಮತ್ತು ಸವಾಲು - ಹಂಪನಾ ೨. ರಕ್ಷಿಸು ಕರ್ನಾಟಕ ದೇವಿ - ಶಾಂತಕವಿ ೩. ಕಲಿಕೆಯ ನುಡಿ: ಗೊಂದಲಗಳ ಹಿಂದಿರುವ ಹುನ್ನಾರಗಳು - ರಂಗನಾಥ ಕಂಟನಕುಂಟೆ ೪. ಹೆಸರಾಯಿತು ಕರ್ನಾಟಕ - ಚೆನ್ನವೀರ ಕಣವಿ	15 hrs
Unit II	ವೈಚಾರಿಕತೆ ೧. ಬಸವಣ್ಣನವರ ೫ ವಚನಗಳು ೨. ವಿಚಾರ ಕ್ರಾಂತಿಗೆ ಆಹ್ವಾನ - ಕುವೆಂಪು ೩. ಅವತಾರಗಳು - ಸಿದ್ಧಲಿಂಗಯ್ಯ ೪. ಜಾತಿಗಳ ಹೆಸರುಗಳ ವಿನಾಶವೋ, ಜಾತಿ ಅಸಮಾನತೆಯ ವಿನಾಶವೋ- ಬಿ. ಎಂ. ಪುಟ್ಟಯ್ಯ	15 hrs

UnitIII	ಪರಿಸರ ಪ್ರಜ್ಞೆ ೧. ಮನೋಕಲ್ಪರ್ ಮಾಯೆಯ ವಿಶ್ವಪ್ರದರ್ಶನ - ಶಿವಾನಂದ ಕಳವೆ ೨. ಪರಿಸರ ನಿರ್ವಹಣೆ ಮತ್ತು ಮಹಿಳೆ - ಸತ್ಯ ಎಸ್. ೩. ನಿಸರ್ಗವೇ ಘೋಷಿಸುವ ಲಾಕ್‌ಡೌನ್‌ಗಳು - ನಾಗೇಶ ಹೆಗಡೆ ೪. ವ್ಯಕ್ತಮಾತೆ ತಿಮ್ಮಕ್ಕ - ಶ್ರೀಧರ ಬನವಾಸಿ	15 hrs
UnitIV	ಬಾಲ್ಯ ೧. ಚಾರ್ಲಿ ಚಾಪ್ಲಿನ್ - ಕುಂವಿ ೨. ಜೀತ - ಬೆಸಗರಹಳ್ಳಿ ರಾಮಣ್ಣ ೩. ಬನ್ನಿ ಗುಬ್ಬಿಗಳೆ ಸಾಲುಗಟ್ಟಿ - ಮಾಲತಿ ಪಟ್ಟಣಶೆಟ್ಟಿ ೪. ಕಾಗೆ ಮುಟ್ಟಿದ ನೀರು (ಆತ್ಮಕಥೆ) ಬಾಲ್ಯದ ಭಾಗ - ಪುರುಷೋತ್ತಮ ಬಿಳಿಮಲೆ	15hrs

Recommended books:

1. ಮೊದಲು ಮಾನವನಾಗು - ಸಿದ್ಧಯ್ಯ ಪುರಾಣಿಕ
2. ಕವಿರಾಜಮಾರ್ಗ - ಶ್ರೀವಿಜಯ
3. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಸಮೀಕ್ಷೆ - ಹೆಚ್. ತಿಪ್ಪೇರುದ್ರಸ್ವಾಮಿ
4. ವಿಚಾರಕ್ರಾಂತಿಗೆ ಆಹ್ವಾನ - ಕುವೆಂಪು
5. ಕಾಗೆ ಮುಟ್ಟಿದ ನೀರು (ಆತ್ಮಕಥೆ) - ಪುರುಷೋತ್ತಮ ಬಿಳಿಮಲೆ

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2.1 LANGUAGE-II /HINDI Course Code: IBSMT2AB01T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Physics)	AE&VAC-1	Theory	4	40	60	100

Course Outcomes (COs):Attheend ofthecoursestudentswillbeableto:

- CO1: साहित्य के प्रति रूचि विकसित होगी ।
CO2: शब्द, सूक्ति, मुहावरें आदि के भंडार को समृद्ध कर पाएँगे।
CO3: विवेचन एवं विश्लेषण की क्षमता का विकास होगा ।
CO4: एकाग्रता विकसित होगी ।
CO5: आधुनिक संदर्भ में विज्ञान एवं तकनीकी के महत्व को प्राप्त कर सकते हैं ।
CO6: प्रमुख वैज्ञानिकों के जीवनी या आत्मकथा को पढ़कर खुद के व्यक्तित्व का विकास कर सकते हैं।
CO7: अनुवाद करने में सक्षम होंगे।
CO8: अनुवाद के द्वारा अपने रोजगार को प्राप्त कर सकते हैं।

Unit	Title: GADYA SAURABH AUR ANUVAD गद्य सौरभ और अनुवाद	60hrs/sem
Unit I	गद्य सौरभ – सं. डॉ. नागरत्ना एन. राव (राजपाल एण्ड सन्स, दिल्ली) 1. एकलव्य ने गुरु को अंगूठा दिखाया (व्यंग्य) – हरिशंकर परसाई 2. क्या भूलूँ क्या याद करूँ (आत्मकथा) – हरिवंशराय बच्चन 3. प्रेमचंद: लमही में जन्म और अंतिम बीमारी (जीवनी) – अमृत राय	15hrs
Unit II	4. त्यागमूर्ति 'निराला' (संस्मरण) – शिवपूजन सहाय 5. मैं और मैं (रिपोर्ताज) – कन्हैयालाल मिश्र 'प्रभाकर' 6. शांतिनिकेतन में (यात्रावृत्त) – राहुल सांकृत्यायन	15hrs

UnitIII	7. गपशप (चर्चा) – डॉ. नामवर सिंह 8. श्रमदेवता की उपासना (विचार) – विनोबा भावे	15hrs
UnitIV	अनुवाद का सामान्य परिचय कन्नड और अंग्रेजी से हिंदी में परिच्छेद अनुवाद	15hrs

Recommended books:

1. गद्य सौरभ – सं. डॉ. नागरत्ना एन. राव, राजपाल एण्ड सन्स, दिल्ली
2. साहित्य सप्तक (गद्य संग्रह)- सं. प्रो. प्रतिभा मुदलियार, अमन प्रकाशन, कानपुर
3. गद्यगरीमा- सं. डॉ. एन्. मोहनन्, डॉ. दीपक के. आर्., राजपाल एण्ड सन्स, दिल्ली.
4. संस्मरण- महादेवीवर्मा, राजपाल एण्ड सन्स, दिल्ली.
5. साहित्यिक निबंध- गणपतिचंद्र गुप्त
6. प्रयोजनमूलक हिंदी-डा-नरेश मिश्र, राजपाल एण्ड सन्स नई दिल्ली ।
7. प्रयोजनमूलक हिंदी-डा-बशीरुद्दीन मदरी, गीता प्रकाशन हैदराबाद
8. सरकारी कार्यालयों में हिंदी का प्रयोग-गोपिनाथ श्रीवास्तव, लोकभारती प्रकाशन।
9. प्रयोजनमूलक हिंदी- राष्ट्राभाषा प्रचार समिति, वर्धा।

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40
Formative Assessment as per guidelines.	

Course Title: 2.2 UNDERSTANDING INDIA PART-II (INDIAN ETHOS AND KNOWLEDGE SYSTEMS)							
Course Code: IBSPH2AB02T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Physics)	AE&VAC-2	Theory	2	20	30	50

Course Outcomes:

After the completion of the course, it is expected that the students will be able to:

- recognize the vast corpus of knowledge traditions of India, while developing an appreciation for it,
- apply their acquired research and critical thinking skills in multidisciplinary themes,
- summarize and pass on their learnings to their students of different Indian traditions in an easily digestible manner.

UNIT-I

Introduction of Knowledge of India

- Recap of the previous semester's definition and introduction.
- Recap of previous knowledge.

UNIT-II

Philosophy, Ethics & Values: Schools of Philosophy

- Vaishesika, Nyaya, Samkhya, Yoga, Purva Mimansa and Vedanta or Uttara Mimansa (theory and the major thinkers) – and Jain, Buddhist, and Charvak traditions.
- Vedanta: philosophical systems (Advaita, Vishishtadvaita, Dvaita).
- Ethics, morality, and social dilemma (including self-leadership) and their relevance in today's time.
- How do Indians value spirituality? Spirituality and Social Responsibility; Importance of Spirituality in current times.
- Using ethics in a technologically volatile world: leading an ethical and modern life.
- Practical Vedanta for well-being (mindfulness, inter-connectedness, society-self relationship, etc.).

UNIT-III

Culture- Lifestyle

- A. Food (regional cuisines, ayurvedic diet, food and festival, vegetarianism, Jainism in food, food and hospitality, and globalization).
- B. Clothes (traditional Indian clothing, textile arts, religious costumes, clothing status, clothing, gender, globalization in clothing).
- C. Sports (traditional Indian sports, martial arts, sports, and gender, sports & globalization).
- D. The lifestyle of Yoga; adapting ancient lifestyle – A path towards longevity.

UNIT-IV

Science & Technology

- A. Arithmetic and logic.
- B. Natural sciences: math, physics, metallurgy, and chemistry.
- C. Astronomy: India's contributions to the world.
- D. Indian notions of time and space.
- E. Technology in the economy: agriculture, transportation, etc.

UNIT-V

Linguistic Traditions

- A. History of linguistics in India (conceptualizing ancient Indian linguistics, oral traditions, etc.).
- B. Language as Culture: Evolution of Languages over the years & language as building blocks to different cultures and society
- C. Language: Identity, culture, and History.

Practicum:

The modes of curriculum transaction will include lectures, Tutorials, and Practicum.

- Practicum will include organization of day trips that help student teachers watch events relating to visual and performing art; activities that enable student teachers to identify and record through photos, videos, etc. the elements of ancient architecture still existing in the city around them; organization of Individual and group presentations based on themes such as Polity, Law and

Economy etc., organization of a 'Knowledge of India 'day in the institution to celebrate the culture (food, clothes, etc.) that they would have been explored in lectures and tutorials; interactions with family members, elders, neighbors, and other members of society about the evolution of local systems and economy etc

Mode of Transaction:

Lectures will include learner-driven participatory sessions, and Guest lectures through experts and practitioners, such as fine arts and performing arts practitioners along with contemporary poets & writers of Indian literature.

Tutorials will include Screening of documentaries and films followed by a discussion; Learner-driven discussions in the form of focus group discussions (FGDs), Socratic Discussions, etc.; Debate/discussion can be organized to explain India's Vaad tradition; discuss on how some of the ancient methods of teaching are relevant in today's time; discussions that help Identify ethical dilemmas in daily lives and understanding the importance of ancient ethics and values to resolve them.

Mode of Assessment:

The approaches to learning assessment will include:

- Supporting the curiosity and interest of student teachers in the selected themes through a multi-modal approach, including regular assessments and actionable feedback that enable learners to outline and interpret the processes and events of the formation & evolution of knowledge of India through a multidisciplinary lens.
- Enabling the student teachers to demonstrate critical analysis and independent thinking of the processes and events in the formulation & evolution of different traditions that help student teachers evaluate the diverse traditions of India to distinguish its achievements and limitations.
- Use of first-hand or second-hand experiences that enable student-teachers to develop and articulate an ethics-based education rooted in Indian thought to their students in the classroom context.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Board, Karnatak University, Dharwad. from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Balasubramanian, R. (2000). Introduction. In Chattopadhyana, D. P. (Ed.), History of science, philosophy and culture in Indian civilization. Advaita Vedanta. [Vol. 2 (II)]. Centre for Studies in Civilizations.
2. Bhagat, G. (1990, April-June). Kautilya revisited and re-visioned. The Indian Journal of Political Science. 31(2), 186-212.
3. Bhattacharya, R. (2002). Carvaka fragments: A new collection. Journal of Indian Philosophy, 30, 597-640.
4. Dharampal (2021). Indian science and technology in the eighteenth century: Some contemporary European accounts. Rashtrottaana Sahitya.
5. Dominik, W. (2001). The roots of ayurveda. Penguin Classics.
6. Kangle, R. P. (2019). Kautiliya Artha sastra. Motilal Banarsidass Publishers Pvt. Ltd.
7. Rangarajan, L. N. (1987). The Artha shastra. Penguin Books.
8. Sen, S. N., & Shukla, K. S. (Eds.). (2000). History of astronomy in India (2 ed.). Indian National Science Academy.
9. Sharma, S. (2023). Significance of ancient Indian sciences in contemporary education.
10. Subbarayapa, B. V. (1982). Glimpses of science and technology in ancient and mediaeval India. Endeavour, 6(4), 177-182. [https://doi.org/10.1016/0160-9327\(82\)90073-4](https://doi.org/10.1016/0160-9327(82)90073-4)

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

Course Title: 2.3 TEACHER AND SOCIETY Course Code: IBSPH2AB03T							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
II	B.Sc. B.Ed. (Physics)	AE&VAC-3	Theory	2	20	30	50

Course Outcomes:

After completion of the course, the student teachers will be able to:

- examine the relationship between teacher beliefs, values, character, social and cultural context, and teaching critically.
- conceptualize teacher agency, its individual, contextual, and structural dimensions, and how it gets impacted and in turn shapes education.
- explain the teacher's roles and characteristics; the personal and professional self, the reflective practitioner, and their significant role in shaping self, school, and society,
- differentiate between the narrow curricular aims of education and the broader educational aims and their role in shaping self, school and society,
- demonstrate an ability to develop positive classrooms through engaging in the ethic of care,
- demonstrate an ability to critically reflect on personal and collective practice so as to improve learning and teaching,
- conceptualize teacher agency, its individual, contextual, and structural dimensions and how it gets impacted and in turn shapes education.

UNIT-I

Understanding the Teacher: Exploring the Personal and Professional Teacher

- A. Exploring the wider Personal and General Social Context of Teacher: Life History, Teacher Beliefs, Values and Aspirations, Diverse Identities, Social Contexts and Commitment to Learning and Education.
- B. Exploring the Professional Teacher: Qualifications, Education in teaching, Attitude, Aptitude, Experience and Exposure.
- C. The Charismatic Teacher, the Communicator Teacher, The Missionary Teacher, The Competent Practitioner, The Reflective Practitioner, The Learning Teacher.
- D. Reflexive Practice: Nurturing the Professional Capital through collaborative and/or collective engagement with self, others, the social context.

UNIT-II

Nurturing the Teacher: A Dialogue Beyond the Curricular Goals, for Life and Posterity

- A. Teaching: One profession, many roles
- B. Teaching Character: Nurturing Teachers for Human Flourishing.
- C. Holistic Teacher Development: Nurturing the Panchakoshas.
- D. Teacher Values, Beliefs, and current Philosophy of Teaching: A Reflective Dialogue.
- E. Developing an Ethic of Care in Teacher Education: Nurturing Teachers towards a pedagogy of care.

UNIT-III

Understanding and Fostering Teacher Agency: Role in shaping Education Systems of Tomorrow

- A. Teacher Agency: What is it and why does it matter?
- B. Individual, Cultural and Structural Dimensions of Teacher Agency.
- C. Teacher discourses, Philosophy, Relationships, Networks and Professional Development: Shaping teacher agency and Creative insubordination.
- D. Challenges and Issues in fostering Teacher Agency: Performativity, Non-academic engagements, Systemic apathy, Policy and Practice gaps and others.
- E. Role of Teacher in shaping the educational policy, practice, and reforms

UNIT - IV

Teacher as an Architect of the New India: Shaping the Society of Tomorrow

- A. Engaging in Critical Education: Dialogues on power relations associated with Gender, Ethnicity, Culture, Disability, Class, Poverty, the reproduction of disadvantage and realizing the true human potential.
- B. Being a Critical Teacher: Raising debates around rapid technological advancement and impact on individual, family and social life; the growing isolation and impact on mental and social health and well-being, changing relationships between the 'state' and the 'market' and their impact on formal education; the conceptualization of teacher, teaching and teacher roles, 'globalization' and the reconstructed nationalism shaping the socio-political milieu and impact on social psyche, growing materialistic urge, sensory drives and the gradual deterioration of the individual and societal character.

Practicum:

- Take up a case study of any one teacher education Institution.
- Write a biography of any one of your favorite teachers/ Educationists.

Mode of Transaction:

Teacher and Society is a reflection-based course that invites teachers to re-think teachers and teaching. It awakens and inspires teachers to realize broader educational aims through an action and reflection cycle. The approach therefore would include a blend of lectures, in-class seminars, thinking exercises, critical reflections, group work, case-based approaches, and enquiry-based learning.

- Learners would also be exposed to case studies featuring teachers from a representative cross-section of Schools in India and critically analyse their exercise of agentic force in school improvement and the improvement of teaching practice.
- Situating themselves in the geo-political context, the learners will get to critically engage in some of the policy dialogues.
- Learners would reflect on their practice as pre-service interns, knowledge, skills, and understandings-and identify opportunities to apply course learnings to their school context.

Mode of Assessment:

The entire syllabus is based on practical exercises. Being a very thought-provoking course, the assessment would largely include critical thinking kind of assignments. The following are some exemplars.

- Write your current teaching philosophy based on your beliefs and values.
- Choose any one area of immediate societal concern like environmental degradation, increasing crime against women, cybercrimes, bullying or any other and draw an action plan that you as a teacher would undertake to mobilize self, school and society towards betterment.
- Critical Reflections on popular debates around power relations associated with Gender, Ethnicity, Culture, Disability, Class. Poverty, and others

These are just prototypes and institutes may choose either of these or think of other innovative assignments that would inculcate in future teachers a sense of belonging to society.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Board, Karnatak University, Dharwad. from time to time.

References:

Teachers may suggest books/readings as per the needs of the learners and learning content.

1. Ashton, K. (2021). Novice teacher agency in the multi-level language classroom. *Language, Culture and Curriculum*, 34(3), 242-256.
2. Axline, M.A. (2018). *Dibs: In Search of Self*. Lexington, Massachusetts: Plunkett Lake Press
3. Biesta, G., Priestley, M., & Robinson, S. (2015). The role of beliefs in teacher agency. *Teachers and Teaching: Theory and Practice*, 21(6), 624-640.
4. Bridwell-Mitchell, E. N. (2015). Theorizing teacher agency and reform: How institutionalized instructional practices change and persist. *Sociology of Education*, 88(2), 140-159. <https://doi.org/10.1177/0038040715575559>
5. Dhanraj, S. (2023). In search of compassionate teachers. *Economic and Political Weekly*,

Formative Assessment for Theory	
Assessment Occasion/ Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

III Semester
ITEP B.Sc. B.Ed Physics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Child development & Educational Psychology	4	40	60	100
Discipline Specific Course- DSC						
2.	DSC-1 (Major-1)	Geometrical and Physical Optics, Electricity-I and Basic Electronics	4	40	60	100
3	DSC-2 (Major-2)	Geometrical and Physical Optics, Electricity-I and Basic Electronics- (Practical)	2	30	20	50
4	DSC-3 (Minor-1)	Algebra – II and Real Analysis – I	4	40	60	100
5	DSC-4 (Minor-2)	Chemistry- 4	4	40	60	100
Stage Specific Content Cum Pedagogy- SSCCP						
6	SSCCP-1	Pedagogy of Mathematics-I	2	20	30	50
7	SSCCP-2	Pedagogy of Science- I	2	20	30	50
Total Credits			22	220	330	550

III Semester
ITEP B. Sc., B. Ed Physics

SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education- FCE			1.1 Child development & Educational Psychology
2	Discipline Specific Course- DSC	Major-1		2.1 Geometrical and Physical Optics, Electricity-I and Basic Electronics
		Major-2		2.2 Geometrical and Physical Optics, Electricity-I and Basic Electronics- (Practical)
		Minor-1		2.3 Algebra – II and Real Analysis – I
		Minor-2		2.4 Chemistry- 4
3.	Stage Specific Content Cum Pedagogy- SSCCP			3.1 Pedagogy of Mathematics-I
				3.2 Pedagogy of Science- I

1. Foundation Course of Education- (FCE)

Course Title: 1.1 CHILD DEVELOPMENT & EDUCATIONAL PSYCHOLOGY Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.Sc. B.Ed. (Physics)	FCE-1	Theory	4	40	60	100

Course Outcomes:

After completion of this course, student teachers will be able to:

- describe the meaning, concept, characteristics, and factors affecting growth and development,
- use the knowledge of Indian concept of self,
- apply various problem solving and learning strategies in real classroom settings,
- identify the various approaches of the process of learning,
- explain group dynamics and apply strategies to facilitate group learning.

UNIT - I

Child Development

A. Meaning and significance of understanding the process of Child Development

- Biological, cognitive, socio-emotional, and moral.

B. Developmental characteristics of a child during:

- Infancy stage
- Early Childhood stage
- Middle to Late Childhood stage
- Adolescence stage

C. The Indian concept of self: Mind (मनस्), Intellect (बुद्धि), Memory (स्मृति). Panch-koshIya Vikas (पञ्चकोशीय विकास).

D. Educational Implications.

UNIT - II

Developmental Process

A. Development across domains:

- Physical Development
- Cognitive Development
- Language Development
- Socio-Emotional Development
- Aesthetic Development
- Moral Development

During each of the above-mentioned developmental stages of a child.

B. Factors affecting development.

C. Individual differences:

- Children with special needs including developmental disorders.
- Tools and Techniques for Identifying Learner with different abilities.

D. Teachers' role and strategies to address the needs of learners with different learning abilities.

UNIT - III

Process of Learning

A. Conceptual Clarity and significance.

B. Approaches:

- Behaviorist
- Cognitivist
- Constructivist
- Developmental
- Information processing Model of learning
- Shri Aurobindo's Integral approach

C. Problem Solving and Learning Strategies: Inquiry and problem-based learning, Steps and Strategies in problem solving, Factors hindering problem solving.

D. How to Learn: Significance and Strategies

UNIT - IV

Motivation and Classroom Management

A. Motivation

- Conceptual clarity, nature, and significance
- Intrinsic and Extrinsic Motivation
- Strategies for Motivation

B. Classroom management

- Creating a positive learning environment
- Planning space for learning
- Managing behavioral problems

C. Group dynamics:

- Classroom as a social group
- Characteristics of group
- Understanding group interaction-sociometry
- Strategies to facilitate group learning.

Practicum:

1. Spending day with a child and preparing a report based on our observations of children for:
 - A day from different economic status (low and affluent)
 - Focus on various factors: Physical, emotional, social, language, cultural and religious influencing the child on daily basis.
2. Observing children to understand the styles of children learning process.
3. Identifying the Learning Difficulties of Students in Different learning areas and the Possible Reason for them- Case Study Report.
4. Preparing Personalized Intervention plan for Students with Learning Difficulties.
5. Plan to use advanced technology to encourage talented / gifted children.
6. Encouraging gifted / talented students beyond the general school curriculum.
7. Familiarization and Reporting of Individual Psychological Tests.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad. from time to time.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. Bates. B. (2019). Learning Theories Simplified. Sage Publications Ltd.
2. Berk. L. E. (2011).Child Development. (8th ed.). New Delhi: Pearson Prentice Hall.
Cornelissen. M. & Misra, G.(2013). Foundations and Applications of Indian Psychology. Pearson Education
3. Dehaene, S.(2021). How We Learn: The New Science of Education and The Brain, Penguin Publication
4. Eggen, P. &Kauchak, D. (1999). Educational Psychology: Windows on Classrooms. (4th ed.). New Jersey : Prentice Hall

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

2. Discipline Specific Course- (DSC)

Course Title: 2.1 GEOMETRICAL AND PHYSICAL OPTICS, ELECTRICITY-I AND BASIC ELECTRONICS							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.Sc. B.Ed. (Physics)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to

- ❖ Explain basics of laws of reflection and refraction.
- ❖ Describe different types of aberrations, cardinal points of optical instruments.
- ❖ Demonstrate interference of light due to division of wavefront and amplitude by Fresnel's biprism and Newton's rings experimental setup. Measurement of wavelength of light using experiments like Michelson interferometer.
- ❖ Understand and distinguish application of Gauss law in vacuum and dielectric medium.
- ❖ Determine dielectric constant of solid/liquid materials by experiments in laboratory.
- ❖ Apply the resonant circuits in the field of communication and signal oscillator building.
- ❖ Apply concepts of AC and DC bridges to determine values of resistance, capacitance of capacitor and self-inductance of a coil.

Unit	Title: Geometrical and Physical Optics, Electricity-I and Basic Electronics	60 hrs/ sem
Unit- I	Geometrical Optics: Fermat principle: Derivation of laws of reflection and refraction, sign convention, refraction at a spherical surface, derivation of Lagrange's law and Helmholtz relation, Abbe's sine condition derivation, aplanatic points of a spherical surface(qualitative). Aberrations: Spherical aberrations: methods to reduce spherical aberration (qualitative). Chromatic aberrations: Conditions for achromatism of two thin lenses in contact, two thin lenses separated by finite distance. Cardinal points: Cardinal points of an optical system. Equivalent focal length of two thin lenses separated by a distance. Location of cardinal points of a thick lens (derivation). Experimental determination of cardinal points of a lens system using Searle's Goniometer and Turn Table (Nodal slide).	15 hrs
Unit- II	Physical Optics-1: Interference due to division of wave front: Fresnel's biprism. Determination of wavelength of monochromatic light & thickness of a thin film using biprism. Interference due to division of amplitude: Interference phenomenon with a plane parallel thin film in reflected and transmitted light (with derivation). Interference using wedge shaped film (air wedge). Theory of Newton's rings. Experimental determination of wavelength of monochromatic light using Newton's rings. Michelson interferometer: Principle, construction and working. Formation of circular and straight fringes(qualitative). Mention of the applications of Michelson's Interferometer. Michelson-Morley experiment and its significance.	15 hrs
Unit- III	Theory of Dielectrics: Introduction to dielectric materials. Polar and non-polar molecules with examples. Gauss law in a dielectric medium. Dielectric in an electric field, electric polarization (P), electric displacement (D), electric susceptibility (χ) and atomic polarizability(α), relation between D, E and P. Mechanism of polarization. Boundary condition at a dielectric surface(derivation). Derivation of Clausius–Mosotti equation and its limitations. Dielectric constant and its experimental determination.	15 hrs

	Moving coil Galvanometer: Conditions for a moving coil galvanometer to be ballistic and dead beat. Theory of moving coil ballistic galvanometer (BG). Charge and current sensitivity and their relationship. Measurement of capacitance of a capacitor by absolute method using B.G. Measurement of high resistance by leakage method using B.G.	
Unit- IV	DC Power Supply: Block diagram of regulated power supply, Zener diode characteristics and Zener diode as voltage regulator, Introduction to integrated circuit (IC) and its types, Dual power Supply using 78xx and 79xx ICs. Bipolar Junction Transistor: BJT characteristics in CE mode, Operating point. DC h-parameters and their determination using low frequency transistor model. Single stage RC coupled CE amplifier, Expression for current gain, voltage gain, input and output impedance, frequency response. Brief explanation of positive and negative feedback. Transistor as an oscillator: Hartley and Phase shift oscillators. Junction Field Effect Transistor: Types, characteristics and parameters of JFET. Common source FET amplifier.	15 hrs

References:

1. Principles of Optics (I-Edition) – B.K. Mathur – New Gopal Printing Press, 1962.
2. Fundamentals of Optics (V-Edition) – Khanna & Bedi – R. Chand & Co., New-Delhi, 1971.
3. A Text book of Optics (I-Edition) – Brijlal & Subramanyam - S. Chand & Company Ltd., New-Delhi, 2006.
4. Fundamentals of optics- Khanna and Gulati.
5. Optics (IV-Edition) – Ajay Ghatak –Tata Mc Graw-Hill, New-Delhi, 2006
6. Fundamentals of Optics (III-Edition) – Jenkins & White - Mc Graw-Hill, 1957.
7. Geometrical Optics (I-Edition) – D.P. Acharya – Oxford & IBH Pub. Co., New-Delhi, 1970.
8. Optics & Spectroscopy (VI-Edition) – Murugesan, Kirutiga & Shivaprasath - S. Chand & Company Ltd., New-Delhi, 2006.
9. Geometrical Optics – A. Verstraeten.
10. Fundamentals of Electricity and Magnetism – Basudev Ghosh – Books & Allied New Central Book Agency, Calcutta, 2009.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 GEOMETRICAL AND PHYSICAL OPTICS, ELECTRICITY-I AND BASIC ELECTRONIC- (PRACTICAL) Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.Sc. B.Ed. (Physics)	DSC-2 (Major-2)	Practical	02	20	30	50

List of third semester Physics Experiments:

1. Goniometer
2. Turn table
3. Newton's rings
4. Biprism: Determination of wavelength of monochromatic light.
5. Calibration of a spectrometer.
6. Michelson interferometer.
7. Determination of wavelength of laser light by Young's double slit method.
8. Determination of dielectric constant of a liquid.
9. Calibration of Ballistic Galvanometer (BG): Determination of the constants of B.G.
10. Measurement of capacity by absolute method by using B.G.
11. Determination of high resistance by leakage method, using B.G.
12. Single stage RC coupled CE amplifier.
13. JFET characteristics.
14. Hartley/ Colpitt/crystal Oscillator using BJT.
15. Zener Diode Voltage Regulator/Dual Power Supply using IC 78XX and IC79XX.

Note:

1. Experiments are of four hours duration each.
2. Minimum of Eight experiments to be performed.

References:

1. Physics For Degree Students B. Sc. First Year, S. Chand & Company.
2. Electronics Instrumentation by H S Kalasi.
3. B.Sc. practical Physics – C.L. Arora.
4. Advanced practical Physics – Samir Kumar Ghosh.
5. Advanced practical Physics – Worsnop and Flint.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 2.3 ALGEBRA – II AND REAL ANALYSIS – I							
Course Title:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.Sc. B.Ed. (Physics)	DSC-3 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

After completion of course (Theory), students will be able to:

- ❖ Interpret the fundamental concepts of groups.
- ❖ Explain the significance of the notions of cosets, normal subgroups and factor groups.
- ❖ Learn countable and uncountable sets.
- ❖ Understand the concepts of open set, closed set, etc.
- ❖ Learn the concept of convergence and divergence of a sequence.
- ❖ Understand limits and their use in sequence, series, differentiation, and integration.
- ❖ Analyze the ratio test, root test, alternating series, limit comparison tests for convergence and absolute convergence of an infinite series.

Unit	Title: ALGEBRA – II AND REAL ANALYSIS – I	60 Hours /Sem
Unit – I	Groups:	15 Hrs.
	Groups, Abelian group, Standard examples of groups, Properties of groups, Subgroup, Permutation group, Cyclic groups, Cosets, Lagrange's theorem, Normal sub-groups, Quotient groups, Homomorphism and Isomorphism of groups.	
Unit – II	Introduction to Real Analysis:	15 Hrs.
	Real line, Field and order axioms, Existence of $\sqrt{2}$, Intervals, Bounded and unbounded sets, Supremum and infimum of a set, Completeness property of $\mathbb{R}$, Archimedean property of $\mathbb{R}$. Absolute value of $\mathbb{R}$ – Standard theorems, Neighborhood of a point, Interior point of a set, Open set, Closed set, Limit points of a set, Bolzano-Weierstrass theorem (statement only), Countable and uncountable sets - Standard theorems.	

Unit – III	Sequences:	15 Hrs.
	Sequences of real numbers, Bounded sequences, Limit of a sequence, Convergent, Divergent, and Oscillatory sequences, Monotonic sequences, Algebra of convergent sequences, Limit points of a sequence, Bolzano - Weierstrass theorem for sequence, Cauchy's first and second theorem on limits of a sequence, Cauchy's general principle for convergence of a sequence (Statement).	
Unit – IV	Infinite Series:	15 Hrs.
	Definition of convergent, divergent, and oscillatory series, Geometric series, Cauchy's general principle of convergence of series, p-series, Comparison tests for positive term series. D'Alembert's ratio test, Raabe's test, Cauchy's Root test and Cauchy's integral test, Alternating series, Leibnitz's theorem, Absolute convergence and conditional convergence of a series.	

References:

1. Topics in Algebra, I. N. Herstein, Wiley Eastern Ltd., New Delhi, 2006.
2. Modern Algebra – Surjeet Singh and Q. Zameeruddin, Vikas Publishing House Pvt. Ltd., 2006.
3. Modern College Algebra, D. C. Pavate, Macmillan Publications, 1968.
4. Algebra, S. K. Pundir and B. Singh, Pragati Prakashan, 2020.
6. Mathematical Analysis, S. C. Malik and Savita Arora, New Age International (P) Ltd., 2021.
7. Real Analysis, N. P. Bali (Golden Maths Series), New Age International Publishers, 2023.
8. Real Analysis, M.L. Khanna and S. K. Pundir, Jai Prakash Nath & Co. Meerut, 2014.
9. Introduction to Real Analysis, R. G. Bartle and D. R. Sherbert, Wiley, 2021.
10. Mathematical Analysis, T. M. Apostol, Narosa Publishing House, 2002.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.4 CHEMISTRY-4 Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.Sc. B.Ed. (Physics)	DSC – 4 (Minor-2)	Theory	4	40	60	100

Course Outcomes:

After completion of course, students will be able to:

- ❖ Explain the Chemistry of s- and p- block elements .Preparation and bonding in diborane, borazine & boron nitride. Silicates-Classification and structures. Preparation and structure of oxyacids of nitrogen. Preparation and bonding in oxoacids of phosphorus, sulphur and chlorine. Preparation and bonding in inter halogen compounds ClF_3 , BrF_5 , IF_7 and Pseudo halogens. Preparation and bonding in Xenon compounds- XeF_2 , XeF_4 , XeF_6 and XeO_3
- ❖ Explain Chemistry of d- and f- block elements general characteristics of d-block elements with reference to electronic configuration, colors, variable oxidation states, magnetic, catalytic properties and ability to form complexes. IUPAC nomenclature of elements with atomic number greater than hundred. General characteristics of f-block elements with reference to electronic configuration, oxidation states, colors and magnetic properties. Lanthanide contraction and its consequences. Separation of lanthanoids by ion-exchange method.
- ❖ Synthesis of primary, secondary and tertiary alcohols . Reduction of aldehydes and ketones, carboxylic acids and esters. Reactions of alcohols Preparation of glycol from ethene and glycerol from propene, Oxidation of ethylene glycol, Mechanism of Pinacol-Pinacolone rearrangement.
- ❖ Understand the acidic character of phenol, effect of substituent on acidity of phenol Reactions of Phenol.
- ❖ Know the preparation of ethers, reaction of ethers. Epoxides: Synthesis from alkenes using peroxides, acid and base catalyzed ring opening of epoxides with mechanism and polyether formation. Crown Ethers: Formation and properties (PhaseTransfer Catalyst).
- ❖ Know internal energy and first law of thermodynamics, concept of enthalpy, derivation of work

done in isothermal and adiabatic expansion of an ideal gas for reversible and irreversible processes. Joule-Thomson effect and its derivation. Joule-Thomson co-efficient and its derivation. Effect of temperature on enthalpy of reaction

- ❖ Learn the concept of phases, components and degrees of freedom, derivation of Gibbs Phase Rule; Clausius-Clapeyron equation and its applications to solid-liquid, liquid-vapour and solid-vapour equilibria, phase diagram for one component systems (H_2O and S), with applications. Phase diagrams for two component systems: solid-liquid equilibria involving eutectic, congruent and incongruent melting points.
- ❖ Learn the Nernst distribution law and thermodynamic derivation of partition co-efficient. Applications of solvent extraction- simple and multiple extractions. Derivation for multiple extractions
- ❖ Understand the steps in metallurgy Characteristics, uses and limitations of Ellingham diagrams for reduction of metal oxides using carbon as reducing agent. Extraction of titanium from ilmenite, chromium from chromite & nickel by Mond's process, Extraction of thorium from monazite sand, and uranium from pitchblende.
- ❖ Learn the nuclear particles (positron, neutrino, mesons, pions, and quarks), nuclear instability, nuclear fission and fusion, nuclear reactors, Different types of nuclear reactors, nuclear reactions (α, n), (n, α), (α, p), (p, α), (p, n) and (n, p). Preparation of transuranic elements (Np, Pu, Am and Ru). Applications of radioisotopes in tracer technique, neutron activation analysis and carbon dating (numerical problems).

	Title: CHEMISTRY -4	60 Hrs
UNIT-I	CHEMISTRY OF s , p , d & f -BLOCK ELEMENTS	15 hrs
	Chemistry of s- and p- block elements: General characteristics, anomalous properties of lithium. Diagonal relationship of Li with Mg, and Be with Al. Preparation and bonding in diborane, borazine & boron nitride. Silicates-Classification and structures. Preparation and structure of oxyacids of nitrogen. Preparation and bonding in oxoacids of phosphorus, sulphur and chlorine. Preparation and bonding in inter halogen compounds ClF₃, BrF₅, IF₇ and Pseudo halogens. Preparation and bonding in Xenon compounds- XeF₂, XeF₄, XeF₆ and XeO₃. (10 Lectures) Chemistry of d- and f- block elements: General characteristics of d-block elements with reference to electronic configuration, colors, variable oxidation states, magnetic, catalytic properties and ability to form complexes. IUPAC nomenclature of elements with atomic number greater than hundred. General characteristics of f-block elements with reference to electronic configuration, oxidation states, colors and magnetic properties. Lanthanide contraction and its consequences. Separation of lanthanoids by ion-exchange method. (5 Lectures)	
UNIT-II	ALCOHOLS, PHENOLS AND ETHERS	15 hrs
	Alcohols: Synthesis of primary, secondary and tertiary alcohols using Grignard reagent, ester hydrolysis. Reduction of aldehydes and ketones, carboxylic acids and esters. Reactions of alcohols with halo acids, esterification reaction and oxidation of alcohols with PCC, KMnO₄, HNO₃, K₂Cr₂O₇ and Oppenauer oxidation. Polyhydric alcohols: Preparation of glycol from ethene and glycerol from propene, Oxidation of ethylene glycol, Mechanism of Pinacol-Pinacolone rearrangement. (6 Lectures) Phenols: Acidic character, comparative acid strengths of alcohols and phenols, effect of substituent on acidity of phenol (Explain with –NO₂ , –CH₃ groups and ortho effect). Reactions of Phenol: Kolbe's reaction, Claisen rearrangement, Fries rearrangement, Ledrer-Mannase reaction, Reimer-Tiemann reaction. Schotten – Baumann Reaction(Mechanism to be discussed for all the reactions) (4 Lectures)	

	Ethers: Preparation of ethers, mechanism of Williamson's ether synthesis Reaction of ethers: mechanism of C-O bond cleavage by HI (Explain with symmetric and asymmetric ethers containing tertiary alkyl group and benzene ring). Epoxides: Synthesis from alkenes using peroxides, acid and base catalyzed ring opening of epoxides with mechanism and polyether formation. Crown Ethers: Formation and properties of 18- Crown 6-Ethers. (5 Lectures)	
UNIT-III	THERMODYNAMICS-I, PHASE EQUILIBRIA AND DISTRIBUTION LAW Thermodynamics I: Internal energy and first law of thermodynamics. Concept of enthalpy, derivation of work done in isothermal and adiabatic expansion (T-V and P-V relationships) of an ideal gas for reversible and irreversible processes. Joule-Thomson effect and its derivation. Joule-Thomson co-efficient and its derivation. Effect of temperature on enthalpy of reaction (Kirchhoff's equation), numerical problems are to be solved wherever required. (5 Lectures) Phase Equilibria: Concept of phases, components and degrees of freedom, derivation of Gibbs Phase Rule; Clausius-Clapeyron equation and its applications to solid-liquid, liquid-vapour and solid-vapour equilibria, phase diagram for one component systems (H₂O and S), with applications. Phase diagrams for two component systems: solid-liquid equilibria involving eutectic, congruent and incongruent melting points. (6 Lectures) Distribution law: Nernst distribution law and thermodynamic derivation of partition co-efficient. Distribution law for changes in molecular state (Association and dissociation). Applications of solvent extraction- simple and multiple extractions. Derivation for multiple extractions, numerical problems.(4 Lectures)	15 hrs
UNIT-IV	METALLURGY AND NUCLEAR CHEMISTRY Principles and processes of metallurgy: Minerals, ores, stages in metallurgy (crushing, concentration, calcination, roasting, smelting/reduction, refining). Characteristics, uses and limitations of Ellingham diagrams for reduction of metal oxides using carbon as reducing agent. Extraction of titanium from ilmenite, chromium from chromite & nickel by Mond's process,	15 hrs

	Extraction of thorium from monazite sand, and uranium from pitchblende. (9 Lectures) Nuclear chemistry Nuclear particles (positron, neutrino, mesons, pions, and quarks), nuclear instability, nuclear fission and fusion, nuclear reactors- power and breeder, nuclear reactions (α , n), (n, α), (α , p), (p, α), (p, n) and (n, p). Preparation of transuranic elements (Np, Pu and Am). Applications of radioisotopes- tracer technique, neutron activation analysis and carbon dating (numerical problems). (6 Lectures)	

References:

1. Modern Inorganic Chemistry: R.D.Madan, S.Chand and Co.Ltd, New Delhi, 2019
2. Chemistry of degree students, R.L.Madan, S.Chand and Co.Ltd, New Delhi.
3. Lee, J.D. Concise Inorganic Chemistry ELBS, 1991.
4. Cotton, F.A., Wilkinson, G. & Gaus, P.L. Basic Inorganic Chemistry, 3rd Ed., Wiley.
5. Huheey, J. E., Keiter, E.A., Keiter, R.L. & Medhi, O. K. Inorganic Chemistry: Principles of Structure and Reactivity, Pearson Education India, 2006.
6. Rodgers, G. E. Inorganic & Solid State Chemistry, Cengage Learning India Ltd., 2008.
7. Organic Chemistry-P. Y. Bruice, 7th Edition, Pearson Education Pvt. Ltd., New Delhi (2013).
8. Heterocyclic Chemistry- R. K. Bansal, 3rd Edition, New- Age International, New Delhi, 2004.
9. McMurry, J.E. Fundamentals of Organic Chemistry, 7th Ed. Cengage Learning India Edition, 2013.
10. Morrison, R.T. & Boyd, R.N. Organic Chemistry, Pearson, 2010.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

3. Stage Specific Content Cum Pedagogy-(SSCCP)

Course Title: 3.1 PEDAGOGY OF MATHEMATICS-I Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.Sc. B.Ed. (Physics)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

- After completion of this course, student teachers will be able to:
- describe the nature, scope, and values of mathematics and its place in the school curriculum,
- state comprehensively the objectives of teaching and learning Mathematics at the middle stage of school education,
- explain the contribution of eminent mathematicians,
- evaluate the curriculum used in mathematics at the middle stage according to latest NCF,
- analyze the mathematics curriculum at the middle stage level and explore the diverse backgrounds and interests that children bring to the classroom,
- demonstrate the various methods of teaching mathematics,
- classify different approaches and methods of teaching and learning Mathematics,

UNIT – I: Nature and Scope of Mathematics Education

- A. Nature of Mathematics- abstractness, precision, brevity, language, and symbolism.
- B. Structure of Mathematics (axioms, postulates, undefined terms, defined terms, theorems, proofs).
- C. The role of intuition and logic in mathematical thinking, Axiomatic Nature of mathematics, Language of mathematics.
- D. How mathematical ideas grow- concrete to abstract, particular to general, hierarchical structures.
- E. Values of Mathematics: cultural, disciplinary, moral, social, and utilitarian values.
- F. Scope of Mathematics, correlation of mathematics with other subjects.
- G. Aims and objectives of teaching and learning Mathematics at middle stage.
- H. General and specific learning objective according to Bloom's Taxonomy with Anderson revision, writing the objective in behavioristic terms. Meaning and characteristics of instructional objective.

UNIT – II: Historical/ Policy Perspective of the Mathematics

- A. Historical development of Mathematics: historical development of notations and number systems, contribution of Mathematicians (with emphasis on Indian Mathematicians - Aryabhata, Brahmagupta, Bhaskar I, Srinivasa Ramanujan), Vedic Mathematics and its application.
- B. Mathematics as an art, music, beauty, and aesthetic experience in Indian context
- C. Analyzing NEP 2020 with reference to pedagogical issues of Mathematics teaching at middle stage.
- D. Place of the Mathematics in middle stage curriculum.,
- E. Policies on creating inclusive classrooms for Mathematics education.
- F. Critical evaluation of the curriculum used in mathematics at the middle stage according to NCF 2005, NCF 2006& NCF 2022.
- G. Recommendations of various agencies: National and International documents on Mathematics Education with specific reference to middle stage of school.

UNIT – III: Pedagogical Concerns of Mathematics

- A. Content categories in Mathematics: (Facts, Concepts, Illustrations, Generalization).
- B. Content analysis in Mathematics, concept mapping in Mathematics (taking sample contents from Arithmetic, Algebra, Geometry).
- C. Approaches of Teaching Mathematics: Constructivist, Experiential Learning, Art Integrated Learning, Sports- Integrated Learning, Interdisciplinary and Multidisciplinary Approaches.
- D. Models: Inquiry Training Model (ITM), Concept attainment Model (CAM), Mastery Learning Model.
- E. Methods of Teaching Mathematics: Teacher centric- Lecture cum Demonstration, Discussion, Inductive-Deductive, Learner centric - Activity Based, Hands on Activity, Play-Way method, Group-Centric: Problem-Solving, Project Based, Inquiry based, Collaborative and Cooperative Learning, Problem-Solving, STEM and STEAM, Blended Learning.

Practicum:

- Preparation of a report of observation of children doing Mathematics every day, playing folk games or community numeracy practice.
- Design the concept map of any topics of middle stage Mathematics.
- Prepare the biographic sketches of any one of Indian Mathematicians.
- Developing rubrics for problem solving, assignment, group work, project etc.
- Prepare a seminar paper on ‘Mathematics in Everyday life’.
- Analyzing the structure of Mathematics present in selected chapter/unit.

Mode of Transaction:

Experimental method, Demonstration, Field-based experience, Laboratory method, Storytelling/success stories, classroom discussions, Self-study, classroom presentations, discussion forums, observation, research report, engaging in dialogue.

Mode of Assessment:

Written test, classroom presentation, practice teaching, workshop, assignments, practicum, sessional and terminal semester examination.

References:

- NCERT (2012), Pedagogy of Mathematics- Textbook for Two-Year B.Ed Course, New Delhi.
- NCERT (2005). National Curriculum Framework. New Delhi: NCERT

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 3.2 PEDAGOGY OF SCIENCE- I							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
III	B.Sc. B.Ed. (Physics)	SSCCP-2	Theory	2	20	30	50

Course outcomes:

After completion of this course, student teachers will be able to:

- state the nature, scope, and importance of science as a subject in the middle stage of schooling,
- identify the necessity of science as a special subject at the middle stage and pedagogy of science in the teacher education programme,
- narrate the objectives of teaching science at the middle stage as a preparatory programme,
- identify the linkages of science with other school subjects,
- narrate the value inculcation process through science teaching,
- explain the usefulness of the subject in a child's day-to-day life,
- describe the recommendations of the Indian education commission and education policy and NCFSE 2023 for strengthening science education in the school process,
- describe the process of making science teaching interesting,
- identify the contribution of a few Indian personalities in the field of science to use their work and life as tools of inspiration for school children.

UNIT – I: Understanding Emergence of Science as a Subject

- A. Meaning, nature, and importance of science as a subject at the middle stage.
- B. Developing concept to form Science as a subject at the middle stage different from Environmental Studies at the preparatory stage.
- C. Objectives of teaching Science as a base program for teaching Science at the secondary level.
- D. Science process skills and its indicators.
- E. Science outside the classroom through activity and scientific study.

UNIT – II: Understanding Linkages of Science with other Subjects and Values Inculcation

- A. Objectives of pedagogy of science at the middle stage.
- B. The linkages and correlation of science in other subjects.
- C. Roles and types of communication in science teaching.
- D. Engaging children in active Science with selected activities from the textbook at the middle stage.
- E. Values inculcated by science teaching at the concrete operational stage.
- F. Value of Science education in human life: arousing and maintaining interest in children in science such as practical values, cultural values, and recreational values.

UNIT – III: Understanding Pedagogy of Science and Related Challenges

- A. Pedagogy of Science: meaning, nature, scope. Factors influencing pedagogy of science. The process of making Science interesting in the middle stage.
- B. Necessity of pedagogy of science at the middle school stage.
- C. Development of children's Science concepts, process skills, and attitude.
- D. Recommendations of the Education Commission (1964-66), NCFSE 2023, and NEP 2020 for teaching Science in schools.
- E. Challenges of implementation of pedagogy of science in schools.
- F. Some great Indian personalities in the field of Science – Varaha Mihira, Charaka, Aryabhatta, Maharshi Patanjali, C.V. Raman, Homi Jahangir Bhabha, Sir Jagdish Chandra Bose, A. P. J. Abdul Kalam.

Practicum:

1. Differentiating scope and level of difficulty of science-related concepts in the environmental studies textbook of Class V and science concepts in the textbook of Class VI
2. Find out the challenges involved in science pedagogy at the middle stage.
3. Select a chapter from science texts and develop values-related activities from it.
4. List the recommendations of the Education Commission Report, NCFSE2023 and NEP 2020 relating to science teaching.

5. Suggest/develop the means to achieve the recommendations through the implementation of the Policy.
6. Find out with examples the relationship of science as a subject with other subjects at the middle stage.
7. List the contribution of Indian scientists to enrich the status of Indian society as a tool of inspiration for school children.
8. Identify the underlying values from any chapter of science textbooks in the light of types of values as indicated in Unit 2 at the middle stage.

Mode of Transaction

Discussion, Brainstorming session, Group discussion, Assignment, Group activity, Classroom presentation by student teachers.

Mode of Assessment

Assignment, Classroom presentation, Peer assessment, Objective based, restricted response and essay type tests, Internal and external tests as required by the system.

References:

1. National Curriculum Framework for School Education 2023
2. National Education Policy. (2020). Ministry of Education. Govt. of India. New Delhi.
3. Report of The Education Commission (1964-66). Ministry of Education. New Delhi

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

IV Semester

ITEP B. Sc B. Ed Physics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Philosophical & Sociological Perspectives of Education -I	4	40	60	100
Discipline Specific Course- DSC						
2.	DSC- 1 (Major-1)	Wave Optics, Electricity-II and Electromagnetic Theory	4	40	60	100
3	DSC- 2 (Major-2)	Wave Optics, Electricity-II and Electromagnetic Theory- (Practical)	2	20	30	50
4	DSC- 3 (Major-3)	Classical And Quantum Mechanics-I, Modern Physics-I	4	40	60	100
5	DSC -4 (Minor-1)	Differential Equations and Integral Transforms	4	40	60	100
6	DSC-5 (Minor-2)	Chemistry-5	4	40	60	100
Stage Specific Content Cum Pedagogy - SSCCP						
6	SSCCP-1	Pedagogy of Mathematics-II	2	20	30	50
7	SSCCP-2	Pedagogy of Science -II	2	20	30	50
Total Credits			26	260	390	650

IV Semester
ITEP B.Sc. B. Ed Physics
SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education-FCE			1.1 Philosophical & Sociological Perspectives of Education -I
2	Discipline Specific Course- DSC	Major-1		2.1 Wave Optics, Electricity-II and Electromagnetic Theory
		Major-2		2.2 Wave Optics, Electricity-II and Electromagnetic Theory- (Practical)
		Major-3		2.3 Classical and Quantum Mechanics-I, Modern Physics-I
		Minor-1		2.4 Differential Equations and Integral Transforms
		Minor-2		2.5 Chemistry-5
3.	Stage Specific Content Cum Pedagogy - SSCCP			3.1 Pedagogy of Mathematics-II
				3.2 Pedagogy of Science -II

1. Foundation Course of Education- (FCE)

Course Title: 1.1 PHILOSOPHICAL & SOCIOLOGICAL PERSPECTIVES OF EDUCATION -I							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.Sc. B.Ed. (Physics)	FCE-1	Theory	4	40	60	100

Course Outcomes:

After completion of course, students will be able to:

- ❖ To encourage students to explore the nature of knowledge, the nature of human beings, the nature of society and its aims and the educational implications of these understandings.
- ❖ To engage the prospective teachers to read and acquaint themselves with the meaning of terms like Vidya, Avidya, Shiksha, Education etc. and to facilitate them to understand and differentiate them through reflections on these terms on the basis of ancient Indian texts.
- ❖ To facilitate prospective teachers to engage themselves in peer groups for sharing of their real-life reflective experiences regarding socio-cultural and philosophical living and facilitate them to conceptualize the meaning of terms like philosophical, social and cultural traditions in Indian educational context.
- ❖ To orient and engage prospective teachers to read, observe and understand the vision of some great Indian and global educators and categorically reflect on vision/aim, process of education and the contemporary relevance.

UNIT – I: Education and Philosophy

- A. Conceptual clarity, nature and relationships.
- B. Aims of studying philosophical perspective of education.
- C. Branches of Philosophy and their educational implications: Metaphysics, Epistemology, Axiology
- D. Understanding Indian Perspective of Education
 - Meaning, nature and aims of education with special reference to Vedic, Buddhist, Jain, Sikh and Islamic traditions.
 - Understanding the terms Darshana, Para and Apra Vidya, Avidya, Shiksha, Samvaad, Panchkosha, Gurukulam, Acharya, Guru, Shishya, Upadhyaya, Jigyasa, Swadhyaya.

- E. Understanding Western Perspective of Education
- Meaning, Nature and aims of education with reference to Cognitive, Behaviorist and Developmental theories of Education.

UNIT – II: Philosophical Schools and Education

A. Conceptual Clarity of the following schools of thoughts with their implications for educational practices:

- **Bharatiya:** Samakhya, Yoga, Nyaya, Vaisheshika, Mimamsa, Vedanta
- **Western:** Idealism, Naturalism, Pragmatism, Progressivism.

UNIT - III: Educational Thinkers

A. Deliberations on aims, process and educational institutions developed on thoughts of following thinkers and practitioners:

- **Bharatiya:** Swami Vivekananda, Sri Aurobindo Ghosh, Gurudev Rabindra Nath Tagore, J. Krishnamurti, Mahatma Madan Mohan Malaviya, Mahatma Gandhi, Gijubhai Badheka.
- **Western:** J. Rousseau, Maria Montessori, Friedrich Froebel, John Dewey.

UNIT - IV: Value Education

- A. Conceptual Clarity, Significance and Types of Values.
- B. Indian Traditional Values.
- C. Guru-Shishya-Parampara and Educational Values.
- D. Convocation message in Taittiriya Upanishad.
- E. Values enshrined in Indian Constitution.
- F. NEP, 2020 and Values with special reference to 21st Century.
- G. Pedagogical Issues.

Practicum:

1. Individual/group assignments/tasks in various forms like writing small paragraphs/brief notes, conceptualizations on specific terms etc.
2. Institutional visits in small groups in coordination to institutions related to different thinker/s and preparation of a report followed by individual/group presentation.
3. Sharing of student experiences (in groups) related to readings on great thinkers help the to reshape their concept and enable them to develop vision, mission and objectives for a school and their plan to accomplish the objectives in form of a group report.
4. Identification and reporting of Indian perspective related to educational aims, student-teacher characteristics, methods, evaluation procedure, convocation etc. based on critical study of life and thoughts of thinkers.

Mode of Transaction:

The course content transaction will include the following:

- Organized lectures using variety of media.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, engagement of in reading of primary or secondary sources of literature (Original texts, reference books etc.) related to different aspects of life and education of Great Educators, case studies, short term project work etc.
- Critically examining their experiences to carve out their world and life view and further analyze them from philosophical point of view to reshape their perspective. They will engage prospective teachers in the development of comparative educational charts related to vision, aims, process, institution etc. They will also lead to reading-based interactions and critical reflections related to process and significance of entry/admission rituals, convocation system etc.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

2. Discipline Specific Course-(DSC)

Course Title: 2.1 WAVE OPTICS, ELECTRICITY-II AND ELECTROMAGNETIC THEORY Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.Sc. B.Ed. (Physics)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- ❖ Explain diffraction due to different objects like single slit, two slits, diffraction of grating, oblique incidence, circular aperture and give the theory and experimental setup for the same.
- ❖ Explain the polarization of light and obtain how the polarization occurs due to quarter wave plates, half wave plates, and through the optical activity of a medium.
- ❖ Understand how to produce magnetic field from electric current. Understand magnetic field produced by current in toroid and solenoid.
- ❖ Distinguish Seebeck and Peltier effect and their applications to real life. Also able to distinguish different type of thermocouples as temperature sensors.
- ❖ Explain Maxwell's equations to articulate the relationship between varying electric and magnetic field. Also able to explain electromagnetic waves and their characteristics.

Unit	Title: Wave Optics, Electricity-II and Electromagnetic Theory	60 hrs./sem
Unit- I	Wave optics: Fresnel diffraction: Fresnel's treatment of the wavefront and Fresnel assumptions. Theory of half period zones considering plane wave fronts. Zone plate: construction, theory and expression for focal length. Comparison between zone plate and convex lens. Fraunhofer diffraction: Fraunhofer diffraction at a single slit and at a double slit. Diffraction grating. Theory of Plane transmission grating. Dispersive power of grating. Comparison of grating and Prism spectra.	15 hrs.

	Polarization: Malus law. Huygen's theory of double refraction. Positive and negative crystals. Wave plates: quarter wave plate and half wave plate. Optical activity, specific rotation. Laurent's Half Shade Polarimeter: Construction and working.	
Unit- II	Resonance Circuits, D. C. and AC Bridges: Resonance Circuits: Operator j, Argand diagram. LCR series circuit- Expression for current, impedance and phase (using j-operator method). Condition for resonance, resonant frequency, bandwidth, quality factor and the relation between them. LCR parallel circuit (Series L-R in parallel with C): Expression for admittance and the condition for resonance (using j-operator method). Comparison between series and parallel resonant circuits. D.C. & A.C. Bridges: D.C. Wheatstone Bridge and its demerits (qualitative discussion without derivation). Measurement of inductance, Theory of Maxwell's bridge and Anderson's bridge. Comparison of capacities of two condensers by deSauty's method.	15 hrs.
Unit- III	Magnetostatics and Thermoelectricity: Magnetostatics: Overview of basics of Magnetostatics: Statement of Biot-Savart' law, derive the expression for magnetic field due to a straight conductor carrying current, mention the expression for the field along the axis of a circular coil and discuss the special cases. Tangent law, Helmholtz galvanometer-principle, construction and working. Ampere's circuital law-statement, proof and its applications (for D. C.) to derive the magnetic field due to Solenoid and Toroid. Thermoelectricity: Seebeck effect, Variation of thermo-emf with temperature. Neutral temperature and temperature of inversion. Thermoelectric series. Peltier effect, Thomson effect. Thermoelectric laws. Derivation of the relations $\pi = T (de/dT)$ and $\sigma_a - \sigma_b = T (d^2e/dT^2)$. Tait diagram and its uses. Thermoelectric generators (TEG), Peltier-cooling, Thermoelectric cooler (TEC).	15 hrs.
Unit- IV	Electromagnetic Induction and Electromagnetic Theory: Overview of basics of EMI. Determination of self-inductance by Rayleigh's method. Determination of mutual inductance by direct method. Electromagnetic Theory: Fields, types of fields, flux and circulation of a vector field, gradient of a scalar field and its significance, vector point function (electric	15 hrs

	field intensity) and scalar point function (electric potential) and relation between them for an electrostatic charge distribution. Divergence and curl of a vector field and their significance; Gauss divergence theorem (derivation) and Stokes theorem (derivation). Electromotive force (emf) as the circulation of electric field intensity (derivation); continuity equation (proof) and its significance. Concept of displacement current. Setting up of the differential form of Maxwell's equations (derivations). Poynting's theorem (statement and derivation).	

References:

- 1.Principles of Optics (I-Edition) – B.K. Mathur – New Gopal Printing Press, 1962.
- 2.Fundamentals of Optics (V-Edition) – Khanna & Bedi – R. Chand & Co., New-Delhi, 1971.
- 3.A Text book of Optics (I-Edition) – Brijlal& Subramanyam - S. Chand & Company Ltd., New-Delhi, 2006.
- 4.Fundamentals of optics- Khanna and Gulati.
- 5.Optics (IV-Edition) – Ajay Ghatak –Tata Mc Graw-Hill, New-Delhi, 2006
- 6.Fundamentals of Optics (III-Edition) – Jenkins & White - Mc Graw-Hill, 1957.
- 7.Geometrical Optics (I-Edition) – D.P. Acharya – Oxford & IBH Pub. Co., New- Delhi,1970.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 WAVE OPTICS, ELECTRICITY-II AND ELECTROMAGNETIC THEORY- (PRACTICAL) Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.Sc. B.Ed. (Physics)	DSC-2 (Major-2)	Practical	2	20	30	50

List of fourth semester Physics Experiments:

1. R.P. of grating.
2. RP of Prism.
3. Determination of wavelength of laser light by diffraction: single slit method.
4. Polarimeter: Determination of specific rotation of sugar solution.
5. Study of elliptically polarized light/Verification of Malus law.
6. Study of elliptically polarized light using polarizer - analyzer setup and sodium vapor source.
7. Helmholtz galvanometer.
8. Determination of magnetic field along the axis of a coil
9. Series /parallel resonance circuit.
10. Determination of coefficient of self-inductance (L) by Rayleigh's method
11. Determination of coefficient of self-inductance (L) using Anderson's bridge .
12. Determination of coefficient of mutual inductance by direct method/Carey-Foster's method.
13. Measurement of emf of a thermocouple at various temperatures and verification of any one law of thermoelectric effect.
14. Study of Seeback effect.
15. Study of Peltier Effect (Thermoelectric Cooler-TEC).

Note:

1. Experiments of four hours' duration each.
2. Minimum of Eight experiments to be performed.

References:

1. Physics for Degree Students B. Sc. First Year, S. Chand & Company.
2. Electronics Instrumentation by H S Kalasi.
3. B.Sc. practical Physics – C.L. Arora.
4. Advanced practical Physics – Samir Kumar Ghosh.
5. Advanced practical Physics – Worsnop and Flint.
6. Advanced practical Physics-I & II, S.P.Singh.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 2.3 CLASSICAL AND QUANTUM MECHANICS-I, MODERN PHYSICS-I Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.Sc. B.Ed. (Physics)	DSC-3 (Major-3)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to:

- ❖ Identify the failure of classical physics at the microscopic level.
- ❖ Alternate approach towards the study of classical mechanics by Varangian, Variational and Hamiltonian formulations.
- ❖ Find the relationship between the normalization of a wave function and the ability to calculate expectation values or probability densities.
- ❖ Explain the minimum uncertainty of measuring both observables on any quantum state.
- ❖ Describe the time-dependent and time-independent Schrödinger equation for simple potentials like for instance one-dimensional potential well and Harmonic oscillator.
- ❖ Describe the processes of alpha, beta and gamma decays based on well-established theories.
- ❖ Explain the basic aspects of interaction of gamma radiation with matter by photoelectric effect, Compton scattering and pair production.
- ❖ Explain the different nuclear radiation detectors such as ionization chamber, Geiger-Mueller counter etc.
- ❖ Explain the basic concept of scintillation detectors, photo multiplier tube and semiconductor detectors.
- ❖ Get hands on training in wiring a circuit, soldering, making a measurement using an electronic circuit used in instrumentation.
- ❖ Have an understanding of the basic electronic components viz., resistors, capacitors, inductors, discrete and integrated circuits, color codes, values and pin diagram, their practical use.
- ❖ Understanding of the measurement of voltage, current, resistance value, identification of the terminals of a transistor and ICs.

- ❖ Understand and give a mathematical treatment of the working of rectifiers, filter, data converters and different types of transducers.
- ❖ Connect the concepts learnt in the course to their practical use in daily life.
- ❖ Develop basic hands-on skills in the usage of oscilloscopes, multi meters, rectifiers, amplifiers, oscillators and high voltage probes, generators and digital meters.
- ❖ Servicing of simple faults of domestic appliances: Iron box, immersion heater, fan, hot plate, battery charger, emergency lamp and the like.

Unit	Title: CLASSICAL AND MODERN PHYSICS-I	60 hrs./sem
Unit- I	<u>Classical Mechanics-I:</u> Constraints (Holonomic, Non-holonomic, Scleronomic, and Rheonomic constraints with examples), Degrees of freedom, space point and configuration space, virtual displacement and principle of virtual work, Generalized co-ordinates, generalized displacement, generalized velocity and generalized force, D'Alembert's Principle, Derivation of Lagrange's equation of motion using D'Alembert's Principle (For holonomic case), Applications of the Lagrangian formulation: Simple pendulum, Atwood's machine and Linear Harmonic Oscillator(one dimension).	15 hrs.
Unit- II	<u>Quantum Mechanics-I:</u> Brief discussion on failure of classical physics to explain black body radiation, Photoelectric effect, Compton effect, stability of atoms and spectra of atoms. Compton Scattering: Expression for energy of the scattered photon, kinetic energy of the recoil electron and Compton shift (with derivation). Matter Waves: de Broglie hypothesis. Expression for group velocity and Phase velocity of matter waves. Davisson and Germer experiment and its significance. Uncertainty principle: Statement and illustration by Gamma ray microscope and diffraction of electrons at a single slit. Wave Mechanics: Setting up of time independent Schrodinger's equation. Physical interpretation of wave function. Eigen function and Eigen values. Expression for energy of a Particle in a one-dimensional infinite potential	15 hrs.

	well(derivation), One-dimensional simple harmonic oscillator (qualitative)- concept of zero-point energy.	
Unit- III	<u>Nuclear Physics:</u> Radioactivity: Half-life, activity and decay constant. Alpha decay: Gamow's theory of Alpha decay (Without derivation). Derivation of expression for alpha disintegration energy. Range of Alpha particles. Experimental determination of range of alpha particles. Geiger-Nuttal relation and its significance (qualitative). Beta decay: Types of beta decay with examples. The neutrino theory of beta decay (qualitative). Decay scheme of Tl-204. Gamma decay: Origin of Gamma rays. Decay schemes of Cs-137 and Na-22. Nuclear forces: Meson theory of nuclear forces. Nuclear models: Liquid-drop model: Semi-empirical mass formula and explanation of the terms, nuclear fission on the basis of liquid-drop model. Shell model (qualitative), Magic numbers. Nuclear Reactions: Energy balance in nuclear reactions and the Q-value. Detectors: Geiger-Muller counter: Characteristics, dead time, working and applications. Accelerators: Theory, construction and working of Cyclotron.	15 hrs.
Unit- IV	Electronics: Integrated Circuits (ICs): IC741 and its characteristics (both ideal and practical). Voltage transfer characteristics of op-amp and its significance. Inverting and non-inverting amplifier, Wein bridge and Phase shift oscillators using op-amp. IC555 timer: internal configuration; operation of IC555 as Astable multivibrator (qualitative). Digital Electronics: Basic theorems of Boolean algebra, Basic and Universal gates. Demorgan's theorems. IC7400: Pin configuration and applications. Digital to Analog (D/A) and Analog to Digital (A/D) converters, Ladder type (R-2R) D/A converter using Op-amp. Communication: Mention the types of radio wave propagation. Radio wave propagation through ionosphere: Critical frequency, critical angle, MUF, virtual height, secant law.	15 hrs

	Amplitude modulation (AM): Modulation index, frequency spectrum of AM, AM modulator using BJT. Frequency Modulation (FM): Modulation index, FM spectrum, Comparison between FM and AM. Demodulation: AM detection using PIN diode (qualitative).	

References:

1. Classical Mechanics, H. Goldstein, C.P. Poole, J.L. Safko, 3rd Edn. 2002, Pearson Education.
2. Classical Mechanics: An introduction, Dieter Strauch, 2009, Springer Physics Vol. No.I (V Edition)
3. Classical Mechanics, G. Aruldas, 2008, Prentice-Hall of India Private limited, New Delhi.
4. Classical Mechanics, Takwale and Puranik-1989, Tata McGraw Hill, New Delhi.
5. Resnick, Halliday & Krane – John Wiley & Son's Inc., New-York, Singapore, 2005.
6. Berkely Physics, Vol. No. I – ABC Publications, Bangalore & New-Delhi.
7. University Physics (XI-Edition)- Young & Freedman – Pearson Education, 2004.
8. Classical Mechanics (XVII ed)- Goldstein-Narosa Publishing New Dhli,1998.
9. Quantum Mechanics vol 1 and vol 2(I ed)- Shrivatsav-Pragati Prakashan, Meerat,1977.
10. Quantum Mechanics- Gupta, Kumar & Sharma- Jayprakashnath & Co, Meerat,2004.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.4 DIFFERENTIAL EQUATIONS AND INTEGRAL TRANSFORM Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.Sc. B.Ed. (Physics)	DSC-4 (Minor-1)	Theory	4	40	60	100

Course Outcomes:

After completion of the course (Theory), students will be able to:

- ❖ Get the knowledge of exact differential equations.
- ❖ Solve Complimentary Function and Particular Integrals of given differential equations.
- ❖ Formulate partial differential equations.
- ❖ Solve linear and non-linear partial differential equations.
- ❖ Understand convolution theorem and its consequences. Interpret Fourier series and transforms.
- ❖ Solve differential equations by Laplace transforms

Unit	Title: DIFFERENTIAL EQUATIONS AND INTEGRAL TRANSFORMS	60 Hours/ Sem
Unit – I	Ordinary Differential Equations:	15 Hrs.
	Bernoulli's differential equations. Exact differential equations: Necessary and sufficient condition for the equations to be exact, Reducible to the exact differential equations. Differential equations of the first order and higher degree: Equations solvable for p, x, y. Clairaut's equation, Linear differential equations of the n^{th} order with constant coefficients. Particular Integrals when the RHS is of the form e^{ax} , $\sin(ax+b)$, $\cos(ax+b)$, x^n , $e^{ax}.V$ and $x.V$ (with proofs), where V is a function of x.	

Unit – II	Partial Differential Equations:	15 Hrs.
	Formation of partial differential equations by elimination of arbitrary constants and functions, Condition of integrability of $Pdx+Qdy+Rdz=0$, Solution of partial differential equations of first order, Lagrange's linear equations of the form $Pp + Qq = R$, Standard types of first order non-linear partial differential equations. The integrals of the non-linear equation by Charpit's method. Homogeneous linear partial differential equations with constant coefficients.	
Unit – III	Laplace Transforms:	15 Hrs.
	Definition, Basic Properties, Laplace transforms of some standard functions, Laplace transform of Periodic functions, Laplace transform of derivative and integral of a function, Heaviside function, Dirac-delta function, Convolution theorem, Inverse Laplace transforms and its properties, Solution of differential equations by using Laplace transforms.	
Unit – IV	Fourier Series and Transforms:	15 Hrs.
	Periodic functions, Fourier coefficients, Fourier series of functions with period 2π and period $2L$. Fourier series of even and odd functions, Half range cosine and sine series, Fourier Transforms: Finite Fourier cosine and sine transforms, Transforms of derivatives.	

References:

1. Ordinary Differential Equations and Partial Differential Equations, M. D. Raisinghania, S. Chand & Company, New Delhi, 2020.
2. A First Course in Ordinary Differential Equations, S. K. Tumuluri, CRC Press, 2021.
3. Introductory Course in Differential Equations, D. A. Murray, Khosla Publishing, 2021.
4. Ordinary Differential Equations, M. Tenenbaum and H. Pollard, Dover Publications, 1986.
5. Differential Equations, B. Singh and S. K. Pundir, Pragati Prakashan, 2020.
6. An Elementary Treatise on Differential Equations and their Applications, H. T. H. Piaggio, Alpha Edition, 2019.
7. Elements of Partial differential equations, I. N. Sneddon, Dover Publications, 2006.
8. Differential Equations with Applications and Historical Notes, G. F. Simmons, Tata McGraw Hill, 2023.
9. Laplace Transforms, M. R. Spiegel (Schaum's Series), McGraw-Hill International Ed., 2005.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.5 CHEMISTRY -5 Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.Sc. B.Ed. (Physics)	DSC-5 (Minor-4)	Theory	4	40	60	100

Course Outcomes :

After completion of course (Theory), students will be able to:

- ❖ Understand the types of solids, symmetry elements, unit cells, crystal systems, Laws of Crystallography - Law of constancy of interfacial angles, Miller indices. X-Ray diffraction by crystals, Structures of NaCl, KCl and CsCl. Defects in crystals.
- ❖ Learn about the theories of coordination compounds, IUPAC system of nomenclature. Isomerism in coordination compounds
- ❖ Gain the knowledge in inorganic polymers like Silicones & Phosphazines
- ❖ Acquire the knowledge in properties and typical reactions in liquid ammonia and liquid Sulphur dioxide.
- ❖ Understand the structure, properties and mechanisms of the reactions in the carbonyl compounds.
- ❖ Understand the preparation, properties and the mechanism of the reactions in Carboxylic acid and amines.
- ❖ Learn the about entropy, free energy, second law of thermodynamics, and variation of free energy with several variables.
- ❖ Understand the classification of polymers degree of polymerization, the mechanism of polymerization Molecular weight of polymers and determination
- ❖ Learn about thermodynamics of ideal solution, Gibb's Duhem – Margules equation and its applications, theory of fractional distillation: completely immiscible liquids, solutions of solid in liquids, solid solution Know types of adsorption isotherms, types of catalysis and their theories with examples and autocatalysis.

UNIT	Chemistry -5	60 Hrs
UNIT-I	COORDINATION CHEMISTRY-I , INORGANIC POLYMERS & NON - AQUEOUS SOLVENT	15 hrs
	Solids: Types of solids. Symmetry elements, unit cells, crystal systems, Bravais lattice types and identification of lattice planes. Laws of Crystallography - Law of constancy of interfacial angles, Law of rational indices. Miller indices. X-ray diffraction by crystals, Bragg's law. Structures of NaCl, KCl and ZnS. Defects in crystals. (5 Lectures) Coordination chemistry-I Classification of ligands. Werner's theory of coordination compounds with reference to Cobalt ammine complexes. IUPAC system of nomenclature. Isomerism in coordination compounds (ionization, hydrate, linkage, geometrical and optical) with respect to coordination number 4 and 6. Valence bond theory- strong and weak field complexes of Cr, Fe, Co, Ni and Cu with coordination number 4 and 6 and their magnetic properties. Limitations of valence bond theory. (5 Lectures) Inorganic polymers: General properties and types of inorganic polymers. Comparison with organic polymers. Silicones: Classifications, preparation and structure. Phosphazines: Preparation and structure of phospho nitrilic chloride (trimer). (3 Lectures) Non-aqueous solvents: Solvent properties and typical reactions studied in liquid ammonia and liquid sulphur dioxide. (2 Lectures)	
UNIT-II	CARBONYL COMPOUNDS AND AMINES Carbonyl Compounds: Structure of carbonyl compounds, General mechanism of nucleophilic addition to the carbonyl compounds, mechanism of addition of hydrogen cyanide and hydroxyl amine, addition of alcohol, amines. Acidity of α-hydrogens, mechanism of aldol condensation, crossed aldol condensation, Perkin's reaction, Claisen's condensation, Dieckman condensation and Darzen's condensation. Reactions of compounds with no α-hydrogens: mechanism of Benzoin condensation and Cannizaro's reaction, crossed Cannizaro's reaction. Reduction of carbonyl groups via Wolf-Kishner reduction and Meerwein-Pondorff Verley	15 hrs

	reduction. (6 Lectures) Carboxylic acids and their derivatives: Acidity of carboxylic acid, effect of substituents on acidity of aliphatic and aromatic acids. Hell – Vohlard - Zelinsky (HVZ) reaction. Carboxylic acid derivatives: Preparation from Acid chlorides, Anhydrides, and Esters, synthesis of Amides from acids and their interconversion. Reactions: Reformatsky Reaction, Hydrolysis of esters, A_{AC}, B_{AC} reaction mechanism, definition and examples keto-enol tautomerism in ethylacetoacetate (EAA), Knoevenagel's Reaction and Michael addition with mechanism. (5 Lectures) Amines: Structure of amines, basicity of aliphatic amines, aryl amines and effect of substituent on basicity of aliphatic and aromatic amine, basicity of amines versus amides, preparation of amines by Gabriel phthalimide synthesis, through reduction of nitro compound by Hofmann and Curtius reaction with mechanism, reactions of aliphatic and aromatic amines with nitrous acid, replacement reaction of arenediazonium salt (replacement by $-Cl/-Br$, $-CN$, $-I$, $-F$, $-OH$, $-H$), coupling reaction of arenediazonium salts. (4 Lectures)	
UNIT-III	THERMODYNAMICS-II, POLYMERS AND SOLUTIONS Thermodynamics II: Carnot Cycle, Concept of entropy and its physical significance, thermodynamic scale of temperature, statements of second law of thermodynamics, calculation of entropy change for reversible and irreversible processes. Free energy functions: Gibbs and Helmholtz energy, variation of S, G, A with T, V and P. Gibbs-Helmholtz equation, free energy change and spontaneity. Statement of third law, calculation of absolute entropy of molecules. Numerical problems are to be solved wherever applicable (6 Lectures). Polymers: Introduction, definition, classification, degree of polymerization. Mechanism of polymerization- Free radical, ionic and Zeigler – Natta polymerization. Molecular weight of polymers- Number average molecular weight and mass average molecular weight, Determination of molecular weight by Viscometry and Osmotic pressure method (5 Lectures) Solutions Thermodynamics of ideal solution, Gibb's Duhem – Margules equation and its applications, theory of fractional distillation: fractional azeotropic distillations, the	15 hrs

	nature of azeotropic mixtures, partially miscible liquids, critical solution temperature (CST), completely immiscible liquids, solutions of solid in liquids, solid solutions (qualitative treatment). (4 Lectures)	
UNIT-IV	ELECTROCHEMISTRY-I & PHOTOCHEMISTRY Electrochemistry-I Arrhenius's theory of electrolytic dissociation and its limitations. Migration of ions - Transport number, Determination of transport number by Hittorf's and Moving boundary methods. Problems on transport number. Kohlrausch's law and its applications. Conductivity: Conductance of an electrolyte, specific conductance, equivalent conductance and molar conductance. Conductivity cell, cell constant and measurement of conductance. Applications of conductivity measurements in various acid-base titrations, and precipitation titrations. Advantages of conductometric titration. Determination of solubility and solubility product of sparingly soluble salts. Determination of dissociation constant of a weak acid. Theory of strong electrolytes: Debye – Huckel theory of strong electrolytes, relaxation effect, electrophoretic effect, Debye–Huckel-Onsagar equation and its significance (no derivation). (8 Lectures) Photochemistry Absorbance, transmittance, Beer-Lambert law and its limitations, Calculation of molar extinction coefficient. Laws of photochemistry–Grotthus-Draper law, Stark–Einstein's law of photochemical equivalence, difference between photochemical and thermal reactions. Quantum yield - reasons for high and low quantum yields with examples. Determination of quantum yield by thermo-couple method and chemical actinometry. Photosensitization with examples. Photophysical process - definition, fluorescence, phosphorescence, chemiluminescence and bioluminescence with examples, Difference between photophysical and photochemical process. Numerical problems are to be solved wherever applicable. (7 Lectures)	15 hrs

References:

1. Concise Inorganic Chemistry-J. D. Lee, 5th Edn, New Age International (1996)
2. Modern Inorganic Chemistry Sathya Prakash's by R.D.Madan, S.Chand and Co.Ltd, New Delhi.
3. Inorganic Chemistry-Principles of Structure and Reactivity, 4thEdn-J. E. Huheey, E.A. Keiter, R. L. Keiter and O.K. Medhi. Pearson Education (2009).
4. A Guidebook to Mechanism in Organic Chemistry Sykes, P., Orient Longman, New Delhi (1988).
5. Stereochemistry-Conformation and Mechanism-P. S. Kalsi, Wiley-Eastern Ltd, New Delhi.
6. Organic Chemistry Morrison, R.T. & Boyd, R.N., Pearson, 2010.
7. Advanced Organic Chemistry Bahl, A. & Bahl, B.S., S. Chand, 2010.
8. Organic Chemistry - M. K. Jain, Nagin & Co., 1987.
9. Organic Chemistry- Mehta and Mehta, 2005.
10. Physical Chemistry P.W. Atkins:, 2002.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

3. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 3.1 PEDAGOGY OF MATHEMATICS-II Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.Sc. B.Ed. (Physics)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- select appropriate teaching learning material for concept of Mathematics,
- design teaching learning material suitable for students of middle stage,
- develop different type of audio-visual aids related to Mathematics teaching,
- demonstrate the learning resources used in teaching of Mathematics,
- prepare unit plan and lesson plan for effective Mathematics teaching,
- analyze quality of good textbook and reading material in middle stage Mathematics.

UNIT – I: Teaching Learning Aids / Materials

- A. Teaching Learning aids/materials: concept & definition.
- B. Role and importance of teaching learning material in Mathematics classroom.
- C. Types of teaching learning aids/ materials for Mathematics Teaching: charts, models, overhead projector, films with their specific use and limitations non-print and digital media for offline/ online classroom teaching learning, reflective journals, charts, 2-D and 3-D models, games, toys, flash cards, worksheets, multimedia etc.
- D. Creation of visual aids-charts, models, graphs; usage of graphical tools- calculator, logo, Geo Gebra, sketch pad, ready reckoners; selection and integration of tools in relation to content and learning environment.
- E. Identification and use of teaching aids/ teaching learning materials for teaching Mathematics from the environment.

UNIT – II: Learning Resources in Mathematics

- A. Uses of learning resources, free learning resources for Mathematics.
- B. Non-print and digital resources – radio, TV, websites, animations, audios, videos, images, simulations, digital repository, AR, VR and AI based digital resources and OERs utility in Mathematics teaching and learning.
- C. Mathematics Laboratory - Design, Setting and Function, Need for and importance of virtual laboratories.
- D. Mathematics kit, Mathematics-Club, Mathematics Fairs, Mathematics Exhibitions, Educational Parks, Excursions, Community Resources and Pooling of Resources.
- E. National Mathematics Talent Search, Mathematics Olympiad.

UNIT – III: Textbook Analysis and Planning for Teaching Mathematics

- A. Mathematics textbooks: characteristics and functions of a good Mathematics textbook,
- B. Evaluation of Mathematics textbooks: Physical aspects, concept load, Presentation styles- diagrams, graphs, boxes, anecdotes, interesting clarity and precision, activities, practice, and enrichment.
- C. Understanding the textbook, analyzing subject matter from the pedagogical content knowledge (PCK) perspective, selecting the content, identifying facts, concepts, analyzing, organizing, and planning appropriate learning strategies and learning experiences.
- D. Designing learning experiences in Mathematics: yearly plan, unit plan, lesson plan, elaborating specific steps of each type of plan.
- E. Different models of lesson plan appropriate for middle stage Mathematics teaching.

Practicum:

- 1. Analysis of middle stage Mathematics textbooks to identify various categories of mathematical knowledge presented and their horizontal and vertical linkages from higher standard textbooks.
- 2. Develop the teaching learning material for any two topics of class content.
- 3. Development of learning activities on different topics of Mathematics (at least 5 activities on any 2 topics of Algebra, 2 from Geometry and 2 from any other area).
- 4. Preparation of one Annual plan and minimum three Unit Plans for teaching-learning Mathematics.
- 5. Writing a report on Mathematics Exhibition or Mathematics fair in a school or locality.
- 6. Develop innovative teaching -learning material and activities in Mathematics.
- 7. Design and develop at least two learning resources for mathematics teaching.

Mode of Transaction:

Experiential method, demonstration method, field-based experience, classroom discussions, field observations, preparation of study report, classroom presentations, discussion forums, observation, mock teaching.

Mode of Assessment:

Written test, classroom presentation workshop, assignments, practicum, sessional and terminal semester examination.

References:

- NCERT. (2012). Pedagogy of Mathematics: Textbook for Two-Year B.Ed Course. New Delhi
- NCERT. (1984). A Textbook of Content-Cum-Methodology of Teaching Mathematics. New Delhi: NCERT.

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 3.2 PEDAGOGY OF SCIENCE -II Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
IV	B.Sc. B.Ed. (Physics)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- explain the role and importance of teaching-learning aids in classroom teaching learning of science,
- differentiate different types of teaching-learning aids,
- identify appropriate teaching aids for effective teaching-learning,
- develop different types of teaching aids for the classroom teaching-learning process,
- use different types of teaching aids for the classroom teaching-learning process,
- use print, non-print and digital resources for effective teaching and learning,
- plan laboratories and virtual laboratories for proving practical experience to students,
- analyze textbooks and subject matter for organizing and planning appropriate learning strategies and experiences,
- plan and develop Unit plans and lesson Plans based on Learning outcomes and Experiential learning,
- compare different types of lesson plans,
- plan and develop ICT Integrated Lesson Plans for Classroom categorize approaches, activities, and resources for teaching-learning,
- identify learning resources from the immediate environment,
- use online, digital, and other resources in the teaching-learning process.

UNIT – I: Teaching Learning Aids / Materials

- A. Teaching Learning Aids/Materials: concept, definition, role, and importance in classroom teaching learning the subject.
- B. Types of Teaching Learning Aids/Materials: non-print and digital media for offline/ online classroom teaching learning (reflective journals, charts, 2d and 3d models, games, toys, flash cards, worksheets, multimedia etc.).
- C. Identification and use of teaching aids/teaching learning materials from the environment.
- D. Identification and use of teaching learning material from the Indian knowledge system.

UNIT – II: Learning Resources in Science

- A. Identification and use of learning resources in subject from the environment, textbook, teachers' manual/ handbook, laboratory manual, and other print materials.
- B. Non-Print and Digital Resources – radio, tv, websites, animations, audios, videos, images, simulations, digital repository, audio resources, video resources and artificial intelligence based digital resources and open education resources.
- C. Laboratory – types, design, management, and practices; virtual laboratories.
- D. Teaching learning kits, science clubs, fairs, exhibitions, educational parks, excursions, community resources and pooling of resources.

UNIT – III: Textbook Analysis and Planning for Teaching the Subject

- A. Understanding the textbook, Analyzing Subject Matter from the Pedagogical Content Knowledge (PCK) Perspective and Analyzing the Indian Knowledge System including tribal knowledge and indigenous and traditional ways of learning (Class VI, VII and VIII), selecting the content, identifying facts, concepts, Analyzing, organizing, and planning appropriate learning strategies and learning experiences.
- B. Analyzing NEP 2020 with reference to pedagogical issues of the Subject.
- C. Concept, types, importance and basic steps of teaching unit and lesson planning with special emphasis on the identification of concepts of science.

- D. Developing unit plans and lesson plans for developing critical thinking, inquiry- based, discovery-based, discussion- based, and analysis-based learning.
- E. Developing unit plans and lesson plans based on learning outcomes, experiential learning including hands-on learning, arts-integrated, sports integrated education, storytelling, and exploration of relations among different subjects.
- F. Developing ICT integrated lesson plans for classrooms for online teaching using digital resources and multimedia.

Practicum:

1. Textbook analysis (Class VI, VII& VIII) incorporating the Indian knowledge system.
2. Develop Teaching Learning Aids/Materials for offline and online classroom teaching and learning.
3. Designing ICT-based learning material in science.
4. Demonstrate different pedagogical approaches and strategies.
5. Digital content creation on any two concepts of science at the middle stage.
6. Develop a repository with AR, VR, AI-based digital resources and OER.
7. Designing laboratory for middle school.
8. Analyze NEP 2020 with reference to Pedagogical issues of Science.
9. Preparation of a Lesson plan based on learning outcomes and experiential learning keeping in view a blended learning approach for the concepts of science followed by seminar/presentation.
10. Develop a Unit plan based on learning outcomes and experiential learning.

Mode of Transaction:

Lecture cum discussion/demonstration, hands-on activities, demonstration of discovery approach, project approach, inquiry approach, experimentation, problem-solving, concept mapping, experiential learning, art and environment integrated learning, sports integrated learning.

Mode of Assessment:

Written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester examination

References:

1. NCERT (2014). Laboratory Manuals at Upper Primary Stag: Science Classes VI to VII. NCERT, New Delhi.
2. NCERT (2017). Learning Outcomes at the Elementary Stage. NCERT, New Delhi.
3. NCERT (2018). Upper Primary Science Kit. NCERT, New Delhi.
4. NCERT (2022). Toy-Based Pedagogy- A Handbook (Learning for Fun, Joy and Holistic Development) Part- I. MOE, Govt. of India.
5. NCERT (2023). Draft- National Curriculum Framework for School Education (2023). National Steering Committee for National Curriculum Frameworks. NCERT.

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

V Semester
ITEP B.Sc. B. Ed Physics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Discipline Specific Course-DSC						
1.	DSC-1 (Major-1)	Classical and Quantum Mechanics-I, Modern Physics-II	4	40	60	100
2	DSC-2 (Major-2)	Classical and Quantum Mechanics-I, Modern Physics-II – (Practical)	2	20	30	50
3	DSC-3 (Major-3)	Classical and Quantum Mechanics-II, Modern Physics-III	4	40	60	100
4	DSC-4 (Major-4)	Classical and Quantum Mechanics-II, Modern Physics-III (Practical)	2	20	30	50
Stage Specific Content Cum Pedagogy-SSCCP						
4	SSCCP-1	Pedagogy of Mathematics-III	2	20	30	50
5	SSCCP-2	Pedagogy of Science -III	2	20	30	50
Ability Enhancement & Value-Added Course-AE&VAC						
6	AE&VAC-1	ICT / AI in Education	2	20	30	50
School Experience-SE						
7	SE-1	Pre-Internship Practice (Demonstration lessons)	2	20	30	50
Total Credits			20	200	300	500

V Semester
ITEP B.Sc. B. Ed Physics
SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Discipline Specific Course- DSC	Major-1		1.1 Classical and Quantum Mechanics-I, Modern Physics-II
		Major-2		1.2 Classical and Quantum Mechanics-I, Modern Physics-II – (Practical)
		Major-3		1.3 Classical and Quantum Mechanics- II, Modern Physics-III
		Major-4		1.4 Classical and Quantum Mechanics-II, Modern Physics-III (Practical)
2.	Stage Specific Content Cum Pedagogy -SSCCP			2.1 Pedagogy of Mathematics-III
				2.2 Pedagogy of Science -III
3.	Ability Enhancement & Value- Added Course-AE&VAC			3.1 ICT / AI in Education
4.	School Experience- SE			4.1 Pre-Internship Practice (Demonstration lessons)

1. Discipline Specific Course-(DSC)

Course Title: 1.1 CLASSICAL AND QUANTUM MECHANICS-I, MODERN PHYSICS-II							
Course Code :							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.Sc. B.Ed. (Physics)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course students will be able to acquire:

- ❖ Identify the failure of classical physics at the microscopic level.
- ❖ Alternate approach towards the study of classical mechanics by Lagrangian, Variational and Hamiltonian formulations.
- ❖ Find the relationship between the normalization of a wave function and the ability to calculate expectation values or probability densities.
- ❖ Explain the minimum uncertainty of measuring both observables on any quantum state.
- ❖ Describe the time-dependent and time-independent Schrödinger equation for simple potentials like for instance one-dimensional potential well and Harmonic oscillator.
- ❖ Apply Hermitian operators, their eigen values and eigen vectors to find various commutation and uncertainty relations.
- ❖ Study crystal systems and X-ray spectra and Bragg's X-ray spectrometer.
- ❖ Understand the concepts of free electron theory of metals, specific heat of solids, semiconductors and magnetic properties of matter.
- ❖ Understand the theory and applications of Hall Effect.
- ❖ Learn origin of spectral lines and spectral series of hydrogen like atom.
- ❖ Interpret vector atomic model optical spectra.
- ❖ Interpretation of molecular Spectra of compounds using basics of molecular physics.
- ❖ Explain laser systems and their applications in various fields.

Unit	Title: CLASSICAL AND QUANTUM MECHANICS-I, MODERN PHYSICS-II	60 hrs/ sem
Unit- I	Classical Mechanics-I: Constraints (Holonomic, Non-holonomic, Scleronomic, and Rheonomic constraints with examples), Degrees of freedom, space point and configuration space, virtual displacement and principle of virtual work, Generalized co-ordinates, generalized displacement, generalized velocity and generalized force, D'Alembert's Principle, Derivation of Lagrange's equation of motion using D'Alembert's Principle (For holonomic case), Applications of the Lagrangian formulation: Simple pendulum, Atwood's machine and Linear Harmonic Oscillator(one dimension).	15 hrs
Unit- II	Quantum Mechanics-I: Brief discussion on failure of classical physics to explain black body radiation, Photoelectric effect, Compton effect, stability of atoms and spectra of atoms. Compton Scattering: Expression for energy of the scattered photon, kinetic energy of the recoil electron and Compton shift (with derivation). Matter Waves: de Broglie hypothesis. Expression for group velocity and Phase velocity of matter waves. Davisson and Germer experiment and its significance. Uncertainty principle: Statement and illustration by Gamma ray microscope and diffraction of electrons at a single slit. Wave Mechanics: Setting up of time independent Schrodinger's equation. Physical interpretation of wave function. Eigen function and Eigen values. Expression for energy of a Particle in a one-dimensional infinite potential well (derivation), One-dimensional simple harmonic oscillator (qualitative)-concept of zero-point energy.	15 hrs
Unit- III	Condensed matter physics: Crystal structure: Lattice, lattice translational vectors, basis of crystal structure, Types of unit cells, Co-ordination numbers, Bravais lattices, Miller indices, expression for inter-planar spacing, crystal structure of NaCl. Bragg's law of X-ray diffraction(derivation). Free electron theory of metals: Classical free electron model, expressions for electrical and thermal conductivity, Wiedemann-Franz law. Semiconductors: Expression for electrical conductivity in case of intrinsic	15 hrs

	semiconductors. Hall effect and expressions for Hall co-efficient. Applications of Hall effect. Magnetic materials: Classification of Magnetic materials. Classical Langevin's theory of diamagnetism (with derivation). Ferromagnetism and Weiss Theory of Ferromagnetism(qualitative). Superconductivity: Zero resistivity and Critical temperature. Meissner effect and Isotope effect. Nanoscience: Nanomaterials: Synthesis, Characterization, Properties and applications.	
Unit- IV	Spectroscopy: Atomic Spectra: Vector-Atom model, LS and jj Coupling schemes in case of one valence electron and two valence electron atoms. Spectral terms. Selection rules for transitions. Magnetic moment due to orbital and spin motion. Stern-Gerlach Experiment. Larmor precession. Normal and Anomalous Zeeman effect. Expression for Zeeman shift (using quantum theory). Molecular spectra: Different types of motions (electronic, vibration and rotation) in a molecule. The diatomic molecule as a rigid rotator: Energy, energy levels and spectra (with derivation). Diatomic molecule as a non-rigid rotator(qualitative). Lasers: Einstein's theory of spontaneous emission, stimulated absorption and stimulated emission. Conditions for lasing action. Theory, construction and working of He-Ne laser. Applications of Lasers. Raman effect: Rayleighs Scattering and Raman Scattering. Quantum theory of Raman effect. Applications of Raman effect.	15hrs

References:

1. Classical Mechanics, H. Goldstein, C.P. Poole, J.L. Safko, 3rd Edn. 2002, Pearson Education.
2. Classical Mechanics: An introduction, Dieter Strauch, 2009, Springer Physics Vol. No.I (V Edition)
3. Classical Mechanics, G. Aruldas, 2008, Prentice-Hall of India Private limited, New Delhi.
4. Classical Mechanics, Takwale and Puranik-1989, Tata McGraw Hill, New Delhi.
5. Resnick, Halliday & Krane – John Wiley & Son's Inc., New-York, Singapore, 2005.
6. Berkely Physics, Vol. No. I – ABC Publications, Bangalore & New-Delhi.
7. University Physics (XI-Edition)- Young & Freedman – Pearson Education, 2004.
8. Classical Mechanics (XVII ed)- Goldstein-Narosa Publishing New Dhli,1998.
9. Quantum Mechanics vol 1 and vol 2(I ed)- Shrivatsav-Pragati Prakashan, Meerat,1977.
10. Quantum Mechanics- Gupta, Kumar & Sharma- Jayprakashnath & Co, Meerat,2004.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 1.2 CLASSICAL AND QUANTUM MECHANICS-I, MODERN PHYSICS-II – PRACTICAL							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.Sc. B.Ed. (Physics)	DSC-2 (Major-2)	Practical	2	20	30	50

List of fifth semester (DSC-10B) Physics Experiments:

1. Hall Effect: Determination of Hall Coefficient.
2. Temperature variation of Resistivity of a semiconductor by four probe method.
3. Energy gap of a thermistor.
4. X-ray analysis of crystal structure.
5. Determination of average crystallite size and d-spacing from intensity versus 2θ XRD patterns.
6. Determination of Fermi energy of copper.
7. B-H Curve.
8. Determination of paramagnetic susceptibility of a solid/ liquid (solution).
9. Ionization potential (Frank-Hertz Experiment).
10. Study of rotational spectra (rigid rotator case).
11. Study of rotational spectra (non-rigid rotator case).
12. Study of Rotational Raman Spectra of diatomic molecules.
13. Determination of Rydberg's constant using hydrogen source.
14. Energy Eigen-values and Eigen-states of particle (an electron or a proton) in a finite square well potential.
15. e/K_B using BJT
16. Determination of Planck's constant using LEDs of different colors.

Note:

1. Experiments of four hours duration each.
2. Minimum of Eight experiments to be performed.

References:

1. Physics For Degree Students B. Sc. First Year, S. Chand & Company.
2. Electronics Instrumentation by H S Kalasi.
3. B.Sc. practical Physics – C.L. Arora.
4. Advanced practical Physics – Samir Kumar Ghosh.
5. Advanced practical Physics – Worsnop and Flint.

Formative Assessment for Theory	
Assessment Occasion / Type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks

Course Title: 1.3 CLASSICAL AND QUANTUM MECHANICS –II, MODERN PHYSICS-III Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.Sc. B.Ed. (Physics)	DSC-3 (Major-3)	Theory	4	40	60	100

Course Outcome:

At the end of the course, students will be able to:

- ❖ Identify the failure of classical physics.
- ❖ Alternate approach towards the study of classical mechanics by Varangian, Variational and Hamiltonian formulations.
- ❖ Find the relationship between the normalization of a wave function and the ability to calculate expectation values or probability densities.
- ❖ Explain the minimum uncertainty of measuring both observables on any quantum state.
- ❖ Describe the time-dependent and time-independent Schrödinger equation for simple potentials like for instance one-dimensional potential well and Harmonic oscillator.
- ❖ Apply Hermitian operators, their eigen values and eigen vectors to find various commutation and uncertainty relations.
- ❖ Study crystal systems and X-ray spectra and Braggs X-ray spectrometer.
- ❖ Understand the concepts of free electron theory of metals, specific heat of solids, semiconductors and magnetic properties of matter.
- ❖ Understand the theory and applications of Hall Effect.
- ❖ Learn origin of spectral lines and spectral series of hydrogen like atom.
- ❖ Interpret vector atomic model optical spectra.
- ❖ Interpretation of molecular Spectra of compounds using basics of molecular physics.
- ❖ Explain laser systems and their applications in various fields.

Unit	Title: CLASSICAL AND MODERN PHYSICS-III	60 hrs/ sem
Unit- I	<u>CLASSICAL MECHANICS -II</u> Review of Lagrangian formulation and its advantages. Hamilton's variational principle, Deduction of Hamilton's principle, Lagrange's equation of motion from Hamilton's principle (with derivation). Hamiltonian Mechanics: The Hamiltonian of a system, Hamilton's equations of motion, Hamilton's equations from variational principle (with derivation), Integrals of Hamilton's equations: energy integrals, Canonical Transformations (qualitative discussion with mention of four different forms), Poisson Brackets: fundamental properties of Poisson brackets and equations of motion in Poisson Brackets form.	15 hrs
Unit- II	Quantum Mechanics-II: Probabilistic interpretation of the wave function - normalization and orthogonality of wave functions, Probability current density, equation of continuity and its physical significance, Postulates of Quantum mechanics. Applications of Wave Mechanics: Particle in a three-dimensional infinite potential well (derivation for energy Eigen value and Eigen function), degeneracy, particle in a finite potential well (qualitative), Transmission across a potential barrier: discussion with mention of expression for Transmission and Reflection coefficients, the tunnel effect(qualitative) and its applications. Nano-physics: Introduction, size effect - correlation with quantum mechanical 'particle in a box' problem, quantum structures: quantum wells, wires and dots.	15 hrs

Unit- III	<u>Condensed matter physics:</u> Crystal structure: Lattice, lattice translational vectors, basis of crystal structure, Types of unit cells, Co-ordination numbers, Bravais lattices, Miller indices, expression for inter-planar spacing, crystal structure of NaCl. Bragg's law of X-ray diffraction(derivation). Free electron theory of metals: Classical free electron model, expressions for electrical and thermal conductivity, Wiedemann-Franz law. Semiconductors: Expression for electrical conductivity in case of intrinsic semiconductors. Hall effect and expression for Hall co-efficient. Applications of Hall effect. Magnetic materials: Classification of Magnetic materials. Classical Langevin's theory of diamagnetism (with derivation). Ferromagnetism and Weiss Theory of Ferromagnetism(qualitative). Superconductivity: Zero resistivity and Critical temperature. Meissner effect and Isotope effect. Nanoscience: Nanomaterials: Synthesis, characterization, properties and applications.	15 hrs
Unit- IV	Atomic Spectra: Vector-Atom model, LS and jj Coupling schemes in case of one valence electron and two valence electron atoms. Spectral terms. Selection rules for transitions. Magnetic moment due to orbital and spin motion. Stern-Gerlach Experiment. Larmor precession. Normal and Anomalous Zeeman effect. Expression for Zeeman shift (using quantum theory). Molecular spectra: Different types of motions (electronic, vibration and rotation) in a molecule. The diatomic molecule as a rigid rotator: Energy, energy levels and spectra (with derivation). Diatomic molecule as a non-rigid rotator(qualitative). Lasers: Einstein's theory of spontaneous emission, stimulated absorption and stimulated emission. Conditions for lasing action. Theory, construction and working of He-Ne laser. Applications of Lasers.	15hrs

	Raman effect: Rayleighs Scattering and Raman Scattering. Quantum theory of Raman effect. Applications of Raman effect.	

References:

1. Classical Mechanics, H. Goldstein, C.P. Poole, J.L. Safko, 3rd Edn. 2002, Pearson Education.
2. Classical Mechanics: An introduction, Dieter Strauch, 2009, Springer Physics Vol. No.I (V Edition)
3. Classical Mechanics, G. Aruldas, 2008, Prentice-Hall of India Private limited, New Delhi.
4. Classical Mechanics, Takwale and Puranik-1989, Tata McGraw Hill, New Delhi.
5. Resnick, Halliday & Krane – John Wiley & Son's Inc., New-York, Singapore, 2005.
6. Berkely Physics, Vol. No. I – ABC Publications, Bangalore & New-Delhi.
7. University Physics (XI-Edition)- Young & Freedman – Pearson Education, 2004.
8. Classical Mechanics (XVII ed)- Goldstein-Narosa Publishing New Dhli,1998.
9. Quantum Mechanics vol 1 and vol 2(I ed)- Shrivatsav-Pragati Prakashan, Meerat,1977.
10. Quantum Mechanics- Gupta, Kumar & Sharma- Jayprakashnath & Co, Meerat,2004.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test1	15
Internal Assessment Test2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 1.4 CLASSICAL AND QUANTUM MECHANICS- II, MODERN PHYSICS III (PRACTICAL)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.Sc. B.Ed. (Physics)	DSC-4 (Major-4)	Practical	2	20	30	50

List of sixth semester (DSC-12A) Physics Experiments:

1. Hall Effect: Determination of Hall Coefficient.
2. Temperature variation of Resistivity of a semiconductor by four probe method.
3. Energy gap of a thermistor.
4. X-ray analysis of crystal structure.
5. Determination of average crystallite size and d-spacing from intensity versus 2θ XRD patterns.
6. Determination of Fermi energy of copper.
7. B-H Curve.
8. Determination of paramagnetic susceptibility of a solid/ liquid (solution).
9. Ionization potential (Frank-Hertz Experiment).
10. Study of rotational spectra (rigid rotator case).
11. Study of rotational spectra (non-rigid rotator case).
12. Study of Rotational Raman Spectra of diatomic molecules.
13. Determination of Rydberg's constant using hydrogen source.
14. Energy Eigen-values and Eigen-states of particle (an electron or a proton) in a finite square well potential.
15. e/K_B using BJT
16. Determination of Planck's constant using LED's of different colors.

Note:

1. Experiments of four hours duration.
2. Minimum of Eight experiments to be performed.

References:

1. Physics For Degree Students B. Sc. First Year, S. Chand & Company.
2. Electronics Instrumentation by H S Kalasi.
3. B.Sc. practical Physics – C.L. Arora.
4. Advanced practical Physics – Samir Kumar Ghosh.
5. Advanced practical Physics – Worsnop and Flint.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

2. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 2.1 PEDAGOGY OF MATHEMATICS-III Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.Sc. B.Ed. (Physics)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- design and develop tools for continues and comprehensive assessment of learning in the school situation,
- analyze and interpret result of the assessment using elementary statistical methods,
- create activity-based classroom for effective mathematics teaching,
- organize different hands-on activity for creating interest of the student in mathematics teaching,
- acquire the knowledge of different ICT tools used in mathematics teaching,
- develop Teaching-learning e-content of the mathematics teaching.

UNIT – I: Assessment and Evaluation

- A. Assessment and Evaluation of learning Mathematics: difference between assessment and evaluation. Assessment based on learning outcomes, strategies for continuous assessment, school-based assessment, qualitative assessment: formative and summative assessment, formal, informal, and 360-degree assessment, self and peer assessment. (assessment of learning, assessment for learning and assessment as learning).
- B. Performance assessment (non-testing methods): assessment of group activities, field observations, recording and reporting, creating platform and portfolio management, assessment of lab skills, assignments, projects, and presentations.
- C. Standardized test, Achievement test and development of blueprint, Feedback mechanism in teaching learning.
- D. Creation of rubric, portfolios, criterion reference test, norm referenced test.
- E. Construction, administration, scoring, interpretation of a unit test and providing feedback to learners.

UNIT – II: Activity Oriented Classrooms

- A. Meaning, need and scope of Activity Oriented Classrooms in Mathematics Teaching.
- B. Aims and objectives of using activities in mathematics Classroom.
- C. Psychological, Sociological and Philosophical Perspective of Activity Oriented Classrooms in Mathematics Teaching.
- D. Types of Activities (Online/ Offline): quizzes, buzz groups, snowballing, brainstorming, discussion and group learning, debates, recitations and storytelling, clay modeling and toy making, presentations, role play, training games for learners, case study, asking and framing questions including higher order thinking questions.
- E. Analyzing NEP 2020 with special Reference to Activity Oriented Classrooms.

UNIT – III: ICT Integration in Mathematics Teaching

- A. Meaning and scope of using ICT in teaching learning Mathematics.
- B. Need of Technological, Pedagogical Content Knowledge (TPACK) in Mathematics.
- C. Use of Computer and other ICT equipment in Mathematics.
- D. Use of ICT in the Classroom: Artificial Intelligence, Machine Learning, Block Chains, Smart Boards, Handheld Computing Devices and Adaptive Computer Testing for Student Development.
- E. Functions of ICT, Specific Features and Limitations of using ICT in Mathematics classroom.
- F. Developing Teaching-learning e-content of the concerned subject.
- G. Use of Tools and Platforms along with National Teacher's Portal, DIKSHA SWAYAM etc.

Practicum:

- 1. Prepare unit plan and lesson plans from Mathematics textbook of class 6,7,8.
- 2. Plan and execute simulated teaching at class 6 to 8.
- 3. Construction of unit test (administration, scoring, statistical analysis and reporting) on a selected unit analyzing the errors committed by learners at middle stage, in regular test (FA 1 or FA 2) and analyzing its causes and suggesting various remedial measures.
- 4. Prepare a blueprint for achievement test in Mathematics teaching.
- 5. Developing rubrics for problem solving, assignment, group work, project etc.
- 6. Plan for action research of any problem related to Mathematics teaching and learning.
- 7. Creating e –portfolio
- 8. Organize storytelling, clay modeling and toy making, competition based on Mathematical concept.

Mode of Transaction:

Demonstration method, Experimental method, Field-based experience, Laboratory method, Storytelling/success stories, Classroom discussions, Self-study, Field observations, and preparation of study reports. Classroom presentations, discussion forums, observation, research report, engaging in dialogue organize hands on activity.

Mode of Assessment:

Written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester examination

References:

- NCERT. (2012). Pedagogy of Mathematics: Textbook for Two-Year B.Ed Course. New Delhi
- NCERT. (1984). A Textbook of Content-Cum-Methodology of Teaching Mathematics. New Delhi.
- National University of Educational Planning and Administration (India). 2013. “Elementary Education in India: Where Do We Stand? State Report Cards, 2013-2014.” New Delhi: NUEPA.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

Course Title: 2.2 PEDAGOGY OF SCIENCE -III Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.Sc. B.Ed. (Physics)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- explain the need for and importance of assessment and evaluation in teaching learning Science
- develop different assessment strategies,
- conduct different types of assessment during teaching and learning Science,
- prepare questions papers of Science using different types of test items,
- create activity- oriented classroom in science,
- analyze NEP 2020 with special reference to activity-oriented classrooms,
- develop teaching-learning e-content for science,
- use ICT in Science teaching learning,
- use different online platforms for teaching learning Science.

UNIT – I: Assessment and Evaluation

- Assessment and Evaluation: concept, need for and importance in teaching learning the science, difference between Assessment and Evaluation.
- Assessment Based on learning outcomes, strategies for continuous assessment, school-based assessment, qualitative assessment; formative and summative assessment, formal, informal and 360-degree assessment, self and peer assessment.
- Performance Assessment: assessment of group activities, field observations, recording and reporting, creating platform and portfolio management, assessment of lab skills, assignments, projects, and presentations.
- Unit Test Based on Table of Specification (TOS) and its importance; basic steps of question paper setting, types of test items and preparing answer key and feedback mechanism in teaching learning.

UNIT – II: Activity Oriented Classrooms

- A. Meaning, need and scope of activity-oriented classrooms in science.
- B. Psychological, Sociological and Philosophical perspective of Activity Oriented Classrooms in Science.
- C. Aims and objectives of using activities in Classroom.
- D. Types of Activities (Online/ Offline): quizzes, buzz groups, snowballing, brainstorming, discussion and group learning, debates, recitations and storytelling, clay modelling and toy making, art forms of Indian tradition, presentations, role play, training games for learners, case study, asking and framing questions including higher order thinking questions.
- E. Analyzing NEP 2020 with special reference to Activity Oriented Classrooms.

UNIT – III: ICT Integration

- A. Meaning and Scope of using ICT in the teaching learning process.
- B. Use of ICT in the Classroom: artificial intelligence, machine learning, block chains, smart boards, handheld computing devices, adaptive computer testing for student development.
- C. Specific Features and limitations of using ICT.
- D. Functions of ICT (to improve multiple aspects of teaching and learning, a platform for the exchange of ideas, to enhance learning, assessment, planning, administration, admission, and attendance, to support teacher preparation and professional development, to enhance educational access, provide leadership to education institutions, State and Central governments, and other stakeholders to provide the latest knowledge and share best practices with each other)
- E. Developing Teaching-learning e-content in science.
- F. Use of Tools and Platforms along with DIKSHA, and SWAYAM.

Practicum:

- 1. Develop one achievement test of science for each class (Class VI, VII and VIII).
- 2. Develop strategies for performance assessment in science, followed by seminar/ presentation.
- 3. Develop different types of online/offline activities in science, followed by seminar/presentation.
- 4. Exploration of AI-based assessment tools.
- 5. Organize different types of activities in science, followed by report presentation.

6. Script writing for role-playing, storytelling, and other activities in concepts of sciences.
7. Analyzing NEP 2020 with special Reference to Activity Oriented Classrooms.
8. Develop teaching learning e-content in science.

Mode of Transaction:

Lecture cum discussion/demonstration, hands-on activities, demonstration of discovery approach, project approach, inquiry approach, experimentation, problem-solving, concept mapping, experiential learning, art and environment integrated learning, sports integrated learning.

Mode of Assessment:

Written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester examination.

References:

- NCERT (2019). Continuous and Comprehensive Evaluation Guidelines. NCERT
- NCERT (2022). Toy- Based Pedagogy- A Handbook (Learning for Fun, Joy and Holistic Development) Part- I. MOE, Govt. of India.
- NCERT (2023). Draft- National Curriculum Framework for School Education (2023). National Steering Committee for National Curriculum Frameworks. NCERT.

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

3. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 3.1 ICT / AI IN EDUCATION Course Code :							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.Sc. B.Ed. (Physics)	AE&VAC-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- Understand Educational Technology and ICT
- Analyse ICT and Instructional Design
- Understand emerging technologies in Education
- Understand emerging technologies of AI
- Analyse ICT in Teaching Learning
- Work on Subject specific ICT tools and for Assessment

Unit	Content	75 hrs/ sem
Unit -I	Introduction to ICT in Education: Meaning, Nature, importance of Information Technology, Communication Technology & Information and Communication Technology (ICT) and Instructional Technology- Educational Technology and ICT in Education (Difference, Scope of ICT- Teaching, learning, Research & Publication Educational Administration and Assessment)-	15Hrs
Unit- II	Emerging Technologies in Education: E-learning Concept, methods, and media (LMS, Virtual Universities, Massive Open Online Course (MOOCs), Indian MOOCs, Types of MOOCs: cMOOCs, xMOOCs & LMOOCs)- Open Education Resources (Creative Commons, Concept, and application)- Augmented reality, Virtual reality, Artificial intelligence, Mixed Reality & Gamification in education (Meaning, history, importance, tools and uses)- Cloud Computing & Internet of Things - Meaning, importance and uses- Ethical issues & safety in ICT- (Teaching, Learning and Research, Cyberbullying, Cyber security literacy & data protection, Online identity and privacy)	15 Hrs

Unit-III	Possibilities of AI Technology and AI Ethics: Possibilities: AI Possibilities in Health, AI possibilities in technology, AI Possibilities for customer experience, For Vehicles, Media, AI Ethics: Ethical Concerns of AI, Bias, Components of good AI policy, AI	15 Hrs

Activities/ Internal Assessment Tasks:

1. Prepare a report on the trends and developments in Educational Technology
2. Prepare an instructional design script following any of the instructional design models.
3. Explore any one online platform for MOOCs and prepare a report highlighting its structure and courses.
4. Prepare an assessment tool on any one chapter of the textbook.
5. Create an Image using **Gemini** AI App
6. Solving math problem using **math.now** AI Tool
7. Generating Presentation or PPT using **Presentation.AI** Tool
8. Preparing Notes using **Notebook LLM** AI Tool
9. Drafting a letter using **ChatGPT** AI Tool

References:

1. Bharihoke Deepak. (2000). Fundamentals of Information Technology, Pentagon Press: New Delhi
2. Conrad, Keri (2001). Instructional Design for Web based Training. HRD Press
3. Crumlish Christian (1999). The Internet No Experience Required. BPB Publications: New Delhi
4. A short history of educational technology – Teaching in a Digital Age – Second Edition (bccampus.ca)
5. Education - Open Educational Resources (OER) - Library Guides at Iowa State University (libguides.com)
6. Learning Theories: Understanding How People Learn – Instruction in Libraries and Information Centers (illinois.edu)

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

4. School Experience-(SE)

Course Title: 4.1 PRE-INTERNSHIP PRACTICE (REVIEW ANALYSIS)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
V	B.Sc. B.Ed. (Physics)	SE-1	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- acquainted with various pedagogic practices, classroom management skills, assessment tools and learning standards,
- get experience of conducting classes by observing lessons transacted by teacher educators (demonstration lessons),
- develop lesson plans to transact them using appropriate pedagogies and learning resources,
- develop and practice teaching skills in a guided environment to be an effective teacher,
- describe the prerequisites of the internship,
- demonstrate knowledge of pedagogic practices, classroom management skills, assessment tools and learning standards,
- develop lessons plans and relevant Teaching Learning Materials (TLMs),
- develop readiness to take up an internship Programme.

Mode of Transaction:

- Demonstration lesson (minimum 1 in each pedagogical subject)
- Peer Group teaching and peer observation (minimum 5 in each pedagogical subject)
- Observation of lessons by teacher educators during peer group teaching
- Reflective group discussions/workshops/seminars
- Preparation and presentation of the video content illustrating best classroom practices.

Content:

The pre-internship will include activities relating to the stage-specific pedagogy courses, ability enhancement and value-added courses and foundation courses transacted during previous semesters. It will also include knowledge of pedagogy, formats of lesson plans, different ICT tools, schooling systems in India, principles of classroom management, assessment, and other relevant content.

Activities:

- Observation of lessons transacted by teacher educators to identify pedagogic skills.
- Exposure to various types of lesson plans through workshops.
- Development of relevant Teaching Learning Materials (TLMs).
- Participation in screening and discussion of educational videos on pedagogy and assessment.
- Learning about inclusiveness in school education
- Orientation for Action Research/case study
- Orientation of student teachers to different pedagogic approaches like storytelling, art-integrated, sports-integrated, project-based, and ICT-integrated for developing critical thinking, attention to life aspirations, and greater flexibility and classroom management skills.
- Observation of the lesson demonstrated by teacher educators/experts in the institute.
- Designing guided activities, including a laboratory for each class/subject based on learning outcomes.
- Study Secondary Stage Learning Standards in the NCF
- Content analysis and development of the unit plan, concept map and lesson plan.
- Discussion on unit plan and lesson plan with teacher educators/experts
- Preparation of a Portfolio (for self-work) that the student-teacher will use to keep all her/his work.
- Participate in discussions/reflective sessions for conceptualizing teaching-learning practices.
- Exploring available learning resources and educational videos
- Developing local, low-cost, and innovative TLMs
- Reading and reflecting on inspiring books on pedagogic practice

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Classroom teaching skills and assessment tools (including learning standards)	Simulated Presentation	Teacher-Educator	1
Reflective group discussions/workshop	Observations	Teacher-Educator	0.5
Artefacts (Lesson Plans, TLM, Curated Videos) and action research procedures.	Evaluation	Teacher-Educator	0.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20
Formative Assessment as per guidelines.	

VI Semester
ITEP B.Sc. B. Ed Physics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Assessment & Evaluation	2	20	30	50
2	FCE-2	Inclusive Education	2	20	30	50
Discipline Specific Course-DSC						
3	DSC-1 (Major-1)	Classical and Quantum Mechanics-II, Modern Physics-IV	4	40	60	100
4	DSC-2 (Major-2)	Classical and Quantum Mechanics-II, Modern Physics-IV- (Practical)	2	20	30	50
5	DSC-3 (Major-3)	Project/Dissertation	4	40	60	100
Stage Specific Content Cum Pedagogy -SSCCP						
4	SSCCP-1	Pedagogy of Mathematics - IV	2	20	30	50
5	SSCCP-2	Pedagogy of Science - IV	2	20	30	50
Ability Enhancement & Value-Added Course-AE&VAC						
6	AE&VAC-1	Mathematical & Quantitative Reasoning	2	20	30	50
School Experience- SE						
7	SE-1	School Observation (Field Practice)	2	20	30	50
Total Credits			22	220	330	550

VI Semester
ITEP B.Sc. B. Ed Physics
SYLLABUS

S.NO.	Type of Course		Course Code	Course Title
1	Foundation Course of Education- FCE			1.1 Assessment & Evaluation
				1.2 Inclusive Education
2	Discipline Specific Course- DSC	Major-1		2.1 Classical and Quantum Mechanics-II, Modern Physics-IV
		Major-2		2.2 Classical and Quantum Mechanics-II, Modern Physics-IV- (Practical)
		Major-3		2.3 Project/Dissertation
3.	Stage Specific Content Cum Pedagogy -SSCCP			3.1 Pedagogy of Mathematics - IV
				3.2 Pedagogy of Science - IV
4	Ability Enhancement & Value-Added Course-AE&VAC			4.1 Mathematical & Quantitative Reasoning
5	School Experience-SE			5.1 School Observation (Field Practice)

1. Foundation Course of Education- (FCE)

Course Title: 1.1 ASSESSMENT & EVALUATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Physics)	FCE-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- use different approaches to assess and evaluate of student performance such as time constrained examinations; closed/open-book tests; problem-based assignments; practical assignment reports; observation of practical skills; individual and group project reports; oral presentations; viva voce interviews; computerized adaptive testing; peer and self-assessment etc.,
- develop and use informal and formal diagnostic, formative, and summative assessment strategies to monitor student learning levels and help the teacher continuously revise teaching-learning processes to optimize learning and development for all students,
- develop an understanding among student teachers of the approaches to provide timely, effective, and appropriate feedback to students about their performance relative to the expected learning outcomes and organizing learning enhancement initiatives that are required to bridge the gap in student learning levels,
- present report on student achievement, making use of accurate and reliable records etc.
- develop assessment “as”, “of”, and “for” learning that are aligned to the expected learning outcomes,
- design the progress card of students based on school-based assessment to make it a holistic, 360-degree, multidimensional report that reflects the progress as well as the performance of learners assessed through self-assessment and peer assessment, project based and inquiry-based learning, quizzes, role plays, group work, portfolios, etc., along with teacher assessment that would provide students with valuable information on their strengths, areas of interest, and needed areas of improvement.

UNIT - I

Assessment and Education

A. Assessment and Evaluation

- Meaning and significance of assessment and evaluation in educational field.
- Conceptual Clarity and purpose of Measurement, Assessment, Examination, Appraisal and Evaluation in Education.
- Learning outcomes across the stages and assessment.
- Taxonomy of Objectives (Revised in 2001) and Implications.

B. Forms of Assessment

- Formative, Summative, diagnostic, prognostic.
- Internal and External assessment.
- Assessment For learning, of learning and as learning.
- Authentic Assessment; Online Assessment.

C. Improving Assessment and Evaluation in Schools: Brief Historical Review (1975, 1988, 2000, 2005, 2020)

UNIT - II

Process of Assessment and Evaluation

A. Formative and Summative Assessment: Concept and Characteristics.

B. Approaches to assess and evaluate student performance such as time-constrained examinations; closed/open-book tests; problem-based assignments; practical assignment reports; observation of practical skills; individual and group project reports; oral presentations; viva-voce interviews; computerized adaptive testing; peer and self-assessment etc.

C. Assessing Higher Order Thinking Abilities: Problem solving, critical thinking, creative thinking, communication skills, judgement and decision making, ethical and moral reasoning.

D. Tools and Techniques

- Observation, rating scale, check list, anecdotes, interviews.
- Assessment of attitudes and interests.
- Socio-metric techniques.
- Criteria for assessment of social and personal behavior.
- Self-assessment and Peer Assessment.

UNIT - III

Analysis and Interpretation

- A. Analysis of students' performance and scores: credit and grading
- B. Graphical representation (Histogram, Frequency Curves)
- C. Interpretation of student's performance based on the analysis and their further uses in improving learner's performance: credit and grading, constructive feedback.
- D. Reporting student's performance: 360-degree progress reports, cumulative records and their uses, portfolios, PTA meetings, qualitative reporting based on the observations, descriptive indicators in report-cards.

Practicum:

1. Review of various education commission, Policies and reports and NCF 2005 to get a brief view of the recommendations on Assessment and Evaluation.
2. Constructing a unit test using table of specifications.
3. Construction of any one of the tools (rating scale, check list, observation schedule, etc.) and administering it to group of students or using it to observe the school and classroom environment and interpreting it.
4. Analysis of question papers of various Boards.
5. Analysis of report cards - State and Central (CBSE)
6. Preparing format of 360-degree report Card.
7. Review of learning outcomes by NCERT in different subject areas.
8. Interviews with teachers and students to study the assessment practices, issues and problems related to it followed by presentation.
9. Reviewing Assessment Discussions in NPE (2020).

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

- Andrade, H. L. (2013). Classroom assessment in the context of learning theory and research. J. H. McMillan (Ed.), Suge handbook of research on classroom assessment. California, USA: Sage.
- Aggarwal, J. C. (2005). Essentials of Examination System: Evaluation, Tests and Measurement. New Delhi: Vikas Publishing House Pvt. Ltd.
- Bhatnagar. A. B. & Bhatnagar. Anurag (2014). Measurement and Evaluation (Tyranny of Testing). Meerut: R. Lall Book Depot.
- Black, P. (2015). Formative assessment - an optimistic but incomplete vision. Assessment in Education: Principles, Policy & Practice, 22(I).
- Broadfoot, P. (1979). Assessment. schools, and society. London, USA: Methuen & Co.
- Deshpande, J.V. Examining the Examination System, Economic & Political Weekly. April 17, 2004, Vol. XXXIX, No. I6.
- Dweck, C. S. (2006). Mindset: The new psychology of success. New York: Ballantine Book
- Gronlund, N.E and Linn R.L.(2003). Measurement and Assessment in Teaching. Singapore: Pearson Education.
- Nawani, D (2012), Continuously and Comprehensively evaluating Children. Economic & Political Weekly: Vol. XLVII, and Jan 12, 2013.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 1.2 INCLUSIVE EDUCATION Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Physics)	FCE-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- ensure inclusion and equal participation in education of children with disabilities in the regular schooling process that allows students with and without disabilities learn together, ensuring their retention in the school system, and enabling them to achieve the defined learning outcomes,
- adapt teaching and learning process to meet the learning needs of different students with disabilities, including providing education and opportunities for participating in arts, sports, and vocation-related activities, making school buildings and compounds as well as other facilities barrier free and accessible for children with disabilities, supporting activities that help the provision of individualized learning environment and learning activities/resources, making available assistive devices and appropriate technology-based tools, as well as adequate and language-appropriate teaching-learning materials (e.g., textbooks in accessible formats such as large print and Braille) to help children with disabilities integrate more easily into classrooms and engage with teachers and their peers, using appropriate modes and means of communication, detecting specific learning disabilities in children at the earliest and taking appropriate measures to overcome them, monitoring completion of education and learning levels of students with disabilities etc.

UNIT - I

Inclusion and Education

A. Conceptual Clarity, relation, and significance with special reference to:

- UNCRPD, 2006,
- RPWD Act, 2016,

With special reference to Indian Context.

B. Clarity of various terms and phrases associated with Inclusive Education: Integrated Education, Special Education, Impairment and Disability, Assessment and Evaluation, Curriculum, adaptation, modification and differentiation, universal design of learning

C. Shifting from Disability to the Inclusive view.

D. Shifting Paradigms from Bio centric to Human Rights.

E. Introductory reference of Policies/Acts with reference to educational implications for Children with Disabilities: Right to Education Act, 2009/ 2012, RPWD Act, 2016, UNCRPD, National Trust Act, 1999, National Educational Policy, 2020.

UNIT – II

Children with Disabilities and Marginalized Groups

A. Nature and needs of children with sensory impairments: cognitive impairments and intellectual disability, physical disabilities, cerebral palsy, multiple disabilities.

B. Specific needs of children with behavioral, emotional learning disabilities

C. Health Problems.

D. Educational needs of children belonging to Marginalized Groups.

UNIT - III

Pedagogical Issues

A. Conceptual clarity and significance.

B. Meeting the specific needs of Children with Disabilities with special reference to:

- education and opportunities for participating in arts, sports, and vocation-related activities,
- making school buildings and compounds as well as another facilities barrier free and accessible

- supporting the learning activities and resources for individualized learning environment making available assistive devices and appropriate technology-based tools,
- language-appropriate teaching-learning materials (e.g., textbooks in accessible formats such as large print and Braille)
- assessing strategies

C. Designing strategies assessment for inclusive classrooms.

References:

Teachers may suggest books/readings and learning contents as per the needs of the learners.

1. Arthur E. Del Orto. Paul w. Power (2007) The Psychological and Social Impact of illness and Disability.
2. Bhattacharya. T. (2010). Re-examining issues of inclusion in Education. Economic & Political Weekly. Vol. XIV (16): 18-23
3. Clough. P. & Corbett, J. (2000). Theories of inclusive Education. Paul Chapman Publishing. London
4. Singh, R.R. and Namdey, H. (2014). Bharat Main Samaveshee Shiksha Kee Dasha Aur Disha, Pariprekshya, NUEPA, New Delhi, ISSN 0972-7515. Varsh 21, Ank 03 Dec. 2014
5. UNESCO (1994). The Salamanca statement and framework for action on special needs education. Paris.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

2. Discipline Specific Course- (DSC)

Course Title: 2.1 CLASSICAL AND QUANTUM MECHANICS-II, MODERN PHYSICS-IV							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Physics)	DSC-1 (Major-1)	Theory	4	40	60	100

Course Outcomes:

At the end of the course, students will be able to:

- ❖ Identify the failure of classical physics at the microscopic level.
- ❖ Alternate approach towards the study of classical mechanics by Varangian, Variational and Hamiltonian formulations.
- ❖ Find the relationship between the normalization of a wave function and the ability to calculate expectation values or probability densities.
- ❖ Explain the minimum uncertainty of measuring both observables on any quantum state.
- ❖ Describe the time-dependent and time-independent Schrödinger equation for simple potentials like for instance one-dimensional potential well and Harmonic oscillator.
- ❖ Describe the processes of alpha, beta and gamma decays based on well-established theories.
- ❖ Explain the basic aspects of interaction of gamma radiation with matter by photoelectric effect, Compton scattering and pair production.
- ❖ Explain the different nuclear radiation detectors such as ionization chamber, Geiger-Mueller counter etc.
- ❖ Explain the basic concept of scintillation detectors, photo - multiplier tube and semiconductor detectors.
- ❖ Get hands on training in wiring a circuit, soldering, making a measurement using an electronic circuit used in instrumentation.
- ❖ Have an understanding of the basic electronic components viz., resistors, capacitors, inductors, discrete and integrated circuits, colour codes, values and pin diagram, their practical use.
- ❖ Understanding of the measurement of voltage, current, resistance value, identification of the terminals of a transistor and ICs.

- ❖ Understand and give a mathematical treatment of the working of rectifiers, filter, data converters and different types of transducers.
- ❖ Connect the concepts learnt in the course to their practical use in daily life.
- ❖ Develop basic hands-on skills in the usage of oscilloscopes, multi meters, rectifiers, amplifiers, oscillators and high voltage probes, generators and digital meters.
- ❖ Servicing of simple faults of domestic appliances: Iron box, immersion heater, fan, hot plate, battery charger, emergency lamp and the like.

Unit	Title: CLASSICAL AND MODERN PHYSICS-IV	60 hrs/ sem
Unit- I	<u>CLASSICAL MECHANICS -II</u> Review of Lagrangian formulation and its advantages. Hamilton's variational principle, Deduction of Hamilton's principle, Lagrange's equation of motion from Hamilton's principle (with derivation). Hamiltonian Mechanics: The Hamiltonian of a system, Hamilton's equations of motion, Hamilton's equations from variational principle (with derivation), Integrals of Hamilton's equations: energy integrals, Canonical Transformations (qualitative discussion with mention of four different forms), Poisson Brackets: fundamental properties of Poisson brackets and equations of motion in Poisson Brackets form.	15 hrs
Unit- II	Quantum Mechanics-II: Probabilistic interpretation of the wave function - normalization and orthogonality of wave functions, Probability current density, equation of continuity and its physical significance, Postulates of Quantum mechanics. Applications of Wave Mechanics: Particle in a three-dimensional infinite potential well (derivation for energy Eigen value and Eigen function), degeneracy, particle in a finite potential well (qualitative), Transmission across a potential barrier: discussion with mention of	15 hrs

Unit- III	<u>Nuclear Physics:</u> Radioactivity: Half-life, activity and decay constant. Alpha decay: Gamow's theory of Alpha decay (Without derivation). Derivation of expression for alpha disintegration energy. Range of Alpha particles. Experimental determination of range of alpha particles. Geiger-Nuttal relation and its significance(qualitative). Beta decay: Types of beta decay with examples. The neutrino theory of beta decay(qualitative). Decay scheme of Tl-204. Gamma decay: Origin of Gamma rays. Decay schemes of Cs-137 and Na-22. Nuclear forces: Meson theory of nuclear forces. Nuclear models: Liquid-drop model: Semi-empirical mass formula and explanation of the terms, nuclear fission on the basis of liquid-drop model. Shell model(qualitative), Magic numbers. Nuclear Reactions: Energy balance in nuclear reactions and the Q-value. Detectors: Geiger-Muller counter: Characteristics, dead time, working and applications. Accelerators: Theory, construction and working of Cyclotron.	15 hrs
Unit- IV	Electronics: Integrated Circuits (ICs): IC 741 and its characteristics (both ideal and practical). Voltage transfer characteristics of op-amp and its significance. Inverting and non-inverting amplifier, Wein bridge and Phase shift oscillators using op-amp. IC555 timer: internal configuration; operation of IC555 as Astable multivibrator (qualitative). Digital Electronics: Basic theorems of Boolean algebra, Basic and Universal gates. Demorgan's theorems. IC7400: Pin configuration and applications. Digital to Analog (D/A) and Analog to Digital (A/D) converters, Ladder type (R-2R) D/A converter using Op-amp. Communication: Mention the types of radio wave propagation. Radio wave propagation through ionosphere: Critical frequency, critical angle, MUF, virtual height, secant law. Amplitude modulation (AM): Modulation index, frequency spectrum of AM, AM modulator using BJT.	15hrs

	Frequency Modulation (FM): Modulation index, FM spectrum, Comparison between FM and AM. Demodulation: AM detection using PIN diode (qualitative).	

References:

1. Classical Mechanics, H. Goldstein, C.P. Poole, J.L. Safko, 3rd Edn. 2002, Pearson Education.
2. Classical Mechanics: An introduction, Dieter Strauch, 2009, Springer Physics Vol. No.I (V Edition)
3. Classical Mechanics, G. Aruldas, 2008, Prentice-Hall of India Private limited, New Delhi.
4. Classical Mechanics, Takwale and Puranik-1989, Tata McGraw Hill, New Delhi.
5. Resnick, Halliday & Krane – John Wiley & Son's Inc., New-York, Singapore, 2005.
6. Berkely Physics, Vol. No. I – ABC Publications, Bangalore & New-Delhi.
7. University Physics (XI-Edition)- Young & Freedman – Pearson Education, 2004.
8. Classical Mechanics (XVII ed)- Goldstein-Narosa Publishing New Dhli,1998.
9. Quantum Mechanics vol 1 and vol 2(I ed)- Shrivatsav-Pragati Prakashan, Meerat,1977
10. Quantum Mechanics- Gupta, Kumar & Sharma- Jayprakashnath & Co, Meerat,2004

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

Course Title: 2.2 CLASSICAL AND QUANTUM MECHANICS-II, MODERN PHYSICS-IV (PRACTICAL)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Physics)	DSC-2 (Major-2)	Practical	2	20	30	50

Course Outcomes:

At the end of the course, students will be able to:

- ❖ To study the effect of amplitude of oscillation on the time period of a simple pendulum.
- ❖ Determine the acceleration due to gravity by using Atwood's machine.
- ❖ To study the spectral characteristics of a photo-voltaic cell (solar cell) by using different filters.
- ❖ To study the I-V characteristics of a solar cell and determination of its fill factor.
- ❖ To study the tunneling phenomenon in a tunnel diode by using I-V characteristics.
- ❖ Determination of quantum efficiency of a photodiode.
- ❖ Study of op-amp as an inverting and non-inverting amplifier (DC / AC).
- ❖ Determination of modulation index (amplitude modulation).
- ❖ Astable multivibrator using IC 555.
- ❖ Voltage Transfer Characteristics of op-amp (in negative feedback/ amplifier mode, for two different gains after feedback (A_f)).

Note:

1. Experiments of four hours duration each.
2. Minimum of Eight experiments to be performed.

References:

1. Physics For Degree Students B. Sc. First Year, S. Chand & Company.
2. Electronics Instrumentation by H S Kalasi.
3. B.Sc. practical Physics – C.L. Arora.
4. Advanced practical Physics – Samir Kumar Ghosh.
5. Advanced practical Physics – Worsnop and Flint.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 2.3 PROJECT/DISSERTATION Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Physics)	DSC-3 (Major-3)	Theory	4	40	60	100

Course Outcomes:

After completion of the course, student teachers will be able to:

- present contextual problems, an appropriate research design and the plan of action for undertaking research project,
- demonstrate the tools and techniques used for the collection of relevant data,
- summarize the analyzed data used to identify the causes,
- demonstrate the interventions used for addressing the problems,
- present the effectiveness of the intervention(s),
- share research experiences through reports and presentation.

Mode of Transaction:

The following strategies will be used during the project:

- Discussions with teacher educator, school head, mentors, and peers for identification of problem and development of intervention(s).
- Finalize the research project proposal outline through discussion with mentor teachers/teacher educators.
- Document analysis, interaction with all stakeholders, and field visits.
- Sharing and presentation of the outcomes of research project.

Content:

student teachers during previous semesters have studied different courses in Foundations of Education, Disciplinary Courses, Stage-specific pedagogy courses, Ability Enhancement and Value-Added Courses. The required knowledge of action research and case study includes- the concept and importance of action

research/case study, the steps of conducting action research/case study (objectives, methods, research design, design tools, data collection, and data analysis) and report writing.

The research problem will be taken from the day-to-day teaching-learning process of the school. Some of the significant areas may cover:

- Learning progress and outcomes in different subjects
- assessment
- Learners' diversity and inclusion
- Participation in arts, games, sports

Mode of Assessment:

The assessment of the research project will be continuous. The teacher educators, as well as mentors, will be involved in the assessment of the activities. The following rating scale may be used to assess the student teachers:

Competence/Artifact	Method of assessment	Assessed By	Credits
Observation during the execution of action research	Observation	Teacher-Educator	1.5
Research Report	Presentation of Report	Teacher-Educators (panel of three experts)	2.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
Formative Assessment as per guidelines.	

3. Stage Specific Content Cum Pedagogy- (SSCCP)

Course Title: 3.1 PEDAGOGY OF MATHEMATICS -IV							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Physics)	SSCCP-1	Theory	2	20	30	50

Course Outcomes:

- After completion of this course, student teachers will be able to:
- adopt ways in enhancing quality of Mathematics learning,
- classify the learning styles and patterns of middle stage student,
- develop competency in the use of learner friendly information and communication technologies for widening scope and enhancing quality of Mathematics learning,
- recognize the student of special need in learning Mathematics,
- acquire expertise in development, adoption, and use of different types of innovative practice for effective Mathematics learning and teaching,
- analyze the various ways of continuing professional development as Mathematics teacher.

UNIT – I: Learning about How to Learn Mathematics

- A. Learning to learn concept, educational implication and development of self-regulated learning skills for Mathematics.
- B. Ways of management of time and information; organization of knowledge; Techniques of Learning to Learn.
- C. How the quantitative concepts are learned: strategies to learn quantitative skills; Basic numeracy learning strategies (cognitive and meta-cognitive strategy).
- D. Philosophical and psycho-social context of teaching and learning Mathematics: learning styles; factors affecting Mathematics learning.
- E. Role of a Teacher: As a leader in classroom; as facilitator; as a creator of appropriate democratic and constructivist learning environment.
- F. Mathematics for life - self-directed learning.

- G. Slow learners in mathematics- their characteristics, identification and supporting them learn.
- H. Gifted children in mathematics- characteristics, identification, and enrichment programs.

UNIT – II: Innovative Practices

- A. Meaning, need, importance and scope of Innovative Practices in Mathematics at middle stage.
- B. Qualities of an innovative teacher in the context of National Professional Standards for Teachers (NPST) and National Mentoring Mission (NMM).
- C. Effective communication with special reference to the language of Mathematics to be used in the classroom in multilingual context.
- D. Developing innovative materials and games in Mathematics, collaborative peer activities, peer learning groups for brainstorming and developing alternative ways of solving problems and framing Mathematical problems and activities.
- E. Teaching of Mathematics in the socio-cultural context, recreation in Mathematics, activities for Mathematical creativity, varying teaching approaches; thinking Mathematically; pattern recognition; generalization.
- F. Informal or exploratory activities; Mathematical games, puzzles and stories involving number.
- G. Problem-Based projects and investigations, integrating multiple approaches; cooperative group learning; encouraging Mathematical conversations.

UNIT – III: Continuous Professional Development of Teacher

- A. Meaning and need, professional and ethical competencies and need for updating content and pedagogical competencies, in-service courses available for Mathematics teachers to develop their professional competencies.
- B. Professional Development Activities: seminars, conferences, orientation programs, workshops, online and offline courses, teacher exchange programs, competitions, publications, development of teaching portfolio, capacity building programs.
- C. Developing professional competencies in dealing with gender issues, equity and inclusion, ethical issues, environmental issues, human health, population, human rights, and various Issues in relation to teaching of mathematics (Emotional, Mental, Physical Issues Related to Pandemic (For Example COVID-19).
- D. Areas for action research in Mathematics, reflection and evidence-based practice, importance of self-directed professional development.
- E. Teacher Leadership: using transformative pedagogical practices. professional development of Mathematics teachers.

- F. Types of continuing professional development (CPD) of Mathematics teachers.
- G. Importance of self-directed professional development for a Mathematics teacher.

Practicum:

1. Preparation of an assignment for Mathematics concept used in daily life.
2. Report writing on playing folk games that develop Mathematics skills and competencies, community numeracy practices.
3. Case study of slow learners and / or children with dyscalculia.
4. Develop innovative teaching-learning tools for teaching of specific Mathematical concept.
5. Develop Mathematics games and puzzles based on middle stage mathematical concepts.
6. Real –world Mathematics project

Mode of Transaction:

Experimental method, S Demonstration, Field-based experience, Laboratory method, Storytelling/success stories, Classroom discussions, Self-study, Field observations, and preparation of study reports. Classroom presentations, discussion forums, observation, research report, engaging in dialogue.

Mode of Assessment:

Written test, classroom presentation, workshop, assignments, practicum, sessional and terminal semester examination.

Reference:

- NCERT (1971) Education and National Development, Report of The Education Commission 1964-66. New Delhi: NCERT.

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

Course Title: 3.2 PEDAGOGY OF SCIENCE -IV							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Physics)	SSCCP-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- explain terms such as socio-constructivism, active learning, metacognition, multiple intelligence, and artificial intelligence,
- explain terms such as curiosity, emotion, and motivation,
- explain morality and demonstrate moral behavior,
- derive conclusion from observed examples with logic,
- explain the cognitive and biological developmental stages,
- demonstrate the attributes of an effective facilitator,
- demonstrate the attributes of a professional science teacher,
- demonstrate the attributes of a good mentor,
- demonstrate the strategies to handle multilingual classrooms,
- demonstrate the skills of an effective communicator,
- attend seminars, workshops, and online/offline courses for professional competency development,
- organize brainstorming sessions and discussions,
- explain concepts/views with facts.

UNIT – I: Learning About How to Learn

- A. Meaning, nature, need and scope of how to learn: Socio-Constructivism, Active Learner versus Abstract Thinker, Metacognition, Reflection, Deductive Logic, Howard Gardner's Multiple Intelligence, Relationship between Effort and Ability, Independent Thinking, Cognitive Sciences, Artificial Intelligence.
- B. Psychological, Sociological and Philosophical Perspective of Teaching and Learning a Subject: curiosity in children, attention span of children at middle stage, emotion and motivation, cognitive learning, biological and developmental perspectives of learning, self-directed and lifelong learning, role of parents, society and school in learning, psycho social development, moral development.
- C. Role of a Teacher in Facilitating Learning the Concepts of the Subject: teacher versus facilitator, attributes of a good facilitator, strategies for effective facilitation in learning.

UNIT – II: Innovative Practices

- A. Meaning, need, importance and scope of Innovative Practices: Innovative practices what, why, where, and how.
- B. Qualities of an Innovative Teacher in the context of National Professional Standards for Teachers (NPST) and National Mentoring Mission (NMM): Four Career Stages in NPST, Professional Attributes of a Science Teacher at the Middle Stage, Professional Competence for Teaching Science, Professional Ethics, Attributes of a Mentor, Attributes of Mentees, Mentor-Mentee Relationship, Processes of Mentoring
- C. Effective Communication with Special Reference to the language to be used in the classroom in multilingual context: components of communication, types of communication, communication theory, barriers in communication, basic communication skills, techniques to develop communication skills, role of language in communication, advantages of being a multilingual, home language and communication, other language and communication, advantages of a multilingual classroom, effective strategies to handle a multilingual classroom/situation

UNIT – III: Continuous Professional Development of Teachers

- A. Meaning and need, professional and ethical competencies and need for updating content and pedagogical competencies, in-service courses available for subject teachers to develop their professional competencies: online and offline.
- B. Professional Development Activities: seminars, conferences, orientation programmes, workshops, online and offline courses, teacher exchange programmes, competitions, publications, development of teaching portfolio, capacity building programmes, participation in academic dialogue and discussion at the workplace, sharing of experiences with neighboring schools.
- C. Developing Professional Competencies in dealing with gender issues, equity and inclusion, ethical issues, environmental issues, human health, population, human rights, and various issues (emotional, mental, and physical issues related to the pandemic (for example COVID-19), respect, care and protection of children, parent teacher meet, school community interface, school.
- D. Action Research, methodical observation, reflection and evidence-based thinking and practice, importance of self-directed professional development.
- E. Teacher Leadership: using transformative pedagogical practices, leading from the front and behind in thinking as well as application.

Practicum:

- 1. Visit to a nearby village/mohalla/field/pond/ and prepare an observation note, sharing and discussion on the note.
- 2. Hands-on activities, simple experiments in science using locally available resources, simple Science project in group.
- 3. Development of kitchen garden, plantation, and Care.
- 4. Participation in waste management.
- 5. Participation in Science fair, exhibition, quiz, debate, and essay competition.

Mode of Transaction:

Integrated and Multidisciplinary Approach, Inquiry-based learning-teaching, Adaptive Exercises, Cooperative Learning, Project-based Method, Small and Large Group Discussion, Dialogue questioning-feedback-sharing criteria-peer and self-assessment, learning how to learn through assessment for learning, Demonstration, Assignments, Field Experience/Community Work, Case Studies, Survey, Debate, E-content presentation and discussion, Readings, Journaling.

Mode of Assessment:

Assessment for learning/formative assessment, assessment of learning, self-assessment, peer assessment, activity-based, performance-based, assignments and written tests.

References:

1. National Curriculum Framework for School Education, 2023
2. National Education Policy 2020, MOE, Government of India

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

4. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 4.1 MATHEMATICAL & QUANTITATIVE REASONING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Physics)	AE&VAC-1	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- adapt mathematical reasoning to solve problems in the real world and explain some fundamental ideas and tenets in this field,
- analyze and interpret quantitative data,
- interpret & deduce the right conclusions from numerical representations like formulas, graphs, or tables,
- demonstrate critical thinking and problem-solving skills using mathematical and quantitative reasoning methods,
- evaluate operational matrix,
- analyze educational data and create educational model & use them in decision making,
- analyze and evaluate mathematical and quantitative reasoning problems and solutions.

UNIT - I

Introduction to mathematical and quantitative reasoning

- A. Meaning, nature and scope of mathematical and quantitative reasoning.
- B. Importance of mathematical and quantitative reasoning in various fields.
- C. Types of quantitative reasoning.
- D. Usage of mathematical and quantitative reasoning.
- E. Concept of mathematization.

UNIT – II

Introduction to data in Education

- A. Data requirement, different sources of data
- B. School enrolment: gross enrolment ratios, net enrolment ratios, educational progression: dropout rate, literacy: measures of literacy
- C. Indian censuses, details of different items on which Indian censuses collect data.
- D. Nationwide sample surveys, National family health survey, District level household survey, UDISE

UNIT - III

Data Analysis & Interpretation

- A. Concept of data interpretation (equation, diagram, graph, tables)
- B. Statistical analysis of data in educational context and its applications (measures of central tendency, measures of variability, percentile)
- C. Visual and numerical representation of data and its application (bar diagram, histogram, pie charts)
- D. Learning analytics: concept, significance, types, levels, and its applications in educational context.

Practicum:

1. Take last 5 years of UDISE data and analyze various indicators related to schools, teachers, and students.

Mode of Transaction:

The approaches to curriculum transaction will focus on developing the analytical and critical thinking skills of students, as well as their ability to apply mathematical and quantitative reasoning in real-life situations. Some of the approaches to curriculum transaction will include the following:

- Active Learning which involves active participation of student teachers in problem-solving situations, group discussions, and hands-on activities that help student teachers engage with the material and apply mathematical thinking and reasoning to solve problems.
- Real-World Applications involving the use of real-world examples to demonstrate the practical applications of mathematical concepts that help student teachers see the relevance of what they are learning and how it can be applied in various fields.
- Collaborative learning encourages student teachers to work together in small groups, where they can share ideas and help each other learn. This fosters a sense of community in the classroom and helps students develop teamwork and communication skills.

- Technology Integration involves the incorporation of technology tools such as calculators, spreadsheets, and interactive software to help student teachers visualize and solve mathematical problems more easily.
- Overall, a pedagogy that combines active learning, real-world applications, collaborative learning, technology integration, and effective assessment strategies that help student teachers develop a strong foundation in mathematical and quantitative reasoning.

Mode of Assessment:

Use of a variety of assessment methods such as quizzes, exams, group projects, and presentations to evaluate student learning. Providing timely feedback and offering opportunities for students to revise their work and improve their understanding.

References:

Teachers may suggest books/readings as per the need of the learners and learning content

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

5. School Experience- (SE)

Course Title: 5.1 SCHOOL OBSERVATION (FIELD PRACTICE)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VI	B.Sc. B.Ed. (Physics)	SE-1	Practical	2	20	30	50

Course Outcomes:

Student teachers will be able to:

- Describe various schooling systems,
- Describe the processes, practices, and overall environment of the school,
- Establish rapport with the stakeholders of the school system state the process of conducting different activities in the school,
- Describe the available school infrastructure (classrooms, libraries, laboratories, playground, sanitation, drinking water facility, mid-day meal facility, inclusive facilities, safety and security, rainwater harvesting),
- Describe the availability and usage of ICT and TLMs,
- Summarize the available documents in both physical and digital modes, including UDISE data,
- Reflect upon relationships among the stakeholders,
- Analyze various assessment processes adopted in different types of schools,
- Prepare and present a comprehensive profile of the schools observed (including classroom processes).

Mode of Transaction:

- Observation
- Interaction
- Discussion
- Reviewing the available literature on the different schooling system
- Collection of relevant documents and data

Preparation for school observation:

- Orientation on the school observation process
- Development of the observation formats/tools

School Observation (minimum three types of schools):

- Student teachers will go for school observation in small groups to observe and collect data by using the developed formats/tools.
- Analysis of the collected data
- Preparing a comprehensive profile of the schools observed

Post-School Observation Session:

- Group-wise presentation of the school profile
- Discussion and Feedback
- Reflection on the understanding of various types of schooling systems.

Content:

The school observation as a field-based activity will cover observation of school and classroom processes. The student teachers under the mentorship of teacher educators will visit schools, interact with teachers and students and other stakeholders, and relate the observation with the courses studied during the previous semesters, i.e. Foundations of Education, Disciplinary Courses, Pedagogy courses and Ability Enhancement & Value-Added Courses.

- Meaning and Nature of school observation process
- Difference between monitoring and observation
- Theory and practices of school observation components such as:
 1. Schooling system
 2. Rapport with all the stakeholders
 3. Office management procedures of different types of schools
 4. School environment in all perspectives
 5. Process of conducting curricular activities in the schooling process
 6. Existing infrastructure available in the school
 7. Utility of ICT and TLM facilities
 8. Interpersonal relationships among the stakeholders
 9. Various assessment processes adopted in different types of schools.
 10. Engagement of parents and other community members in school activities.

Activities:

- Visit three types of middle schools with observation formats developed in the institute and get acquainted with various schooling systems. Establish rapport with all stakeholders.
- Collect information about the demography of students in classes VI to VIII and understand the linkage of the middle stage with the secondary and preparatory stages through interaction with teachers, students, and staff.
- Observe school processes and curriculum transactions through experiential learning and prepare a report.
- Interact with teachers and students and report on implementing ten bag-less days and skill development courses.
- Reflect on effective classroom teaching learning strategies.
- Observe integration of IKS, values, local resources in teaching learning process
- Observe practice and assessment of vocational education in the school.
- Observe the availability and usage of library resources, laboratories (General Science, Mathematics, Languages, Social Science, Computer), sports facilities, and art and music learning facilities.
- Study the provision of other student support services- guidance and counselling, scouts and guides, and health and wellness programme.

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Involvement and active participation during the school visit	Observations	Teacher Educator	0.5
Comprehensive school profile	Presentation & reflection	Teacher- Educator	1.5

Components For School Observation Report:

- School information (Context, Vision and Mission, Association with the Board)
- School Infrastructure
- Provision for CWSN/Divyang Children
- Inclusiveness at all levels

- Teacher-Student Ratio
- Teaching-Learning process
 - Academic plan
 - Classroom Activities
 - Assessment
- School Development Plan (SDP)
- Academic Calendar
- Administrative processes
 - Maintenance of students records
 - Maintenance of teachers records
- Cultural activities
- Sports activities
- Annual Day
- National and Social functions
- School Management
- School Discipline
- Interpersonal Relationships
- Understanding different types (socio-economic status, ability) of students and their needs
- Development of ICT and TLMs Engagement of parents and community members in the school activity
- Office Management
- The assessment process includes provision and practices for 360-degree holistic assessment.
- The overall progress of the school (planning, organizing, staffing, directing, motivating and controlling)
- Challenges faced and overcoming them.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	

VII Semester
ITEP B.Sc. B.Ed Physics

S.NO.		Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Perspectives on School Leadership & Management	2	20	30	50
2	FCE-2	Curriculum Planning Development (Textbook & Material Development)	2	20	30	50
Ability Enhancement & Value-Added Course- AE&VAC						
3	AE&VAC-1	A. Art Education (Performing & visual) and Creative Expressions- 1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making	2	20	30	50
4	AE&VAC-2	Sports, Nutrition & Fitness	2	20	30	50
School Experience- SE						
5	SE-1	School-Based Research Projects	2	20	30	50
6	SE-2	Internship in Teaching	10	100	150	250
Total Credits			20	200	300	500

VII Semester
B.Sc. B.Ed Physics
SYLLABUS

S.NO.	Type of Course	Course Code	Course Title
1	Foundation Course of Education- FCE		1.1 Perspectives On School Leadership & Management
			1.2 Curriculum Planning Development (Textbook & Material Development)
2	Ability Enhancement & Value-Added Courses- AE&VAC		2.1 A. Art Education (Performing & visual) and Creative Expressions- 1. Puppetry OR B. Art Education (Performing & visual) and Creative Expressions- 2. Theatre OR C. Art Education (Performing & visual) and Creative Expressions- 3. Collage-Making
			2.2 Sports, Nutrition & Fitness
3	School Experience- SE		3.1 School-Based Research Projects
			3.2 Internship in Teaching

1. Foundation Course of Education- (FCE)

Course Title: 1.1 PERSPECTIVES ON SCHOOL LEADERSHIP & MANAGEMENT							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	BSc. B.Ed. (Physics)	FCE-1	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- describe the diversity of schools in India, its structure, its governance, issues, challenges, and school leadership needs,
- critically examine the different leadership theories and practices and its relationship with the governance structures, the autonomy and accountability mechanisms and the larger educational policy context,
- critically think in relation to education leadership and its potential application to different contexts,
- reflect critically on school-based data for reflection and improvement,
- develop a culture of cooperation collaboration and teamwork,
- synthesise effectively to develop coherent and compelling arguments in the area of study,
- develop school vision, mission, goals, and School Development Plans.

UNIT - I

Understanding Indian School System

- A. School as a normative organization vis-a-vis school as a socio-emotional-cultural space for learning.
- B. Studying the diversity of schools in India; their structure, governance, socio-political and cultural context, funding, management, autonomy and accountability mechanisms, support systems.
- C. Relationship between school leadership and school diversity issues, challenges, and needs.

- D. Engagement with diversity discourses, educational policies, reforms and practices and role in developing inclusive schools.

UNIT - II

Understanding School Leadership

- A. School Leadership: concept as defined, and concept as practiced.
- B. Being a School Leader: exploring the multiple roles and responsibilities, issues and challenges of school leadership in the Indian context.
- C. What works in schools: sharing National and International best practices on School leadership.

UNIT - III

Schools as Learning Organizations: Role of School Leadership

- A. Schools as motivating learning spaces: Developing inspiring school ethos.
- B. Schools as learning organization: promoting personal mastery, examining mental models, and developing a shared vision, team learning and a system's thinking perspective.
- C. Development of a shared vision and shaping of the school culture.
- D. Use of data for school improvement focused on students' learning, addressing equity challenges, and building an equitable school culture that promotes excellence for all.
- E. Nurturing school belongingness: engaging students, teachers, staff, parents, SMC, and community in the formulation of a whole school development plan.
- F. Designing professional and collaborative learning opportunities for self and others (teachers, parents, and SMC members) and improving teaching and learning.

Mode of Transaction:

Perspectives on school leadership and management is a practitioner-centric course and aims to enable future teachers to be efficient school leaders. The approach to curriculum transaction therefore would include a blend of lectures, tutorials, group-work, case-based approaches, and enquiry-based learning.

- Student teachers would engage in case-based learning on topics like improving student learning, classroom observation and feedback, planning and budgeting for school improvement, leadership in diversified school contexts and such others.
- Exposure of student teachers to virtual case studies featuring leaders from a representative cross-section of Schools in India and analyze their experiences, insights, and best practices.
- Learning activities that help student teachers to understand the entire structure and functioning of school organization through interactive lectures and panel discussion

with education officers who hold leadership positions at different levels from schools to cluster, block, and district and state levels and understand their leadership issues, challenges and needs and thus get a perspective of the school ecosystem.

- Learners would reflect on their practice as pre-service interns, knowledge, skills, and understandings—and identify opportunities to apply course learnings to their school context.

Mode of Assessment:

Being a practitioner centric course, the assessment would largely include application-based tasks. This includes exploring the work and life of a school principal and writing a detailed report on the observations and the learning. The following are some exemplars. The institutes may choose either of these or think of other innovative assignment that would enhance the leadership learning experience:

- Preparing school vision, mission, goals, and school development plan.
- Shadowing school principals: a critical observation of the principal's daily work life.
- A critical examination of the diversity of schools; their governance structure, leadership, autonomy and accountability mechanisms, issues and challenges and work life of the school principal

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

- A Handbook on School Leadership Development (2014). NUEPA, New Delhi.
- Ajayi, I.A (2007). Issues in School Management. Lagos: Bolabay publishers.
- Bush. T., Bell. L., Bolam. R., Glatton, R. and Robbins, P. (1999). Educational Management. London: Paul Chapman Publishing Ltd.
- Diwan, Rashmi. (2013). Educational Leadership: A Conceptual Framework (NUEPA).
- Diwan. Rashmi and Panda, B.K. (2013). Guiding through the preparation of School Development Plan: A handbook for school heads. (NUEPA).
- Mukherji. S.N. (1970) Administration of Educational Planning and Finance, (Theory and Practices) Baroda: Acharya Book Depot

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title:1. 2 CURRICULUM PLANNING DEVELOPMENT (TEXTBOOK & MATERIAL DEVELOPMENT)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	BSc. B.Ed. (Physics)	FCE-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- discuss aims of education,
- identify and formulate of desirable values and dispositions,
- explain capacities and knowledge,
- outline curricular areas,
- demonstrate teaching-learning assessment processes and
- practice the relevance in terms of achieving the aims of school education.

UNIT - I

Education and Curriculum

- A. Meaning, need, relationship and significance.
- B. Types of Curriculums: subject-centered, activity-centered, environmental centered, community-centered
- C. Relationship and difference between curriculum, curriculum framework, syllabus and textbooks.

UNIT – II

Developing the Curriculum

- A. Basic principles of Curriculum Development
- B. Concerns for developing the Curriculum - aims to be achieved, structure and nature of discipline, different perspectives on learning and their implications to curriculum development, socio-cultural aspects and aspirations of society, value transitions, social efficiency and needs, environmental concerns, gender concerns, inclusiveness, technological advancement.
- C. Impact of Globalization.

UNIT - III

Approaches, Planning, and Implementation

- A. Approaches to Curriculum Development: Learner and activity centered, Constructivist, Knowledge Construction
- B. Curriculum planning as a cyclic process.
- C. Curriculum Implementation: Operationalizing curriculum into learning situations, Converting curriculum into syllabus, Curriculum engagement activities, Role of school at Regional, State and National level for implementation.
- D. Role of teachers in operationalizing and evaluating the curriculum with special reference to: textbooks and teachers handbooks, source books, workbooks and manuals, other learning material such as kits, AV and software materials, library, laboratory, playground, neighbourhood etc.

Practicum:

1. Arranging discussion on:
 - Basis of National curriculum frame works (1975, 1988, 2000, and 2005).
 - Document: Learning without burden” by Prof. Yashpal
2. Preparing of Report based on observation of:
 - Facilities and infrastructure to implement the present curriculum.
3. Interviewing teachers to understand their role in:
 - Implementing and assessment of the curriculum.
4. Analysis of the following in the context of principles of developing the Curriculum:
 - Guidelines of NEP, 2020.
 - Curriculum of 4 Years B.Ed. Integrated Programme
 - Learning without Burden, MHRD, and India.
 - Position paper (2006). National Focus Group on ‘Curriculum, Syllabus, Textbooks’, NCERT.
 - NCERT (1988) National Curriculum for Elementary and Secondary Education: A framework.
 - NCERT (2000) National Curriculum Framework for school Education.
 - NCERT (2005) National Curriculum Framework. NCERT publications.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

1. Apple. M.W. (199). The Politics of Curriculum and Teaching. NASSP Bulletin 75(532), 39-50.
2. Beauchamp, G (1982) Curriculum Theory: Meaning, Development & Use. Theory Into Practice, 21, 1. 23-28.
3. Connelly. F. M.. and Clendenin, D. J. (1988). Teachers as Curriculum Planners: Narratives of Experience. NY: Teachers College Press.
4. Marsh, C.J. (2009). Key Concepts for Understanding Curriculum. T aylor and Francis.
5. Marsh. C.J. & Willis. G. (2007). Curriculum: Alternative Approaches, Ongoing Issues (4th Ed.). Upper Saddle River. NJ: Prentice Hall

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

2. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 2.1 A. ART EDUCATION (PERFORMING & VISUAL) AND CREATIVE EXPRESSIONS-1. PUPPETRY							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	BSc. B.Ed. (Physics)	AE&VAC-1	Theory	2	20	30	50

Puppetry:

Puppetry is an integrated art form, which takes into its fold everything from fine arts to performance. Puppetry is one of the oldest forms of performing art. Puppetry has evolved over the years into a sophisticated form of art. The journey was very interesting with a lot of ups and downs. There are thousands of forms of puppetry from simple finger puppets to highly complex puppets played by more than 3 people. Each country has a puppet form, why country, each area in a country has a puppet form. Hence, in India you will find many, many forms of puppetry. In puppetry there are two main aspects. One the designing and creating of puppets and the other playing or performing puppetry. These two skills are different. Designing will need a lot of thinking, visualization, and technical skills while performance will need high level communication skills. Hence, together they make a consolidated a high range of skills. In this course, students are exposed to different forms of puppets and puppetry. There will be a discussion around the forms and the aesthetic sense of puppetry. Later the students are encouraged to prepare, design and create puppets. They then prepare script and play the puppets. This creation of the puppets together in small groups with a lot of discussions and give and take helps the students develop working together skills and conceptual understanding.

Course Outcomes:

After completion of this course, student teachers will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of puppetry,
- design puppets,
- practice and create a short puppetry show.

UNIT – I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT – II

Designing Puppets (6 Sessions)

In this unit, students will learn about puppetry, its history and specifically about how puppets work. This unit will also discuss the imagination required to design puppets, visualize how puppets will be used and the technicalities of designing puppets. These will be learnt by designing puppets. Students will start with constructing finger puppets and move towards small shapes through papers, like Fish, birds, rat - then they will design masks, flat masks, and masks with dimensions. At the end they will design puppets with old newspaper. The puppets are designed with old newspapers and colour papers. They decorate it and design it in such a way that it can be played, performed. They prepare costumes and all other accessories.

UNIT – III

Performing the puppets (4 Sessions)

This unit will engage in performance of puppetry and the level of communication skills required to create a good engaging story and perform it with the help of puppets they have created. The performance will be expected to relate to some activity in the educational context. Students will perform the puppets they have designed. Initially each member will play their own puppets. Later they will play in pairs, later they will be formed into a small group and asked to prepare their own skits with the puppets. They conclude by performing in small groups. Their learning is consolidated and reflected.

Discussion is held on how different aspects of puppet making can be incorporated in class room processes of young children. Adapting the individual and group exercises done during the puppetry course will be discussed to be used in the classroom situation.

Pedagogy:

The Pedagogy is basically hand-on training. More emphasis is given to experiential learning. They do things and through doing learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colors, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms

Week wise break up of sessions			
Sl. no	Topics	Session flow	Remarks
	Aesthetics and art, art in everyday life.	Based on their experience	
	Importance of art. Appreciation of art.	Discussion	
	Art for art's sake. Art with social responsibility. art for social change	Debate	
	The world of puppetry. Different forms of puppetry.	Presentations	
	History of puppetry	Lecture	
	Preparation- finger puppets	Hands on	
	Preparation of masks	Hands on	
	Preparing puppets	Hands on	
	Performing individually	Practice	
	Performing in pairs	Practice	
	Performing in groups – 3, 4, 5.	Practice	
	Assignments	Written.	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.1 B. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS -2.THEATRE Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	BSc. B.Ed. (Physics)	AE&VAC-1	Theory	2	20	30	50

Theatre:

Theatre is a collaborative art form, and it is inherently interdisciplinary in its nature. It comprises many facets and skills like acting, directing, writing, designing the sets and costumes, make-up, production, lights, sounds and music. All these elements and skill sets come together and are stitched in the form of a ‘play’ which is performed live, in front of an audience. In the Indian context, theatre has a deep-rooted history with its classical, folk, and other cultural forms until other contemporary forms of theatre evolved in recent times.

Theatre education for children can play a vital role in their individual, social, and emotional development. It teaches them the values of trust and interdependence, makes them confident to express themselves and helps them learn to work in a collaborative environment. It develops their ability to contextualize, critique and discuss certain questions and thoughts they encounter in everyday life. It further helps them imagine, explore, and create their own narratives.

In this course, we will briefly talk about the aesthetics of theatre and how theatre exists in different forms. The students will learn some basic theatre tools that will help them create and perform a narrative they collaboratively arrive at.

In simple terms one can say theatre has two major aspects i.e., creating the script and then performing it. Body is the primary instrument in any theatrical performance accompanied by text, material, visual and sound. This course will introduce students to these aspects of any theatre performance, in the form of direct experience by doing this themselves.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance of aesthetics and art in elementary education,
- demonstrate their familiarity with and appreciation of theatre,
- learn basic theatre tools of improvisation, ideation, and creation of a script,
- create a short performance with educational possibilities.

UNIT - I

Importance of Aesthetics and Art education (2 Sessions)

In this unit the basic idea of aesthetics and art, and ways in which the aesthetic dimension manifests itself in human life will be discussed. Using various examples of art, students will engage in identifying aesthetic aspects of daily life, develop aesthetic judgment, and gain familiarity with the role of art in education. Students will also be introduced to three aspects of art in education: The value of art itself and its use as an instrument in education; moral dimensions of works of art and the controversial distinction between the value of Popular art and High art.

UNIT - II

Introduction to Theatre, and Beginning with the body (3 Sessions)

We will discuss some core essentials in the aesthetics of theatre like the performance, the makers, the audience, and the context and how we relate this to the world around us, in everyday lives. In this unit, we will discuss examples of how theatre was used in social movements that have contributed to educating the larger population about important social issues. Additionally, we will also learn from practices and approaches of theatre groups like Budhan Theatre who work with denotified tribes, and Manalmagudi who work closely with physical nonverbal theatre. Exposing students to these approaches will lead to rich discussions on the role of theatre in pedagogy and practice.

In this unit, students will learn certain principles and awareness on how to use their body and voice in a given space and time, with respect to other bodies. There will be several games, exercises that will familiarise them with certain basics of movement, voice, acting and thereby create improvisations and images in a given context. The activities and tasks will be both in individuals and groups.

UNIT - III

Arriving at a script (3 Sessions)

We will engage in some theatre making processes to arrive at a script by the end of this unit. How to adapt or devise a script with actors? How can we borrow from everyday experiences of memory, sound and visuals, without a written text or spoken word? Plays, stories, poems, newspapers articles, will be shared to read, reflect, analyse, and re-create like “Why, why Girl” by Mahashweta Devi, “Ratna Pakshi” by K Ramaiah, “Beyond the land of Hattamala and Scandal in Fairyland” by Baadal Sircar, and songs of Kabir etc. The texts chosen will have a direct relation with topics from social studies, moral and political education.

Students will use their skills of improvisation they learned in Unit 2 to explore, ideate, create, and finally arrive at a script. What kind of stories, narratives, and characters they choose to perform will lead back to the discussion of aesthetics. Students will mostly work in groups to choose or create a text, concept, or an

idea which they want to perform. Students will be encouraged to use their perspectives on the education system, in converting the text into a script.

UNIT - IV

Performing the script

This unit will engage in the actual making of the final piece they choose to make. Students will have to visualize the final text on stage and start rehearsing in their groups. Apart from using their bodies to play characters, the students will also have to think about design and other aesthetic elements like sets, props, costumes, lights, music and sounds they want to use in the performance.

Students will have to practice beyond the six classes as the class time will be utilized to discuss and provide feedback as the work progresses. The last two classes in this unit will be utilized for the final rehearsals and assessments. The final performance will take place in front of a small audience followed by a brief post-performance discussion. Students will engage in discussing and reflecting on the views, questions and comments shared by the audience.

Pedagogy:

The pedagogy is basically hands-on training. More emphasis is given to experiential learning. They do things and through doing, they learn about art and its connection to education. The process takes you through different forms of art- fine arts, playing with colors, costume designing, facial make -up, script writing, music, and performance.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

Week wise break up of sessions		
Week	Topics	Session flow
1	UNIT -I: Aesthetics and art, art in everyday life. Importance of art. Appreciation of art	Based on their experience
2	Art for art's sake. Art with social responsibility. Art for social change	Discussion
3	UNIT II: Aesthetics of Theatre	Discussion
4	Body work - Individual and group	Hands on
5	Body work – Improvisation	Hands on
6	UNIT - III: Adaptation of texts. Aesthetic choices.	Hands on, Discussion
7	Story making and devising	Hands on
8	Arriving at a text	Hands on
9	UNIT - IV: Visualizing the final piece. Thinking about design and aesthetic elements	Hands on, Discussion
10	Rehearsals and feedback	Hands on
11	Rehearsals and feedback	Hands on
12	Final rehearsals and assessment	
13	Final rehearsals and assessment	
14	Performance and audience discussion	

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.1 C. ART EDUCATION (PERFORMING AND VISUAL) AND CREATIVE EXPRESSIONS- 3. COLLAGE-MAKING Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	BSc. B.Ed. (Physics)	AE&VAC-1	Theory	2	20	30	50

Collage:

Collage as visual art medium A major aspect of college, and one that is sometimes overlooked, is the incredibly diverse array of materials and objects that can be used. Collecting interesting materials is an ongoing activity for artists and for those who teach college. But it is just as important for young people to hunt for and make decisions about materials they would like to incorporate into their work. All materials, and the alterations that artists make to them, are suggestive of ideas and concepts based on their surfaces, forms, textures, degree of transparency and opacity, colour, and other visual characteristics. Materials also connect us, through association and reference, to social and cultural worlds and places. What ideas might a scrap of newspaper, as a collage material, express? How might these meanings differ from those of, say, feathers? Or twigs? Or a thin piece of plastic cut out from a plastic bag?

Working with and creating artwork in Collage involves various aspects: selecting materials, manipulating materials, investigating materiality, closely observing materials, discovering possibilities, composing, designing the artwork, planning, finding solutions, applying solutions, thinking flexibility, decision-making, research, using imagination, expressing, taking creative risks, develop perseverance, and much more. Students will also be introduced to various aspects of art in education: The value of art and artmaking by itself, art's use as an instrument in education, social and moral dimensions of art, and the controversial perceptions around good art and bad art.

This course aims for students to understand the importance of aesthetics and art in education, the role art can play in education, and mainly to appreciate, understand and gain skills with the medium of collage and its techniques.

Course Outcomes:

After completion of this course, students will be able to:

- articulate the importance and the role of aesthetics and art in education.
- understand the medium of collage and its versatility.
- design, plan, and create an expressive self-portrait collage by applying a variety of collage techniques.
- design and set up an interactive visual art exhibition to display their artworks.
- understand and appreciate art-based learning experiences.
- develop the ability to reflect and challenge their assumptions and beliefs around art and develop new understandings.

UNIT – I**Understand the importance of Aesthetics and Art in Education (2 Sessions)**

Students will be introduced to Aesthetics and Arts by engaging in experiences, discussions, and dialogues. Students will experience a session of ‘Visual thinking strategy’ (VTS) activity in which students will collectively view and engage in a series of artworks closely, share their observations, critically analyze their observations, listen to multiple perspectives from peers, suspend judgements, and draw their own understanding of the artwork. Students will recognize aesthetic and un-aesthetic experiences through compare and contrast. Through this activity and unpacking of the experience, students will start making connections and develop understandings around what aesthetics mean, aesthetic aspects of daily life, develop aesthetic judgment, and how arts evoke emotion and awaken.

UNIT – II**Exploring paper collage and its techniques (4 Sessions)**

Students will be introduced to the medium of collage and open their minds to the possibilities within this medium. Students will view and discuss examples of collage artworks, artist process and artist interview videos. Students will get a chance to compare and contrast various ways collage as a medium is used. Students will reflect upon their own past art educational experiences and observations and engage in dialogue and discussions. Students will analyze effective and ineffective ways of using the medium of collage in educational and other settings.

Through inquiry-based participatory demonstrations, students will investigate and discover a variety of ways to manipulate paper and create individual and unique two-dimensional compositions in the medium of paper Collage. They will understand and learn the techniques, artistic terminologies of the collage medium.

Students will reflect on their experience and engage in facilitated discussions to deepen their understanding on the role of art medium exploration and how it can foster various learning skills.

Students then use their knowledge and experience from the previous sessions and explore collage as a medium further. Students will investigate, discover, and learn to create visual textures, physical textures, and create their own unique patterns. They will understand the difference between textures and patterns. Students will use a variety of techniques to create unique textures and patterns, analyze their findings, give each other feedback, work in groups to problem solve, etc. They will understand how art medium explorations can be used as a pedagogical tool in learning environments. Students will bring in various materials found around them like different kinds of paper, paper-based materials, natural materials, fabric, and explore these materials and use them as materials to create collage compositions.

Students will explore a wide range of techniques and discover their own ways to manipulate these found materials to create interesting textures and patterns. Students will work in groups, problem solve, investigate, develop solutions on their own, and share their findings with each other. Through discussions, students will reflect upon this exploration experience and understand how art making processes can develop skills and abilities in a learner.

UNIT - III

Ideating for an Expressive Self-Portrait (2 Sessions)

In this session students will further explore and discover possibilities in Collage as a medium. Students will learn a variety of ways to make paper stands and create interesting paper sculpture compositions using 3D techniques. Students will draw from their previous experiences of using paper for 2D explorations and add more interest to their unique 3D explorations. Students will share their findings with peers and widen their understanding about the possibilities.

Students will reflect on all the material exploration sessions thus far and participate in a facilitated dialogue around art making and education. Students will engage in a close observation sketching and drawing activity. Through a guided process, students will create a well observed self-portrait drawing. Students will engage in discussions and dialogue to unpack the self-portrait drawing experience, the learnings, discoveries, challenges and more. Through this activity students will also be able to challenge assumptions around talent and artmaking.

UNIT - IV

Creation of an Expressive Self-Portrait Collage (3 Sessions)

Students will engage in a step-by-step process involving sketching, ideating, planning, applying their discoveries of using paper as a collage material, and finally create a large expressive self-portrait using the medium of paper collage. Throughout the process students will problem-solve, critically think, push their imagination, find multiple solutions, make independent decisions, receive and give peer feedback, use resources effectively, draw from their own experiences, apply their learnings into creating this unique and expressive self-portrait piece.

UNIT - V

Designing and setting up an Exhibition (2 Sessions and Exhibition Day)

Students will collectively start designing and planning for the exhibition to put up their artworks for a general audience to view and engage with. Students will be planning the various aspects of a visual art exhibition: ways to display artworks, designing the layout of the exhibition space and how the audience will move within the space, design invitations, ways that the audience can engage with the artworks, various ways the artists can talk about their artmaking, and more. Students will divide the tasks among themselves, take on the various roles required, and set up the exhibition space.

Pedagogy:

- Students will engage in hands-on art making activities.
- Students will engage in discussions and dialogues with peers.
- Students will engage in giving and receiving peer feedback.
- Students will continually reflect on their learning through journaling.
- Students will work independently and collaboratively throughout the course.
- Students will receive reference materials and resources to broaden and deepen their understanding.

Mode of Assessment:

Details to be determined by the faculty member as per applicable UGC norms.

References:

1. Works of Deborah Roberts, William Kentridge, Wangechi Mutu, etc
2. Marc, Cut paper collage artist - <https://www.youtube.com/watch?v=WgRZIWI-Oh0>
3. G. Subramanian: Collage art - <https://www.youtube.com/watch?v=ioRRi9R46a0>
4. Amber Fletschock, Collage artist - <https://www.youtube.com/watch?v=aa7p1vYqUc4>
5. Arturo Herrera, artist - https://www.youtube.com/watch?v=Oagx3_NZ5HU

*Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.2 SPORTS, NUTRITION & FITNESS							
Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.Sc. B.Ed. (Physics)	AE&VAC-2	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- explain the importance of sports, and the need and impact of sport for maintaining,
- discuss physical fitness, and the methods of teaching and organization of different types of sports,
- explain the importance of physical fitness, describe different components of physical fitness, and identify activities that help maintain physical fitness,
- Recognize the importance of basic health and nutrition and healthy lifestyles and identify food items that help maintain basic health and nutrition among children of different age groups.

UNIT - I

Sports

- A. Meaning of sports, importance of sports, types of sports.
- B. Different stages of sports (primary and secondary).
- C. Psychology of sports, methods of teaching different sports (indoor, outdoor, team and individual), different sports activities (individual and team games).
- D. Sports for children with disabilities and inclusion.

UNIT - II

Physical Fitness

- A. Meaning and importance of Physical fitness, components of physical fitness, Muscular Strength, Endurance, Flexibility, Body Composition, Cardiovascular Endurance, importance of healthy lifestyle.
- B. Coordination of Health and Fitness

UNIT – III

Nutrition

- A. Meaning of nutrition, types of nutrition, importance of nutrition, need of nutrition, methods for teaching nutrition,
- B. Nutrition for different age groups, nutritious food for sports personalities and common individuals, nutrition and health, nutrition and fitness, nutritious food in schools (midday meals), hostels.

Practicum:

Reflective Reading of different Sports Personalities. Collections of different types of games (Indoor, Outdoor, Individual, Team); Organizing different games (Play) for different age-groups, Organizing Group Games for cooperation, Organizing fitness programmes, Exercises at various levels. Collection of different nutritious items food. (Charts, Things, Objects, Models). Programmes organized to promote the use of nutritious food.

Mode of Transaction:

The mode of transaction should be designed to ensure that should provide a balance between theoretical knowledge and practical skills. The approaches to curriculum transaction may include the following:

- Active learning encourages student teachers to participate in discussions, brainstorming sessions, and problem-solving activities that help them develop critical thinking and problem-solving skills.
- Collaborative learning involves group projects and tasks that encourage student teachers to work collaboratively and learn from each other.

Mode of Assessment:

Assessment of theoretical aspects and Practicum.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. sAgashe, S.R. (2013). Introduction lo health education. New Delhi, India: Khel Sahitya Kedra.
2. Agashe, S.R. (2013). Introduction to physical education, fitness & sports. New Delhi, India: Khel Sahitya Kedra.
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Human Kinetics (2012). Introduction to recreation and leisure (2nd Ed). Champaign, IL: Human Kinetics.
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Mudambi. S. R. and Rajagopal. M. V. (2001). Fundamentals of foods and nutrition. New Age International Private L.td. New Delhi.
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8. NCERT (2016). Text book of home science (Human Ecology and Family Science). Textbook for Class XI and XII. NCERT. New Delhi.
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Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.1 SCHOOL BASED RESEARCH PROJECTS							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	BSc. B.Ed. (Physics)	SE-1	Practical	2	20	30	50

Course Outcomes:

The student teachers will:

- present contextual problems, an appropriate research design and the plan of action for undertaking school-based research,
- demonstrate the tools and techniques used for the collection of relevant data,
- summarize the analyze data used to identify the causes,
- demonstrate the interventions used for addressing the problems,
- present the effectiveness of the intervention(s),
- share school-based research experiences through reports and presentation.

Mode of Transaction:

The following strategies will be used during the school-based research project:

- Discussions with teacher educator, school head, mentors, and peers for identification of problem and development of intervention(s).
- Finalize the school-based research project proposal outline through discussion with mentor teachers/teacher educators.
- Document analysis, interaction with all stakeholders, and field visits.
- Sharing and presentation of the outcomes of school-based research.

Content:

The student teachers during previous semesters have studied different courses in Foundations of Education, Disciplinary Courses, Stage-specific pedagogy courses, Ability Enhancement and Value-Added Courses. The required knowledge of action research and case study includes- the concept and importance of action research/case study, the steps of conducting action research/case study (objectives, methods, research design, design tools, data collection, and data analysis) and report writing. The research problem will be taken from the day-to-day teaching-learning process of the school. Some of the significant areas may cover:

- Learning progress and outcomes in different subjects

- School-based assessment
- Learners' diversity and inclusion
- Participation in arts, games, sports

Mode of Assessment:

The assessment of the school-based research project will be continuous. The teacher educators, as well as mentors, will be involved in the assessment of the activities. The following rating scale may be used to assess the student teachers:

Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Observation during the execution of action research	Observations	Teacher Educator	0.5
Research Report	Presentation of Report	Teacher-Educators (panel of three experts)	1.5

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 INTERNSHIP IN TEACHING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VII	B.A. B.Ed. (Physics)	SE-2	Practical	10	100	150	250

Course Outcomes:

On completion of the internship, student teachers will be able to:

- Explain the overall functioning of the school.
- Describe and appreciate the different roles played by a teacher in the school.
- Develop age-appropriate pedagogic skills.
- Use different pedagogies learnt in real-life classrooms.
- Create appropriate teaching-learning materials.
- Create rapport with the stakeholders and understand their roles in the school system.
- Create student portfolios and comprehensive 360-degree (holistic) progress reports.
- Develop research aptitude and ability to conduct action research for the situations/problems faced during their school internship experience.

Mode of Transaction:

- Observation
- Interaction
- Discussion
- Teaching in the classroom
- Analysis and reporting
- Collection of relevant documents and data

Content:

- Pedagogies' different methods and strategies
- Scheme of lessons
- Peer lesson observation
- Management of substitute classes
- Various TLMs (including ICT tools) and their uses in teaching-learning.

- Achievement test
- Diagnostic tests
- Analysis of the result of the achievement test
- Assembly activities
- Action research and case studies.

Activities:

Student teachers are required to undertake the following stage specific activities:

1. Meet the subject-based mentors, collect timetables of classes VI to VIII and develop a scheme of lessons from the syllabus to be covered during the internship.
2. Get acquainted with the school within 2-3 days. Observe classroom teaching of school teachers.
3. Plan and transact minimum 80 lessons (40+40), including 4 stray lessons (2+2). Stray lessons are class appropriate lessons on any topic(s) to be transacted by student teachers as per their convenience to build up confidence gradually. The last 5 lessons in each pedagogy course may be transacted using lesson notes.
 - Lesson plans should include activities to promote creativity, inquiry, inquisitiveness, experimentation, exploration, analytical thinking, synthesis to understand the coherent whole, problem-solving, and application of knowledge in real-life situations.
 - Lesson plans must promote education for sustainability, including equity, environment, global citizenship, pride and rootedness in Indian culture and character building.
4. Participate in post-lesson discussions with peers, mentor(s) and teacher educators.
5. Observe peer lessons and discuss with the group.
6. Conduct laboratory activities (Atal Tinkering Lab, Science, Mathematics, Languages, Social Science, Computer), sports, and arts and crafts activities.
7. Participate in student support services- guidance and counselling, NCC, health and wellness programme.
8. Create teaching-learning materials, including ICT tools for opted pedagogic courses.
9. Plan assessment, prepare material and formative and summative assessment tools, and analyze the results.
10. Prepare and conduct diagnostic tests to identify learning difficulties, analyze data and prepare learning enhancement plan.
11. Experience classes as a substitute teacher.
12. Participate in library functioning and literary activities.
13. Participate in teacher development and training activities.

14. Organize school assemblies and other events (cultural, sports, yoga, and other development activities).
15. Attend Parents-Teachers Association (PTA) meetings if held during the internship.
16. Attend School Management Committee (SMC) meeting if held during the internship.
17. Study the process of parent and community engagement for the school development programme.
18. Conduct action research /case study.
19. Prepare a sample student portfolio, 20. Write a reflective diary daily and prepare a report of each activity.

Mode of Assessment:

The activities conducted / skills acquired during the internship by the student teachers will be assessed as per the following scheme.

Competence/Artifact	Method of assessment	Assessed By	Credits
Observation of classroom practices	• Observation of a Minimum of 6 lessons of School Teachers (3+3) • Observation of a Minimum of 10 lessons of Peers (5+5)	Teacher-Educator	Non-evaluative
Unit planning, Lesson Planning & Transaction	40 lessons transaction for each pedagogical subject * Unit plans and lesson plans * Minimum 2 Innovative lesson plans in each pedagogy subject (Eg: Storytelling, Drama based, Arts and crafts, Use of Technology)	Teacher-Educator, School Mentor	6.0
Assessment Planning and execution	Preparation of report on assessment plan in each lesson transacted i.e., within lesson transaction and lesson end activities. Preparation of a Blue Print (For one/two Pedagogical course/s) and preparation of	Teacher-Educator, School-Mentor	1.5

	Assessment tools Conduct of Unit Test & analysis of results (for both Pedagogical course/s) Development of plan for learning enhancement of students related to subjects (for both Pedagogical course/s)		
Participation/Organization of assembly and other school-level activities, PTM & SMC Meetings	Observation & Interaction	School Mentor	0.5
Preparation of Logbook /Teachers diary Min 5 lessons for each pedagogical method	Review	Teacher-Educator, School Mentor	0.5
Overall feedback on student-teacher performance by School Head	Observation and Interaction	School Head	0.5
Test lesson (one in each pedagogical method)	Presentation	Teacher-Educator	1.0

Stakeholders Responsibilities

Role of Head of ITEP Institution:

- Identification of the adequate number of internship schools
- Signing the MoU with the schools 1.0
- Sharing of mutual expectations of ITEP institutions and the participating schools
- Identification of the internship programme coordinator
- Monitor the progress of the entire School Experience Programme

Role of Teacher-Educators of the ITEP Institution:

- Guide the student teachers in preparing lessons and activities, assessment, observation of lessons on peer teaching, action research, and case studies conducting school activities preparation and report writing on Teaching Learning Materials.
- Conduct pre- and post-lesson discussions regularly.
- Assess the transaction of lessons for the complete duration of the lesson in the rating proforma developed by the teacher education institute and give feedback/remarks to the student teachers for lesson improvement.
- Submission of monitoring and supervision reports to the institute in time.
- Discuss with the student teachers frequently and organize a phase-end meeting of the student teachers and mentors to assess the progress and performance of the student teachers.

Role of School Head:

- To introduce the student teachers to the students and staff of the school in the assembly on the first day.
- To facilitate student teachers to take classes as per stage requirements- Foundational, Preparatory, Middle, and Secondary.
- Ensure the alignment of the timetable, scheme of lessons and plan of activities/ assignments of the student teachers to be carried out during the programme in the school.
- Countersign on the attendance register maintained by the group leader/ mentor of the school.
- Ensure that all facilities and provisions are available to the student teachers to teach their lessons and carry out their assignments smoothly.
- grant of leave applications of the student teachers in exceptional circumstances.
- Involve student teachers in different activities of the school.
- Facilitate phase-end meetings of the student teachers and the mentors to assess the progress and removal of difficulties.
- Countersign/ certify the report/ documents of the activities/ assignments conducted by the student teachers towards the end of the internship programme.
- Provide input about student-teacher performance.
- Provide suggestions for improvement of the programme to the ITEP institution.

Role of Mentors:

- Guide student teachers to prepare detailed lesson plans, brief lesson notes and plans of activities/ assignments to be conducted by them in school.
- Review the lesson plan before a student-teacher transacts the lesson in the class.
- Observe the classes of student teachers.
- Assess each lesson on the prescribed proforma and write remarks in the lesson plan book provided by the student teachers.
- Give feedback continuously to the student teachers for their improvement in their teaching and other curricular activities.
- Conduct post-lesson discussions regularly.
- Countersign in the peer-teaching observation schedules after their observations in the classroom.
- Organize frequent meetings with the student teachers and supervisors to discuss the progress, difficulties faced, and experience gained by student teachers.

Role of Student-Teacher:

- Report to the school head of the participating school at least one day before the start of the internship placement.
- Seek information about the classes, timetable, and topics to teach in stage-specific pedagogic courses from the mentors on the first day of the internship programme.
- Mark your attendance as per the school practice.
- Plan all the assignments/ activities with the help of the mentor/ supervisors.
- Seek cooperation from mentors and supervisors in case of difficulty.
- Prepare the lesson plan and get approval from the mentor/ supervisor before transacting every lesson.
- Take classes according to the timetable of the participating school.
- Take substitute classes and participate in other school duties assigned by the school.
- Follow the conduct and dress code of the participating school.
- Get prior leave approval from the head of the participating school in case of emergency.
- Maintain a diary and regularly list all the innovations, challenges faced and reflections for improvement.
- Check with your mentor before attempting learning activities that depart from routine classroom procedures.
- Carry out the activities you plan for school students according to your approved plans.
- Maintain cordial relationships with the students and staff of the school.

- Refrain from making negative comments about the school or the school's personnel, especially when talking with fellow student teachers.
- Submit student teaching profiles, one each, to the supervisor and mentor who supervises your teaching.
- Before the completion of the internship programme, make sure to return all textbooks and materials to the school.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	40
Internal Assessment Test 2	40
Assignment	20
Total	100 Marks
<i>Formative Assessment as per guidelines.</i>	

VIII Semester
ITEP B.Sc. B.Ed Physics

S.NO.	Course Type	Course	Credits	Marks		Total Marks
				Internal	Theory	
Foundation Course of Education- FCE						
1	FCE-1	Philosophical & Sociological Foundations of Education-II	4	40	60	100
2	FCE-2	Education Policy Analysis	2	20	30	50
3	FCE-3 (Elective)	Elective (Anyone From below) 1. Adolescence Education 2. Education for Mental Health 3. Education For Sustainable Development 4. Gender Education 5. Guidance & Counselling	4	40	60	100
Ability Enhancement & Value-Added Course- AE&VAC						
4	AE&VAC-1	Yoga & Understanding Self	2	20	30	50
5	AE&VAC-2	Citizenship Education Sustainability & Environmental Education	2	20	30	50
School Experience- SE						
6	SE-1	Post-Internship (Review Analysis)	2	20	30	50
7	SE-2	Creating Teaching-Learning Material/Work Experience	2	20	30	50
Community Engagement & Services- CE&S						
8	CE&S	Community Engagement & Services (Participating in NSS-related activity, New India Literacy Programme etc.)	2	20	30	50
Total Credits			20	200	300	500

VIII Semester
ITEP B.Sc. B.Ed Physics
SYLLABUS

S.NO.	Type of Course	Course Code	Course Title
1	Foundation Course of Education- FCE		1.1 Philosophical & Sociological Foundations of Education-II
			1.2 Education Policy Analysis
			1.3 Elective (Anyone From below) 1. Adolescence Education 2. Education for Mental Health 3. Education For Sustainable Development 4. Gender Education 5. Guidance & Counselling
2.	Ability Enhancement & Value-Added Courses - AE&VAC		2.1 Yoga & Understanding Self
			2.2 Citizenship Education Sustainability & Environmental Education
3	School Experience- SE		3.1 Post-Internship (Review Analysis)
			3.2 Creating Teaching-Learning Material/Work Experience
4	Community Engagement & Services- CE&S		4.1 Community Engagement & Services (Participating in NSS-related activity, New India Literacy Programme etc.)

1. Foundation Course of Education- (FCE)

Course Title: 1.1 PHILOSOPHICAL & SOCIOLOGICAL FOUNDATIONS OF EDUCATION-II							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Physics)	FCE-1	Theory	4	40	60	100

Course Outcomes:

After completion of this course, student teachers will be able to:

- Recognize the social context of education,
- Outline the meaning, nature, and scope of educational sociology,
- Establish the link between education and socialization,
- Analyze the main agents of socialization, such as family, school, community and peer groups,
- Analyze the impact of culture on education through a study of dimensions of culture and their importance to education practices,
- Recognize the different aspects of social stratification,
- Identify the close relationship between education and modernization, the role of education in Modernization, and factors and constraints to social change.

UNIT - I: Education and Society

- A. Conceptual clarity, relationship, significance and aims of studying relationship between these two.
- B. Educational sociology and social perspective of education: meaning and functions.
- C. Education as a Social System.
- D. Conceptual clarity of the following terms: society, social behavior, status, institution, ideology, system, sub-system, socialization, social system, social values and norms, conflict, modernization.
- E. Understanding the relation between individual and group behavior with special reference to purpose of education.

UNIT - II: Education and Social Change

- A. Meaning, relation, and dimensions of Social Change.
- B. Factors affecting Education and Social Change: technology, social and educational movements, curricular innovations, value conflict, legal provisions.
- C. Constitution of India and Education.

D. Education and Modernity. E. Role of education with reference to social change.

UNIT - III: Education, Culture and Socialization

- A. Relationship between Education and Culture.
- B. Education as a process of Socialization.
- C. Impact of following on Culture and Educational Process: Social Welfare, Social Reform Movements, Legal interventions on Child Marriage and child labor Act, Educational Policies and Acts, Adult Literacy, New Technology of communication, Equality.
- D. Constitutional Provisions and Education with special reference to Social Equality and Equity.

UNIT - IV: Education and Values

- A. Conceptual Clarity, Relationship and Significance.
- B. Types of Values.
- C. Constitutional Values and its impact on our Education.
- D. Human Rights and Values.
- E. Environment and Education.
- F. Pedagogical issues.

Practicum :

1. Critical/Reflective study of contemporary aims of education and their social determinants.
2. Observation and critical study on how textbooks determine every activity of teacher and learner in the school.
3. A critique of textbook culture in school.
4. Observing the process of knowledge construction by children in structured and unstructured environments to appreciate their learning processes and nature.
5. A critical analysis of Constitution of India in the context of process of Education in India/ Educational Policies / Educational Commissions)
6. Critically observing nearby society/ locality in groups of 4-5 students and sharing observations related to cultural/ social influences on educational practice.
7. Analyzing social purpose of NEP, 2020.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of

educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.

- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.2 EDUCATION POLICY ANALYSIS							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Physics)	FCE-2	Theory	2	20	30	50

Course Outcomes:

After completion of this course, student teachers will be able to:

- discuss knowledge and capacity to engage in education policy analysis and evaluate their effectiveness,
- explain processes involved in policy analysis including undertaking situation analysis and research.
- To identify possible policy options,
- Describing these possible options,
- Comparing the potential policy options,
- Ranking the possible policy options and
- Choosing the most effective option that could address issues and problems confronting school education.

UNIT - I

Planning an Educational Policy

- A. Meaning and significance of 'Policy on Education'.
- B. Purpose and Dimensions of an Educational Policy at local and Global level.
- C. Philosophical and Sociological Perspective of planning an Educational Policy.
- D. Historical development of Educational Policies in India.
- E. Basic steps involved in planning.
- F. Constitutional provision for Policy on Education.
- G. Fundamental principles for analyzing an Educational Policy.

UNIT - II

Educational Policies in India

- A. Critical analysis of Policies on Education since Independence: 1968, 1986 (Modified in 1992), 2020 in the context of: need and significance, goals and frameworks of educational policies, content of policies, issues raised in policies, constitutional provisions, special stress, modification of policies, implementation strategies.
- B. Issue of modifying an Educational Policy.

UNIT - III

Implementation of an Educational Policy

- A. Meaning, need and significance.
- B. Mechanism of Policy Implementation.
- C. Strategies to Implement an Educational Policy.
- D. Programme of action and implementation: conceptual clarification and significance.
- E. Role of different Organization / Groups: Legislature/ Judiciary/ Political Will and Parties/ Voluntary Organizations/ Non-governmental organizations (NGOs)/ Pressure Groups/ Public.
- F. Challenges for Implementation.

Practicum:

1. Reviewing and presenting report on NEP, 2020 in reference to Policy Implementation.
2. To present a critical review of the Programme of Action (1987).
3. Preparing a list of challenges to implement the present new National Education Policy, 2020 in our States.
4. Preparing a list of Measures to be taken or taken to implement National Education Policy, 2020 in our State.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children and schools.

Mode of Assessment:

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings as per the need of the learners and learning content.

1. Adams, Paul (2014). Policy und Education. Foundations of Education Studies Series: Routledge-Taylor & Francis Group. London.
2. Ghosh,S.C.(2009). The Hi GOI. (1966). Report of the education commission: Education and national development. New Delhi: Ministry of Education.
3. Henry L. (1987). "Education as a Public and Private Good". Journal of Policy Analysis and Management, summer.
4. Ministry Of Education and Cultural (Department of Education) (1985). The Teacher and Society: Report of The National Commission on Teachers. New Delhi: Government of India.
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6. NCERT. (2005). National curriculum framework. (NCF 2005). New Delhi: NCERT.
7. NCERT (2022) National curriculum framework for foundational stage. New Delhi: NCERT.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective /1. ADOLESCENCE EDUCATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Physics)	FCE-3 (Elective -1)	Theory	4	40	60	100

Course Outcomes:

After the completion of this course students will be able to:

- develop sensitivity, understanding and knowledge about Adolescence and Adolescence Education,
- know the historical development of Adolescent Educational Programme in India,
- know the role of local as well as international agencies towards Adolescent Educational Programme,
- develop a positive attitude towards the importance of Adolescence Education Programmes at the school level,
- develop knowledge and sensitivity on matters related to reproductive health, sex and sexuality and communicate effectively on these issues,
- develop understanding about intellectual, emotional, physiological, socio-cultural, and interpersonal issues related to the processes of growing-up,
- inculcate a healthy attitude towards sex and sexuality, respect for the opposite gender and an understanding of responsible sexual behavior,
- develop an understanding about the desired life skills,
- acquire pedagogical related skills for Adolescence Education Programmes.

UNIT - I

Adolescence and Adolescence Education

- A. Understanding Adolescence: intellectual, emotional, social, and physiological aspects of Adolescence, issues and challenges during Adolescence, myths and realities.
- B. Adolescence Education: concept, nature, and significance of Adolescence Education in Indian context, aims and objectives of Adolescence Education.
- C. Role of school, family, media, and community as social agencies in Adolescence Education. Challenges of Adolescence Education.

UNIT - II

Life Skills and Adolescence Education

- A. Concept, nature, and significance of Life Skills for Adolescence Education
- B. Relationship between Life Skills and Adolescence Education.
- C. Core Life Skills and their significance.
- D. Understanding sexual and reproductive health.
- E. STIs and HIV/AIDS: causes, prevention, cure, and skills of coping.

UNIT – III

Adolescence Education Programme in India (AEP)

- A. Historical Development of Adolescence Education Programme in India.
- B. Goals and Significance of Adolescence Education Programme in India.
- C. Role of Teachers in Adolescence Education in India (AEP).
- D. Challenges to Educational Programmes in India.
- E. Myths / Misconceptions

UNIT – IV

Pedagogical Issues

- A. Meaning, goals and significance.
- B. Challenges of teaching adolescence education: understanding student's behavior, dealing with personal self-constraints, socio- cultural issues, class-room issues and challenges, material production, methodology
- C. Preparation of teachers
- D. Approaches to adolescence education: case studies and critical incidents, brainstorming, role-playing, gaming, value clarifications, question box, discussions and debates, puppet shows, role reversal, video shows.

Practicum:

- 1. Study of Case studies and Critical Incidents. a) Field visit/s
- 2. Review and analysis of the work done by Government and Non-Government.
- 3. Study of Organizations (NGO) at national and international level.
- 4. A research study or detailed case study: Adolescents' behavior in different socio economic settings, a study on child abuse victims, adolescents in drug rehabilitation centers, adolescents residing in the precincts of industrial areas and factory establishments, adolescents in the educational regions showing either higher or lower drop-out rate, adolescents belonging to communities in which social evils affecting

them are manifested like child marriages, conducting Adolescence Education sessions in School.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed the Examination Branch. Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings and learning content as per the needs of the learners.

- Arnett, J. G, Hall's Adolescence: Brilliance and Nonsense. Hist Psychol. 2006 Aug;9(3): 186-197. doi: 10.1037/1093-4510.9.3.186. PMID: 17153143.
- Berk, L. E. (2011). Child Development. (8th ed.). New Delhi: Pearson Prentice Hall.
- Choudhary, G.B. (2014) Adolescence Education, Delhi: PHI
- Department of Education & State AIDS Control Society (2005) YUVA- School Adolescence Education Programme- Handbook for Teachers. Delhi.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective /2. EDUCATION FOR MENTAL HEALTH							
Course Code							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Physics)	FCE-3 (Elective -2)	Theory	4	40	60	100

Course Outcome:

After studying this course, student teachers will be able to:

- express the meaning and significance of mental health,
- describe social and psychological determinants of mental health,
- analyze the causes of stress and process of stress management,
- analyze the significance of adjustment in life,
- analyze the needs and importance of global mental health education programme,
- explain the special role of teachers and parents to maintain the good mental health of children,
- suggest prevention and promotional measures to maintain good mental health of society,
- express the need for health policies globally.

UNIT - I

Mental Health

- A. Meaning and determinants of Mental Health.
- B. Mental Health Vs Mental Hygiene.
- C. Mental disorders: Characteristics and Types.
- D. Causes of poor Mental Health.
- E. Myths Vs Facts about Mental Health.
- F. Legal perspectives of Mental Health in India.
- G. Concept of Healthy Personality

Unit-II

Stress, Stress Management and Adjustment

- A. Stress: meaning, nature and symptoms, types of stress, social and psychological perspectives, remedial measures.
- B. Stress management and adjustment: meaning and significance of stress management and adjustment, prevention and promotion, role of parents, peer group and teachers.

UNIT – III

Mental Health Education Programme

- A. Meaning and significance of Mental Health Education Programme.
- B. Dimensions of Mental Health Education Programme in India.
- C. Historical development of Mental Health Education Programmes in India.
- D. Local and Global Perspective of Mental Health Education Programme.
- E. Organizations at local and international level.
- F. Characteristics of a good Mental Health Education Programme.
- G. Role of Educational Institutions.

UNIT - IV

Challenges to Pedagogical Issues

- A. Home Vs. school
 - Diverse school and home contexts
 - Lifestyles of teachers and parents
 - Stereo-type roles
 - Mental health concerns of teachers and parents
- B. Material availability/ production
- C. Guidance and Counselling Programme:
 - Concept, need and techniques.
 - Teacher as a counsellor
- D. Designing and evaluating Mental Health Programmes

Practicum:

- 1. Visiting of Mental hospital and preparing list of four cases admitted in Hospital.
- 2. Preparation of two case histories on causes of abnormal behavior.
- 3. Critical analysis of laws and Public Health Policies.
- 4. Critical analysis of National Educational Policy, 2020 in the context of Health of children at school.
- 5. Critical analysis of Legal perspectives Mental Health Education in India.
- 6. Preparing comprehensive report on Mental Health Education Programme in India.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings and learning contents as per the needs of the learners.

1. Brady, G. (2021) Anxiety and Depression. How to help. understand and support children and young people, Pavilion Publishing and Media Limited
2. Baron, Robert. (2000). Psychology. (3rd ed.). New Delhi: Prentice Hall.
3. Charlesworth. E.A. & Nathan, R.G. (2004). Stress Management, Ballantine Books
4. Cavero, O.B. & Calvet, N.L. (2018). New Pedagogical Challenges in the 21st Century, Intech Open, UK
4. Ranganathan. N. (Ed.) (2012). Education for Mental Health. New Delhi: Shipra.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 3. EDUCATION FOR SUSTAINABLE DEVELOPMENT Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Physics)	FCE-3 (Elective -3)	Theory	4	40	60	100

Course Outcomes:

After studying this course, student teachers will be able to:

- clarify the meaning and significance of sustainable development,
- explore the relationship among education, development and environment,
- appreciate the relation between education and sustainable development,
- describe the characteristics of ESD,
- explain the role of education in sustainable development,
- critically analyze the meaning and importance of education in the context of sustainable development.,
- explain the role of education to achieve sustainable development,
- analyze the pedagogical issues related to ESD.

UNIT – I

Education and Sustainable Development

- A. Meaning, relationship, goals, and significance.
- B. Characteristics of ESD
- C. Education for Sustainable Development: Historical Perspective
- D. Philosophical, Sociological and Psychological Perspective.
- E. Role of Education for Sustainable Development.
- F. Decolonizing Knowledge for Sustainable Development.
- G. Challenges of Education for Sustainable Development.

UNIT – II

Sustainable Development Goals (SDGs)

- A. Meaning, nature and significance of SDGs.
- B. 17 Sustainable Development Goals (SDGs): UNESCO agenda.
- C. SDGs and Social Transformation as Universal Commitment.
- D. Education as a Human Right to achieve Sustainable Development.
- E. Sustainable Development and Peace.
- F. Role of Educational Institutions and Challenges to achieve SDGs.

UNIT - III

SD Goal-4: Quality Education for All

- A. Meaning, Nature, and Significance.
 - NEP, 2020 on SDG-4: Sustainable lifestyle, Gender equality, Promotion of peace & non-violence, Global citizenship, Good mental health & wellbeing, Justice in society.
- B. Pedagogical issues for SDG-4.

UNIT – IV

Sustainable Development: Politics and Policies

- A. Understanding the Policy-Making Process.
- B. Policy Analysis.
- C. Democratizing Science and Technology.
- D. Globalization and the Environment: Capitalism, Ecology and Power.
- E. Perspectives, Methods, and Skills.
- F. Innovation for Sustainability.
- G. Key Issues from an International perspective.
- H. Critical issues involved in sustainability.

Practicum:

- 1. To present critical review on NEP, 2020 in the context of SDGs.
- 2. Critical study of Delors Commission Report, 1996: Learning: The Treasure within with reference to SDGs.
- 3. To review and present a critical report on legal perspective on SDGs.
- 4. To prepare Toolkit for Educations for Sustainable Development.
- 5. To organize discussions/ seminars of Teachers of all streams to present their views on SDGs and to present Action Plan for this.
- 6. To prepare and present a short Video/film to promote SDGs.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

1. Chew-lung Chang, Gilian Kidman, et al. (2021) Issues in Teaching and Learning of Education for Sustainability: Theory into Practice (Routledge Research in Education)
2. Devaki, N. (2019) Education for Sustainable Development
3. IGNOU (2024). Role of Education in Sustainable Development [UNIT 10] (pp 150- I58)
4. Kothari, R. (1982), Environment and Development in Asia and the Pacific: Experiences and Prospects. UNEP.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 4. GENDER EDUCATION Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Physics)	FCE-3 (Elective -4)	Theory	4	40	60	100

Course Outcomes:

After completion of this course the students will be able to:

- clarify key concepts like gender, transgender, gender bias, gender stereotype, empowerment, gender parity, equity and equality and patriarchy,
- explain the shifting from women studies to gender studies,
- clarify gender issues in school, curriculum, and textual materials across disciplines, pedagogical processes and its intersection with class, caste, religion, and region,
- examine school environment, curriculum, and pedagogy with reference to gender related issues,
- address issues related to sexuality, sexual violence, and abuse,
- draw framework for gender sensitized classroom and school environment.

UNIT - I

Gender and Education

- Meaning, relationship, and significance of studying.
- Conceptual clarity of related terms: Gender, gender perspective, sexuality, patriarchy, masculinity, feminist, gender bias, transgender, gender stereotyping and empowerment.
- Gender as the basis in school education.
- Constitutional Provisions with special reference to equity and equality, rights of girls.
- Education and women's empowerment.
- Shifting from women's studies to Gender Studies.

UNIT – II

Learning Gender Roles

- Social and Cultural Perspectives of Gender Identity: role of family and school, media, and other formal and informal organizations/ agencies
- Socialization and learning gender roles.
- Gender stereotyping/Role models.
- Preventing Measures: role of school and home

UNIT - III

Gender, Sexuality, Sexual Violence and Abuse

- A. Development of sexuality and its impact on children with reference to gender, body image, role-models.
- B. Sexual violence in formal and informal institutions.
- C. Child sexual abuse from pre-primary stage to secondary stage: providing accurate information on child sexual abuse, helping, and identifying signs of sexual abuse in children.
- D. Providing dos and don'ts about sexual abuse.
- E. Legal perspective: Laws for safety and Security of girls and women, Implementation of the POCSO Act.

UNIT – IV

Pedagogical Issues

- A. Analyzing classroom practices.
- B. Creating gender friendly classrooms and school environment.
- C. Analyzing Curriculum from gender perspective: learning outcomes, textual material, teaching-learning processes, language used, teaching aids, assessment strategies.
- D. ICT pedagogy for gender sensitive school curriculum.
- E. Challenges for pedagogical issues.

Practicum:

- 1. Preparing a Report on National Educational Policies, (1986/1992 and 2020) in the context of gender issues in Education.
- 2. Preparation of projects on:
 - Analysis of textual materials from the gender perspective for identifying gender bias and gender stereotype in textual materials.
 - Recommendations of commissions and policies on education to empower girls/women.
 - Mahila Samakhya Programme.
 - Women Role Models in various fields with emphasis on women in unconventional roles.
 - Video clipping on portrayal of women.

- Folklores reflecting socialization process.
 - How students perceive sexuality and their own body images.
3. Field visits to schools to observe the schooling processes from a gender perspective.
 4. Preparing Analytical Report on portrayal of men and women in print and electronic media.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

1. Blumberg, R. L. (2008). The invisible obstacle to educational equality: Gender bias in textbooks. *Prospects*. 38. 345-36 I.
2. Butler, J. (2022). Selection From Gender Trouble: Feminism and the Subversion of Identity. *Transgender Studies Reader Remix* pp. 191-201: Routledge.
3. Chanana. K. (2001). Hinduism and female sexuality: Social control and education of girls in India. *Sociological Bulletin*. 50(1), 37-63.
4. Chopra. R. (2006). Invisible Men: Masculinity. Sexuality and Male Domestic Labour, *Men and Masculinities*, Sage, Vol. 9, No. 2. I October, pp. 152-67

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 1.3 Elective / 5. GUIDANCE & COUNSELLING							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Physics)	FCE-3 (Elective -5)	Theory	4	40	60	100

Course Outcomes:

After completion of this course the students will be able to:

- explain the basic meaning, need and significance of Guidance and Counselling in the context of education,
- differentiate between Guidance and Counselling with special reference to the purpose and strategies,
- clarify the general social, psychological, and historical perspective of Guidance and Counselling,
- describe the basic features of Guidance and Counselling with reference to students needs at school level,
- explain the basic principles of Guidance and Counselling,
- organize guidance program,
- analyze the reports of educational commission and educational policies with reference to Guidance and Counselling.

UNIT - I

Guidance

- A. Meaning, need, nature and scope of Guidance.
- B. Brief historical background of Guidance movement in India.
- C. Individual and Group Guidance.
- D. Basic assumptions and principles of Guidance.
- E. Need to understand the needs of the individual and group in the context of Guidance.
- F. Essential information for Effective Guidance.
- G. Vocational Guidance and Role of teachers.

UNIT - II

Counselling

- A. Meaning, importance, areas, and types of Counselling.
- B. Approaches to Counselling: directive, non-directive and eclectic, behaviourally, and cognitively oriented.
- C. Process of Counselling: initiating counselling, preparation, and intake procedures, establishing rapport, termination of and response to initial interview.
- D. Establishing Structure: attending behaviour, observation, non-verbal behaviour, listening, verbal patterning and communication responses, silence, use of questions. transference and countertransference. regarding and respect in counseling relationships. involuntary clients, client expectation.
- E. Role of family and community.

UNIT - III

Tools and Techniques to Collect Data

- A. Psychological Testing and Diagnosis: Need and Nature.
- B. Test use and interpretation, appraisal techniques.
- C. Counselling Interview: Essential aspects, basis procedures, problems, and their handling.
- D. Personality Assessment: Historical perspective
- E. Material administration, scoring, interpretation, and evaluation of frequently used personality inventories/ questionnaire and projective tests. Personal Orientation Tests and Rating Scales: Type a behaviour, Locus of Control, Attitude scale, ST AI etc., and other clinical rating scales.
- F. Case Study: Need and Importance.

UNIT – IV

Issues Related to Guidance and Counselling

- A. Factors affecting Guidance and Counselling.
- B. Ethical issues in Guidance and Counselling.
- C. Limitation of diagnosis with special reference to Counselling.
- D. Challenges to organize Guidance and Counselling programmes in schools.
- E. Counselling and Guidance of persons with learning disabilities, visual and hearing impairment.
- F. Challenges related to counselling services in schools.

Practicum:

1. Prepare a case study on students with learning difficulties.
2. Prepare a report on challenges of organizing guidance and counselling programmes in school.

Mode of Transaction:

The course content transaction will include the following:

- Planned lectures infused with multimedia /power-point presentations.
- Small group discussion, panel interactions, small theme-based seminars, group discussions, cooperative teaching and team teaching, selections from theoretical readings, case studies, analyses of educational statistics and personal field engagement with educationally marginalized communities and groups, through focus group discussion, surveys, short term project work etc.
- Hands on experience of engaging with diverse communities, children, and schools.

Mode of Assessment:

The assessment will be based on the tests and assignments.

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad, from time to time.

References:

Teachers may suggest books/readings and learning content as per the needs of the learners.

- Aiken, L. R. (2009). Psychological testing and assessment. Pearson Education India.
- Crow. L. and Crow. A.(1962) Introduction to Guidance. New Delhi: Eurasia.
- Geldard. K. and Geldard, D. (1997) Counselling Children: A Practical Introduction, New Delhi: Sage Publications
- Gibson, R.L. and Mitchell, M.H. (1995) Introduction to Counselling and Guidance. New Jersey: Meril Prentice Hall, 1995.
- Guidance and School Counselling (2020). A Brief History of School Guidance and Counselling in the United States- Counsellors, Students, and Education. Retrieved from [https://education,staleuniversity.compages2023/Guidance](https://education.staleuniversity.compages2023/Guidance)
- Holland. J. L. (1973). Making vocational choices: A theory of careers. Englewood Cliffs. J. Holland. [https://www.yOurarticelibrary.com/education/importance-of-guidance-in-education/Kabir, S.M.S. \(2017\). Essentials of Counselling. Banglabazar, Dhaka :Abosar Prokashana Sangstha](https://www.yOurarticelibrary.com/education/importance-of-guidance-in-education/Kabir, S.M.S. (2017). Essentials of Counselling. Banglabazar, Dhaka :Abosar Prokashana Sangstha)

- Morgan-Jones. R. (2002). Counseling ater hearing loss. Rehubiliation counseling in plhysical und mental health. 109.
- Okolic. U. C. Nwajiuba, C. A., Binuomote, M. 0.. Osuji. C. U. Onajite. G. O., & Igwe. P. A. (2020). How careers advice and guidance can facilitate career development in technical, vocational education. and training graduates: The case in Nigeria. Australian Journal uf Career Develupment, 29(2), 97-106.
- Pal. H.R. & Sharma, M. (2007) Education of Gifed. New Delhi: Shipra Publication

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	15
Internal Assessment Test 2	15
Assignment	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

2. Ability Enhancement & Value-Added Course- (AE&VAC)

Course Title: 2.1 YOGA & UNDERSTANDING SELF Course code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Physics)	AE&VAC-1	Theory	2	20	30	50

Course Outcomes:

After completion of the course, the student teachers will be able to

- explain the importance of Yoga and how it helps an individual in understanding Self,
- describe the importance of practicing Yoga Asana,
- practice basic Yoga Asanas/ Kriyas.

UNIT - I

Philosophy and Historical Perspective of Yoga

- A. Concept and Meaning of Yoga, Philosophy of Yoga,
- B. Brief history and development of Yoga (Classical Yoga, Post Classical Yoga and Modern Period)
- C. Importance of Yoga for healthy living, Yoga and its relevance in the modern times, Traditions in Yoga.

UNIT - II

Schools of Yoga

- A. Different streams \schools of Yoga (Gnana, Bhakthi, Karma).
- B. Construction of Yoga Practice for all round development.
- C. Principals of Yoga: - Ahimsa, Satya, Asteya, Brachmacharya, Aparigraha, Shoucha, Santhosha, Tapas, swadyaya and Isvara Paridhana.

UNIT – III

Modern Principles of Yoga and Meditation

- A. Modern Principles: Human Body is a holistic entity, Individuals and their need are Dhāraṇa & Dhyāna, etc, meditation and reflective practices, and the importance of these aspects in becoming an effective teacher, unique Self-empowering, the quality and state of an individual mind is crucial to healing.

- B. Meditation: - its Importance, Types, and Process, Pranayama: its importance, types and process, Yoga as a Way of life for Peace, Harmony, Health love and happiness. Yoga in Indian philosophy for understanding Self.

Practicum:

1. Practice of Basic Yoga Asanas/ Kriyas.

Mode of Transaction:

Reflective reading of different Yoga practicing Personalities, learning by doing, Relaxation Techniques for imparting concentration, Understanding Self, and personality development.

Mode of Assessment:

Assessment of practicum; Assessment of practice of basic Yoga Asanas/ Kriyas; Assessment of Reflective level Readings

The examination scheme and mode shall be as prescribed by the Examination Branch, Karnatak University Dharwad. from time to time.

References:

1. Alter. Joseph S. (2004). Yoga in Modern India: The Body between Science and Philosophy. Princeton. NJ: Princeton university Press.
2. Bronkhorst. Johannes (1993). The Two Traditions of Meditation in Ancient India. Delhi: Motilal Banarsidass.
3. Cleary, Thomas, Tr. (1995). Buddhist Yoga, A Comprehensive Course. Boston and London: Shambhala.
4. David Gordon White (n.d.). Yoga, Brief History of an Idea. Retrieved from: <http://assets.press.princeton.edu/chapters/i9565.pdf>
5. De Michelis, Elizabeth (2004). A History of Modern Yoga. Patanjali and Western Esotericism. New York and London: Continuum.
6. Eliade, Mircea (2009). Yoga: Immortality and Freedom, 2d ed. Princeton. NJ: Princeton University Press.
7. Franco, Eli (2009). Introduction. In Yogic Perception, Meditation and Altered States of Consciousness (Ed.). Eli Franco and Dagmar Einar. p. 1-51

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 2.2 CITIZENSHIP EDUCATION SUSTAINABILITY & ENVIRONMENTAL EDUCATION							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	B.Sc. B.Ed. (Physics)	AE&VAC-2	Theory	2	20	30	50

Course Outcomes:

After completion of the course, student teachers will be able to:

- explain the concept of citizenship and citizenship education,
- describe the aims of and approaches to citizenship education,
- explain the concept and aims of Global Citizenship and Global Citizenship Education,
- describe the aims of and approaches to global citizenship education,
- explain the concept of ‘Sustainability’ in all fields of human activities, and approaches to achieving sustainable development in its three dimensions – economic, social and environmental – in a balanced manner,
- demonstrate an awareness of environmental issues, and actions required for mitigating the effects of climate change, environmental degradation and pollution, and initiatives required for effective waste management, conservation of biological diversity, management of biological/natural resources, forest and wildlife conservation, and sustainable development and living.

UNIT - I

Citizenship Education

- Concept of citizenship and citizenship education.
- Aims of and approaches to citizenship education.
- Concept of Global Citizenship and Global Citizenship Education.
- Aims of and approaches to global citizenship education.
- Concept of Vasudaiva Kutumbakam, its importance in development of a holistic perspective towards local and global communities.

UNIT - II

Sustainability

- A. Concept of ‘Sustainability’ in all fields of human activities.
- B. Approaches to achieving sustainable development in its three dimensions – economic, social, and environmental.
- C. Sustainable development goals.
- D. Sustainable management of natural resources.
- E. School- and community-based activities.
- F. Education for sustainable development

UNIT – III

Environmental Education

- A. Environmental issues.
- B. Actions required for mitigating the effects of climate change, reducing environmental degradation, pollution etc.
- C. Initiatives required for effective waste management, conservation of biological diversity, management of biological/natural resources, forest and wildlife conservation, and sustainable development and living.
- D. Approaches to delivering Environmental Education
- E. Role of Mass Media and Technology in delivering environmental education.
- F. Roles Governmental and Non-Governmental Organizations in promoting Environmental Education.
- G. School and community-based environmental education activities.

Practicum:

1. Write a report on the roles of governmental and non-governmental organizations in promoting Environmental Education.

Mode of Transaction:

Lecture-cum- discussion, Focus Group discussions, in-class seminars, Library Work, Assignments, Project Work, Lesson Plan Development, Interaction with different stakeholders, ICT based educational materials, Group Work, critical reflections, group-work, case-based approaches, and enquiry-based learning.

Mode of Assessment:

Assessment of practicum and assessment of reflective level readings.

The examination scheme and mode shall modify and/or evolve as per the guidelines of the examination Branch, Karnatak University Dharwad, from time to time.

References:

- "Vasudhaiva Kutumbakam: Relevance of India's Ancient Thinking to Contemporary Strategic Reality" (1st ed.). (2020), New Delhi. India: Aryan Books International.
- Gupta, A. & Mitra, A. (Eds.). (2020). Vasudhaiva Kutumbakam: Relevance of India's Ancient Thinking to Contemporary Strategies Reality (Premium Leather Bound). New Delhi, India: Aryan Books International
- Sharma, N. (2020). Value-creating global citizenship education for sustainable development: Strategies and approaches. Springer Nature.
- Smith, G. A., & Sobel. D. (2014). Place-and community-based education in schools. Routledge.
- Srinivasan, T. N. (201). Growth. Sustainability: and India's Economic Reform. New Delhi, India: Oxford University Press India.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

3. School Experience-(SE)

Course Title: 3.1 POST-INTERNSHIP (REVIEW ANALYSIS) Course Code:							
Course	Semester	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Physics)	SE-1	Practical	2	20	30	50

Course Outcomes:

The student teachers will be able to:

- demonstrate/Exhibit/Manifest comprehensive understanding of the school ecosystem.
- reflect on school internship experiences in a report.
- share their learning from school internship with peers and teacher educators.

Mode of Transaction:

- Discussion
- Presentation, Gallery walks and Exhibition.
- Report Writing

Activities:

Experience Sharing and Reflective Learning

- Presentation of reflective journal summary
 - My Learning Journey: by each student-teacher Gallery walks (Exhibition): TLMs, display of participation in school activities (photos/stories) and other artefacts created during the internship by student teachers.
- Sharing of best practices (PPTs, Videos.)
- Survey and collect the local stories and rhymes from the parents and community (in the context of the foundational stage)
- Holding a training workshop for the parents and community and encouraging them to act as volunteers.
- Awareness and advocacy programme in FLN for parents and community: Role play with parents and community on conducting specific FLN activities.
- Organizing a parents /community mela/fair on homemade TLM for FS children

Submission of Internship Report:

- Reflective Journal
- Lesson Plans and TLMs
- Observation records (Teacher Educator, Mentor, school heads, Teachers, Parents)
- Assessment records and Student Portfolio
- Action research report/case study
- Comprehensive internship report.

Mode of Assessment:

Competence/Artifact	Method of assessment	Assessed By	Credits
Artefacts created during the internship. My Learning Journey	Exhibition & Presentation	Teacher-Educator	1
Comprehensive Internship Report	Review	Teacher-Educator	1

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

Course Title: 3.2 CREATING TEACHING-LEARNING MATERIAL/WORK EXPERIENCE							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Physics)	SE-2	Practical	2	20	30	50

Course Outcomes:

After completion of the activities, the student teachers will be able to:

- Assess the need for Teaching Learning Materials and prepare innovative TLM,
- Develop an understanding of the importance of work experience and competencies of a local crafts person, artisans and entrepreneurs,

Mode of transaction:

- Workshop
- Group discussion
- Field visits and interaction
- Analysis of existing local-specific learning resources, toys
- Exhibition of TLM and presentation of reflective reports on the use of learning resources, including toys.

Content:

- Understanding how students learn at different stages.
- Knowledge of toys and other TLMs from different parts of the countries
- Knowledge of relevant TLMs for specific groups of children- CWSN, kinesthetic learners, visual learners, auditory learners addressing individual differences.

Activities:

- Orientation workshop on work experience and development of learning resources
- Field visit for interaction with local artisans, craftspeople, and entrepreneurs.
- Observe Traditional work practices and their integration into Local Technologies and Ideas.
- Analysis of available local specific, indigenous learning resources, including toys and their use in the learning-teaching process

- Development of at least two low-cost learning resources as per the local contexts (foundational/preparatory/middle/secondary) and presentation/exhibition
- Prepare the manual of TLM highlighting the objectives that will be achieved by its use, the material used, the process of its development and its use during classroom transaction.

Mode of Assessment:

Assessment			
Competence/Artifact	Method of assessment	Assessed By	Credits
TLM developed	Presentation /Exhibition	Teacher Educators (panel of three experts including an external expert)	1.5
Manual	Presentation	Teacher Educator	0.5

References:

- Ministry of Education (2021). Vidyanjali: Guidelines for Promoting Community and Voluntary Participation for Enhancing Quality School Education, Government of India. https://vidyanjali.education.gov.in/assets/pdf/Final_Guidelines_Vidyanjali_%20December.pdf
- RIE Bhubaneswar (2020). Handbook on Field Engagement in Pre-service Teacher Education, Bhubaneswar, Regional Institute of Education.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

4. Community Engagement & Services –(CE&S)

Course Title : 4.1 COMMUNITY ENGAGEMENT & SERVICES (PARTICIPATING IN NSS-RELATED ACTIVITY, NEW INDIA LITERACY PROGRAMME ETC.)							
Course Code:							
Semester	Course	Type of Course	Theory / Practical	Credits	Formative Assessment Marks	Summative assessment Marks	Total Marks
VIII	BSc. B.Ed. (Physics)	CE&S-1	Practical	2	20	30	50

Course Outcomes:

On successful completion of the ‘Community Engagement and Service’ programme, the student teacher should be able to:

- recognize the socio-economic issues in the community and identify initiatives that could help solve problems faced by the community,
- demonstrate an awareness of the functions of the community, and the measures required for enlisting community participation in school-related activities,
- undertake initiatives that are required to make the community aware of the importance of education, issues associated with schooling, gender inequity, health & wellness of children, illiteracy among youth and adults in the community etc.,
- suggest actions in collaboration with community members to address the social, cultural and educational problems in the community,
- organize activities such as street plays, advocacy activities, door-to-door campaigns, and prabhat-pheris etc. to mobilize community participation in development initiatives,
- demonstrate social leadership quality through community services,
- organize interactions between schools and local communities for generating solutions to problems such as dropout and learning deficits,
- facilitate partnerships between local communities to enhance participation of the community in school-related activities such as PTA meetings,
- recognize the fault lines of the society, such as casteism, social taboos and superstitions etc. and work towards bridging them to establish harmony in the society,
- demonstrate positive feelings towards the local community and appreciate traditional knowledge and practices,
- Recognize the values of public service and active citizenship.

Approach To Curriculum Transaction:

The student teachers will be provided opportunities to have exposure to community life for ten days in total, two days in Preparation for Community Engagement & Service in the institution, seven days working with the community, and the last day in the institution for sharing their experiences and reflections. The activities may be conducted in groups or individually as appropriate.

Days 1-2: Preparation for community services (In the institution)

- Orientation of student teachers on Community Engagement & Services through discussion and group activities.
- Workshop for developing tools for different activities during the programme.

Days 3-9: Engagement with the community (Mandatory onsite stay with the community) Students will be divided into smaller groups; They would participate in the planned activities with defined roles for seven days on a rotation basis. These activities include:

- participation of student teachers in activities undertaken under the National Service Scheme (NSS), New India Literacy Programme, Student mentoring initiatives, etc.
- Survey of community resources for supporting school activities.
- Study of the situation regarding school dropout and the reason thereof (Stage wise).
- Survey of specific settlement to assess the situation about non-literates in the settlement, including identification of 4-5 non-literate youth and adults who will be supported by student teachers to become literate,
- Training of local youth in First Aid and other relevant interventions,
- Assessment of the situation about Health and wellness of children in a locality,
- Creating awareness of the importance of sustainable development, and making the community members aware of the need to support initiatives to ensure environmental protection, creating awareness of rainwater harvesting, mentoring school students with learning deficits, guidance and counselling to school students etc.)
- Visit and interact with local artisans and craftsperson.
- The above activities typically will include working with the community, collecting data, playing local games, community awareness programmes like nukkad natak, rallies, organizing and participating in the cultural programmes with the community members etc.

The student teachers shall conduct different pre-scheduled activities throughout the day. Morning sessions will be used for activities with the community and data collection. The afternoon session will be devoted to data analysis and preparation of the report, and participation in games & sports activities. Evening session will involve cultural activities with community members.

Day 10: Feedback session and Reflection (: In the Institution)

- Sharing experiences and discussion on activities carried out.
- Presentation and submission of report of the activities carried out.
- Evaluation of the activities by collecting feedback on the effectiveness of the campaign from the mentor and the students.
- Reflection of experience (individual/group) of organizing community service

Assessment Components and Weightage:

- Involvement and active participation in activities relating to Community Engagement and Service: (Assessment method: Observation by teacher educator, teacher, and community members); Weightage: 75%; Assessed by the teacher educator, teacher, and community members),
- Group Report & Reflections: Method of assessment: Presentation by student teachers); Weightage: 25% (Assessed by Teacher Educator)

Reference:

- Ministry of Education (2021). Vidyanjali: Guidelines for Promoting Community and Voluntary Participation for Enhancing Quality School Education, Government of India. https://vidyanjali.education.gov.in/assets/pdf/Final_Guidelines_Vidyanjali_%20December.pdf
- RIE Bhubaneswar (2020). Handbook on Field Engagement in Pre-service Teacher Education, Bhubaneswar, Regional Institute of Education.

Formative Assessment for Theory	
Assessment Occasion/ type	Marks
Internal Assessment Test 1	05
Internal Assessment Test 2	05
Assignment	10
Total	20 Marks
Formative Assessment as per guidelines.	