OFFICE OF THE REGISTRAR :: DIBRUGARH UNIVERSITY :: DIBRUGARH

Ref. No. DU/DR-A/158PGB&134AC/Syllabus-ITEP(Secondary Stage)/2025/787 Date: 21.08.2025

NOTIFICATION

As recommended by the meeting of the ***Board of Studies (BoS) in Education*** held on 08.05.2025 & 09.06.2025 respectively and 131st Meeting of the Under Graduate Board (UGB) held on 16.06.2025, the Joint Meeting of the 158th Post Graduate Board (PGB) and 134th Academic Council, Dibrugarh University held on 25.06.2025 vide **Resolution No. 12** has approved the ***Syllabus of ITEP with Secondary Stage Specialization from 3rd to 6th Semester in Education*** with effect from the academic session 2025-2026.

The syllabus is attached herewith.

Issued with due approval.

21/8/25

Deputy Registrar (Academic) i/c

Dibrugarh University

Copy forwarded for kind information and necessary action to:

1. The Hon'ble Vice-Chancellor, Dibrugarh University.
2. The Deans, Dibrugarh University.
3. The Registrar, Dibrugarh University.
4. The Controller of Examinations i/c, Dibrugarh University.
5. The Heads / Chairpersons of the Teaching Departments / Centres of Studies, Dibrugarh University.
6. The Principals of the Colleges affiliated to / permitted by Dibrugarh University.
7. The Joint / Deputy Controller of Examinations – 'B', 'C' & 'A', Dibrugarh University.
8. The Programmer, Dibrugarh University with a request to upload the Notification on the DU website.
9. File.

21/8/25

Deputy Registrar (Academic) i/c

Dibrugarh University

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Course Title	**:**	**Child Development and Educational Psychology**
Nature of the Course	**:**	**Foundations of Education**
Total Credit assigned	**:**	**4**
Semester	**:**	**III**
Distribution of Marks	**:**	**End Semester: 60 In Semester: 40**
Distribution of Credits	**:**	**Lecture (56), Tutorial (04), Practical (00)**

About the Course: To enable student teachers to understand the interplay of three different processes namely biological processes, cognitive processes, and socio-emotional processes that influence development of a child. Biological, cognitive, and socio-emotional processes are intricately interwoven with each other. Each of these processes plays a role in the development of a child whose body and mind are interdependent. The course seeks to provide an understanding of the developmental characteristics of a child-

- during infancy that ranges from birth to 24 months of age,
- during Early Childhood stage which begins around age 3 and usually extends up to 6-7 years of age,
- Middle to Late Childhood stage which begins around 6-7 years to 10-11 years of age, and
- Adolescence stage which begins at approximately the age of 12 years, and which is a period of transition from childhood to early adulthood.

The course will introduce 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.

The course will inform student teachers about the various theories of learning and motivational states for learning and their implications for pedagogy. It includes the study of how people learn, pedagogical approaches that are required to improve student learning, teaching-learning processes that enable learners to attain the defined learning outcomes, and individual differences in learning. It provides opportunities to student teachers to explore the behavioral, cognitive and constructivist approach to facilitating student learning, and the emotional and social factors that influence the learning process.

Course Objectives: The objectives of the Course are to:

1. describe the meaning, concept, characteristics, and factors affecting growth and development,
2. explain the knowledge of Indian concept of self,
3. describe various problem solving and learning strategies in real classroom settings,
4. explain the various approaches of the process of learning,
5. explain group dynamics and apply strategies to facilitate group learning.

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (15 Marks)	**Child Development** 1.1 Meaning and significance of understanding the process of Child Development- • Biological, • Cognitive, • Socio-emotional, and • Moral. 1.2 Developmental characteristics of a child during: • Infancy stage • Early Childhood stage • Middle to Late Childhood stage • Adolescence stage 1.3 The Indian concept of self: • Mind • Intellect • Memory • Panch-koshiya Vikas 1.4 Educational Implications.	**14**	**01**	**--**	**15**
2 (15 Marks)	**Developmental Process** 2.1 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. 2.2 Factors affecting development. 2.3 Individual differences: • Children with special needs including developmental disorders. • Tools and Techniques for Identifying Learner with different abilities. 2.4 Teachers' role and strategies to address the needs of learners with different learning abilities.	**14**	**01**	**--**	**15**
3 (15 Marks)	**Process of Learning** 3.1 Conceptual Clarity and significance. 3.2 Approaches: • Behaviorist • Cognitivist • Constructivist • Developmental • Information processing Model of learning • Shri Aurobindo's Integral approach 3.3 Problem Solving and Learning Strategies: • Inquiry and problem-based learning,	**14**	**01**	**--**	**15**

	• Steps and Strategies in problem solving, • Factors hindering problem solving. 3.4 How to Learn: Significance and Strategies				
4 **(15 Marks)**	**Motivation and Classroom Management** 4.1 Motivation • Conceptual clarity, nature, and significance • Intrinsic and Extrinsic Motivation • Strategies for Motivation 4.2 Classroom management • Creating a positive learning environment • Planning space for learning • Managing behavioural problems 4.3 Group dynamics: • Classroom as a social group • Characteristics of group • Understanding group interaction-sociometry • Strategies to facilitate group learning.	**14**	**01**	**--**	**15**
	Total	**56**	**04**	**00**	**60**

Mode of Transaction: The course content transaction will include the following:

1. Planned lectures infused with multimedia /power-point presentations.
2. 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.
3. Hands on experience of engaging with diverse communities, children, and schools.

Mode of In-semester Assessment:

1. **Two Sessional Tests (10 +10) (20 marks)**
2. **Any two activities of the following: (10+10) (20 marks)**
   - Spending day with a child and preparing a report based on 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.
   - Observing children to understand the learning styles of children and prepare a report on it.
   - Preparation of Case Study Report on students with specific learning disabilities.
   - Preparing personalized intervention plan for students with learning difficulties.
   - Preparing a plan to use advanced technology to encourage talented / gifted children.
   - Arrangement of enrichment programmes for gifted / talented students beyond the general school curriculum and prepare a report.
   - Any other assignment assigned by the Course Teacher on the contents of the Course.

Learning 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.
- describe the different domains of development of learners.
- address the needs of learners with different learning abilities.
- 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.

Suggested Readings:

1. Adler, A. (1927). *Practice and Theory of Individual Psychology*, Halloween Brace and World: New York.
2. Benjafield, J.G. (1992). *Cognition*, Practice Hall: Englewood Cliffs.
3. Berk, L.E. (2007). *Child Development*, Practice Hall of India (p) Ltd.:New Delhi.
4. Blos, P. (1950). *On Adolescence*, The Free Press of Glencoe: New York.
5. Chauhan, S.S.(1978). *Advanced Educational Psychology*, Vikas Publishing House (Pvt) Ltd: New Delhi.
6. Dandapani, S. (2001). *A Textbook of Advanced Educational Psychology*, Anmol Publications Pvt. Ltd.: New Delhi
7. Mangal, S.K. (2002). *Advanced Educational Psychology*, Prentice Hall of India: New Delhi.
8. Tony, C., Guilford, A. & Brick, S. (2015). *Educational Psychology*, Routledge Publication: New York.
9. Woolfolk, A. (2001). *Educational Psychology*, Allyn and Bacon: Needham Heights, M.A.
10. Woolfolk, A. & Kapur, P. (2019), *Educational Psychology,* Pearson Education: New Delhi.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**III**
Course Title	**:**	**Basics of Pedagogy at Secondary Stage**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**4**
Distribution of Marks	**:**	**End Semester: 60, In Semester: 40**
Distribution of Credits	**:**	**Lecture (52), Tutorial (4) Practical (8)**

About the Course: This course deals with diverse range of topics of basics of pedagogy at secondary sage that will equip student teachers with valuable knowledge, capacities and competencies. This course comprises four units and a practicum. This course prepares student teachers to understand secondary-stage learners and design teaching accordingly. This course also aims to equip teachers with the necessary tools, knowledge, and competencies to continuously evolve as professionals and create a positive and transformative impact on their students and society as a whole. In this course a strong foundation will be established by exploring the fundamental principles and concepts that support basics of pedagogy in the light aims and objectives of the curriculum. This course emphasizes understanding learners and their backgrounds comprehensively so that an engaging and supportive learning environment, that fosters a need for learning, can be created for facilitating learner's holistic development. This course is designed to equip student teachers with a wide array of teaching learning strategies. It also focuses on innovative and transformative approaches to education, aiming to create lifelong learners equipped to thrive in an ever-changing world. Through professional development opportunities, student teachers will be better prepared to meet the ever-changing demands of the educational landscape and inspire the next generation of learners.

Course Objectives: The objectives of the course are to:

1. build comprehensive understanding of secondary stage learners.
2. assess the physical, mental, social, and emotional growth of secondary stage learners.
3. develop skills to observe and recognize the unique capabilities and strengths of secondary stage learner.
4. discuss the necessary knowledge and skills to implement effective teaching and learning strategies,
5. create enriching and inclusive learning environments to foster values-based education.
6. develop a deeper understanding of various pedagogical approaches and their impact on learners.
7. determine the knowledge to make informed decisions about instructional practices.
8. explain the crucial role of pedagogy in facilitating effective learning experiences for students.
9. outline knowledge and skills necessary for continuous professional development.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (15 Marks)	**Understanding Secondary Stage Learners** 1.1 Understanding the learners and learner background 1.1.1 The physical, mental, social, and emotional growth of learners 1.1.2 Thought processes and cognitive skills of learners. 1.1.3 Psychological and social orientations of	13	1		14

	learners 1.1.4 Social and academic lives of learners 1.1.5 Conflicts and challenges of secondary learners 1.1.6 Characteristics of secondary stage learners 1.2 Observing the unique capabilities of a child				
2 **(15 Marks)**	**Strategies of Teaching and Learning** 2.1 Understanding teaching and learning strategies: 2.1.1 Concept, characteristics and functions of teaching 2.1.2 Making abstract concepts enjoyable by relating them to real-life situations 2.1.3 Promoting multidisciplinary learning through integration of different disciplines 2.1.4 Promoting learner participation and engagement in learning 2.1.5 Building values through art integrated activities, community engagement etc. 2.1.6 Promoting multidisciplinary learning through integration of different disciplines 2.1.7 Promoting health and social sensitivities 2.1.8 Developing respect toward cultural heritage 2.1.9 Making classrooms inclusive and joyful learning spaces 2.2 Relationship between Aims and Values of Education, Curriculum and Pedagogy	14	1		15
3 **(15 Marks)**	**Pedagogical Approaches** 3.1 Pedagogical approaches: constructivist approach; collaborative approach; reflective approach; integrative approach, inquiry- based approach; other contemporary approaches, art-integrated learning, sports- integrated learning. 3.2 Types of pedagogy: social pedagogy; critical pedagogy; culturally responsive pedagogy; Socratic pedagogy in inclusive setup. 3.3 Role of pedagogy in effective learning: how does pedagogy impact the learner?	15	1	2	18
4 **(15 Marks)**	**Continuous Professional Development of Teacher** 4.1 Meaning and need, professional and ethical competencies and need for updating content and pedagogical competencies to develop their professional competencies. 4.2 Professional development activities: seminars, conferences, orientation programmes, workshops, online and offline courses, competitions, publications, development of teaching portfolio, capacity building programmes, and teacher exchange programmes. 4.3 Development of professional competencies to	10	1	6	17

	deal with gender issues, equity and inclusion, ethical issues, environmental issues, human health and well-being, population, human rights, and various issues (emotional, mental, physical issues related to pandemic (for example covid-19).				
	Total	52	4	8	64

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum discussion
2. Project-based method
3. Problem solving method
4. Experiential learning
5. Art integrated learning
6. Sports integrated learning
7. ICT integrated learning
8. Interactive methods such as group discussions, peer tutoring, workshops, observations, and presentations.

Mode of In-semester Assessment:

1. **Two Sessional Tests (10+10) (20 marks)**
2. **Any two activities of the following: (10+10) (20 marks)**
    - Analyze NEP 2020 with reference to pedagogical aspects of the concerned subject.
    - Analyze and reflect on the qualities of an 'Innovative Teacher' in Context of National Professional Standards for Teachers (NPST) and National Mentoring Mission (NMM).
    - Explore different platforms such as National Teacher's Portal, NISHTHA, DIKSHA, and SWAYAM for an online course and prepare a report.
    - Participate in a workshop or seminar to explore the concept of Continuous Professional Development (CPD), its significance in lifelong learning and prepare a write up on the findings.
    - Develop teaching learning strategies to address the needs of diverse learners in context of gender, equity and inclusion and prepare a PowerPoint presentation.
    - Raise awareness on the ethical and social challenges in education through field trip and create an e-portfolio.
    - Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- discuss the characteristics of secondary stage learners.
- describe the physical, mental, social, and emotional growth of secondary stage learners.
- explain the unique capabilities and strengths of secondary stage learner.
- discuss the strategies of teaching and learning.
- relate aims and values of education.
- relate curriculum and pedagogy.
- describe various pedagogical approaches and their impact on learners.
- distinguish the various types of pedagogy.
- explain the crucial role of pedagogy in facilitating effective learning experiences for students.
- discuss the need of continuous professional development for teachers.

Suggested Readings:

1. Anand, C.L. (1988). Aspects of Teachers Education, Delhi, S. Chand and Co.
2. Brundrett, M., & Silcock, P., (2002). Achieving competence, excellence and success in teaching. Routledge.
3. Chauhan, S. S. (2008). Innovations in Teaching Learning process. New Delhi: Vikas Publishing House Pvt. Ltd.
4. Chauhan, S.S. (1978). Advanced Educational Psychology. New Delhi; Vikas Publishing House Pvt. Ltd
5. Chaurasia, G. (2000) Teacher Education and Professional Organization, Delhi, Authors Press.
6. Gates, A.I. et.al.(1948) Educational Psychology. New York; Macmillan & Co.
7. Joyce, Bruce, Marsha Weil and Emily Calhoun (2008). Models of Teaching. New Delhi:Prentice Hall of India Pvt. Ltd.
8. Mathur, S.S.(2010). Educational Psychology. New Delhi; Vinod Pustak Mandir.
9. Mukherjee, S.N. (1968). Education of the Teacher in India, Vol, I & Vol. II, S. Chand. Delhi.
10. National Council of Educational Research and Training. (2013). Pedagogy of Science: Physical Science Part-I.
11. National Council of Educational Research and Training. (2013). Pedagogy of Science: Physical Science Part-II.
12. National Council of Educational Research and Training. (April 2022). Mandate documents Guidelines for the development of National Curriculum Frameworks.
13. National Education Policy 2020, MoE, Government of India (English and Hindi).
14. National Policy on Education 1968, 1986 and 2020.
15. National Steering Committee for National Curriculum Frameworks, (2023). Draft National Curriculum Framework for School Education.
16. Pathak, A., (2013). Social Implications of Schooling: Knowledge, Pedagogy and Consciousness. Delhi: Aakar
17. Stones, E.(1970). The Psychology of Education. London; Methuen.
18. Woolfolk, A.(1980). Educational Psychology. Delhi; Pearson Education (Singapore) Pvt. Ltd., Indian branch.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**IV**
Course Title	**:**	**Content-cum-Pedagogy of English- I**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (27), Tutorial (03)**

About the Course: Interventions from quality teachers are vital in view of the objectives of NEP 2020. Sound pedagogical content knowledge and teaching methods are the determinants of a teacher's quality and professionalism. Teacher education programme strongly emphasizes pedagogy, its principles, and the practices of teaching and learning. Research clearly shows that children pick up language very quickly. It is also a well-known fact that students learn and grasp abstract concepts more quickly through their mother tongue or local language. Therefore, for teaching-learning any language, maximum exposure of the language needs to be given. This course comprises of three units emphasizing the knowledge of developing the teaching skills of Language for the student-teacher. The course also focuses on the understanding of nature, scope, importance, and functions of a language. It also deals with the historical/policy perspectives along with the approaches, methods of teaching the language for development of language skills among the children.

Course Objectives: The objectives of the course are to:

1. enable student teachers to critically examine the nature, scope, and historical evolution of language, including its linguistic features, functions, and inclusivity in educational contexts, fostering an understanding of how language shapes identity and reflects power dynamics within society.

2. enable student teachers to establish the interconnectedness of language with other subjects, literature, and societal values, enabling them to articulate the significance of language education in the broader national and international curriculum landscape.

3. enable student teachers to explore and implement a range of pedagogical approaches for teaching language, encompassing inductive and deductive methods, experiential and art-integrated learning, and collaborative practices that promote higher-order thinking skills and learner autonomy.

4. enable student teachers to assess their capabilities in language skills through reflective practices and hands-on activities, encouraging continuous personal and professional development in teaching language effectively while considering learner-centric methodologies

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Units and allotted marks	Course Contents	L	T	P	Total Contact Hours
1 **(10 marks)**	**Nature, Scope, and Historical Perspective of Language** 1.1 Nature, scope, and importance of the Language; Linguistic features of the Language. 1.2 Functions of Language, Language learning, and Language acquisition. 1.3 Historical perspective of the Language with a special focus on inclusivity in classrooms to learn the Language, evolution of Language with the power dynamics. 1.4 Language as discourse: Language – Identity and Gender. 1.5 Recommendations/suggestions of various committees, commissions, and policies on Teaching-learning the Language in school education. 1.6 Universality of Languages.	**10**	1		**11**

2 **(10 marks)**	**Integrating Language within Interdisciplinary Frameworks** 2.1 Aims and objectives of teaching the Language (L1 and L2). 2.2 Linkages of the Language with other school subjects. 2.3 Linkages between literature and society. 2.4 Place of the Language in school curriculum at the national and international scenario. 2.5 Values of Language: functionality, fluency, coherence.	**5**	**1**		**6**
3 **(10 marks)**	**Pedagogical Aspects of Language** 3.1Approaches of teaching Language – inductive deductive, constructivist, experiential learning, art-integrated learning, blended learning, interdisciplinary and multidisciplinary approaches. 3.2 Critical and analytical pedagogical concerns related to teaching Language with special focus on Higher-Order Thinking skills (HOTs). 3.3 Methods of teaching Language: learner centric and group-centric, lecture-cum-demonstration, grammar-cum-translation method, direct method, audio-lingual method, task-based learning, lexical approach, activity based discussion, problem-solving, hands-on activity, concept-mapping, collaborative and cooperative learning. 3.4 Capabilities of students in Language skills and reflection.	**12**	**1**		**13**
Total		**27**	**3**		**30**

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Mode of Transaction: The course content transaction will include the following:

1. Interactive lectures, tutorials and practical.

2. Discussions, project-based method, problem-solving method, experiential learning, inquiry approach to develop the critical thinking/problem solving abilities among the students.

3. ICT integrated learning, interactive methods such as group discussions, peer tutoring, workshops, observations, and presentations.

Mode of In-semester Assessment:

1. **Two Sessional tests: (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**
    - Prepare a report on any one Language of your neighbourhood focusing on how it has evolved.
    - Enumerate values of the Language and prepare a write up.
    - Write an article on the recommendations of NEP 2020 in context to Language development.
    - Prepare relevant resource materials of the Language at the secondary level.
    - Prepare a report on various pedagogical activities to teach the Language.
    - Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- outline the aims and objectives of teaching Language at the secondary level.
- identify and relate values of the Language with other disciplines.
- summarize the historical perspective of the Language.
- discuss methods, approaches, and materials for teaching Language at the secondary stage in the Indian context.
- appraise the Language diversity of the surroundings.

Suggested Readings:

1. Aslam, Mohammad. Teaching of English. 2nd ed. New Delhi: CUP, 2008.
2. Balasubramanian, T. A Textbook of English Phonetics for Indian Students Second Edition. Macmillan Publishers India Ltd.2013.
3. Baruah, T.C. The English Teachers Handbook. Sterling Revised ed.2011
4. Cambridge University Press
5. Chapelle, C.A. Computer application in second language acquisition. Foundation for teaching, testing and research. Cambridge. Cambridge University Press. 2001.
6. Davison, Jon, John Moss. Issues in English Teaching. Ed. London: Routledge, 2000
7. Freeman, Diane Larsen. Techniques and Principles in Language Teaching. 2nd ed. OUP, 2000.
8. Nagaraj, Geetha English Language Teaching Approaches, Methods, Techniques. 2nd ed. Hyderabad: Orient Longman Private Limited, 2008.
9. National Curriculum Framework for School Education, Government of India
10. National Education Policy 2020 (NEP 2020). Government of India. (English/ Hindi).

11. National Policy on Education (With Modifications Undertaken In 1992). Ministry of Human Resource Development: New Delhi.
12. O' Connor, J.D. Better English Pronunciation.
13. Richards, Jack C and Rodgers, Approaches and Methods in Language Teaching. 2nd Theodore S. ed. Cambridge University Press, 2001.
14. Sarma, M. and D.Mahapatra. How to Teach English. Bhabani Books, Guwahati.2009.
15. Sharma, R.A. Teaching of English.(Language and Literature Teaching) R.Lall Book Depot, Meerut, 2011.
16. The Right of Children to Free and Compulsory Education Act-2009, The Gazette of India, 2009.
17. Tickoo, M.L. Teaching and learning English a sourcebook for Teachers and Teacher – Trainers. Orient Longman; New Delhi: 2003.
18. Vyas, Manish A and Yogesh L Patel(Edited). Teaching English as a Second Language –A New Pedagogy for a New Century. PHI Learning Private Limited, 2010.
19. Yule, George The Study of Language. Third Edition. Cambridge University Press, 2000.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**IV**
Course Title	**:**	**Content cum Pedagogy of Assamese – I**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (27), Tutorial (3)**

About the Course: Interventions from quality teachers are vital in view of the objectives of NEP 2020. Sound pedagogical content knowledge and teaching methods are the determinants of a teacher's quality and professionalism. Teacher education programme strongly emphasizes pedagogy, its principles, and the practices of teaching and learning. Research clearly shows that children pick up language very quickly. It is also a well-known fact that students learn and grasp abstract concepts more quickly through their mother tongue or local language. Therefore, for teaching-learningany language, maximum exposure of the language needs to be given. This course comprises of three units emphasizing the knowledge of developing the teaching skills of language for the student-teacher. The course also focuses on the understanding of the nature, scope, importance, and functions of a language. It also deals with the historical/policy perspectives along with the approaches, methods of teaching the Assamese language for the development of language skills among the children.

ৰাষ্ট্ৰীয় শিক্ষানীতি ২০২০ৰ উদ্দেশ্যৰ প্ৰতি লক্ষ্য ৰাখি গুণগত শিক্ষকৰ পৰা শিক্ষাগ্ৰহণ অতি প্ৰয়োজনীয়। সুস্থ শিক্ষাবিজ্ঞান সন্মত বিষয়বস্তুৰ জ্ঞান আৰু পাঠদান পদ্ধতি হৈছে এজন শিক্ষকৰ গুণগত মান আৰু পেছাদাৰিত্বৰ নিৰ্ণায়ক। শিক্ষক শিক্ষা কাৰ্যসূচীয়ে শিক্ষাবিজ্ঞান, ইয়াৰ নীতি, আৰু শিক্ষণ-শিকনৰ অভ্যসন সম্পৰ্কে অতি গুৰুত্ব আৰোপ কৰে। গৱেষণাৰ পৰা স্পষ্টকৈ দেখা গৈছে যে শিশুৱে ভাষা অতি সোনকালে শিকিব পাৰে। এইটো সকলোৰে জ্ঞাত যে, ছাত্ৰ-ছাত্ৰীসকলে নিজৰ মাতৃভাষা বা স্থানীয় ভাষাৰ জৰিয়তে বিমূৰ্ত ধাৰণা সমূহ অধিক ক্ষীপ্ৰতাৰে শিকে আৰু গ্ৰহণ কৰিব পাৰে। গতিকে যিকোনো ভাষাৰ শিক্ষণ-শিকনৰ বাবে ভাষাটোৰ সৰ্বাধিক ব্যৱহাৰ কৰাৰ প্ৰয়োজন। এই পাঠ্যক্ৰমটোও ছাত্ৰ-শিক্ষকৰ বাবে ভাষাৰ পাঠদান দক্ষতা বিকাশৰ জ্ঞানৰ ওপৰত গুৰুত্ব আৰোপ কৰি তিনিটা ব্যষ্টি/এককৰে গঠিত। পাঠ্যক্ৰমটোৱে ভাষা এটাৰ প্ৰকৃতি, পৰিসৰ, গুৰুত্ব, আৰু কাৰ্যৰ বিষয়েও বুজাৰ ক্ষেত্ৰত গুৰুত্ব আৰোপ কৰে। ইয়াৰ উপৰিও শিশুসকলৰ মাজত ভাষা দক্ষতা বিকাশৰ বাবে ভাষা শিকোৱাৰ অভিগমন আৰু পদ্ধতিৰ লগতে ঐতিহাসিক অথবা নীতিৰ দৃষ্টিভংগীৰ বিষয়েও আলোচনা কৰা হৈছে।

Course Objectives: The objectives of the course are to:

1. describe the nature, scope and importance of language and linguistic features of language, functions of language, language learning, and language acquisition
2. describe the recommendations/suggestions of various committees, commissions, and policies on teaching-learning the Language in school education.

3. explain the aims and objectives of teaching of Assamese as a mother tongue
4. discuss the various approaches and methods of teaching of Assamese
5. discuss the critical and analytical pedagogical concerns related to teaching of Assamese with a special focus on Higher-Order Thinking skills (HOTs).

১) ভাষাৰ প্ৰকৃতি, পৰিসৰ আৰু গুৰুত্ব, ভাষাৰ ভাষাগত বৈশিষ্ট্য, ভাষাৰ কাৰ্য, ভাষাশিক্ষণ, আৰু ভাষা আহৰণৰ বিষয়ে বৰ্ণনা কৰা

২) বিদ্যালয় শিক্ষাত ভাষা শিক্ষণ-শিকন সম্পৰ্কে বিভিন্ন সমিতি, আয়োগ আৰু বিভিন্ন নীতিৰ পৰামৰ্শৰ বিষয়ে বৰ্ণনা কৰা

৩) মাতৃভাষা হিচাপে অসমীয়া পাঠদানৰ লক্ষ্য আৰু উদ্দেশ্য ব্যাখ্যা কৰা

৪) অসমীয়া শিক্ষণৰ বিভিন্ন অভিগমন আৰু পদ্ধতিৰ বিষয়ে আলোচনা কৰা

৫) উচ্চক্ৰমৰ চিন্তাদক্ষতা সম্পৰ্কে বিশেষ গুৰুত্ব দি অসমীয়াৰ পাঠদানৰ সৈতে জড়িত সমালোচনাত্মক আৰু বিশ্লেষণাত্মক শিক্ষাবিজ্ঞানৰ সংগতি থকা বিষয়সমূহ আলোচনা কৰা

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 **(10 Marks)**	**Nature, Scope and Historical Perspective of Language** 1.1 Nature, scope, and importance of the Language; Linguistic features of the Language. 1.2 Functions of Language, Language learning, and Language acquisition. 1.3 Historical perspective of the Language with a special focus on inclusivity in classrooms to learn the Language, evolution of Language with the power dynamics. 1.4 Language as discourse: Language - Identity and Gender. 1.5 Recommendations/suggestions of various committees, commissions, and policies on teaching-learning the Language in school education. 1.6 Universality of Languages **ভাষাৰ প্ৰকৃতি, পৰিসৰ আৰু ঐতিহাসিক দৃষ্টিভংগী** **১.১** ভাষাৰ প্ৰকৃতি, পৰিসৰ আৰু গুৰুত্ব, ভাষাৰ ভাষিক বৈশিষ্ট্যসমূহ। **১.২** ভাষাৰ কাৰ্য, ভাষা শিকন আৰু ভাষা আহৰণ। **১.৩** ভাষা শিকিবলৈ শ্ৰেণীত অন্তৰ্ভুক্তিত বিশেষ গুৰুত্ব দি ভাষাৰ ঐতিহাসিক দৃষ্টিভংগী, শক্তি গতিশীলতাৰ সৈতে ভাষাৰ বিৱৰ্তন। **১.৪** বাকধাৰা (ডিচক'ৰ্ছ) হিচাপে ভাষা: ভাষা – পৰিচয় আৰু লিংগ **১.৫**বিভিন্ন সমিতি আৰু আয়োগৰ পৰামৰ্শ, স্কুলীয়া শিক্ষাত ভাষা শিক্ষণ-শিকনৰ নীতি, **১.৬** ভাষাৰ সাৰ্বজনীনতা	9	1	-	10

2 **(10 Marks)**	2.1 Aims and objectives of teaching of Assamese as a mother tongue (L_1) and second language (L_2) 2.2 Linkages of the Assamese Language with other school subjects. 2.3 Linkages between literature and society. 2.4 Place of the Assamese Language in the school curriculum at the national scenario. 2.5 Values of Language: functionality, fluency, coherence **২.১** মাতৃভাষা আৰু দ্বিতীয়ভাষা হিচাপে অসমীয়া শিকোৱাৰ লক্ষ্য আৰু উদ্দেশ্য **২.২** বিদ্যালয়ৰ অন্যান্য বিষয়ৰ সৈতে অসমীয়া ভাষাৰ সংযোগ। **২.৩** সাহিত্য আৰু সমাজৰ মাজৰ সংযোগ **২.৪** ৰাষ্ট্ৰীয় পৰ্যায়ত বিদ্যালয়ৰ পাঠ্যক্ৰমত অসমীয়া ভাষাৰ স্থান **২.৫** ভাষাৰ মূল্যবোধ :কাৰ্যক্ষমতা, সাৱলীলতা, সংহতি	9	1	-	10
3 **(10 Marks)**	**Pedagogical Aspects of Language :** 3.1 Approaches of teaching of Assamese – inductive deductive, constructivist, experiential learning, art-integrated learning, blended learning, interdisciplinary and multidisciplinary approaches. 3.2 Critical and analytical pedagogical concerns related to teaching of Assamese with a special focus on Higher-Order Thinking skills (HOTs). 3.3 Methods of teaching of Assamese: learner-centric and group-centric, lecture-cum-demonstration, grammar-cum-translation method, direct method, audio-lingual method, task-based learning, lexical approach, activity-based discussion, problem-solving, hands-on activity, concept-mapping, collaborative and cooperative learning. 3.4 Capabilities of students in Language skills and reflection **ভাষাৰ শিক্ষাবিজ্ঞান সম্মতদিশ** **৩.১** ভাষাৰ পাঠদানৰ পদ্ধতিসমূহ- আৰোহী, অৱৰোহী, গঠনবাদী, অভিজ্ঞতা ভিত্তিক শিকন, কলা-সংহত শিকন, মিশ্রিত শিকন, আন্তঃবিষয়ক আৰু বহুবিষয়ক অভিগমন। **৩.২** উচ্চ-ক্ৰমৰ চিন্তাদক্ষতা (HOTs) সম্পৰ্কে বিশেষ গুৰুত্ব দি অসমীয়া	9	1	-	10

	ভাষা পাঠদানৰ সৈতে জড়িত সমালোচনাত্মক আৰু বিশ্লেষণাত্মক শিক্ষা বিজ্ঞানৰ সংগতি থকা বিষয়সমূহ আলোচনা কৰা। ৩.৩ ভাষা শিক্ষণৰ পদ্ধতি: শিক্ষার্থী কেন্দ্রিক আৰু গোট কেন্দ্রিক, বক্তৃতা-তথা প্রদর্শন, ব্যাকৰণ-অনুবাদ পদ্ধতি, প্রত্যক্ষ পদ্ধতি, শ্রব্য-ভাষিক পদ্ধতি, কার্য্যভিত্তিক শিকন, আভিধানিক অভিগমন, কার্য্যকলাপ ভিত্তিক আলোচনা, সমস্যা সমাধান, হাতৰকাম, ধাৰণা-মেপিং, সন্মিলিত আৰু সহযোগিতা মূলক শিক্ষণ। ৩.৪ ভাষা দক্ষতা আৰু ইয়াৰ প্রতিফলনত ছাত্র-ছাত্রীৰ সামর্থ্য।				
	Total	**27**	**3**		**30**

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum discussion
2. Project-based method
3. Problem solving method
4. Experiential learning
5. Art integrated learning
6. Sports integrated learning
7. ICT integrated learning
8. Interactive methods such as group discussions, peer tutoring, workshops, observations, and presentations.

১) বক্তৃতা-সহ-আলোচনা,
২) প্রকল্প ভিত্তিক পদ্ধতি,
৩) সমস্যা সমাধান পদ্ধতি,
৪) অভিজ্ঞতা ভিত্তিক শিক্ষণ,
৫) কলা সংহত শিক্ষণ,
৬) ক্রীড়া সংহত শিক্ষণ,
৭) আইচিটি সংহত শিক্ষণ,
৮) ইন্টাৰেক্টিভ পদ্ধতি যেনে দলীয় আলোচনা, সমনীয়া-শিক্ষণ, কর্মশালা, পর্যবেক্ষণ, আৰু উপস্থাপন।

Mode of In-semester Assessment:

1. **Two Sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**

- Prepare a report on any one Language of your neighborhood focusing on how it has evolved.
- Enumerate values of the Language and prepare a write up.
- Write an article on the recommendations of NEP 2020 in context to Language development.
- Prepare relevant resource materials of the Language at the secondary level.

- Prepare a report on various pedagogical activities to teach the Assamese Language.
- Any other assignment assigned by the Course Teacher on the contents of the Course.
- তোমাৰ চুবুৰীৰ যিকোনো এটা ভাষাৰ বিকাশ কেনেকৈ হৈছে তাৰ বিষয়ে এখন প্ৰতিবেদন প্ৰস্তুত কৰা।
- ভাষাৰ মাননিৰ্ধাৰণ কৰি এটা টোকা প্ৰস্তুত কৰা।
- ভাষা বিকাশৰ প্ৰসংগত ৰাষ্ট্ৰীয় শিক্ষানীতি ২০২০ৰ পৰামৰ্শৰ সম্পৰ্কে এটা প্ৰবন্ধ লিখা।
  মাধ্যমিক পৰ্যায়ত ভাষাৰ প্ৰাসংগিক শিক্ষণ সমল প্ৰস্তুত কৰা।
- অসমীয়া ভাষা শিকোৱাৰ বাবে বিভিন্ন শিক্ষাবিজ্ঞানৰ কাৰ্যৰ এক প্ৰতিবেদন প্ৰস্তুত কৰা।
- পাঠ্যক্ৰমৰ বিষয়বস্তুৰ বিষয়ে পাঠ্যক্ৰমৰ শিক্ষকে দিয়া অন্য কোনো কাৰ্য।

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

- outline the aims and objectives of teaching Language at the secondary level,
- identify and relate values of the Language with other disciplines,
- summarize the historical perspective of the Language,
- discuss methods, approaches, and materials for teaching Language at the secondary stage in the Indian context,
- appraise the Language diversity of the surroundings.

এই পাঠ্যক্ৰম সম্পূৰ্ণ কৰাৰ পিছত ছাত্ৰ-শিক্ষকে নিম্নোক্ত বিষয়সমূহ কৰিব পাৰিব:

- মাধ্যমিক পৰ্যায়ত ভাষা পাঠদানৰ লক্ষ্য আৰু উদ্দেশ্যৰ ৰূপৰেখা দাঙি ধৰা,
- ভাষাৰ মূল্যবোধ সমূহ চিনাক্ত আৰু অন্যান্য শাখাৰ সৈতে সম্পৰ্কিত কৰা,
- ভাষাৰ ঐতিহাসিক দৃষ্টিভংগীৰ সাৰাংশ দাঙি ধৰা,
- ভাৰতীয় প্ৰেক্ষাপটত মাধ্যমিক পৰ্যায়ত ভাষা শিকোৱাৰ পদ্ধতি, অভিগমন, আৰু শিক্ষণ সঁজুলিৰ বিষয়ে আলোচনা কৰা,
- চৌপাশৰ ভাষা বৈচিত্ৰ্যৰ মূল্যায়ন কৰা।

Suggested Readings:

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2. Chapelle, C.A. : Computer application in second language acquisition. Foundation for teaching, testing and research. Cambridge. Cambridge University Press. 2001.
3. Dua, Hans R.: Perspective of Understanding Language, Yashoda Publications, Mysore
4. Freeman , Diane Larsen : Techniques and Principles in Language Teaching. 2nd ed. OUP, 2000
5. Kramsch : *Context and Culture in Language Classroom*, OUP, New Delhi
6. Lazar : *Literature and Language Teaching.* OUP, New Delhi
7. Matilal, B.K. : *The Word and the World : India's contribution to the Study of Language*, OUP, New Delhi
8. National Curriculum Framework for School Education, Government of India
9. National Education Policy 2020 (NEP 2020). Government of India. (English/ Assamese).
10. National Policy on Education, 1986 (With Modifications Undertaken In 1992). Ministry of Human Resource Development: New Delhi.

11. Richards Ur, Penny *A course in Language Teaching Practice and theory*. Cambridge University Press: Cambridge, U.K. 1996*Professional Development for Language Teachers*. Cambridge. Cambridge University Press.New Delhi 2013.
12. Richards, Jack C and Rodger Approaches and Methods in Language Teaching. 2nd Theodore S. ed. Cambridge University Press, 2001.
13. Stern, H. H.: Fundamental Concepts of Language Teaching, Oxford University Press, Oxford, 1983
14. The Right of Children to Free and Compulsory Education Act-2009, The Gazette of India, 2009.
15. Ur, Penny*A course in Language Teaching Practice and theory*. Cambridge University Press: Cambridge, U.K. 1996
16. Yule, George : The Study of Language. Third Edition. Cambridge University Press, 2000
17. গোস্বামী, ড° উপেন্দ্রনাথ: **অসমীয়া ভাষাৰ ৰূপকথা,** ৪র্থ প্রকাশ, ১৯৯৫, মণিমাণিক প্রকাশ,গুৱাহাটী
18. গোস্বামী, ড°উপেন্দ্রনাথ : **ভাষাবিজ্ঞান,**৫মসং১৯৮৬, মণি-মাণিকপ্রকাশ, পাণবজাৰ, গুৱাহাটী-১
19. গোস্বামী, তীন্দ্রনাথ : **মাতৃভাষা শিক্ষণ,** মণিমাণিক প্রকাশ,গুৱাহাটী
20. ঠাকু�ৰ, ড০ নগেন: **ভাৰতীয় ভাষাৰ পৰিচয়,** ১৯৮৩, ভাৰতী বুক ষ্টল, গোলাঘাট
21. দাস. হলিৰাম : **অসমীয়া মাতৃভাষা শিক্ষণ পদ্ধতি,** শ্রী ভূমি পাব্লিছিং কোম্পানি, কলকতা
22. নেওগ, ড° মহেশ্বৰ : **অসমীয়া সাহিত্যৰ ৰূপৰেখা**, ৮মপ্রকাশ, ১৯৯৫, চন্দ্রপ্রকাশ, গুৱাহাটী
23. পাঠক, ৰমেশ : **ভাষাবিজ্ঞানৰ ভূমিকা,** ২য় প্র ১৯৮৫, এল বি এছ পাব্লিকেশ্যন, গুৱাহাটী-১
24. পাঠকৰমেশ : **অসমীয়া ভাষাৰ ইতিহাস,** ১৯৮৫, জার্ণাল এম্প'ৰিয়াম, নলবাৰী
25. বৰুৱা, ড° ভীমকান্ত : **অসমৰ ভাষা,** ষ্টুডেণ্টচ এম্প'ৰিয়াম, ডিব্রুগড়
26. হাজৰিকা, বিশ্বেশ্বৰ : **অসমীয়া ভাষাৰ উৎপত্তি আৰু ক্রমবিকাশ ,**১৯৮৮, জাতীয় সাহিত্য প্রকাশ, গুৱাহাটী-
27. শর্মা, ড° মদন : **অসমীয়া ভাষা শিক্ষণপদ্ধতি,** ষ্টুডেণ্টছ ষ্টোৰছ, গুৱাহাটী
28. শর্মা, ড° সত্যেন্দ্রনাথ : **অসমীয়া সাহিত্যৰ সমীক্ষাত্মক ইতিবৃত্ত,** ৩য়প্র, ১৯৮৬, সৌমাৰ প্রিণ্টিং এণ্ড পাব্লিছিং প্রাইভেট লিমিটেড, গুৱাহাটী
29. ষষ্ঠশ্রেণীৰ পৰা দ্বাদশ শ্রেণীত প্রচলিত অসমীয়া পাঠ্যপুথিসমূহ, এখন আধুনিক অসমীয়া অভিধান, এখন আধুনিক অসমীয়া ব্যাকৰণ।

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**IV**
Course Title	**:**	**Content cum Pedagogy of Mathematics-I**
Nature of the Course	**:**	**Stage-Specific Content-Cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (15), Tutorial (06), Practicum (18)**

About the Course: Mathematics is an important school subject, and students are expected to master computational and problem-solving skills with the help of mathematical concepts and reasoning during study. Teaching Mathematics is not only concerned with the computational know-how of the subject. Still, it is also concerned with pedagogical content knowledge and communication leading to meaningful student learning. This course enables the student-teachers to understand the nature of mathematical knowledge and the mathematics curriculum at the secondary stage. The objectives of teaching Mathematics should not be limited to developing computational skills but to enabling mathematical reasoning to solve life problems. Student teachers will develop skills to formulate classroom objectives and plan to imbibe the values through Mathematics. Student teachers will understand the Mathematical content thoroughly and their relevant specific pedagogy for learning Mathematics effectively. They would be exposed to various pedagogical approaches, methods, and techniques so that they would be able to create a learner-friendly classroom environment.

Course Objectives: The objectives of the course are to:

1. enable the student teachers to develop an understanding of the nature and scope of Mathematics and its relevance to the secondary school curriculum.
2. enable the student teachers to appreciate the historical development of Mathematics and its impact on society.
3. enable the student teachers to understand the aims and objectives of teaching Mathematics at secondary levels.
4. enable the student teachers to develop an understanding of the pedagogical principles and approaches that underlie effective Mathematics teaching.
5. enable the student teachers to develop an understanding of the role of assessment and evaluation in Mathematics education.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (10 Marks)	**Nature, Scope, and Historical Perspective of Mathematics:** 1.1 Development of Mathematics from a Historical Perspective. 1.2 Nature of Mathematical Knowledge – Axioms and Postulates, Conjectures, Proofs in Mathematics: inductive-deductive reasoning, theorems, mathematical modelling. 1.3 Importance of mathematical knowledge in everyday life. 1.4 Recommendations of various committees, commissions, and policies related to Mathematics education at the Secondary stage	5	2	4	11

	(especially in National Education Policies and National Curriculum Frameworks). (**Suggestions for Practicum:** compare the nature of mathematical knowledge with other school subjects; create a budget and shopping list, applying mathematical concepts like percentages, ratios, and calculations; discuss and debate the recommendations of national curriculum frameworks (e.g., NCF 2005) related to mathematics education)				
2 **(10 Marks)**	**Aims and Objectives of Teaching Mathematics** 2.1 Aims and objectives of teaching Mathematics at the secondary stage. 2.2 Learning outcomes and competencies of teaching Mathematics at the secondary stage. 2.3 Linkages of Mathematics with other school subjects and their place in the school curriculum. 2.4 Inculcation of values through the teaching of Mathematics. (**Suggestions for Practicum:** formulate objectives based on learning outcomes and experiential learning for any one unit of secondary Mathematics; real-world problem-solving activities; develop a strategy to connect any three topics for value inculcation in teaching Mathematics).	5	2	4	11
3 **(10 Marks)**	**Pedagogical Aspects of Mathematics** 3.1 Implications of various approaches to teaching Mathematics – inductive deductive, analytical-synthetic, constructivist, blended learning, experiential learning, trans-disciplinary, interdisciplinary, and multidisciplinary. 3.2. Learner-centric and participative methods of teaching Mathematics: lecture cum demonstration, problem-solving, laboratory, project-based. 3.3 Analytical pedagogical concerns in teaching Mathematics for higher-order thinking skills, such as critical, creative, decision-making, reflective, collaborative, and cooperative. 3.4. Techniques of teaching-learning Mathematics: oral, written, drill work, homework, self-study, group study, supervised study, concept mapping, learning, art, and sports-integrated learning. (**Suggestions for Practicum:** explore patterns to derive formulas; build mathematical concepts through hands-on activities; combine e-resources	5	2	10	17

	with traditional teaching; hands-on experiments to explore ideas; group work on math-related projects; create new mathematical problems, visualize relationships between concepts; use art to represent math concepts; apply math in sports-related activities).				
	Total	**15**	**06**	**18**	**39**

Mode of Transaction: The course content transaction will include the following:

1. Planned lectures with demonstration and/or multimedia /PowerPoint presentations.
2. Field-based experience, library visits, classroom discussions, field observations, engaging in dialogue, self-study, assignment preparation, classroom presentations, discussion forums, observation, research report, internship, flipped classroom, etc.
3. Hands-on experience indentifying mathematical concepts in nature and applying those in our day-to-day lives.

Mode of In-semester Assessment:

1.Two Sessional Test (5+5) (10 marks)

2.Any one activity of the following: (10 marks)

- Prepare a collage/ biographic sketch on the contribution of an Indian mathematician.
- Research and analyze national education policies (e.g., NEP 2020) and present findings on mathematics education.
- Explore symmetry in art, architecture, or nature, promoting appreciation for aesthetics and cultural heritage.
- Analyze the content of one chapter of the Mathematics textbook and develop concept maps at the secondary stage.
- Select and list approaches and methods for teaching various topics of secondary stage Mathematics.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- review the contribution of Indian Knowledge Systems in the development of Mathematics.
- apprise the nature of Mathematics as an important subject for human development.
- interpret the recommendation of the various policy documents about Mathematics education
- classify the aims and objectives of teaching Mathematics.
- formulate objectives based on learning outcomes for Mathematics teaching.
- select and demonstrate various approaches and methods of teaching Mathematics.
- plan strategies to inculcate values through teaching Mathematics.

Suggested Readings:

1. Butler, C.H. & Wren, F.L. (1960). The Teaching of Secondary Mathematics. McGraw-Hill Book Company, Tokyo.
2. Davis, David R. (1951). The Teaching of Mathematics. Addison-Wesley Press.

3. Henderson, K.B. &Pingry, R.E. (1975). Dynamics of Teaching Secondary Mathematics. Houghton Mifflin, London.
4. James, Anice (2016). Methods of Teaching Mathematics. Neel Kamal Publication.
5. Mangal, S.K. (1989). Teaching of Mathematics. Prakash Brothers Publishers, Ludhiana.
6. Mangal, S.K. (2019). Pedagogy of Mathematics. Tandon Publication.
7. NCERT. A Handbook for Designing Mathematics Laboratory in Schools (Code-1555).
8. NCERT. Manual for Higher Secondary Mathematics Kit (Code-3165).
9. NCERT. National Curriculum Framework. New Delhi, India: NCERT.
10. NCERT. National Focus Group on Teaching of Mathematics. New Delhi, India: NCERT.
11. Sidhu, K.S. (2016). The Teaching of Mathematics. Sterling Publishers, New Delhi.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**IV**
Course Title	**:**	**Content cum Pedagogy of Biological Sciences-I**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credits Assigned:		**2**
Distribution of Marks :		**End Semester: 30, In Semester: 20**
Distribution of Credits:		**Lecture (27), Tutorials (3)**

About the Course: Biology is an inseparable part of human life and is hence learning biological concepts and principles are given ample importance in school curricula. Knowledge of Biological Sciences enables students to recognize and value the diverse living forms, their structure and method of functioning, co-existence and how they harmoniously blend with other natural/physical factors that constitutes the complex environment. To enable school students adequately learn these aspects, teachers must design and adopt appropriate teaching-learning methods for teaching Biological Sciences. Biological Sciences offer us the unique facility of seeing, touching and observing materials. This course aims to educate the student teachers to learn the various methods and strategies in teaching Biological Sciences. The course comprises of three units describing the aims and scope of Biological Sciences in Secondary level. A glimpse of the history of Biological Sciences is dealt with ancient and modern Indian and international contributions in the study of biological methods and practices in building the modern-day Biological Sciences. Salient features of selected earlier curricular exercises with special reference to biology at secondary level are also emphasized.

Course Objectives: The objectives of the course are to:

1.explain the significance of acquiring 21st-century skills for Biological Sciences teaching.

2.outline the need for and importance of assessment and evaluation in the teaching of Biological Sciences.

3.appraise with various assessment strategies for continuous assessment in reference to teaching of Biological Sciences.

4.appropriate tools and techniques for assessment and evaluation in teaching learning of Biological Sciences.

5.identify recent trends in research related to the teaching and learning and its implications in teaching learning of Biological Sciences.

6.prepare unit test item based on TOSS and develop different types of test items.

7.construct and administer different type of tests.

8.plan offline and online activities for testing higher order thinking skills in teaching learning of Biological Sciences.

9.relate ICT integration and elaborate its use in classroom situations.

10.identify a problem in the context of Biological Sciences teaching learning and plan action research.

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Units and Allotted Marks	Course Content	L	T	P	Total Contact Hours
1 **(10 Marks)**	**Nature, Scope and Historical Perspective of Biological Sciences:** 1.1 Nature, scope, and importance of Biological Sciences. 1.2 Historical perspective of Biological Sciences. 1.3 Contributions of Indian (ancient and modern) and other scientists. 1.4 Biological science for sustaining self, society, environment, and world. 1.5 Recommendations/suggestions of various committees, commissions, and policies in reference to Biological Sciences.	9	1		10
2 **(10 Marks)**	**Aims and Objectives of Biological Sciences:** 2.1 Aims and objectives of teaching biological science as a component of multidisciplinary Science. 2.2 Learning outcomes and competencies of teaching Biological Sciences at secondary stage. 2.3 Linkages of Biological Sciences with other school subjects and place of the Biological Sciences in school curriculum. 2.4 Values of Biological Sciences; ethical, environmental and sustainability concerns.	9	1		10
3 **(10 Marks)**	**Pedagogical Aspects of Biological Sciences** 3.1 Implication of various approaches – inductive deductive, constructivist, experiential, art integrated, blended learning, interdisciplinary and multidisciplinary approaches, stimulating the spirit of investigation and enquiry. 3.2 Analytical pedagogical concerns in teaching of physical sciences for higher order thinking skills such as critical, creative, communication, decision making, reflective. 3.3 Methods of teaching learning Biological Sciences: learner-centric and group-centric, lecture cum demonstration, activity based, discussion, problem-solving, laboratory and hands on activity based, sports- integrated, project based, inquiry, discovery, experimentation, concept-mapping, collaborative and cooperative learning; stem and steam concept.	9	1		10
	Total	**27**	**3**	**-**	**30**

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum discussion
2. Demonstration
3. Hands-on activities
4. Experiential learning
5. Inquiry
6. Group work
7. Presentations
8. Multimedia.

Mode of In-semester Assessment:

3. **Two Sessional Tests (5+5) (10 marks)**
4. **Any one activity of the following (10 marks)**

- Plot a timeline of development of Biological Sciences from ancient to modern times mentioning the important developments.
- Analyze and prepare a report on pedagogy of Biological Sciences with reference to NEP 2020.
- Prepare a write up on ancient Indian contributions and practices in Ayurveda/Herbal medicines.
- Develop concept maps on different concepts of Biological Sciences.
- Demonstrate different pedagogical approaches and strategies for transacting concepts of Biological Sciences.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- explain nature, scope, and importance of Biological Sciences,
- illustrate aims and objectives of teaching Biological Sciences for sustainable development of society
- outline linkages between Biological Sciences and other subjects,
- identify the values and importance of Biological Sciences and alternative knowledge systems
- summarize the historical/policies perspective of Biological Sciences,
- examine pedagogical concerns of Biological Sciences,
- categorize approaches and methods of teaching learning Biological Sciences,
- apply proper pedagogy in teaching learning the concepts of Biological Sciences,
- realize the importance of studying Biological Sciences as part of the school curriculum
- identify the values and significance of Biological Sciences in School curricula,
- apply appropriate method/s in teaching concepts of Biological Sciences.

Suggestive Readings:

1. Bhuyan S. & Konwar N. Teaching of Science II, Banalata Publishers, Dibrugarh, 2018. documents Guidelines for the development of National Curriculum Frameworks.
2. Khan R.S. Professional Development of Secondary School Teachers, New Delhi, IASE Jamia Milia Islamia, 2003.
3. Kostas. K. & Mitchel J.R. Teaching of Biology in Schools, New York: Routledge, 2018.

4. Kuleshrestha S.P. Teaching of Biology, R. Lall Book Depot, 2005.
5. Lakshmi J.K. & Rao D.B. Methods of Teaching Biology, Discovery Publishing House, 2011.
6. Mangal S.K. Teaching of Biological Sciences, Meerut International Publishing House, 2004.
7. National Council of Educational Research and Training (April 2022). Mandate documents Guidelines for the development of National Curriculum Frameworks.
8. National Council of Educational Research and Training. (April 2022). Mandate
9. National Curriculum Framework for School Education.
10. National Education Policy 2020, MoE, Government of India.
11. National Educational Policy 2020, MoE, Government of India.
12. National Steering Committee for National Curriculum Frameworks, (2023). Draft
13. National Steering Committee for National Curriculum Frameworks, (2023). Draft National Curriculum Framework for School Education.
14. NCERT, Textbooks of Biological Sciences at Secondary Stage.
15. NCERT, Textbooks of Biological Sciences at Secondary Stage.

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

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**IV**
Course Title	**:**	**Content cum Pedagogy of Physical Sciences-I**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30, In Semester: 20**
Distribution of Credits	**:**	**Lecture (24), Tutorial (4), Practical (4)**

About the Course: The focus of the National Education Policy (NEP) 2020 is on the holistic development of students. To achieve the objectives, interventions from quality teachers are vital. Sound pedagogical content knowledge and teaching methods are the determinants of a teacher's quality and professionalism. Teacher education programme strongly emphasizes pedagogy, its principles, and the practices of teaching and learning. Pedagogical knowledge and approaches refer to the specialized knowledge of the teacher for creating an active, child-centered, and inclusive teaching-learning environment for the students and need to be developed among the student teachers. This pedagogical course in Physical Sciences is intended to enhance the pedagogical content knowledge of student teachers through different learning approaches and methods. This course comprises three units and a practicum. The course is devoted to developing an understanding of the nature and scope of Physical Sciences and the aims and objectives of teaching Physical Sciences and its linkages with other disciplines. Historical/policy perspectives of Physical Sciences are discussed in unit second. Physical Sciences is conceptualized in very broad terms by relating it to technology, society, humans, and sustainable development. It also focuses on the place of Physical Sciences in school curriculum including an emphasis on how to build inclusive classrooms. It focuses on pedagogical concerns of Physical Sciences. Critical, creative, and analytical pedagogical concerns in teaching Physical Sciences with special reference to higher-order thinking are also placed in unit third.

Course Objectives: The objectives of the course are to:

1. explain nature, scope and importance of Physical Sciences.
2. illustrate aims and objectives of teaching Physical Sciences for sustainable development of society.
3. outline linkages between Physical Sciences and other subjects.
4. identify the values and importance of Physical Sciences and alternative knowledge systems.
5. summarize the historical/policies perspective of Physical Sciences.
6. examine pedagogical concerns of Physical Sciences.
7. categorize approaches and methods of teaching learning Physical Sciences.
8. apply appropriate pedagogy in teaching learning the concepts of Physical Sciences.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (10 Marks)	**Nature, Scope and Historical Perspective of Physical Sciences** 1.1 Nature, scope, and importance of Physical Sciences.	7	1		8

	1.2 Historical perspective of Physical Sciences. 1.3 Contributions of Indian (ancient and modern) and other scientists. 1.4 Physical Sciences, society and human and sustainable development. 1.5 Recommendations/suggestions of various committees, commissions, and policies in reference to Physical Sciences.				
2 **(10 Marks)**	**Aims and Objectives of Physical Sciences** 2.1 Aims and objectives of teaching Physical Sciences. 2.2 Learning outcomes and competencies of teaching Physical Sciences at secondary stage. 2.3 Linkages of Physical Sciences with other school subjects and place of the Physical Sciences in school curriculum. 2.4 Values of Physical Sciences: scientific attitude and appreciating other systems of knowledge / alternative knowledge systems.	7	1		8
3 **(10 Marks)**	**Pedagogical Aspects of Physical Sciences** 3.1 Implication of various approaches - inductive deductive, constructivist, experiential learning, art integrated learning, sports integrated learning, blended learning, interdisciplinary and multidisciplinary approaches in Physical Sciences. 3.2 Analytical pedagogical concerns in teaching of Physical Sciences for higher order thinking skills such as critical, creative, communication, decision making, reflective. 3.3 Methods of teaching learning Physical Sciences: learner-centric and group-centric, lecture cum demonstration, activity based, discussion, problem-solving, laboratory, stem and steam, project based, scientific inquiry, hands on activity, discovery, experimentation, concept-mapping, collaborative and cooperative learning.	10	2	4	16
	Total	24	4	4	32

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum discussion/demonstration
2. Hands-on activities
3. Experiential learning
4. Art and environment integrated learning
5. Sports integrated learning.

Mode of In-semester Assessment:

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

1. Two Sessional Tests (5+5) (10 marks)

2. Any one activity of the following (10 marks)

- Explore contributions of Indian scientists in the development of Physical Sciences and make presentations on historical development of Physical Sciences.
- Analyze recommendations of policies/commissions in context of Physical Sciences.
- Develop concept maps on different concepts of Physical Sciences.
- Identify and integrate values in Physical Sciences concepts.
- Demonstrate different pedagogical approaches and strategies for transacting concepts of Physical Sciences.
- Prepare write-ups on the teaching of science using interdisciplinary and multidisciplinary approaches as recommended in NEP 2020.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- explain nature, scope and importance of Physical Sciences.
- illustrate aims and objectives of teaching Physical Sciences for sustainable development of society.
- outline linkages between Physical Sciences and other subjects.
- identify the values and importance of Physical Sciences and alternative knowledge systems.
- summarize the historical/policies perspective of Physical Sciences.
- examine pedagogical concerns of Physical Sciences.
- categorize approaches and methods of teaching learning Physical Sciences.
- apply appropriate pedagogy in teaching learning the concepts of Physical Sciences.

Suggested Readings:

1. Bhatnagar, A. B. & Bhatnagar, S. S. (2011) Teaching of Science. Meerut: R. Lal Book Depot
2. Das, R.C. (2009). Science Teaching in Schools. Sterling, New Delhi.
3. Davar. M. (2012). Teaching of Science, PHI Private Limited, New Delhi.
4. Ghosh, B.N. (2015). Scientific Method and Social Research, Sterling Publishers Pvt. Ltd. New Delhi.
5. Gupta, S. K. (1985). Teaching of Physical Science in Secondary Schools. New Delhi.
6. Heywood, D., & Parker, J. (2010). The pedagogy of physical science (Vol. 38). Dordrecht: Springer.
7. Joyce, Bruce, Marsha Weil and Emily Calhoun (2008). Models of Teaching. New Delhi:Prentice Hall of India Pvt. Ltd.
8. Kulshreshtha, S.P. (2005). Teaching of science. Meerut: R. Lall Book Depot.
9. Liversidge, T., Cochrane, M., Kerfoot, B., & Thomas, J. (2009). Teaching science: Developing as a reflective secondary teacher. Sage Publications.
10. Mangal, S. K. (1995). Teaching of Physical and Life Science. AVG Book Depot Karol Bagh
11. Mohan, R. (2019). Innovative science teaching for Physical Science teachers. PHI Learning Pvt. Ltd..

12. National Council of Educational Research and Training. (2005). National curriculum framework 2005.
13. National Council of Educational Research and Training. (2006). Position paper: National focus group on teaching of science.
14. National Council of Educational Research and Training. (2013). Pedagogy of Science: Physical Science Part-I.
15. National Council of Educational Research and Training. (2013). Pedagogy of Science: Physical Science Part-II.
16. National Council of Educational Research and Training. (April 2022). Mandate documents Guidelines for the development of National Curriculum Frameworks.
17. National Education Policy 2020, MoE, Government of India.
18. National Steering Committee for National Curriculum Framework, NCERT, (2023). National Curriculum Framework for School Education 2023
19. National Steering Committee for National Curriculum Frameworks, (2023). Draft National Curriculum Framework for School Education.
20. NCERT, Textbooks of Physical Sciences at Secondary Stage.
21. Sharma, R.C. (2010). Modern Science Teaching. New Delhi: Dhanpat Rai Publishing Company (P) Ltd.
22. Siddiqi, N.N., and Siddiqi, M. N. (2005). Teaching of Science: Today and Tomorrow. Delhi: Doaba House.
23. Tobin, K. (1993). The Practice of Constructivism in Science Education. Routledge Newyork.
24. Vaidya N (1997), The impact of Science Teaching Oxford & IBH Publication Co, New Delhi
25. Vaidya, N. (1999). Science Teaching for the 21st century. Deep and Deep Publications.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**
Semester	**: IV**
Course Title	**: Content cum Pedagogy of Social Sciences-I**
Nature of the Course	**: Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**: 2**
Distribution of Marks	**: End Semester: 30 In Semester: 20**
Distribution of Credits	**:Lecture (24), Tutorial (4), Practical (4)**

About the Course: The focus of the National Education Policy (NEP) 2020 is on the holistic development of students. To achieve the objectives, interventions from quality teachers are vital. Teacher education programme strongly emphasizes pedagogy, its principles, and the practices of teaching and learning. Sound pedagogical content knowledge and teaching methods are the determinants o f a teacher's quality and professionalism. Pedagogical knowledge and approaches refer to the specialized knowledge of the teacher for creating an active, child-centered, and inclusive teaching-learning environment for the students and need to be developed among the student teachers. This pedagogical course in Social Sciences is intended to enhance the pedagogical content knowledge of student teachers through different learning approaches and methods. This course comprises three units and a practicum. The course is devoted to developing an understanding of the nature and scope of Social Sciences and the aims and objectives of teaching Social Sciences and its linkages with other disciplines. Historical/policy perspectives of Social Sciences are discussed in unit second. Critical, creative, and analytical pedagogical concerns in teaching Social Sciences with special reference to higher-order thinking are also placed in unit third.

Course Objectives: The objectives of the course are to:

1. enable the student teachers to understand the meaning, nature and scope of Social Sciences.
2. enable the student teachers to shape their educational perspective to act as an effective teacher in the pedagogy of Social Sciences.
3. enable the student teachers to apply different pedagogical methods in teaching social science.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (8 Marks)	**Nature, Scope and Historical Perspective of Social Sciences** 1.1 Nature of Social Sciences. 1.2 Historical development of Social Sciences, scope, and role of Social Sciences in daily life. 1.3 Disciplines of Social Sciences and their inter relationship. 1.4 Concept of Social Sciences and Social Studies. 1.5 Recommendations and suggestions of various committees, commissions, and policies in reference to Social Sciences.	7	1		8

2 **(8 Marks)**	**Aims and Objectives of Teaching Social Science** 2.1Aims and objectives of teaching Social Sciences at secondary stage. 2.2 Learning outcomes and competencies of teaching Social Science at secondary stage. 2.3 Linkages of Social Sciences with other subjects and its place in school curriculum. 2.4 Values of Social Sciences such as intellectual, utilitarian, moral and aesthetic and environmental.	7	1		8

3 **(14 Marks)**	**Pedagogical Aspects of Social Sciences** 3.1 Implication of various approaches- inductive deductive, constructivist, experiential learning, art-integrated learning, sports integrated learning, field visit, discovery, project methods for learning of the selected chapters/concepts in Social Sciences textbooks. 3.2 Moving towards more holistic, interdisciplinary, and multidisciplinary approaches of learning Social Sciences, learning exclusive of pre-conceptions and misconceptions, blended learning. 3.3 Methods of teaching Social Sciences: learner-centric and group- centric, activity based, discussion, problem-solving, role play, inquiry approach, problem-solving, concept mapping, collaborative &cooperative learning approach, field based experiential learning and applications of suitable methods for learning the selected chapters/concepts in Social Sciences textbooks. 3.4 Critical, creative and analytical pedagogical concerns in teaching the Social Sciences with special reference to higher-order thinking.	10	2	4	16
	Total	**24**	**4**	**4**	**32**

Mode of Transaction: The course content transaction will include the following:

1. Lectures with discussion
2. Hands-on activities
3. Project approach
4. Problem-solving
5. Concept mapping
6. Collaborative & cooperative approach
7. Experiential learning and toy/art/sports integrated learning.

Mode of In-semester Assessment:

1. **Two Sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**

- Develop write-ups on the teaching of Social Sciences using inter disciplinary and multidisciplinary approaches as suggested in NEP 2020.
- Develop learning objectives and learning outcomes for the concepts of Social Sciences at the secondary stage.
- Design an excursion activity to transact concepts of Social Sciences.
- Prepare a detailed project on the curricular integration of skills, capacities and values in Social Sciences.
- Demonstrate different pedagogical approaches and strategies for transacting concepts of Social Sciences.
- Analyze the different recommendations of policies/commissions in context to Social Sciences.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- explain the nature and scope of Social Sciences,
- examine the pedagogical aspects of the Social Sciences,
- elaborate the aims and objectives of the Social Sciences.
- analyze the historical perspective and inherent values in Social Sciences.
- identify the importance/significance of Social Sciences in daily life.
- develop learning objectives and outcomes.
- differentiate between Social Sciences and social studies.
- determine the suitability of the methods for teaching learning Social Sciences.
- apply approaches and strategies of teaching learning Social Sciences at the secondary stage.

Suggested Readings:

1. Aggarwal J C (2004). *Teaching of Social Studies*. Vikash Publishing House PVT. LTD, New Delhi.
2. Alen J Hoffman & Thomas F. Ryan (1973) *Social Studies and the Child's Expanding Self: Teaching with a Psycho-Social Approach*. Intext Educational.
3. Association of Teachers of Social Studies in the City of New York (1977). *Handbook for the Teaching of Social Studies*. Allyn and Bacon.
4. Batra P. (2010). *Social Science Learning in Schools: Perspective and Challenges.* Sage India
5. Central Board of Secondary Education, New Delhi. (2010).*Teacher's Manual: Continuous and Comprehensive Evaluation.*
6. Department of Teacher Education, NCERT (2012). *Impact of In-Service Teacher Training on Classroom Transaction*.
7. Department of Teacher Education, NCERT (2013). *National Study on Ten-Year School Curriculum Implementation*.
8. Douglas M P. (1967). *Social Studies: From theory to practice in Elementary education*.
9. Govt. of India.*National Policy on Education, 1968, 1986 and 2020*.
10. Inning Arthur &Bining David (1952) *Teaching of Social Studies in Secondary Schools*. McGraw-Hill.
11. Kochhar S K (2002). *Teaching of Social Studies*. Sterling Publishers Private Ltd, New Delhi.
12. Mangal S.K. & Mangal Uma (2011). *Teaching of Social Studies*. PHI Learning Private Limited, New Delhi.
13. National Council for Teacher Education (2009) *National Curriculum Framework for Teacher Education 2009.*
14. Nawani, D. (2016).*Teaching learning resources for school education.* Sage publication.
15. NCERT (2005). *National Curriculum Framework, 2005.*
16. NCERT (2023).*National Curriculum Framework of School Education, 2023.*
17. NCTE (2009) *National Curriculum Framework for Teacher Education: Towards Preparing Professional and Humane Teachers.*
18. Rajput, S., Singh, A., Pandit, B.L., Tiwari, A.D., and Kumar, S., *Handbook on Paper Setting*. NCERT.
19. Ridhoi, Subekti, Navarro&Hariyono (2021). *Embracing New Perspectives in History, Social Sciences, and Education: Proceedings of the International Conference on History, Social Sciences, and Education.*
20. Ruhela, S .P.*Lesson Plans in Social Sciences*. Neelkamal Publications Pvt. Ltd., Hyderabad
21. Ruhela, S. P.*Teaching of Social Sciences*. Neelkamal Publications Pvt. Ltd., Hyderabad.

22. Saiyidain K.G. (1948) *Education for International Understanding*. Hind Kitabs.
23. Shavade, Nawani, Manjrekar&Paliwal (2022). *Reflections On Educational Practice -Science, Social Science, And Mathematics.*
24. Singh Y. K. (2008). *The Teaching of Social Studies*. APH Publishing Corporation, New Delhi.
25. UNESCO (1981). *UNESCO Handbook for the Teaching of Social Studies*. Edited by Howard D. Mehlinger.
26. UNESCO (1984). *Epistemology of Social Science, the Scientific Status, Values and Institutionalisation*.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**IV**
Course Title	**:**	**Content cum Pedagogy of Computer Science-I**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (21), Tutorial (3), Practical (12)**

About the Course: Computer Science is a rapidly evolving discipline that lies at the core of the modern technological era. It is the study of algorithms, data structures, and the principles of computation, encompassing a wide range of topics related to computing and information technology. As a discipline, it blends theory and practice, fostering innovation and problem-solving in diverse fields. This course on the pedagogy of Computer Science comprises of three units and a practicum. It aims to provide student teachers with a comprehensive understanding of the Computer Science discipline's nature, historical context, evolving trends, and its correlation with other school subjects. It focuses on defining the aims and objectives of teaching Computer Science, along with the development of learning outcomes and competencies for student teachers. The course also explores different pedagogical approaches and teaching methods to foster higher-order thinking skills and prepare student teachers for the practical, social, disciplinary, and cultural aspects of Computer Science. By the end of the course, student teachers will be equipped with effective strategies to engage learners and facilitate their learning in the field of Computer Science.

Course Objectives: The objectives of the course are to:

1. explain the genesis, vision, and evolution of education in India—from ancient times to the contemporary era—with specific reference to the development of Computer Science as a discipline.
2. enable student-teachers to identify and define the aims, objectives, learning outcomes, and competencies related to the teaching of Computer Science at the secondary stage.
3. develop pedagogical skills and approaches necessary for teaching Computer Science effectively, including learner-centric methods and technology-integrated strategies to foster higher-order thinking skills.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (6 Marks)	**Nature, Scope and Historical Perspective of Computer Science** 1.1 Nature, scope and importance of Computer Science. 1.2 Historical perspective of Computer Science. 1.3 Computer Science as an evolving discipline. 1.4 Recommendations / suggestions of various committees, commissions, and policies in reference to Computer Science.	05	01	--	06
2 (10 Marks)	**Aims and Objectives of Teaching Computer Science** 2.1 Aims and objectives of teaching Computer Science. 2.2 Learning outcomes and competencies of teaching	08	1	--	09

	Computer Science at secondary stage. 2.3 Linkages of Computer Science with other school subjects and its place in school curriculum. 2.4 Values of teaching Computer Science: practical, social, disciplinary, and cultural values.				
3 **(14 Marks)**	**Pedagogical Aspects of Computer Science** 3.1 Implication of various approaches - inductive deductive, constructivist, experiential learning, computer/web supported pedagogical approaches such as personalized adaptive learning and Computer Managed Learning (CML), multimedia approach, interdisciplinary and multidisciplinary approaches in Computer Science. 3.2 Analytical pedagogical aspects in teaching of Computer Science for higher order thinking skills such as critical, creative, communication, decision making and reflective. 3.3 Methods of teaching the Computer Science: learner-centric and group-centric, lecture cum demonstration, problem-solving, laboratory, and project based, analytic and synthetic, flipped classrooms, Computer Assisted Instructions (CAI), mobile learning and online learning.	08	1	12	21
	Total	**21**	**3**	**12**	**36**

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum demonstration method
2. Discussion method
3. Laboratory method
4. Project method
5. Inquiry approach
6. Problem solving
7. Experiential learning approach
8. Flipped classrooms
9. Mobile apps and interactive methods such as group discussions, peer tutoring, workshops, observations and presentations.

Mode of In-semester Assessment:

1. **Two Sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**
    - Analyze recommendations of policies/commissions in context to Computer Sciences.
    - Prepare and write-upon any two topics of Computer Science regarding their learning outcomes and competencies at Secondary Stage.
    - Create an interactive multimedia presentation, including videos, animations, and simulations, to explain complex Computer Science concepts.
    - Prepare a report on interdisciplinary and multidisciplinary approaches used in the practices of Computer Sciences.
    - Identify the challenges and benefits of implementing CAI in educational settings and prepare a report.

- Identify and integrate values in Computer Science concepts and prepare a Power Point presentation.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- identify the nature, scope, and Importance of Computer Science,
- explain aims and objectives of teaching Computer Science,
- recognize the multidisciplinary nature of Computer Science and its linkages with other school subject,
- summarize the historical and policy perspective of Computer Science,
- demonstrate the practical, social, disciplinary, and cultural values of teaching learning Computer Science,
- discuss the policy recommendations and suggestions in regard to Computer Science.
- examine the implications of different pedagogical approaches of teaching Computer Science.
- analyze different methods of teaching Computer Science.

Suggested Readings:

1. Ahuja, J., & Ahuja, B. (2020). *Pedagogy of computer science* (1st ed.). Amit Parkashan.
2. Bharti, V. (2020). *Pedagogy of computer science*. Laxmi Book Depot.
3. Gregg, C. (2021). Your First Year Teaching Computer Science: A Practical Guide to Success for New Computer Science Teachers. (n.p.): Alinea Learning.
4. Hazzan, O., Lapidot, T., Ragonis, N. (2015). Guide to Teaching Computer Science: An Activity-Based Approach. Germany: Springer London.
5. National Council of Educational Research and Training (April2022). Mandate documents Guidelines for the development of National Curriculum Frameworks.
6. National Education Policy2020,MoE,GovernmentofIndia
7. National Steering Committee for National Curriculum Frameworks, (2023).Draft National Curriculum Framework for School Education.
8. NCERT (2019). Information and Communication Technology: A Textbook for Class IX-X.
9. NCERT (2019).Computer Science:Textbook for classXI–XII.

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

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**IV**
Course Title	**:**	**Content cum Pedagogy of Physical Education and Yoga-I**
Nature of the Course	**:**	**Stage–Specific Content-cum-Pedagogy Course**
Total Credits assigned	**:**	**2**
Distribution of Marks	**:**	**End semester : 30 In Semester : 20**
Distribution of Credits	**:**	**Lecture (25), Tutorial (3), Practical (4)**

About the Course: The focus of the National Education Policy (NEP) 2020 is on the holistic development of students. To achieve the objectives, interventions from quality teachers are vital. Sound pedagogical content knowledge and teaching methods are the determinants of a teacher's quality and professionalism. Teacher education programme strongly emphasizes pedagogy, its principles, and the practices of teaching and learning. Pedagogical knowledge and approaches refer to the specialized knowledge of the teacher for creating an active, child-centered, and inclusive teaching-learning environment for the students and need to be developed among the student teachers. This pedagogical course in Physical Education and Yoga is intended to enhance the pedagogical content knowledge of student teachers through different learning approaches and methods. This course comprises three units and a practicum. The course is devoted to developing an understanding of the nature and scope of Physical Education and Yoga, aims, and objectives of teaching Physical Education and Yoga and its linkages with other disciplines. Historical/policy perspectives of Physical Education and Yoga are discussed in unit second. Physical Education and Yoga is conceptualized in very broad terms by relating it to technology, society, humans, and sustainable development. It also focuses on the place of Physical Education and Yoga in school curriculum including an emphasis on how to build inclusive classrooms. It focuses on pedagogical concerns of Physical Education and Yoga. Critical, creative, and analytical pedagogical concerns in teaching Physical Education and Yoga with special reference to higher order thinking are also placed in unit third.

Course Objectives: The objectives of the course are to

1. enable the student teacher to explain nature, scope and importance of Physical Education and Yoga,
2. enable the student teacher to understand the aims and objectives of teaching Physical Education and Yoga at secondary stage,
3. enable the student teacher to discuss linkages between Physical Education and Yoga with other school subjects,
4. make students aware and clarify the values inculcation for Physical Education and Yoga,
5. enable the student teacher to discuss the historical perspective of Physical Education and Yoga in policies/commissions,
6. make students teacher understand the use of pedagogical aspects of Physical Education and Yoga,
7. enable the student teachers to explain approaches and methods of teaching learning Physical Education and Yoga,

8. enable the student teachers to explain pedagogy in teaching learning the concepts of Physical Education and Yoga.

Unit & allotted Marks	Course Content	L	T	P	Total Contact Hours
1 (10 Marks)	**Nature, Scope and Historical Perspective of Physical Education and Yoga** 1.1 Nature, scope, and importance of Physical Education and Yoga. 1.2 Historical perspective of Physical Education and Yoga. 1.3 Contributions of Indian (ancient and modern) and other personalities. 1.4 Role of Physical Education & Yoga in society and sustainable development. 1.5 Recommendations/suggestions of various committees, commissions, and policies.	9	1		10
2 (10 Marks)	**Aims and Objectives of Teaching Physical Education and Yoga** 1.1 Aims and objectives of teaching Physical Education and Yoga. 1.2 Learning outcomes and competencies of teaching Physical Education and Yoga at secondary stage. 1.3 Linkages of Physical Education and Yoga with other school subjects and place of the Physical Education and Yoga in school curriculum. 1.4 Inculcation of values through teaching of Physical Education and Yoga.	9	1		10
3 (10 Marks)	**Pedagogical Aspects of Physical Education and Yoga** 3.1 Implication of various approaches- inductive-deductive, constructivist, experiential learning, art integrated learning, interdisciplinary and multidisciplinary approaches in Physical Education and Yoga. 3.2 Analytical pedagogical concerns in teaching of Physical Education and Yoga for high order thinking skills such as critical, creative, communication,	7	1	4	12

	decision making. 3.3 Methods of teaching learning Physical Education and Yoga: learner-centric and group centric, lecture cum demonstration, activity based, imitation, drill and practice, discussion, problem-solving, project based, hands on activity, discovery, experimentation, field activities, collaborative, cooperative and peer learning.				
	Total	25	3	4	32

Mode of Transaction: The course content transaction will include the following:

1. Planned lectures infused with multimedia/power point presentation
2. Small group discussion, demonstration, theme based seminar, experiential learning, art integrated learning.
3. Hands-on activities, field activities

Mode of Assessment

1. **Two Sessional Tests (5+5) (10 Marks)**
2. **Any one activity of the following: (10 Marks)**
   - Class room seminar presentation/ workshop based on the theoretical contents and practicum or any other relevant activities. (As per UGC norms)
   - Prepare a write up on the contributions of Indian personalities in the development of Physical Education and Yoga.
   - Make a presentation on the historical development of Physical Education and Yoga.
   - Analyze recommendations of policies/commissions in context of Physical Education and Yoga.
   - Identify and analyze the types of values inculcated through teaching of Physical Education and Yoga concepts and prepare a report.
   - Prepare write-ups on the teaching of Physical Education and Yoga using interdisciplinary and multidisciplinary approaches as recommended in NEP 2020.
   - Any other assignment assigned by the Course Teacher on the contents of the Course.

Learning Outcomes: After completion of this course the student teachers will be able to:

- explain nature, scope and importance of Physical Education and Yoga,
- discuss aims and objectives of teaching Physical Education and Yoga at secondary stage,
- outline linkages between Physical Education and Yoga with other school subjects,
- appraise the values inculcation for Physical Education and Yoga,
- summarize the historical perspective of Physical Education and Yoga in policies/commissions,
- make use of pedagogical aspects of Physical Education and Yoga,

- categorize approaches and methods of teaching learning Physical Education and Yoga,
- apply appropriate pedagogy in teaching learning the concepts of Physical Education and Yoga.

Suggestive Readings:

1. Brown, F. Y.(2000). *How to use yoga*. Delhi: Sports Publication.
2. Gharote M.L. (2004). Applied Yoga, Kaivalyadhama S.M.Y.M. Samiti, Lonvala.
3. Gharote, M. L. & Ganguly, H. (1988). *Teaching methods for yogic practices*. Lonawala: Kaivalyadham.
4. Iyengar, B K S. (2012). Light on yoga. New Delhi
5. M.M. Gore. (2007).Anatomy and Physiology of Yogic Practices,Motilal Banarsi Dass, New Delhi.
6. MDNIY.(2010). Yoga Teachers Manual for School Teachers
7. Morarji Desai National Institute of Yoga, ―Pranayama‖, New Delhi
8. Morarji Desai National Institute of Yoga, ―Yogasana" , New Delhi
9. Nancy Wile Yoga Education Institute. (2015). Iyengar Yoga.
10. National Council of Educational Research and Training. (April 2022). Mandate documents Guidelines for the development of National Curriculum Frameworks.
11. National Curriculum Framework for School Education.
12. National Education Policy 2020, MoE, Government of India
13. National Steering Committee for National Curriculum Frameworks, (2023). Draft
14. NCERT, Health and Physical Education. Textbook for IX-XII class New Delhi
15. NCERT. (2015). Yoga: A Healthy Way of Living, Secondary Stage, New Delhi
16. Paragon.(2010).The book of Yoga
17. Ravishankar NS .(2004). Yoga for health, Pushtak Mahal
18. Shankar, G.(1998). *Holistic approach of yoga.* New Delhi: Aditya Publishers.
19. Shekar,K. C. (2003). *Yoga for health*. Delhi: Khel Sahitya Kendra.
20. Swami Satyanand Saraswati. (2013). "Asana Pranayama Mudra Bandha", Bihar School of Yoga, Munger
21. Vivekananda, Swami. (2016). Karma Yoga. Trio Process Kolkata.
22. Vivekananda, Swami. (2021). Patanjali yoga sutras. Srishti Publishers & Distributors.

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

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**V**
Course Title	**:**	**Content-cum-Pedagogy of English-II**
Nature of the Course	**:**	**Stage – Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (27), Tutorial (03)**

About the Course: Building on the previous level's knowledge of the philosophy of the Language, the course will introduce students to the core knowledge of pedagogy and planning in Language education at the secondary level. It is designed to make student-teacher aware of the teaching-learning aids and other resources available as well as created for making Language learning meaningful and joyful. It will also help them to know the effectiveness of such resources and the impact on the children's Language skills. It also focuses on textbook analysis and planning for teaching Language and Literature and its pedagogical issues in the light of NEP 2020. Student teachers are expected to identify various concepts and processes. Accordingly, they are expected to develop lesson plans based on learning outcomes and experiential learning for classroom and online teaching.

Course Objectives: The objectives of the course are to:

1. enable student-teachers to demonstrate the ability to identify, select, and effectively utilize various teaching learning aids and materials—ranging from traditional print media to innovative digital resources (such as AR, VR, and AI-based tools)—to enhance the classroom learning experience for language instruction.
2. enable student-teachers to gain the skills to create well-structured unit and lesson plans that incorporate pedagogical analysis of language content, ensuring alignment with identified learning outcomes, inclusive education practices, and experiential learning methodologies, including art integration.
3. enable student- teachers to explore and apply various ICT tools and applications—such as smart boards, AI, and machine learning technologies—to facilitate language teaching and learning, enhancing engagement and interactivity in both physical and virtual classroom settings.
4. enable student-teachers to develop and evaluate ICT-integrated lesson plans utilizing the Technological Pedagogical Content Knowledge (TPCK) framework, effectively combining content knowledge, pedagogy, and technology to foster a dynamic and effective learning environment for secondary language education.

Units and allotted marks	Course Contents	L	T	P	Total Contact Hours
1 **(10 marks)**	**Teaching Learning Resources** 1.1 Teaching learning aids/materials: concept, role, and importance in classroom teaching learning of Language. 1.2 Types of teaching learning aids/ materials: print media such as textbook, scrambled books, teachers' manual/ handbook and other print materials., non-print and digital media such as radio, TV, websites, animations, audios, videos, images, simulations, digital repository, Augmented Reality (AR), Virtual	10	1		11

	Reality (VR) and Artificial Intelligence (AI) based digital resources and Open Educational Resources (OERs) for offline/ online classroom teaching learning (reflective journals, charts, 2-D and 3-D models, games, toys, flash cards, worksheets, multimedia etc.) 1.3 Identification and use of teaching aids/teaching learning materials from the environment. 1.4 Language laboratory – types, design, management, and practices; Virtual laboratories, teaching learning kits, subject clubs, fairs, exhibitions, educational parks, excursions, community resources and pooling of resources.				
2 **(10 marks)**	**Content Analysis and Planning for Teaching Language** 2.1 Concept, types and importance of unit and lesson planning. 2.2 Pedagogical analysis of content taking examples from topics of Language textbooks of secondary stage, identification of concepts, listing learning outcomes and competencies, planning, and evaluating learning experiences in an inclusive setup. 2.3 Developing unit plans and lesson plans based on learning outcomes and experiential learning (art integrated) of Languages.	10	1		11
3 **(10 marks)**	**ICT Integration and Application** 3.1 Scope and importance of using ICT in learning process of Languages. 3.2 Use of ICT in the classroom: artificial intelligence, machine learning, smart boards, for enhancing learning. 3.3 Tools, software and platform for teaching learning of Language at secondary stage. 3.4 Developing ICT integrated lesson plans using Technological Pedagogical Content Knowledge (TPCK) for classroom and online teaching using digital resources and multimedia.	7	1		8
	Total	**27**	**3**		**30**

Mode of Transaction: The course content transaction will include the following:

1. Interactive lectures, tutorials and practical.

2. Discussions, project-based method, problem-solving method, experiential learning, Inquiry approach to develop the critical thinking/problem solving abilities among the students.

3. ICT integrated learning, interactive methods such as group discussions, peer tutoring, workshops, observations, and presentations.

Mode of In-semester Assessment:

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

1. **Two sessional tests (5+5) (10 marks)**
2. **Any one activity of the following (10 marks)**

- Prepare a teaching learning resource for developing Language skills.
- Develop an e-content on any one topic from Language textbooks at secondary stage.
- Develop a list of Literature which can play instrumental role in curriculum enrichment.
- Prepare a write-up on pedagogical aspects of Language teaching in reference to NEP 2020.
- Prepare outcome-based lesson plans on Prose, Poetry, and Grammar of Language.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

● explain teaching-learning materials related to Language education with reference to NEP 2020,

● apply different types of teaching-learning aids during classroom teaching,

● make use of multimedia in Language teaching. Acquire knowledge about Language through online resources,

● develop lesson plan for effective teaching of Language,

● summarize the meaning and need of how to learn concepts of Language,

● identify the role of a teacher in facilitating learning of the Language.

Suggested Readings:

1. Aslam, Mohammad. Teaching of English. 2nd ed. New Delhi: CUP, 2008.
2. Balasubramanian, T. A Textbook of English Phonetics for Indian Students Second Edition. Macmillan Publishers India Ltd.2013.
3. Baruah, T.C. The English Teachers Handbook. Sterling Revised ed.2011
4. Cambridge University Press
5. Chapelle, C.A. Computer application in second language acquisition. Foundation for teaching, testing and research. Cambridge. Cambridge University Press. 2001.
6. Davison, Jon, John Moss. Issues in English Teaching. Ed. London: Routledge, 2000
7. Freeman, Diane Larsen. Techniques and Principles in Language Teaching. 2nd ed. OUP, 2000.
8. Nagaraj, Geetha English Language Teaching Approaches, Methods, Techniques. 2nd ed. Hyderabad: Orient Longman Private Limited, 2008.
9. National Curriculum Framework for School Education, Government of India
10. National Education Policy 2020 (NEP 2020). Government of India. (English/ Hindi).
11. National Policy on Education (With Modifications Undertaken In 1992). Ministry of Human Resource Development: New Delhi.
12. O' Connor, J.D. Better English Pronunciation.
13. Richards, Jack C and Rodgers, Approaches and Methods in Language Teaching. 2nd Theodore S. ed. Cambridge University Press, 2001.

14. Sarma, M. and D.Mahapatra. How to Teach English. Bhabani Books, Guwahati.2009.
15. Sharma, R.A. Teaching of English.(Language and Literature Teaching) R.Lall Book Depot, Meerut, 2011.
16. The Right of Children to Free and Compulsory Education Act-2009, The Gazette of India, 2009.
17. Tickoo, M.L. Teaching and learning English a sourcebook for Teachers and Teacher – Trainers. Orient Longman; New Delhi: 2003.
18. Vyas, Manish A and Yogesh L Patel(Edited). Teaching English as a Second Language –A New Pedagogy for a New Century. PHI Learning Private Limited, 2010.
19. Yule, George The Study of Language. Third Edition. Cambridge University Press, 2000.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**V**
Course Title	**:**	**Content cum Pedagogy of Assamese - II**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (27), Tutorial (3)**

About the Course: The course seeks to develop an understanding among student teachers building on the previous level's knowledge of the philosophy of the Language, the course will introduce students to the core knowledge of pedagogy and planning in Language education at the secondary level. It is designed to make student-teacher aware of the teaching-learning aids and other resources available as well as created for making Language learning meaningful and joyful. It will also help them to know the effectiveness of such resources and the impact on the children's Language skills. It also focuses on textbook analysis and planning for teaching Language and Literature and its pedagogical issues in the light of NEP 2020. Student teachers are expected to identify various concepts and processes. Accordingly, they are expected to develop lesson plans based on learning outcomes and experiential learning for classroom and online teaching.

পাঠ্যক্ৰমৰ বিষয়ে: পূৰ্বৰ পৰ্যায়ৰ ভাষাৰ দৰ্শনৰ জ্ঞানৰ ওপৰত নিৰ্মাণ কৰি এই পাঠ্যক্ৰমত ছাত্ৰ-ছাত্ৰী সকলক মাধ্যমিক পৰ্যায়ত ভাষা শিক্ষাৰ শিক্ষাবিজ্ঞান আৰু পৰিকল্পনাৰ মূলজ্ঞানৰ সৈতে পৰিচয় কৰাই দিয়া হ'ব। ইয়াৰ দ্বাৰা ছাত্ৰ-শিক্ষকক উপলব্ধ -শিক্ষণ-শিকন সঁজুলি আৰু অন্যান্য সমলৰ বিষয়ে সচেতন কৰাৰ লগতে ভাষা শিক্ষণক অৰ্থপূৰ্ণ আৰু আনন্দদায়ক কৰি তোলাৰ বাবে পৰিকল্পনা কৰা হৈছে। ইয়াৰ দ্বাৰা এনে সম্পদৰ ফলপ্ৰসূতা আৰু শিশুসকলৰ ভাষা দক্ষতাৰ ওপৰত ইয়াৰ প্ৰভাৰ জানিবলৈও সহায়ক হ'ব। ইয়াৰ উপৰি ই ৰাষ্ট্ৰীয় শিক্ষানীতি ২০২০ (NEP 2020)ৰ আলোকত ভাষা আৰু সাহিত্য পাঠদানৰ বাবে পাঠ্যপুথি বিশ্লেষণ আৰু ইয়াৰ শিক্ষাবিজ্ঞানৰ বিষয়সমূহৰ ওপৰত গুৰুত্ব আৰোপ কৰা হয়। ছাত্ৰ-শিক্ষক সকলে বিভিন্ন ধাৰণা আৰু প্ৰক্ৰিয়া চিনাক্ত কৰিব বুলি আশা কৰা হৈছে। সেই অনুসৰি তেওঁলোকে শ্ৰেণীকোঠা আৰু অনলাইন পাঠদানৰ বাবে শিকনৰ ফল আৰু অভিজ্ঞতাভিত্তিক শিকনৰ ওপৰত ভিত্তি কৰি পাঠ পৰিকল্পনা প্ৰস্তুত কৰিব বুলি আশা কৰা হৈছে।

Course Objectives: The objectives of the course are to

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1. describe the concept, role, and importance of teaching learning aids/materials in classroom teaching learning of Language.
2. describe the various types of teaching learning aids/ materials
3. identify and use of teaching aids from the environment
4. describe the types, design, management of language laboratory,
5. describe the concept, types and importance of unit and lesson planning.
6. develop unit plans and lesson plans based on learning outcomes and experiential learning.
7. discuss the scope and importance of using ICT in learning process of Languages.
8. use of ICT in the classroom for enhancing learning.
9. develop ICT integrated lesson plans using Technological Pedagogical Content Knowledge (TPCK) for classroom and online teaching using digital resources and multimedia.

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১) শিক্ষণ সঁজুলিৰ ধাৰণা, ভূমিকা, আৰু শ্ৰেণীকোঠাত ভাষা শিক্ষণত ইয়াৰ গুৰুত্ব

২) বিভিন্নধৰণৰ শিক্ষণ-শিকন সঁজুলিৰ বিষয়ে বৰ্ণনা কৰা

৩) পৰিবেশৰ পৰা শিক্ষণ সঁজুলি চিনাক্ত আৰু ব্যৱহাৰ কৰা

৪) ভাষা পৰীক্ষাগাৰৰ প্ৰকাৰ, ডিজাইন আৰু পৰীক্ষাগাৰৰ পৰিচালনা কৰা

৫) ব্যষ্টি/ গোট আৰু পাঠ পৰিকল্পনাৰ ধাৰণা, প্ৰকাৰ আৰু গুৰুত্বৰ বিষয়ে বৰ্ণনা কৰা

৬) শিকনৰ ফলাফল আৰু অভিজ্ঞতাভিত্তিক শিকনৰ ওপৰত ভিত্তি কৰি ব্যষ্টি/ গোট (ইউনিট) পৰিকল্পনা আৰু পাঠ পৰিকল্পনা প্ৰস্তুত কৰা

৭) ভাষা শিকন প্ৰক্ৰিয়াত তথ্য আৰু যোগাযোগ প্ৰযুক্তিৰ ব্যৱহাৰৰ পৰিসৰ আৰু গুৰুত্বৰ বিষয়ে আলোচনা কৰা

৮) শিকন বৃদ্ধিৰ বাবে শ্ৰেণীকোঠাত তথ্য আৰু যোগাযোগ প্ৰযুক্তিৰ ব্যৱহাৰ

৯) ডিজিটেল সম্পদ আৰু মাল্টিমেডিয়া ব্যৱহাৰ কৰি শ্ৰেণীকোঠা আৰু অনলাইন পাঠদানৰ বাবে প্ৰযুক্তিগত শিক্ষামূলক বিষয়বস্তু জ্ঞান (TPCK) ব্যৱহাৰকৰি তথ্য আৰু যোগাযোগ প্ৰযুক্তি (ICT) সংহত পাঠ পৰিকল্পনা প্ৰস্তুত কৰা

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 **(10 Marks)**	**Teaching Learning Resources** 1.1 Teaching learning aids/materials: concept, role, and importance in classroom teaching learning of Language. 1.2 Types of teaching learning aids/ materials: print media such as textbook, scrambled books, teachers' manual/ handbook and other print materials., non-print and digital media such as radio, TV, websites, animations, audios, videos, images, simulations, digital repository, Augmented Reality (AR), Virtual Reality (VR) and Artificial Intelligence (AI) based digital resources and Open Educational Resources (OERs) for offline/ online classroom teaching learning (reflective journals, charts, 2-D and 3-D models, games, toys, flash cards, worksheets, multimedia etc.) 1.3 Identification and use of teaching aids/teaching learning materials from the environment. 1.4 Language laboratory – types, design, management, and practices; Virtual laboratories, teaching learning kits, subject clubs, fairs, exhibitions, educational parks, excursions, community resources and pooling of resources. **শিকনশিক্ষণৰসমল** **১.১** শিকন শিক্ষণ সমল: শ্ৰেণীকোঠাত ভাষা শিকন-শিক্ষণত ইয়াৰ ধাৰণা, ভূমিকা, আৰু গুৰুত্ব।	9	1	-	10

	১.২ শিকন-শিক্ষণ সঁজুলিৰ প্ৰকাৰ: ছপা মাধ্যম যেনে পাঠ্যপুথি, স্ক্ৰেম্বল্ড কিতাপ, শিক্ষকৰ হাতপুথিআৰু অন্যান্য ছপা সামগ্ৰী, অ-প্ৰিণ্ট আৰু ডিজিটেল মাধ্যম যেনে ৰেডিঅ', টিভি, ৰেবছাইট, এনিমেচন, অডিঅ', ভিডিঅ', ছবি, চিমুলেচন, ডিজিটেল ভঁৰাল, অগমেণ্টেড ৰিয়েলিটি (AR), ভাৰ্চুৱেল ৰিয়েলিটি (VR) আৰু কৃত্ৰিম বুদ্ধিমত্তা (AI) ভিত্তিক ডিজিটেল সম্পদ আৰু মুক্ত শিক্ষা সম্পদ (OERs) অফলাইন/ অনলাইন শ্ৰেণীকোঠাত পাঠদান শিক্ষণৰ বাবে (প্ৰতিফলিত জার্নেল, চার্ট, দ্বিমাত্ৰীয় (2-D) আৰু ত্ৰিমাত্ৰীয় (3-D) মডেল, গেম, খেলনা, ফ্লেছ কার্ড, ৰৰ্কশ্বীট, মাল্টিমিডিয়া আদি) **১.৩** পৰিৱেশৰ পৰা পাঠদান সামগ্ৰী/শিকন-শিক্ষণ সামগ্ৰী চিনাক্তকৰণ আৰু ব্যৱহাৰ। **১.৪** ভাষা পৰীক্ষাগাৰৰ প্ৰকাৰ, ডিজাইন, পৰিচালনা, আৰু অনুশীলন; ভাৰ্চুৱেল লেবৰেটৰী, টিচিং লার্নিং কিট, বিষয়ভিত্তিক ক্লাব, মেলা, প্ৰদৰ্শনী, শিক্ষামূলক-উদ্যান, শিক্ষামূলক-ভ্ৰমণ, সামূহিক সমল আৰু সম্পদৰ একত্ৰীকৰণ।				
2 **(10 Marks)**	**Content Analysis and Planning for Teaching Assamese:** 2.1 Concept, types and importance of unit and lesson planning. 2.2 Pedagogical analysis of content taking examples from topics of Language textbooks of secondary stage, identification of concepts, listing learning outcomes and competencies, planning, and evaluating learning experiences in an inclusive setup. 2.3 Developing unit plans and lesson plans based on learning outcomes and experiential learning (art integrated) of Languages. **ভাষা শিকোৱাৰ বাবে বিষয়বস্তু বিশ্লেষণ আৰু পৰিকল্পনা** **২.১** ব্যষ্টি/ গোট পৰিকল্পনা আৰু পাঠ পৰিকল্পনাৰ ধাৰণা, প্ৰকাৰ আৰু গুৰুত্ব। **২.২** মাধ্যমিক পৰ্যায়ৰ ভাষাৰ পাঠ্যপুথিৰ বিষয়ৰ পৰা উদাহৰণলৈ বিষয়বস্তুৰ শিক্ষাবিজ্ঞান বিশ্লেষণ, ধাৰণাৰ চিনাক্তকৰণ, শিকনৰফল আৰু দক্ষতাৰ তালিকাভুক্ত কৰা, পৰিকল্পনা আৰু এক অন্তৰ্ভুক্ত পৰিকাঠামোত শিক্ষণ অভিজ্ঞতাৰ মূল্যায়ন কৰা। **২.৩** ভাষাৰ শিকনৰ ফল আৰু অভিজ্ঞতা শিকনৰ (শিল্পসংহত) ওপৰত ভিত্তি কৰি ব্যষ্টি পৰিকল্পনা আৰু পাঠ পৰিকল্পনা প্ৰস্তুত কৰা।	9	1	-	10

3 **(10 Marks)**	**ICT Integration and Application** 3.1 Scope and importance of using ICT in learning process of Languages. 3.2 Use of ICT in the classroom: artificial intelligence, machine learning, smart boards, for enhancing learning. 3.3 Tools, software and platform for teaching learning of Language at secondary stage. 3.4 Developing ICT integrated lesson plans using Technological Pedagogical Content Knowledge (TPCK) for classroom and online teaching using digital resources and multimedia. **তথ্য আৰু যোগাযোগ প্ৰযুক্তিৰ (ICT) সংহতি আৰু প্ৰয়োগ** **৩.১** ভাষা শিক্ষণ প্ৰক্ৰিয়াত তথ্য আৰু যোগাযোগ প্ৰযুক্তিৰ ব্যৱহাৰৰ পৰিসৰ আৰু গুৰুত্ব। **৩.২** শ্ৰেণীকোঠাত তথ্য আৰু যোগাযোগ প্ৰযুক্তিৰ ব্যৱহাৰ: শিকনবৃদ্ধিৰ বাবে কৃত্ৰিম বুদ্ধিমত্তা, মেচিন লার্নিং, স্মার্টব'ৰ্ডৰ ব্যৱহাৰ। **৩.৩** মাধ্যমিক পৰ্যায়ত ভাষা শিকন –শিক্ষণৰ বাবে আহিলা, চফটৱেৰ আৰু মঞ্চ (প্লেটফৰ্ম)। **৩.৪** ডিজিটেল সম্পদ আৰু মাল্টিমিডিয়া ব্যৱহাৰ কৰি শ্ৰেণীকোঠা আৰু অনলাইন পাঠদানৰ বাবে প্ৰযুক্তিগত শিক্ষাবিজ্ঞানৰ বিষয়বস্তু জ্ঞান ব্যৱহাৰ কৰি তথ্য আৰু যোগাযোগ প্ৰযুক্তিৰ সংহত পাঠ পৰিকল্পনা প্ৰস্তুত কৰা।	9	1	-	10
	Total	27	3	-	30

Mode of Transaction: The course content transaction will include the following:

1. Lecture-cum-discussion
2. Project-based method
3. Problem-solving method
4. Experiential learning
5. Inquiry approach
6. ICT integrated learning
7. Interactive methods such as group discussions, peer tutoring, team teaching, workshops, observations and presentations.

১) বক্তৃতা-সম-আলোচনা

২) প্রকল্পভিত্তিক পদ্ধতি

৩) সমস্যা সমাধান পদ্ধতি

৪) অভিজ্ঞতাভিত্তিক শিকন

৫) অনুসন্ধান পদ্ধতি,

৬) তথ্য আৰু যোগাযোগ প্ৰযুক্তি সংহত শিক্ষণ,

৭) ইন্টাৰেক্টিভ পদ্ধতি যেনে দলীয় আলোচনা, সমনীয়া টিউচন, দলীয় পাঠদান, কর্মশালা, পর্যবেক্ষণ আৰু উপস্থাপন।

Mode of In-semester Assessment:

1. **Two Sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**
   - Prepare a teaching learning resource for developing Language skills.
   - Develop an e-content on any one topic from Assamese textbooks at secondary stage.
   - Develop a list of Literature which can play instrumental role in curriculum enrichment.
   - Prepare a write-up on pedagogical aspects of Language teaching in reference to NEP 2020.
   - Prepare outcome-based lesson plans on Prose, Poetry, and Grammar of Language.
   - Any other assignment assigned by the Course Teacher on the contents of the Course.

১) ভাষা দক্ষতা বিকাশৰ বাবে এটা শিকন-শিক্ষণসমল প্রস্তুত কৰা।

২) মাধ্যমিক পর্যায়ত ভাষাৰ পাঠ্যপুথিৰ পৰা যিকোনো এটা বিষয়ত ই-কন্টেন্ট প্রস্তুত কৰা।

৩) পাঠ্যক্রম সমৃদ্ধিৰ ক্ষেত্রত সহায়ক ভূমিকা ল'ব পৰা সাহিত্যৰ তালিকা প্রস্তুত কৰা।

৪) ৰাষ্ট্রীয় শিক্ষানীতি ২০২০ৰ উল্লিখনেৰে ভাষা শিক্ষণৰ শিক্ষাবিজ্ঞানৰ দিশসমূহৰ সম্পর্কে এটা টোকা

প্রস্তুত কৰা।

৫) অসমীয়া ভাষাৰ গদ্য, কবিতা, আৰু ব্যাকৰণৰ ফলাফল ভিত্তিক পাঠ পৰিকল্পনা প্রস্তুত কৰা।

৬) পাঠ্যক্রমৰ বিষয়বস্তুৰ বিষয়ে পাঠ্যক্রমৰ শিক্ষকে দিয়া অন্য কোনো কার্য।

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

- explain teaching-learning materials related to Language education with reference to NEP 2020,
- apply different types of teaching-learning aids during classroom teaching,
- make use of multimedia in Language teaching, acquire knowledge about Language through online resources,
- develop lesson plan for effective teaching of Language,
- summarize the meaning and need of how to learn concepts of Language,
- identify the role of a teacher in facilitating learning of the Language

শিকনৰফল

এই পাঠ্যক্রম সম্পূর্ণ কৰাৰ পিছত ছাত্র শিক্ষক সকলে নিম্নোক্ত বিষয়সমূহ কৰিব পাৰিব:

- ৰাষ্ট্রীয় শিক্ষানীতি ২০২০ৰ সন্দর্ভত ভাষা শিক্ষাৰ সৈতে জড়িত শিকন-শিক্ষণ সমলসমূহ ব্যাখ্যা।

- শ্রেণীকোঠাৰ পাঠদানৰ সময়ত বিভিন্নধৰণৰ শিকন-শিক্ষণ সমল প্রয়োগ কৰা,
- ভাষা পাঠদানত মাল্টিমিডিয়াৰ ব্যৱহাৰ কৰা, অনলাইন সমলৰ জৰিয়তে ভাষাৰ বিষয়ে জ্ঞান আহৰণ কৰা,
- ভাষাৰ ফলপ্রসূ পাঠদানৰ বাবে পাঠ পৰিকল্পনা প্রস্তুত কৰা,
- ভাষাৰ ধাৰণা কেনেকৈ শিকিব লাগে তাৰ অর্থ আৰু প্রয়োজনীয়তাৰ সাৰাংশ দাঙি ধৰা,
- ভাষা শিক্ষণৰ সুবিধাৰ ক্ষেত্রত এজন শিক্ষকৰ ভূমিকা চিনাক্ত কৰা

Suggested Readings:

1. Bora , Dr Mahendra : The Evolution of Assamese Script,1981, Asam Sahitya Sabha, Jorhat
2. Chapelle, C.A. : Computer application in second language acquisition. Foundation for teaching, testing and research. Cambridge. Cambridge University Press. 2001.
3. Dua, Hans R.: Perspective of Understanding Language, Yashoda Publications, Mysore
4. Freeman , Diane Larsen : Techniques and Principles in Language Teaching. 2nd ed. OUP, 2000
5. Kramsch : *Context and Culture in Language Classroom*, OUP, New Delhi
6. Lazar : *Literature and Language Teaching.* OUP, New Delhi
7. Matilal, B.K. : *The Word and the World : India's contribution to the Study of Language*, OUP, New Delhi
8. National Curriculum Framework for School Education, Government of India
9. National Education Policy 2020 (NEP 2020). Government of India. (English/ Assamese).
10. National Policy on Education, 1986 (With Modifications Undertaken In 1992). Ministry of Human Resource Development: New Delhi.
11. Richards Ur, Penny *A course in Language Teaching Practice and theory*. Cambridge University Press: Cambridge, U.K. 1996*Professional Development for Language Teachers*. Cambridge. Cambridge University Press.New Delhi 2013.
12. Richards, Jack C and Rodger Approaches and Methods in Language Teaching. 2nd Theodore S. ed. Cambridge University Press, 2001.
13. Stern, H. H.: Fundamental Concepts of Language Teaching, Oxford University Press, Oxford, 1983
14. The Right of Children to Free and Compulsory Education Act-2009, The Gazette of India, 2009.
15. Ur, Penny *A course in Language Teaching Practice and theory*. Cambridge University Press: Cambridge, U.K. 1996
16. Yule, George : The Study of Language. Third Edition. Cambridge University Press, 2000
17. গোস্বামী, ড° উপেন্দ্রনাথ: **অসমীয়া ভাষাৰ ৰূপকথা,** ৪র্থ প্রকাশ, ১৯৯৫, মণিমাণিক প্রকাশ,গুৱাহাটী
18. গোস্বামী, ড°উপেন্দ্রনাথ : **ভাষাবিজ্ঞান,**৫মসং১৯৮৬, মণি-মাণিকপ্রকাশ, পাণবজাৰ, গুৱাহাটী-১
19. গোস্বামী, তীন্দ্রনাথ : **মাতৃভাষা শিক্ষণ,** মণিমাণিক প্রকাশ,গুৱাহাটী
20. ঠাকুৰ, ড০ নগেন: **ভাৰতীয় ভাষাৰ পৰিচয়,** ১৯৮৩, ভাৰতী বুক ষ্টল, গোলাঘাট
21. ডেকা, কন্দর্প কুমাৰ আৰু মুকুট হাজৰিকা : **অণুশিক্ষণ,** বনলতা, ডিব্রুগড়
22. ডেকা, কন্দর্প কুমাৰ আৰু মুকুট হাজৰিকা: **শিক্ষণ অভ্যসন আৰু পাঠ পৰিকল্পনা**, বনলতা, ডিব্রুগড়

23. দাস. হলিৰাম : **অসমীয়া মাতৃভাষা শিক্ষণ পদ্ধতি,** শ্ৰী ভূমি পাব্লিছিং কোম্পানি, কলকতা
24. নেওগ, ড° মহেশ্বৰ : **অসমীয়া সাহিত্যৰ ৰূপৰেখা**, ৮মপ্ৰকাশ, ১৯৯৫, চন্দ্ৰপ্ৰকাশ, গুৱাহাটী
25. পাঠক, ৰমেশ : **ভাষাবিজ্ঞানৰ ভূমিকা,** ২য় প্ৰ ১৯৮৫, এল বি এছ পাব্লিকেশ্যন, গুৱাহাটী-১
26. পাঠকৰমেশ : **অসমীয়া ভাষাৰ ইতিহাস,** ১৯৮৫, জাৰ্ণাল এম্পা'ৰিয়াম, নলবাৰী
27. বৰুৱা, ড° ভীমকান্ত : **অসমৰ ভাষা,** ষ্টুডেণ্টচ এম্পা'ৰিয়াম, ডিব্ৰুগড়
28. হাজৰিকা, বিশ্বেশ্বৰ : **অসমীয়া ভাষাৰ উৎপত্তি আৰু ক্ৰমবিকাশ ,**১৯৮৮, জাতীয় সাহিত্য প্ৰকাশ, গুৱাহাটী-
29. শৰ্মা, ড° মদন : **অসমীয়া ভাষা শিক্ষণপদ্ধতি,** ষ্টুডেণ্টছ ষ্টোৰছ, গুৱাহাটী
30. শৰ্মা, ড° সত্যেন্দ্ৰনাথ : **অসমীয়া সাহিত্যৰ সমীক্ষাত্মক ইতিবৃত্ত,** ৩য়প্ৰ, ১৯৮৬, সৌমাৰ প্ৰিণ্টিং এণ্ড পাব্লিছিং প্ৰাইভেট লিমিটেড, গুৱাহাটী

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**V**
Course Title	**:**	**Content cum Pedagogy of Mathematics-II**
Nature of the Course	**:**	**Stage-Specific Content-Cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (14), Tutorial (06), Practicum (20)**

About the Course: The teaching and learning of Mathematics is a multifaceted activity, and factors like the nature and quality of instructional material, the presentation of content, the pedagogic skills of the teacher, the learning environment, and so on determine the success of this activity. Students at this stage are keen on exploring and constructing their knowledge, so providing resources is important for the school teachers. This course will give an illustrative exposure to the resource materials for Mathematics teaching-learning. Teaching Mathematics requires a thorough understanding of the pedagogical content knowledge. It is the integration or synthesis of teachers' pedagogical knowledge and their subject matter knowledge which comprises pedagogical content knowledge. Planning of the learning experiences is a must for the quality learning outcome and the better use of resources. This course provides skills to develop the planning of teaching-learning of Mathematics in the classroom. This course also covers technology integration for the enhancement of pedagogical planning. The course will be helpful for Student teachers in knowing how mathematical content knowledge is organized and used in the teaching-learning process with the support of technological tools.

Course Objectives: The objectives of this course are to:

1. enable the student teachers to evaluate and select appropriate teaching-learning resources for effective Mathematics instruction.
2. enable the student teachers to develop an understanding of the Mathematics curriculum and its underlying principles.
3. enable the student teachers to explore and evaluate various ICT tools and resources for teaching Mathematics.
4. enable the student teachers to design and implement ICT-integrated lesson plans that promote student engagement and learning in Mathematics.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (10 Marks)	**Teaching Learning Resources** 1.1 Teaching learning materials: meaning and importance for secondary school Mathematics. 1.2 Types of teaching-learning resources: print media (Mathematics textbook, teachers' manual/ handbook, laboratory manual), non-print and digital media (charts, 2-D and 3-D models, games, web resources, interactive boards, animations, videos, images, simulations) for offline/ online classroom teaching and learning 1.3 Identification and use of learning resources in Mathematics from the local environment,	5	2	4	11

	community resources, and pooling of resources. 1.4 Mathematics resource room/ laboratory – equipment and management, the concept of virtual laboratories. 1.5 Organization of Mathematics clubs, fairs, exhibitions, and learner community. (**Suggestions for Practicum:** prepare charts, 2D and 3D models on various mathematical concepts; construct mathematics-based games; research and identify online simulations and videos related to the contents of the syllabus classroom teaching; explore mathematics apps)				
2 **(10 Marks)**	**Content Analysis and Planning for Teaching Mathematics** 2.1 Analysis for identification of axioms, concepts, rules, formulas, theorems, and corollaries; pedagogical content knowledge of arithmetic, algebra, geometry, mensuration, and trigonometry of the secondary stage. 2.2 Planning and evaluating learning experiences in an inclusive setup based on learning outcomes and competencies, building a community of mathematicians in classrooms. 2.3 Developing annual, unit, and lesson plans – needs, main considerations, and format. 2.4 Strategies for method-based lesson plans for secondary classes - inductive-deductive, analysis-synthesis, lecture cum demonstration, problem-solving, laboratory, and project-based method. (**Suggestions for Practicum:** identify axioms, concepts, rules, formulas, theorems, and corollaries; create concept maps for specific mathematics topics like algebra, geometry; map learning outcomes to specific mathematics concepts; create lesson /unit plans for some specific mathematics topics/ math lessons)	5	2	4	11
3 **(10 Marks)**	**ICT Integration and Applications in Teaching of Mathematics** 3.1 Scope and importance of ICT for teaching and learning Mathematics. 3.2 Use of ICT (digital repository, Augmented Reality (AR), Virtual Reality (VR), and Artificial Intelligence (AI) based digital resources, open education resources, blogs, forums, interactive boards, and devices) in the teaching-learning, assessment, and resource management of secondary Mathematics. 3.3 Use tools, software, and platforms such as Geo-Gebra, Khan Academy, the national teachers' portal, DIKSHA, and SWAYAM. 3.4 Developing ICT-integrated lesson plans using Technological Pedagogical Content Knowledge	4	2	12	18

	(TPCK) for Mathematics classrooms and online teaching (**Suggestions for Practicum:** use of Geo Gebra to visualize mathematical concepts; explore online resources like khan academy/DIKSHA platform; create lesson plans integrating technology, pedagogy, and content; develop an online mathematics lesson using digital resources; design interactive mathematics activities using ICT tools; explore AR,VR, AI applications and OER for mathematics teaching-learning; use ICT tools for providing feedback).				
	Total	14	06	20	40

Mode of Transaction: The course content transaction will include the following:

1. Planned lectures cum discussion and/or multimedia /PowerPoint presentations.
2. Group work, ICT-enabled methods, Activity-based and Art Integrated Demonstration, Field-based experiences, Library Visits, Self-study, Field observations, assignment preparation, Classroom presentations, Discussion forums, Observation, Flip classroom, use of digital platforms.

Mode of In-semester Assessment:

1. **Two Sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**

- Develop learning resources for Mathematics teaching-learning.
- Prepare annual plans for any secondary class.
- Prepare a unit plan from the Mathematics textbook at the secondary stage.
- Prepare learning outcomes-based lesson plans using experiential learning for any one topic of Mathematics at the secondary stage.
- Develop a lesson plan on topics of Mathematics at the secondary stage by integrating ICT tools.
- Write scripts for developing e-content on any one topic of Mathematics for online teaching.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- discuss the nature and functions of various instructional resources,
- explore and utilize the teaching-learning resources to support pedagogical experiences of Mathematics,
- organize and manage supportive activities for the development of the mathematical aptitude of secondary school students,
- plan appropriate experiences for teaching Mathematics,
- explore diverse backgrounds and interests that children bring to set up the inclusive classroom for Mathematics learning,
- elaborate technological tools for teaching and learning Mathematics,
- integrate technology judiciously to facilitate learning, which enhancesan inclusive environment.

Suggested Readings:

1. James, Anice (2016). Methods of Teaching Mathematics. Neel Kamal Publication.
2. Krulik, S. & Weise, I. (1975). Teaching Secondary School Mathematics. W.B. Saunders, London.
3. KuppuswamyAyyangar, N. (1988). The Teaching of Mathematics: New Education. Bangalore.
4. Mangal, S.K. (2019). Pedagogy of Mathematics. Tandon Publication.
5. NCERT. A Handbook for Designing Mathematics Laboratory in Schools (Code-1555).
6. NCERT. Manual for Higher Secondary Mathematics Kit (Code-3165).
7. NCERT. National Curriculum Framework. New Delhi, India: NCERT.
8. NCERT. National Focus Group on Teaching of Mathematics. New Delhi, India: NCERT.
9. Reys, B.J. (2010). Mathematics Curriculum: Issues, Trends, and Future Directions. National Council of Teachers of Mathematics.
10. Sidhu, K.S. (2016). The Teaching of Mathematics. Sterling Publishers, New Delhi.
11. Watson, A. & Mason, J. (2007). The Mathematics Teacher's Handbook.

E-resources:

1. Colin Foster (2013): The Essential Guide to Secondary Mathematics. https://www.foster77.co.uk/TEGSM%20sample%20pages.pdf.
2. Isabel Vale and Ana Barbosa (2023): Active learning strategies for an effective mathematics teaching and learning. https://files.eric.ed.gov/fulltext/EJ1385531.pdf.
3. Mikyung Shin, Min Wook Ok, Sam Choo, Gahangir Hossain, Diane P. Bryant &Eunyoung Kang (2023): A content analysis of research on technology use for teaching mathematics to students with disabilities: word networks and topic modeling. https://doi.org/10.1186/s40594-023-00414-x.
4. Sathiyaraj (2018): The content analysis of the mathematics curricula and impediments in understanding the problem-solving skills at the middle school level. https://www.mathsjournal.com/pdf/2018/vol3issue6/PartA/3-6-10-896.pdf.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**V**
Course Title	**:**	**Content cum Pedagogy of Biological Sciences-II**
Nature of the Course:		**Stage-Specific Content-cum-Pedagogy Course**
Total Credit Assigned:		**2**
Distribution of Marks:		**End Semester: 30 In Semester: 20**
Distribution of Credits:		**Lecture (25), Tutorials (3), Practical (4)**

About the Course: A wide array of teaching-learning resources is available to modern day teachers. This course comprises of three units which aims to introduce various resources and discuss their appropriate utilization in teaching. In this course, student teachers are introduced to different units and lesson plan based on learning outcomes and experiential learning. Requisite skills such as the use of print media, non-print media and digital resources are discussed in the course. This course also focuses on familiarizing student teachers in ICT integration in teaching and preparing ICT based lesson plans for online teaching using suitable tools. This course aims to prepare student teachers for teaching Biological Sciences using different dimensions pedagogical and technological aspects.

Course Objectives: The objectives of the course are to:

1. explain the significance of acquiring 21st-century skills for Biological Sciences teaching.

2. outline the need for and importance of assessment and evaluation in the teaching of Biological Sciences.

3. appraise with various assessment strategies for continuous assessment in reference to teaching of Biological Sciences.

4. prepare appropriate tools and techniques for assessment and evaluation in teaching learning of Biological Sciences.

5. identify recent trends in research related to the teaching and learning and its implications in teaching learning of Biological Sciences.

6. prepare unit test item based on TOSS and develop different types of test items.

7. construct and administer different type of tests.

8. plan offline and online activities for testing higher order thinking skills in teaching learning of Biological Sciences.

9. relate ICT integration and elaborate its use in classroom situations.

10. identify a problem in the context of Biological Sciences teaching learning and plan action research.

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Units and Allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 **(10 Marks)**	**Teaching Learning Resources:** 1.1 Teaching learning aids/materials: concept, definition, role, and importance in classroom teaching learning the Biological Sciences. 1.2 Types of teaching learning aids/ materials: print media such as textbook, teachers' manual/ handbook, laboratory manual and other print materials, non-print and digital media such as museum, aquarium, terrarium, games, toys, radio, TV, websites, animations, audios, videos, images, simulations; Biological Sciences mobile apps, digital repository, Augmented Reality (AR), Virtual Reality (VR) and Artificial Intelligence (AI) based digital resources and Open Educational Resources (OERs) for offline/ online classroom teaching learning (reflective journals, charts, 2-d and 3-d models, games, cards, worksheets, multimedia etc. 1.3 Identification and use of learning resources in Biological Sciences from the local environment - using nature as a laboratory; biology laboratory - designing, management and safe practices; virtual laboratories and museums. 1.4 Resource room/ laboratory/ library, virtual laboratories, teaching learning kits, Biological Sciences clubs, fairs, exhibitions, science parks, zoo, botanical gardens, excursions community resources and pooling of resources.	8	1	2	11
2 **(10 Marks)**	**Content Analysis and Planning for Teaching Biological Sciences:** 2.1 Pedagogical analysis of content taking examples from topics of Biological Sciences textbooks at secondary stage, identification of concepts, listing learning outcomes and competencies, planning, and evaluating learning experiences in an inclusive setup. 2.2 Concept, types and importance of unit and lesson planning. 2.3 Developing unit plans and lesson plans based on learning outcomes and experiential learning by selecting topics from textbooks of Biological Sciences at secondary stage.	8	1	2	11
3 **(10 Marks)**	**ICT Integration and Application:** 3.1 Scope and benefits of using IT in teaching	9	1		10

	learning process; Artificial Intelligence, machine learning, smart boards. 3.2 Specific features and limitations of using ICT. 3.3 Open Educational Resources in Biological Sciences – BIOIDAC, MOOC, National Teachers Portal, DIKSHA, SWAYAM. 3.4 Developing ICT integrated lesson plans by taking topics of physical sciences at secondary stage using Technological Pedagogical Content Knowledge (TPCK) for classroom and online teaching.				
	Total	25	3	4	32

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum discussion
2. Demonstration
3. Hands-on activities
4. Experiential learning
5. Inquiry
6. Group work
7. Presentations
8. Multimedia.

Mode of In-semester Assessment:

1.Two Sessional Tests (5+5) (10 marks)

2.Any one activity of the following: (10 marks)

- Analyze the content of textbooks of Biological Sciences (Classes 9-12).
- Develop e-content for the concepts of Biological Sciences at Secondary Stage.
- Develop unit plans of selected chapters of Textbooks of Biological Sciences.
- Prepare learning outcomes and experiential learning-based lesson plan for the concepts of Biological Sciences.
- Develop ICT integrated lesson plans for offline and online classes.
- Explore a course of Biological Sciences of MOOC and prepare a write up.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- categorize different teaching learning resources and plan their appropriate usage in teaching learning of concepts of Biological Science,
- develop simple teaching learning materials using easily available/local materials,
- analyze the content of Biological Science textbooks at secondary stage,
- review various methods and strategies for teaching Biological Sciences,
- develop learning outcome-based lesson plan to promote experiential learning and higher order thinking skills,

- develop unit plans and lesson plans on different chapters in biology (Grades IX to XII).

Suggestive Readings:

1. Bhuyan S. & Konwar N. Teaching of Science II, Banalata Publishers, Dibrugarh, 2018.
2. Khan R.S. Professional Development of Secondary School Teachers, New Delhi, IASE Jamia Milia Islamia, 2003.
3. Kostas. K. & Mitchel J.R. Teaching of Biology in Schools, New York: Routledge, 2018.
4. Kuleshrestha S.P. Teaching of Biology, R. Lall Book Depot, 2005.
5. Lakshmi J.K. & Rao D.B. Methods of Teaching Biology, Discovery Publishing House, 2011.
6. Mangal S.K. Teaching of Biological Sciences, Meerut International Publishing House, 2004.
7. National Council of Educational Research and Training (April 2022). Mandate documents Guidelines for the development of National Curriculum Frameworks.
8. National Council of Educational Research and Training. (April 2022). Mandate
9. National Curriculum Framework for School Education.
10. National Education Policy 2020, MoE, Government of India.
11. National Educational Policy 2020, MoE, Government of India.
12. National Steering Committee for National Curriculum Frameworks, (2023). Draft
13. National Steering Committee for National Curriculum Frameworks, (2023). Draft National Curriculum Framework for School Education.
14. NCERT, Textbooks of Biological Sciences at Secondary Stage.
15. NCERT, Textbooks of Biological Sciences at Secondary Stage.

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

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**V**
Course Title	**:**	**Content cum Pedagogy of Physical Sciences-II**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30, In Semester: 20**
Distribution of Credits	**:**	**Lecture (25), Tutorial (3), Practical (4)**

About the Course: This course comprises three units and the practicum. The course is devoted to introducing various teaching aids material types and uses for teaching the concepts of physical sciences at secondary stage. Enough space is provided to discuss different types of teaching aids/materials for teaching learning concepts of physical sciences. It focuses on learning resources in physical sciences to enable student teachers to make use of available learning resources and how to generate new resources for teaching learning the concepts of physical sciences. It also focuses on textbook analysis and planning for teaching physical sciences and its pedagogical issues in the light of NEP 2020. Student teachers are expected to identify various concepts and processes, list learning and outcomes, find out about various activities and experiments. Accordingly, they are expected to develop lesson plan based on learning outcomes and experiential learning for classroom and online teaching.

Course Objectives: The objectives of the course are to:

1. identify teaching learning aids / materials and illustrate their importance in teaching learning the concepts of Physical Sciences.
2. categorize teaching aids/materials/learning resources.
3. develop teaching learning aids/material/kits/learning resources for teaching learning the concepts of Physical Sciences.
4. utilize teaching aids/materials/learning resources for teaching learning the concepts of Physical Sciences.
5. analyze the content of physical sciences textbooks at secondary stage.
6. develop lesson plan based on learning outcomes and experiential learning using appropriate strategies.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (10 Marks)	**Teaching Learning Resources** 1.1 Teaching learning aids/materials: concept, definition, role and importance in classroom teaching learning the physical sciences. 1.2 Types of teaching learning aids/ materials: print media such as textbook, teachers' manual/ handbook, laboratory manual and other print materials, non-print and digital media such as radio, TV, websites, animations, audios, videos, images,	8	1	2	11

	simulations, digital repository, Augmented Reality (AR), Virtual Reality (VR) and Artificial Intelligence (AI) based digital resources and Open Educational Resources (OERs) for offline/ online classroom teaching learning reflective journals, charts, 2-D and 3-D models, games, cards, worksheets, multimedia. 1.3 Identification and use of learning resources in physical sciences from the local environment. 1.4 Resource room/ laboratory/ library, virtual laboratories, teaching learning kits, physical sciences clubs, fairs, exhibitions, educational parks, excursions, community resources and pooling of resources.				
2 **(10 Marks)**	**Content Analysis and Planning for Teaching Physical Sciences** 2.1 Pedagogical analysis of content taking examples from topics of physical sciences textbooks at secondary stage, identification of concepts, listing learning outcomes and competencies, planning, and evaluating learning experiences in an inclusive setup. 2.2 Concept, types and importance of unit and lesson planning. 2.3 Developing unit plans and lesson plans based on learning outcomes and experiential learning by selecting topics from textbooks of physical sciences at secondary stage.	9	1		10
3 **(10 Marks)**	**ICT Integration and Applications** 3.1 Scope and importance of ICT in physical sciences. 3.2 Use of ICT such as Artificial Intelligence, machine learning, smart boards in the teaching learning, assessment, and resource management. 3.3 Tools, software, and platforms for teaching learning of physical sciences at secondary stage. 3.4 Developing ICT integrated lesson plans by taking topics of physical sciences at secondary stage using Technological Pedagogical Content Knowledge (TPCK) for classroom and online teaching.	8	1	2	11
	Total	**25**	**3**	**4**	**32**

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum discussion/demonstration

2. Hands-on activities
3. Demonstration
4. Discovery approach
5. Project approach
6. Inquiry approach
7. Experimentation
8. Problem-solving
9. Concept mapping
10. Experiential learning and ICT integrated approach.

Mode of In-semester Assessment:

1. **Two Sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**
   - Develop e-content for the concepts of Physical Sciences at Secondary Stage.
   - Analyze the content of textbooks of Physical Sciences (Classes 9-12).
   - Identify the learning resources for transiting the concepts of Physical Sciences.
   - Develop teaching aids/teaching materials for teaching concepts of Physical Sciences at secondary stage.
   - Develop learning outcomes for the concepts of Physical sciences at the secondary stage.
   - Prepare learning outcomes and experiential learning-based lesson plan for the concepts of Physical Sciences.
   - Develop a project on the concepts of Physical Sciences using interdisciplinary and multidisciplinary approaches as recommended in NEP 2020.
   - Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- identify teaching learning aids / materials and illustrate their importance in teaching learning the concepts of Physical Sciences.
- categorize teaching aids/materials/learning resources.
- develop teaching learning aids/material/kits/learning resources for teaching learning the concepts of Physical Sciences.
- utilize teaching aids/materials/learning resources for teaching learning the concepts of Physical Sciences.
- analyze the content of physical sciences textbooks at secondary stage.
- develop lesson plan based on learning outcomes and experiential learning using appropriate strategies.

Suggested Readings:

1. Bhatnagar, A. B. & Bhatnagar, S. S. (2011) Teaching of Science. Meerut: R. Lal Book Depot
2. Das, R.C. (2009). Science Teaching in Schools. Sterling, New Delhi.

3. Davar. M. (2012). Teaching of Science, PHI Private Limited, New Delhi.
4. Draft National Curriculum Framework for School Education.
5. Ghosh, B.N. (2015). Scientific Method and Social Research, Sterling Publishers Pvt. Ltd. New Delhi.
6. Gupta, S. K. (1985). Teaching of Physical Science in Secondary Schools. New Delhi.
7. Heywood, D., & Parker, J. (2010). The pedagogy of physical science (Vol. 38). Dordrecht: Springer.
8. Joyce, Bruce, Marsha Weil and Emily Calhoun (2008). Models of Teaching. New Delhi:Prentice Hall of India Pvt. Ltd.
9. Kulshreshtha, S.P. (2005). Teaching of science. Meerut: R. Lall Book Depot.
10. Laboratory Manual of Science (Grade 9 & 10), NCERT.
11. Liversidge, T., Cochrane, M., Kerfoot, B., & Thomas, J. (2009). Teaching science: Developing as a reflective secondary teacher. Sage Publications.
12. Mangal, S. K. (1995). Teaching of Physical and Life Science. AVG Book Depot Karol Bagh
13. Mohan, R. (2019). Innovative science teaching for Physical Science teachers. PHI Learning Pvt. Ltd..
14. National Council of Educational Research and Training. (2005). National curriculum framework 2005.
15. National Council of Educational Research and Training. (2006). Position paper: National focus group on teaching of science.
16. National Council of Educational Research and Training. (2013). Pedagogy of Science: Physical Science Part-I.
17. National Council of Educational Research and Training. (2013). Pedagogy of Science: Physical Science Part-II.
18. National Education Policy 2020, MoE, Government of India.
19. National Steering Committee for National Curriculum Framework, NCERT, (2023). National Curriculum Framework for School Education 2023
20. National Steering Committee for National Curriculum Frameworks, (2023).
21. NCERT Laboratory Manuals.
22. NCERT Textbooks, Chemistry for Class XI and XII.
23. NCERT Textbooks, Physics for Class XI and XII.
24. NCERT Textbooks, Science for Class IX and XI.
25. Sharma, R.C. (2010). Modern Science Teaching. New Delhi: Dhanpat Rai Publishing Company (P) Ltd.
26. Siddiqi, N.N., and Siddiqi, M. N. (2005). Teaching of Science: Today and Tomorrow. Delhi: Doaba House.
27. Vaidya N (1997), The impact of Science Teaching Oxford & IBH Publication Co, New Delhi
28. Vaidya, N. (1999). Science Teaching for the 21st century. Deep and Deep Publications.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**V**
Course Title	**:**	**Content cum Pedagogy of Social Sciences-II**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (25), Tutorial (3), Practical (4)**

About the Course: This course comprises three units and the practicum. The course is devoted to introducing various teaching aids material types and uses for teaching the concepts of Social Sciences at secondary stage. Enough space is provided to discuss different types of teaching aids/materials for teaching learning concepts of Social Sciences. It focuses on learning resources in Social Sciences to enable student teachers to make use of available learning resources and also process to generate new resources for teaching learning the concepts of Social Sciences. It also focuses on textbook analysis and planning for teaching Social Sciences and its pedagogical issues in the light of NEP 2020. Student teachers are expected to identify various concepts and processes, list learning outcomes, find out about various activities. Accordingly, they are expected to develop lesson plan based on learning outcomes and experiential learning for classroom and online teaching. Pedagogy must evolve to make education more experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centered, discussion-based, flexible, and enjoyable. This pedagogical course of Social Sciences enhances the pedagogical knowledge and skills of prospective teachers through different learning approaches. Student teachers are expected to identify various concepts and processes, list learning and behavioral outcomes, find out about various activities and experiments, and identify relevant evaluation techniques and strategies. It focuses on psychological, sociological and philosophical perspective of Social Sciences. In this course student teachers will learn how to plan different types of activities in online and offline mode. It emphasizes on how to integrate and use ICT in Social Sciences' classroom.

Course Objectives: The objectives of the course are to:

- enable the student teachers to understand the teaching learning resources of Social Sciences.
- enable the students teachers to integrate the ICT in the pedagogy of Social Sciences.
- enable the student teachers to prepare unit plans and lesson plans in Social Sciences.

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Unit and allotted Marks	Course contents	L	T	P	Total Contact Hours
1 (10 marks)	**Teaching Learning Resources** 1.1Teaching learning aids/materials: concept, definition, role, and importance in classroom teaching learning Social Sciences 1.2Types of teaching learning aids/ materials: print media such as textbook, teachers' manual/ handbook and other print materials, non-print and digital media such as radio, TV, websites, animations, audios, videos, images, simulations, digital repository, Augmented Reality (AR), Virtual Reality (VR) and Artificial Intelligence (AI) based digital resources and Open Educational Resources (OERs) for offline/ online classroom teaching learning (reflective journals, charts, 2-D and 3-D models, games, toys, flash cards, worksheets, multimedia etc.) 1.3Identification and use of learning resources in Social Sciences from the local environment 1.4Social Sciences projects, clubs, fairs, exhibitions and visits places of historical and geographical importance, Social Sciences laboratory and museum as a learning resource including virtual laboratories, community resources and pooling of learning resources.	8	1	2	11
2 (10 marks)	**Content Analysis and Planning for Teaching Social Sciences** 2.1Concept, types and importance of unit and lesson planning. 2.2Pedagogical analysis of content taking examples from topics of subject textbooks of secondary stage, identification of concepts, listing learning outcomes and competencies, planning and evaluating learning experiences in an inclusive setup. 2.3Developing unit plans and lesson plans based on learning outcomes and experiential learning (art and sports integration) of Social Sciences. 2.4Need for enrichment of content knowledge in Social Sciences	9	1		10

3 (10 marks)	**ICT Integration and Application** 3.1Scope and importance of using ICT in learning process of Social Sciences. 3.2Use of ICT in the classroom: Artificial Intelligence, machine learning, smart boards for student development. 3.3Tools, software, and platform for teaching learning of Social Science at secondary stage. 3.4Developing ICT integrated lesson plans using Technological Pedagogical Content Knowledge (TPCK) for classroom and online teaching using digital resources and multimedia.	8	1	2	11
	Total	25	3	4	32

Mode of Transaction: The course content transaction will include the following:

1. Lectures with discussion
2. Hands-on activities
3. Project approach
4. Problem solving
5. Concept mapping
6. Collaborative & cooperative approach, experiential learning, and toy/art/sports integrated learning.

Mode of In-semester Assessment:

1. **Two Sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**
   - Prepare one working model/toy/game on the concepts of Social Sciences.
   - Create an e-content on any two concepts of Social Sciences at secondary stage.
   - Prepare a lesson plan keeping in view blended learning approach for the concepts. of Social Sciences followed by presentation in the class.
   - Select a topic for teaching learning of Social Science and develop a write up (name of unit, name of theme/topic, learning outcomes, material used and procedure).
   - Identify and use learning resources from the surroundings in Social Sciences and write a detailed report.
   - Prepare lesson plans based on learning outcomes and experiential learning by selecting two topics from the Social Sciences textbooks at secondary stage.
   - Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- utilize online and other resources in the teaching-learning process of Social Sciences,
- prepare lesson plans based on learning outcomes,

- identify learning resources from the local environment and apply the concepts of Social Sciences in daily life,
- utilize teaching learning resources effectively in teaching Social Sciences content at the secondary stage,
- prepare ICT integrated lesson plans for online classroom teaching using digital resources and multimedia.

Suggested Readings

1. Aggarwal J C (2004). *Teaching of Social Studies*. Vikash Publishing House PVT. LTD, New Delhi.
2. Alen J Hoffman & Thomas F. Ryan (1973) *Social Studies and the Child's Expanding Self: Teaching with a Psycho-Social Approach*. Intext Educational.
3. Association of Teachers of Social Studies in the City of New York (1977). *Handbook for the Teaching of Social Studies*. Allyn and Bacon.
4. Batra P. (2010). *Social Science Learning in Schools: Perspective and Challenges.* Sage India
5. Central Board of Secondary Education, New Delhi. (2010).*Teacher's Manual: Continuous and Comprehensive Evaluation.*
6. Department of Teacher Education, NCERT (2012). *Impact of In-Service Teacher Training on Classroom Transaction*.
7. Department of Teacher Education, NCERT (2013). *National Study on Ten-Year School Curriculum Implementation*.
8. Douglas M P. (1967). *Social Studies: From theory to practice in Elementary education*.
9. Govt. of India.*National Policy on Education, 1968, 1986 and 2020*.
10. Inning Arthur &Bining David (1952) *Teaching of Social Studies in Secondary Schools*. McGraw-Hill.
11. Kochhar S K (2002). *Teaching of Social Studies*. Sterling Publishers Private Ltd, New Delhi.
12. Mangal S.K. & Mangal Uma (2011). *Teaching of Social Studies*. PHI Learning Private Limited, New Delhi.
13. National Council for Teacher Education (2009) *National Curriculum Framework for Teacher Education 2009.*
14. Nawani, D. (2016).*Teaching learning resources for school education.* Sage publication.
15. NCERT (2005). *National Curriculum Framework, 2005.*
16. NCERT (2023).*National Curriculum Framework of School Education, 2023.*
17. NCTE (2009) *National Curriculum Framework for Teacher Education: Towards Preparing Professional and Humane Teachers*.
18. Rajput, S., Singh, A., Pandit, B.L., Tiwari, A.D., and Kumar, S., *Handbook on Paper Setting*. NCERT.

19. Ridhoi, Subekti, Navarro&Hariyono (2021). *Embracing New Perspectives in History, Social Sciences, and Education: Proceedings of the International Conference on History, Social Sciences, and Education.*
20. Ruhela, S .P.*Lesson Plans in Social Sciences*. Neelkamal Publications Pvt. Ltd., Hyderabad
21. Ruhela, S. P.*Teaching of Social Sciences*. Neelkamal Publications Pvt. Ltd., Hyderabad.
22. Saiyidain K.G. (1948) *Education for International Understanding*. Hind Kitabs.
23. Shavade, Nawani, Manjrekar&Paliwal (2022). *Reflections On Educational Practice - Science, Social Science, And Mathematics.*
24. Singh Y. K. (2008). *The Teaching of Social Studies*. APH Publishing Corporation, New Delhi.
25. UNESCO (1981). *UNESCO Handbook for the Teaching of Social Studies*. Edited by Howard D. Mehlinger.
26. UNESCO (1984). *Epistemology of Social Science, the Scientific Status, Values and Institutionalisation*.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**V**
Course Title	**:**	**Content cum Pedagogy of Computer Science-II**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (21), Tutorial (3), Practical (12)**

About the Course: This course aims to equip student teachers with the necessary knowledge and skills to effectively teach Computer Science at the secondary stage. The course comprises of three units and a practicum. The course focuses on various teaching-learning resources, content analysis and planning, as well as the integration of Information and Communication Technology (ICT) to enhance the teaching-learning experience. The primary objective is to create a dynamic and inclusive learning environment that enables learners to grasp fundamental concepts in Computer Science while keeping up with the rapid advancements in technology. Furthermore, the course will explore the significance and organization of Computer Science laboratories and libraries, as well as the integration of social media platforms as valuable teaching-learning resources. Student teachers will learn how to identify core concepts, list learning outcomes and competencies, and effectively plan and evaluate inclusive learning experiences. Student teachers will also gain insights into educational software, mobile apps, and websites specifically designed for Computer Science education at the secondary stage. The course also emphasizes the development of ICT- integrated lesson plans using Technological Pedagogical Content Knowledge (TPCK) for both traditional classroom settings and online teaching.

Course Objectives: The objectives of the course are to:

1. enable the student-teachers to understand and utilize a variety of teaching-learning resources—including print, digital, and community-based materials—for effective instruction in Computer Science.
2. enable the student teachers to develop the ability to analyze curriculum content and plan unit and lesson plans that are aligned with learning outcomes and competencies, emphasizing experiential and inclusive teaching practices.
3. enable the student teachers to integrate Information and Communication Technology (ICT)—including AI, smart boards, and educational software—into pedagogical planning using the Technological Pedagogical Content Knowledge (TPCK) framework for both classroom and online teaching.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (10 Marks)	**Teaching Learning Resources:** 1.1 Teaching learning aids/materials: concept, definition, role, and importance in teaching learning of Computer Science. 1.2 Types of teaching learning aids/ materials: print media such as textbook, teachers' manual/handbook, laboratory manual, work sheets and other print materials, non-print and digital media such as charts, 2-D and 3-D models, radio, TV, websites, multimedia (animations, audios, videos, images, digital	05	1	4	10

	text), simulations, digital repository, Augmented Reality (AR), Virtual Reality (VR) and Artificial Intelligence (AI) based digital resources and Open Educational Resources (OERs) for offline/online teaching learning of Computer Science. 1.3 Identification and use of learning resources in Computer Science from the local environment. 1.4 Resource rooms, Computer Science laboratory–layout, management, and practices; Computer Science library–importance and its organization; social media as teaching learning resources, virtual laboratories and e-library, Computer Science clubs, fairs, exhibitions, excursions, community resources and pooling of resources.				
2 **(10 Marks)**	**Content Analysis and Planning for Teaching Computer Science:** 2.1 Pedagogical analysis of content taking examples from topics of Computer Science text books at secondary stage, identification of concepts, listing learning outcomes and competencies, planning and evaluating learning experiences in an inclusive setup. 2.2 Concept, types and importance of unit planning and lesson planning. 2.3 Developing unit plans and lesson plans based on learning outcomes and experiential learning by selecting topics from text books of Computer Science at secondary stage.	08	1	--	09
3 **(10 Marks)**	**ICT Integration and Applications:** 3.1 Scope and importance of ICT in Computer Science. 3.2 Use of ICT such as Artificial Intelligence, machine learning, smart boards in the teaching learning, assessment process and resource management of Computer Science. 3.3 Tools, software, and platform for teaching learning of Computer Science at secondary stage. 3.4 Developing ICT integrated lesson plans using Technological Pedagogical Content Knowledge (TPCK) for classroom and online teaching.	08	1	8	17
	Total	21	3	12	36

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum demonstration method
2. discussion method

3. laboratory method
4. project method
5. inquiry approach
6. problem solving
7. experiential learning approach
8. flipped classrooms
9. mobile apps and interactive methods such as group discussions, peer tutoring, workshops, observations and presentations.

Mode of In-semester Assessment:

1. **Two Sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**
   - Explore different learning resources inside and outside the school and document the findings.
   - Collaborate with local Computer Science clubs, fairs, exhibitions, and consolidate outcomes in the form of are port.
   - Critically analyze two chapters of Computer Science text books at secondary stage.
   - Develop an e-Content on any one topic from Computer Science textbook at secondary stage.
   - Develop an outcome-based less on plan on a topic of Computer Science at secondary stage by integrating ICT tools.
   - Plan judicious use of technology in inclusive classrooms and prepare a PowerPoint presentation.
   - Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- identify various types of teaching learning aids / materials and illustrate their importance in teaching of Computer Science.
- analyze the content of Computer Science textbooks at secondary stage.
- develop lesson plans based on specified learning outcomes.
- assess the potential of social media platforms as teaching learning resources in the context of teaching of Computer Science.
- utilize virtual laboratories, Computer Science clubs, fairs, exhibitions, excursions, community resources, and pooling of resources effectively to enhance Computer Science learning experience.
- explore and categorize educational software, mobile apps and websites catering to Computer Science topics for secondary stage learners.
- apply the concept of Technological Pedagogical Content Knowledge (TPCK) to create ICT-integrated lesson plans for effective implementation in online teaching learning environments.

Suggested Readings:

1. Adeoye Ph.D., B. F. (2015). Innovative Applications of Educational Technology Tools in Teaching and Learning. United Kingdom: Trafford Publishing.
2. Computational Thinking Education. (2019). Singapore: Springer Nature Singapore.
3. Grover, S. (Ed.). (2020). *Computer science in K-12: An A-to-Z handbook on teaching programming*. Edfinity.
4. National Council of Educational Research and Training.(April2022).Mandate documents Guidelines for the development of National Curriculum Frameworks.
5. National Education Policy 2020, MoE, Government of India
6. National Steering Committee for National Curriculum Frameworks, (2023).Draft National Curriculum Framework for School Education.
7. NCERT (2019). Computer Science: Textbook for class XI–XII.
8. NCERT (2019). Information and Communication Technology: A Textbook for Class IX-X.

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

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**V**
Course Title	**:**	**Content cum Pedagogy of Physical Education and Yoga-II**
Nature of the Course	**:**	**Stage- Specific content-cum-Pedagogy course**
Total Credits assigned	**:**	**2**
Distribution of Marks	**:**	**End semester : 30 In Semester : 20**
Distribution of Credits	**:**	**Lecture (24), Tutorial (3), Practical (6)**

About the Course: This course comprises three units and the practicum. The course is devoted to introducing various teaching aids material types and uses for teaching the concepts of Physical Education and Yoga at secondary stage. Enough space is provided to discuss different types of teaching aids/materials for teaching learning concepts of Physical Education and Yoga. It focuses on learning resources in Physical Education and Yoga to enable student teachers to make use of available learning resources and how to generate new resources for teaching learning the concepts of Physical Education and Yoga. It also focuses on textbook analysis and planning for teaching Physical Education and Yoga and its pedagogical issues in the light of NEP 2020. Student teachers are expected to identify various concepts and processes, list learning and outcomes, find out about various activities and experiments. Accordingly, they are expected to develop lesson plans based on learning outcomes and experiential learning for classroom and online teaching.

Course Objectives: The objectives of the course are to

1. enable the student teachers to identify teaching learning aids / materials and illustrate their importance in teaching learning the concepts of Physical Education and Yoga,
2. make the student teachers aware regarding categorization of teaching aids/materials/learning resources
3. enable the student teachers to develop teaching learning aids/material/kits/learning resources for teaching learning the concepts of Physical Education and Yoga,
4. make the students teachers understanding of utilization of teaching aids/materials/learning resources for teaching learning the concepts of Physical Education and Yoga,
5. enable the student teachers to analyze the content of Physical Education and Yoga textbooks at secondary stage,
6. enable the student teachers to develop lesson plan based on learning outcomes and experiential learning using appropriate strategies.

Unit & allotted Marks	**Course Content**	**L**	**T**	**P**	**Total Contact Hours**
1 (10 Marks)	**Teaching Learning Resources** 1.1 Teaching learning aids/materials: concept, definition, role and importance in classroom teaching learning the Physical Education and Yoga. 1.2 Types of teaching learning aids/ materials: print media (such as textbook, teachers'	9	1		10

	manual/ handbook, laboratory manual and other print materials.), non-print and digital media (such as radio, tv, websites, animations, audios, videos, images, simulations, digital repository, Augmented Reality (AR), Virtual Reality (VR) and Artificial Intelligence (AI) based digital resources and Open Educational Resources (OERs) for offline/ online classroom teaching learning (reflective journals, charts, 2-D and 3-D models, games, cards, worksheets, multimedia etc.) 1.3 Identification and use of learning resources in Physical Education and Yoga from the local environment. 1.4 Resource room/ laboratory/ library, virtual laboratories, teaching learning kits, Physical Education and Yoga clubs, fairs, exhibitions, educational parks, excursions, community resources and pooling of resources.				
2 **(10 Marks)**	**Content Analysis and Planning for Teaching Physical Education and Yoga** 2.1 Pedagogical analysis of content taking examples from topics of Physical Education and Yoga textbooks of secondary stage, identification of concepts, listing learning outcomes and competencies, planning and evaluating learning experiences in an inclusive setup. 2.2 Concept, types and importance of unit and lesson planning. 2.3 Developing unit plans and lesson plans based on learning outcomes and experiential learning by selecting topics from textbooks of Physical Education at secondary stage.	9	1		10
3 **(10 Marks)**	**ICT Integration and Applications** 3.1 Scope and importance of ICT in Physical Education and Yoga. 3.2 Use of ICT such as Artificial Intelligence, machine learning, smart boards in the teaching learning, assessment and resource management. 3.3 Tools, software, and platforms for Physical Education and Yoga specific online learning.	6	1	6	13

	3.4 Developing ICT integrated lesson plans by taking topics of Physical Education and Yoga at secondary stage using Technological Pedagogical Content Knowledge (TPCK) for classroom and online teaching.				
	Total	24	3	6	33

Mode of Transaction: The course content transaction will include the following:

1. Planned Lecture cum discussion infused with multimedia/power point presentation
2. Small group discussion, Demonstration/ theme based seminar, hands-on activities, experiential learning, art integrated learning, field activities.

Mode of In-Semester Assessment:

1. **Two Sessional Tests (5+5) (10 Marks)**
2. **Any one activity of the following: (10 Marks)**
   - Develop e-content for the concepts of Physical Education and Yoga at Secondary Stage.
   - Analyze the content of textbooks of Physical Education and Yoga (Classes 9-12)/ Materials/Resources/Syllabi.
   - Identify the learning resources for transiting the concepts of Physical Education and Yoga.
   - Develop teaching aids/teaching materials for teaching concepts of Physical Education and Yoga at secondary stage.
   - Develop learning outcomes for the concepts of Physical Education and Yoga at the secondary stage.
   - Prepare learning outcomes and experiential learning-based lesson plan for the concepts of Physical Education and Yoga.
   - Develop a project on the concepts of Physical Education and Yoga using interdisciplinary and multidisciplinary approaches as recommended in NEP 2020.
   - Any other assignment assigned by the Course Teacher on the contents of the Course.

Learning Outcomes: After completion of this course the student teachers will be able to:

- identify teaching learning aids / materials and illustrate their importance in teaching learning the concepts of Physical Education and Yoga,
- categorize teaching aids/materials/learning resources,
- develop teaching learning aids/material/kits/learning resources for teaching learning the concepts of Physical Education and Yoga,
- utilize teaching aids/materials/learning resources for teaching learning the concepts of Physical Education and Yoga,
- analyze the content of Physical Education and Yoga textbooks at secondary stage,
- develop lesson plan based on learning outcomes and experiential learning using appropriate strategies.

Suggestive Reading:

1. Documents Guidelines for the development of National Curriculum Frameworks.
2. Gharote, M. L., Teaching Methods for Yogic Practices
3. Kohli B.B. Critical Understanding of ICT
4. Kohli B.B. Educational Technology and ICT
5. Kulshrestha S.P AND D Kulshrestha A.K . (2023).Education Technology and ICT
6. National Council of Educational Research and Training. (April 2022). Mandate
7. National Curriculum Framework for School Education.
8. National Education Policy 2020, MoE, Government of India.
9. National Steering Committee for National Curriculum Frameworks, (2023). Draft
10. NCERT, Health and Physical Education. Textbook for IX-XII class New Delhi.
11. Swami Veda Bharati, Philosophy of Hatha Yoga

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**V**
Course Title	**:**	**Information & Communication Technology (ICT) in Education**
Nature of the Course	**:**	**Ability Enhancement & Value- Added Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (20), Tutorial (3), Practical (14)**

About the Course: The present course focuses on moving beyond computer literacy and ICT-aided learning, to help student teachers interpret and adapt ICTs in line with educational aims and principles. The paper will orient the learners about the need for and importance of ICT in education. It will describe the importance of open source software in education. Students will be given exposure to the various approaches and stages towards the use of ICT in education. Students are expected to develop reasonably good ICT skills in terms of the use of various computer software and ICT tools.

Course Objectives: The objectives of the course are to:

1. make the student teachers understand the concept, nature and scope of ICT in Education.
2. make the student teachers understand the use and challenges of emerging technologies in Education.
3. make the student teachers skilled in integrating the ICT in Teaching Learning and Assessment.

Units and allotted Marks	**Course Contents**	**L**	**T**	**P**	**Total Contact Hours**
1 (10 Marks)	**Introduction to (ICT) in Education** 1.1 Meaning, Nature, importance of Information Technology, Communication Technology & Information and Communication Technology (ICT) and Instructional Technology, 1.2 Educational Technology and ICT in Education (Difference, Scope of ICT- Teaching, learning, Research & Publication Educational Administration and Assessment), 1.3 Technology &Engagement: Internet, Collaborative learning through Online Discussion Forums, group assignments & Peer reviews, 1.4 Meaning and Uses of Systems Approach in instructional design, 1.5 Models of Development of Instructional Design (ADDIE, ASSURE, Dick and Carey Model Mason's), 1.6 Flanders' Interaction Analysis Category System (FIACS),	6	1	4	11

	1.7 Challenges relating to Educational Technology.				
2 (10 Marks)	**Emerging Technologies in Education** 2.1E-learning Concept, methods, and media (LMS, Virtual Universities, Massive Open Online Course (MOOCs), Indian MOOCs, Types of MOOCs: cMOOCs, xMOOCs & LMOOCs). 2.2Open Education Resources (Creative Commons, Concept, and application). 2.3Augmented reality, Virtual reality, Artificial intelligence, Mixed Reality & Gamification in education (Meaning, history, importance, tools and uses). 2.4Cloud Computing & Internet of Things - Meaning, importance and uses. 2.5Ethical issues & safety in ICT- (Teaching, Learning and Research, Cyber bullying, Cyber security literacy & data protection, Online identity and privacy).	7	1	5	13
3 (10 Marks)	**ICT in Teaching-Learning & Assessment** 3.1Concept, Approaches to integrating ICT in teaching and learning: Technological Pedagogical Content Knowledge (TPCK), Technology Integration Matrix (TIM). 3.2Implication of Learning Theories in ICT in Education: Behaviourism, Cognitivism & Constructivism. 3.3Developing functional skills to use discipline specific ICT tools (Geogebra, PhET, Stellarium, Open Street Map, Marble, Turtle Art, Technological tools for Mind mapping etc.). 3.4ICT and Assessment- Electronic assessment portfolio – Concept and types; e-portfolio tools. 3.5Online and offline assessment tools – Rubrics, survey tools, puzzle makers, test generators, reflective journal, question bank. 3.6ICT applications for Continuous and Comprehensive Evaluation (CCE).	7	1	5	13
	Total	**20**	**3**	**14**	**37**

Mode of Transaction: The course content transaction will include the following:

1. Teacher Educator may use Lecture cum demonstration strategy to impart knowledge on ICT tools and techniques.
2. Teacher educator may engage the learners through participation in active learning such as discussions, brainstorming sessions, and problem-solving activities.
3. Group projects and group tasks on the contents of ICT may be given to improve collaborative skill.

4. Teacher educator may involve the learners in experiential learning such as Hands-on activities, visit to ICT lab facilities.
5. Teacher educator may use of multimedia tools such as videos, simulations and animations.
6. Self-directed and self-managed learning activities such as independent research, self-reflection, and self-assessment may be used.

Mode of In-semester Assessment:

1. **Two Sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**

- Prepare a lesson plan on any topic of school curriculum by integrating the ICT tools and techniques.
- Prepare an assessment tool on any one online platform for MOOC's highlighting its structure and courses.
- Develop an e-resource like short videos, animation, and power point on any topic of school curriculum.
- Prepare an online assessment tool on any topic of the school textbook.
- Project on creating at least one learning resource by integrating ICT tools.
- Writing Reflective journals on their learning experience on the use of ICT tools in education.
- Visit the nearby schools to understand the real scenario of ICT implementation in schools.
- Any other activity assigned by the Course Teacher on the contents of the Course.

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

- explain the concept, nature, and scope of ICT in education,
- describe the importance of open-source software in education,
- list and explain various approaches to the adoption and use of ICT in education,
- describe the importance of various emerging technologies in education,
- See relationship between the social, economic, and ethical issues associated with the use of ICT,
- list out the challenges of educational technology in India,
- use various technological tools for improving teaching-learning- assessment processes.

Suggested Readings:

1. Al-bataineh, A., Anderson, S., Toledo, C. and Wellinski, S. (2008). *A study of technology integration in the classroom*. International Journal of Instructional Media, vol. 35, pp.381-387.
2. Ansari, J. A. N., & Khan, N. A. (2020). *Exploring the role of social media in collaborative learning the new domain of learning. Smart Learning Environments*. https://doi.org/10.1186/s40561-020-00118-7

3. Bowden, P. (2021). *Beginners Guide to Massive Open Online Courses (MOOCs)*. https://www.classcentral.com/help/moocs.
4. Karagiannidis. C, (2016).*Research on e-Learning and ICT in Education: Technological, Pedagogical and Instructional Perspectives,* Springer publication.
5. Mangal S. K, & Mangal, U. (2007). *Essentials of Education Technology*, New Delhi: Prentice Hall India Learning Private Limited.
6. Mrunalini. T and Prof. A. Ramakrishna(2016). *Information & Communication Technology (ICT) In Education*, Neelkamal publication.
7. NCERT. *Pragyata: Guideline for Digital Education*.
8. NCERT (). *NISHTHA — Training Package Module 6 - ICT in Teaching & Learning. indd*
9. Prasad, R. K. (2019).*Back to Basics: 5 Essential Elements of Effective E-Learning*. https://www.td.org/insights/back-to-basics-5-essential-elements-of-effective-e-learning.
10. Russell, T. (2001).*Teaching and Using ICT in Secondary Schools*. SAGE Publications.
11. UNESCO (2002). *Information and communication technology in Education*.
12. SCERT (2022). *Understanding of ICT in Education*. New Delhi.
13. Simmons, C. & Hawkins, C (2009). *Teaching ICT*. SAGE Publications Ltd. Series: Developing as a Reflective Secondary Teacher DOI: https://doi.org/10.4135/9781446288979
14. U.S. Department of Education (2017).*Reimagining the Role of Technology in Education: 2017* National Education Technology Plan Update. http://tech.ed.gov
15. Woollard, J. (2007). Learning and Teaching Using ICT in Secondary Schools. Learning Matters LtdDOI: https://doi.org/10.4135/9781446278741.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**V**
Course Title	**:**	**Pre-internship Practice**
Nature of the Course	**:**	**School Experience**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credit hours:		**Lecture (10), Practical (40)**

About the Course: Pre-Internship is a vital component of the Teacher Education Programme. It is a prerequisite for the student teachers to experience a simulated classroom environment to prepare them for real-life situations. Student teachers get exposure in a conducive, guided environment to manage a classroom and learn pedagogic and classroom management skills and get an opportunity to have hands-on experience.

Course Objectives: The objectives of the Course are to

1. acquainted with various pedagogic practices, classroom management skills, assessment tools and learning standards,
2. get experience of conducting classes by observing lessons transacted by teacher educators(demonstration lessons),
3. develop lesson plans to transact them using appropriate pedagogies and learning resources,
4. develop and practice teaching skills in a guided environment to be an effective teacher,
5. be prepared for the school internship.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
Unit I	**Planning Lessons and Simulated Teaching** 1.1 Preparation of Scheme of Lessons and Unit Plan 1.2 Discussion on Pedagogical skills such as introducing a lesson, questioning, demonstration, stimulus variation, reinforcement, explaining, black board writing, achieving closure. 1.3 Demonstration of 1 lesson plan by Teacher Educators with Pedagogical skills in each pedagogy subject. 1.4 Discussion and Preparation of 1 innovative lessonPlan on different Pedagogic approaches i.e. Storytelling, art-integration, sports-integrated, project based and ICT integrated. 1.5 Peer group teaching and Peer observation (Demonstration of 1 lesson and peer observation of 5 lessons in each pedagogy	5		20 (10)	15

	subject by each student teacher. While demonstrating the lesson, student teacher will try to use as many pedagogical skills as possible). The peer teaching will be observed by Teacher Educators. 1.6 Discussion on various types of lesson plan 1.7 Reading and reflection on inspiring books on Pedagogic practices. 1.8 Discussion on Preparation of portfolio (Self work) 1.9 Study the Secondary level learning standards in the NCF.				
Unit II	**Learning Resources (including E- Resources)** 2.1 Development of 5 Teaching Learning Materials (TLMs in each pedagogy subject.) 2.2 Participation in screening and discussion of educational videos on pedagogy and assessment. 2.3 Development of 1 educational video (about 5 minutes duration)on each pedagogy subject. 2.4 Content Based activities (at least 5 activities in each Pedagogy subject as identified)	3		12 (6)	9
Unit III	**Understanding the School System** 3.1 Discussion on the school system in India 3.2 Discussion on the nature of practicing schools 3.3 Discussion on the concept of inclusive school 3.4 Discussion on the process of classroom management	2		8 (4)	6
	Total Contact hours	**10**		**40 (20)**	**30**

Mode of Transaction: The content can be transacted through Lectures and Demonstration by Teacher Educators, Peer teaching and peer observation, Reflective group discussions/ workshops/ seminars etc. Each student teacher must maintain their activities in a record bookand should be submitted the below mentioned products and record book for assessment.

Sl. No	**Reports**	**Marks Distribution**	
		End Sem (30)	In-Sem (20)
1.	Unit plan (1 in each pedagogy subject)	**2**	**12**
2.	Two lesson plans (1 in each pedagogy subject)	**4**	
3.	Report of Observation of demonstration of lesson by teacher educators.	**2**	
4.	Report on 10 peer observation (5 in each pedagogy subject)	**5**	

5.	Summary note on the book of pedagogy read by student teacher.	**1**	
6.	Portfolio (self-work of student teacher)	**3**	
7.	Summary note on learning standard of NCF.	**1**	
8.	6 TLM (3 in each pedagogy subject)	**3**	**7**
9.	1 Educational Video (for 5 minutes) in each pedagogy subject.	**2**	
10.	Report and product (if any) of CBA activities.	**5**	
11.	Onewrite up on inclusive nature of the school.	**2**	**1**

Mode of Assessment: The Assessment will be carried out in two ways. End Semester assessment shall be done by a board of examiners consisting of both internal and external examiners appointed by the university. In semester assessment shall be done by course teachers.Each student teachers must submit the above-mentioned products and record book for assessment well in advanced.

Learning 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. make them ready to take up an internship programme in practicing school.

Suggested Readings:

1. Anderson, L.W., Krathwohl, D.R., Airasian, P. *et al*. (eds) (2001) *A Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives* (abridged edition). New York: Longman.
2. Bloom, B. S. (1956). *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain*, New York: David McKay Co Inc.
3. Das, B. C. & Gogoi, B. (1998). *Micro Teaching*. Kalyani Publishers.
4. Fautley, M. & Savage, J. (2013). *Lesson Planning for Effective Learning*. Open University Press.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**VI**
Course Title	**:**	**Assessment and Evaluation**
Nature of the Course	**:**	**Foundations of Education**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (24), Tutorial (6)**

About the Course: The main thrust of this course on assessment and evaluation is to equip student teachers with the knowledge and capacities required to develop and implement approaches to assessment that is more regular and formative, is more competency-based, is appropriate for assessing learning outcomes relating to all domains of learning, is appropriate for testing not only subject-related learning but also generic learning outcomes such as problem solving, critical thinking, creative thinking, communication skills, judgement and decision making, ethical and moral reasoning etc.

Course Objectives: The objectives of the course are to

1. enable the student teachers with conceptual clarity of measurement, assessment, examination, appraisal and evaluation in education.
2. enable the student teachers with different forms of assessment.
3. enable the student teachers to assessing higher order thinking abilities such as problem solving ability, critical thinking ability, etc.
4. familiarize the student teachers with different tools and techniques of assessment.
5. enable the student teachers with graphical representation of data, analysis and interpretation of student's performance and reporting student's performance.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (10 Marks)	**Assessment and Evaluation in Education** 1.1 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. 1.2 Forms of Assessment • Formative, Summative, diagnostic, prognostic. • Internal and External assessment. • Assessment For learning, of learning and as learning. • Authentic Assessment; Online Assessment. 1.3 Improving Assessment and Evaluation in Schools: Brief Historical Review (1975, 1988,2000, 2005, 2020)	6	2		8
2 (10 Marks)	**Process of Assessment and Evaluation:** 2.1 Formative and Summative Assessment: Concept and	10	2		12

	Characteristics. 2.2 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. 2.3 Assessing Higher Order Thinking Abilities: Problem solving, critical thinking, creative thinking, communication skills, judgement and decision making, ethical and moralreasoning. 2.4 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.				
3 **(10 Marks)**	**Analysis and Interpretation of Data:** 3.1 Analysis of students' performance and scores: credit and grading 3.2 Graphical representation (Histogram, Frequency Curves) 3.3 Interpretation of student's performance based on the analysis and their further uses in improving learner's performance: credit and grading, constructive feedback. 3.4 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.	8	2		10
	Total	24	6		30

Mode of Transaction: The course content transaction will include the following:

1. Planned lectures infused with multimedia /power-point presentations.
2. 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.
3. Hands on experience of engaging with diverse communities, children, and schools.

Mode of In-semester Assessment:

1.Two Sessional Tests (5+5) (10 marks)

2.Any one activity of the following: (10 marks)

- Review of various education commission, Policies and reports and NCF 2005 to get

a brief view of the recommendations on Assessment and Evaluation.

- Constructing a unit test using table of specifications.
- 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 classroomenvironment and interpreting it.
- Analysis of question papers of various Boards.
- Analysis of report cards - State and Central (CBSE)
- Preparing format of 360-degree report Card.
- Review of learning outcomes by NCERT in different subject areas.
- Interviews with teachers and students to study the assessment practices, issues and problems related to it followed by presentation.
- Reviewing Assessment Discussions in NEP (2020).

Learning 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.

Suggested Readings:

1. Anastasi A and Urbina S., *Psychological Testing*, PHI Learning Private Limited New Delhi-110001, 2012
2. Aron A., Aron E. A. and Coups E., *Statistics for Psychology*, Pearson Education, Inc. and Dorling Kindersley Publishing, Inc., NewDelhi, First Impression 2007

3. Ebel, R.L.: *Measuring Educational Achievement ;* Prentice Hall of India Pvt. Ltd, New Delhi
4. Freeman Frank S. , *Theory & Practice of Psychological Testing; New Yark;Holt, Rinehart & Winston*
5. Garrett, Henry E and Woodworth R.S., - *Statistics in Psychology and Education*, Vakils, Feffer and Simons Ltd, Bombay -38, 1981.
6. Guilford J.P. - *Fundamental Statistics in Psychology and Education*, McGraw Hill Book Company Inc. New York, 1956
7. National Curriculum Framework for School Education, 2023
8. Singh A., *Instructional Objectives of School Subjects*, NCERT, New Delhi-110016, 2004
9. Singh A.K.: *Tests, Measurement and Research Methods in Behavioural Science*; Bharati bhawan , Patna -800003, 2012 print
10. Thorndike , R.L. & Hagen , E.P: *Measurment & Evaluation in Psychology & Education*; John Wiley & Sons; New York.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**VI**
Course Title	**:**	**Inclusive Education**
Nature of the Course	**:**	**Foundations of Education**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (27), Tutorial (03), Practical (00)**

About the Course: This course seeks to orient student teachers to the approaches to bridging gender and social category gaps in terms of participation rates and student learning levels at all levels of school education. The course will provide orientation to the strategies pursued and required to improve participation and learning levels of children from Socio-Economically Disadvantaged Groups (SEDGs) that can be broadly categorized based on gender identities, particularly female and transgender individuals, socio-cultural identities (such as Scheduled Castes, Scheduled Tribes, OBCs, and minorities), geographical identities (such as students from remote locations, villages, small towns, and aspirational districts), disabilities (including learning disabilities), linguistic identities, and socio- economic conditions (such as migrant communities, low income households, children in vulnerable situations, including orphans and the urban poor).

Course Objectives: The objectives of the Course are to:

1. describe the conceptual meaning of inclusion in education, students with disabilities (SwD). and children from Socio-Economically Disadvantaged Groups (SEDGs)
2. describe the pedagogical issues necessary for inclusive setting.
3. orient student teachers to the approaches to bridging gender and social category gaps in terms of participation rates and student learning levels at all levels of school education.
4. explain the strategies pursued and required to improve participation and learning levels of children from Socio-Economically Disadvantaged Groups (SEDGs)
5. describe the policies related to education of SwD and SEDGs.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (10 Marks)	**Inclusion and Education** 1.1 Conceptual Clarity, relation, and significance with special reference to: • UNCRPD, 2006, • RPWD Act, 2016, (With special reference to Indian Context.) 1.2 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 1.3 Shifting from Disability to the Inclusive view. 1.4 Shifting Paradigms from Bio centric to Human	**09**	**01**	**-**	**10**

	Rights. 1.5 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.				
2 **(10 Marks)**	**Children with Disabilities and Marginalized Groups** 2.1 Nature and needs of children with: • Sensory impairments, • Cognitive impairments and intellectual disability, • Physical disabilities and cerebral palsy, • Multiple disabilities. 2.2 Specific needs of children with: • Behavioral and emotional • Learning disabilities 2.3 Health Problems. 2.4 Educational needs of children belonging to Marginalized Groups.	**09**	**01**	**--**	**10**
3 **(10 Marks)**	**Pedagogical Issues** 3.1 Conceptual clarity and significance. 3.2 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 other 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 3.3 Designing strategies assessment for inclusive classrooms.	**09**	**01**	**--**	**10**
	Total	**27**	**03**	**-**	**30**

Mode of Transaction: The course content transaction will include the following:

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

2. 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.

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

Mode of In-semester Assessment:

1. **Two Sessional Tests: (5+5) 10 marks**
2. **Any one activity of the following: 10 marks**
   - Developing a checklist for identifying the various needs of children with disabilities.
   - Visiting schools of different categories and talking to parents, teachers, and Children with and without disabilities and listing the problems faced by these children and the families at the local level in gaining access to education.
   - Analyzing RPWD Act 2016 and list its implications for CWD in inclusive settings.
   - Outlining the problems faced by children with Visual Disabilities while learning mathematics and EVS.
   - Giving a few exemplary adaptations based on the Preparatory Level textbooks.
   - Outlining the problems faced by children with hearing impairments while learning language. Give a few exemplary adaptations based on the primary level textbooks.
   - Students work in small groups of 10 or so to prepare a street play highlighting the meaning and provisions of inclusive education.
   - Analyzing the Context of NEP 2020 in the light of Inclusive Education.

Learning 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,
- make school buildings and compounds as well as other facilities barrier free and accessible for children with disabilities,
- use support services 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 (eg. Textbooks in accessible formats such as large print and Braille) to help children with disabilities included more easily in the classroom.
- detect 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.

Suggested Readings:

1. Baquer, A. and Sharma, A. (1997): Disability: Challenges Vs. Responses. New Delhi: CAN.
2. Brelje, W. (1999): Global Perspective on Education of the Deaf. Selected countries, USA: Butte Publication Inc.
3. Cruschank, W.M. (1975): Psychology of Exceptional Children and Youth. Englewood Cliffs N.J.: Prentice Hall.
4. Dessent, T. (1987): Making the Ordinary School Special.London: The Falmer Press.
5. Evans, P & Verma, V. (1990): Special Education- Past Present and Future (Ed). London: The Falmer Press.
6. Evans, R.C. & MC Laughlin, P.(1993): Recent Advances in Special Education and Rehabilitation, Boston: Andover Medical Publishers.
7. Friel, J. (1997): Children with special needs, London: Jessica Kingsley Publication.
8. Guilford, P. (1971): Special Education Needs. London: Routledge Kagan Paul.
9. Hollahan, D and Kauffman,].M. (1978): Exceptional Children: An Introduction to Special Education. Englewood Cliffs: Prentice Hall.
10. Maclett R. and Katherine R. C. (2014). Approaching Disability- Critical issues and perspectives, London: Routledge Taylor and Francis Group.
11. Mangal, S.K. (2008): Educating Exceptional Children: An Introduction to Special Education, New Delhi: Prentice Hall of India (Pvt.) Ltd.
12. McLeskey, J., Warldron, N. L., Spooner, F. and Algozzine, B. (2014). Handbook of Effective Inclusive Schools (Research and Practice), London: Routledge Taylor and Francis Group.
13. Mishra, M. and Ramakrishna, P. (2023) Education of Socio-Economic Disadvantaged Groups, India: Routledge Taylor and Francis Group**.**
14. MoE. (2020). *National Education Policy.* New Delhi: Ministry of Education, Government of India. https://mhrd.gov.in
15. Muthaiyan, P. and Raheem, A. A. (2012). Education for Socially and Economically Disadvantaged Groups in India, India: LAP Lambert Academic Publishing.
16. Panda, K.C. (2008): Education of Exceptional Children, New Delhi:Vikash Publishing House.
17. Pandey, R.S. and Advani, L. (1995): Perspectives in Disability and Rehabilitation. New Delhi: Vikas Publishing House.
18. Richards, G. and Armstrong, F. (2016). Teaching and Learning in Diverse and Inclusive Classrooms, London: Routledge Taylor and Francis Group.
19. Sindelar, P.T., Mccray, E.D., Brownnell, M.T. and Lignugaris, B. (2014). Handbook on Research on Special Education Teacher Preparation, London: Routledge Taylor and Francis Group.
20. Stephens, T.M. et al (1983). Teaching Mainstream Students. New York: John Wiley.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**
Semester	**: VI**
Course Title	**: Content-cum- Pedagogy of English-III**
Nature of the Course	**: Stage – Specific Content-cum-Pedagogy Course**
Total Credit assigned	**: 2**
Distribution of Marks	**: End Semester: 30, In Semester: 20**
Distribution of Credits	**: Lecture (27), Tutorial (03)**

About the Course: This course comprises of three units and a practicum. It focuses on assessment and evaluation. It also focuses on assessment based on learning outcomes, strategies for continuous assessment, school-based assessment, formative and summative assessment including 360° assessment. The students will be exposed to research and innovative practices in teacher education. In this course student teachers will learn how to plan different types of activities in online and offline mode. It emphasizes how to integrate and use ICT in the classroom of Language and Literature. Assessment serves the dual purpose of tracking the performance of the learners as well as feedback mechanism for effectiveness of teaching. Today's scenario emphasizes competency-based assessment practices and tests higher order thinking skills and conceptual clarity. Major reforms in assessment are need of the hour to stay vibrant and effective in the process of teaching learning of Language and Literature. Finally, the instructor will enable the students to understand the concepts of assessment and evaluation as well as differentiate between assessment and evaluation for Language learning.

Course Objectives: The objectives of the course are to:

1. enable student-teachers to articulate the significance of 21st-century skills in language teaching and learning from psychological, sociological, and philosophical perspectives. They will identify the qualities needed in language teachers to effectively facilitate a dynamic learning environment that enhances the language acquisition process.

2. enable student-teachers to develop, apply, and critically evaluate various assessment and evaluation techniques tailored for language learning, including formative and summative assessments, performance-based assessments, and the use of tools and techniques that ensure comprehensive learner feedback and continuous improvement.

3. enable student-teachers to acquire skills to engage in action research and evidence-based practices in the field of language education. They will learn to conduct school-based research, reflect on their teaching experiences, and innovate language teaching practices based on recent trends and research findings in the area of language acquisition.

4. enable student-teachers to develop strategies for effective communication in multilingual settings, utilizing both traditional and technological resources, such as language labs and virtual platforms. They will explore innovative practices that enhance language learning experiences and foster language proficiency in diverse classroom environments.

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Unit and allotted marks	Course Contents	L	T	P	Total Contact Hours
1 (10 marks)	**21st Century Skills for Learning** 1.1 Need for and importance of how to learn 21st century skills for learners and teachers of Language. 1.2 Psychological, sociological, and philosophical perspective of teaching and learning Language. 1.3 Qualities of a Language teacher as professional for enhancing teaching learning skills. 1.4 Role of a teacher in facilitating learning and creating dynamic learning environment of Language.	**5**	**1**		**6**
2 (10 marks)	**Assessment and Evaluation** 2.1 Assessment and evaluation: need for and importance of Languages. 2.2 Development of learning indicators, performance-based assessment, learners' records of observations. 2.3 Strategies for continuous assessment, school-based assessment, formative and summative assessment, formal, informal and 360o assessment. 2.4 Performance assessment: assessment of group activities, field observations, recording and reporting, creating platform and portfolio management, assessment of lab skills, assignments, projects, and presentations. 2.5 Tools and techniques of assessment and evaluation; 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 criteria for school, assessment, and feedback mechanism in teaching learning of Languages.	**12**	**1**		**13**
3 (10 marks)	**Research and Innovative Practices in Teaching Languages** 3.1 Divergent thinking and innovation in psychological, sociological, and philosophical perspectives for quality learning experiences. 3.2 Recent trends in research related to teaching learning of Language. 3.3 Action research: meaning, significance, steps and planning. 3.4 Evidence-based practices and reflection, school-based research in Language. 3.5 Effective communication with special reference to multilingualism using Language lab and virtual lab.	**10**	**1**		**12**
Total		**27**	**3**		**30**

Mode of Transaction: The course content transaction will include the following:

1. Interactive lectures, tutorials and practical.

2. Discussions, project-based method, problem-solving method, experiential learning,

3. Inquiry approach to develop the critical thinking/problem solving abilities among the students.

4. ICT integrated learning, interactive methods such as group discussions, peer tutoring, workshops, observations, and presentations.

Mode of In-Semester Assessment:

1. **Two sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**

- Design devices for assessment of Listening, Speaking, Reading, and Writing skills of Language through activities such as debate, extempore, group discussion, Speech, etc.
- Assess the peers in the Language and prepare an analytical report.
- Write a reflective note on two editorial pieces on the same topic from different newspapers from multilingualism perspective.
- Complete an online certificate course on Language from SWAYAM portal.
- Develop a write-up on the power of Language in regard to NEP 2020 recommendations.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

● list the different concepts related to assessment and evaluation in Language Teaching,

● enumerate the characteristics of innovative practices in the teaching-learning process of

The Language,

● discuss tools and techniques of assessment and evaluation in Language Teaching,

● examine issues in Language assessment and their impact on classroom teaching,

● apply ICT in the teaching-learning process of Language,

● develop e-content of Language using Language lab and virtual lab.

Suggested Readings:

1. Aslam, Mohammad. Teaching of English. 2nd ed. New Delhi: CUP, 2008.
2. Balasubramanian, T. A Textbook of English Phonetics for Indian Students Second Edition. Macmillan Publishers India Ltd.2013.
3. Baruah, T.C. The English Teachers Handbook. Sterling Revised ed.2011
4. Cambridge University Press
5. Chapelle, C.A. Computer application in second language acquisition. Foundation for teaching, testing and research. Cambridge. Cambridge University Press. 2001.
6. Davison, Jon, John Moss. Issues in English Teaching. Ed. London: Routledge, 2000
7. Freeman, Diane Larsen. Techniques and Principles in Language Teaching. 2nd ed. OUP, 2000.
8. Nagaraj, Geetha English Language Teaching Approaches, Methods, Techniques. 2nd ed. Hyderabad: Orient Longman Private Limited, 2008.
9. National Curriculum Framework for School Education, Government of India
10. National Education Policy 2020 (NEP 2020). Government of India. (English/ Hindi).
11. National Policy on Education (With Modifications Undertaken In 1992). Ministry of Human Resource Development: New Delhi.
12. O' Connor, J.D. Better English Pronunciation.

13. Richards, Jack C and Rodgers, Approaches and Methods in Language Teaching. 2nd Theodore S. ed. Cambridge University Press, 2001.
14. Sarma, M. and D.Mahapatra. How to Teach English. Bhabani Books, Guwahati.2009.
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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
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Course Code	**:**	
Semester	**:**	**VI**
Course Title	**:**	**Content cum Pedagogy of Assamese - III**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (27), Tutorial (3)**

About the Course: This course comprises three units. It focuses on assessment and evaluation. It also focuses on assessment based on learning outcomes, strategies for continuous assessment, school-based assessment, formative and summative assessment including 360◦ assessment. The students will be exposed to research and innovative practices in teacher education. In this course student teachers will learn how to plan different types of activities in online and offline mode. It emphasizes how to integrate and use ICT in the classroom of Language and Literature. Assessment serves the dual purpose of tracking the performance of the learners as well as feedback mechanism for effectiveness of teaching. Today's scenario emphasizes competency-based assessment practices and tests higher order thinking skills and conceptual clarity. Major reforms in assessment are need of the hour to stay vibrant and effective in the process of teaching learning of Language and Literature. Finally, the instructor will enable the students to understand the concepts of assessment and evaluation as well as differentiate between assessment and evaluation for Language learning.

পাঠ্যক্রমৰ বিষয়ে

এই পাঠ্যক্রমত তিনিটা ইউনিট/ ব্যষ্টি বা গোট আছে। ইয়াত মূল্যাঙ্কন আৰু মূল্যায়নৰ ওপৰত গুৰুত্ব দিয়া হয়। ইয়াৰ উপৰিও শিকনৰ ফলৰ ওপৰত ভিত্তি কৰি মূল্যাঙ্কন অবিৰত মূল্যাঙ্কন বাবে কৌশল, বিদ্যালয়-ভিত্তিক মূল্যাঙ্কন, ৩৬০° মূল্যাঙ্কনকে ধৰি গঠনমূলক আৰু যোগসূত্রমূলক মূল্যাঙ্কন ওপৰতো গুৰুত্ব আৰোপ কৰা হয়। শিক্ষার্থীসকলে শিক্ষক শিক্ষাৰ গৱেষণা আৰু উদ্ভাৱনী পদ্ধতিৰ সৈতে পৰিচিত হ'ব। এই পাঠ্যক্রমত ছাত্রশিক্ষকসকলে অনলাইন আৰু অফলাইন মোডত বিভিন্নধৰণৰ কার্য্যকলাপৰ পৰিকল্পনা কেনেকৈ কৰিব লাগে সেই বিষয়ে শিকিব। ইয়াত ভাষা আৰু সাহিত্যৰ শ্রেণীকোঠাত তথ্য আৰু যোগাযোগ প্রযুক্তি কেনেকৈ একত্রিত আৰু ব্যৱহাৰ কৰিব পাৰি তাৰ ওপৰত গুৰুত্ব আৰোপ কৰা হৈছে। মূল্যাঙ্কনে শিক্ষার্থীসকলৰ কর্মক্ষমতা অনুসৰণ কৰাৰ লগতে পাঠদানৰ ফলপ্রসূতাৰ বাবে প্রতিপুষ্টি ব্যৱস্থাৰ দ্বৈত উদ্দেশ্যসাধন কৰে। আজিৰ পৰিস্থিতিয়ে দক্ষতা ভিত্তিক মূল্যাঙ্কন পদ্ধতিৰ ওপৰত গুৰুত্ব আৰোপ কৰে আৰু উচ্চপর্যায়ৰ চিন্তাধাৰাৰ দক্ষতা আৰু ধাৰণাগত স্পষ্টতা পৰীক্ষা কৰে। ভাষা আৰু সাহিত্য শিকন প্রক্রিয়াত স্পন্দনশীল আৰু ফলপ্রসূ হৈ থাকিবলৈ মূল্যাঙ্কন ক্ষেত্রত ডাঙৰ সংস্কাৰৰ প্রয়োজন। শেষত প্রশিক্ষকে ছাত্র-ছাত্রীসকলক মূল্যাঙ্কন আৰু মূল্যায়নৰ ধাৰণা সমূহ বুজি পোৱাৰ লগতে ভাষাশিক্ষণৰ বাবে মূল্যাঙ্কন আৰু মূল্যায়নৰ মাজত পার্থক্য কৰিবলৈ সক্ষম কৰিব।

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Course Objectives: The objectives of the course are to

1. state the need for and importance of how to learn 21st century skills for learners and teachers of Language.
2. analyse the psychological, sociological, and philosophical perspective of teaching and learning Language.
3. describe the qualities of a language teacher and the role of a teacher in facilitating learning and creating dynamic learning environment of Language.
4. describe the need and importance of assessment and evaluation of language.
5. develop of learning indicators, performance-based assessment, learners' records of observations.
6. describe the strategies for continuous assessment, school-based assessment, formative and summative assessment, formal, informal and 360^{o} assessment, assess the group activities, field observations, recording and reporting
7. discuss the meaning and importance of unit test based on Table of Specification (TOS), question paper setting,
8. develop the divergent thinking and innovation in psychological, sociological, and philosophical perspectives for quality learning experiences.
9. discuss the recent trends in research related to teaching learning of Language.
10. describe the meaning, significance, steps and planning of Action research:

পাঠ্যক্রমৰ উদ্দেশ্য: এই পাঠ্যক্রমৰ উদ্দেশ্যসমূহ হৈছে **:**

১) ভাষাশিকাৰু আৰু শিক্ষকৰ বাবে একবিংশশতিকাৰদক্ষতাকেনেকৈশিকিবপাৰিতাৰপ্রয়োজনীয়তা আৰু গুৰুত্বউল্লেখ কৰা।

২) ভাষাশিকনআৰু শিক্ষণৰমনস্তাত্ত্বিক, সমাজতাত্ত্বিকআৰু দার্শনিকদৃষ্টিভংগীৰবিশ্লেষণ কৰা।

৩)ভাষাশিক্ষকৰ গুণ আৰু ভাষাশিক্ষণৰসুবিধাপ্রদান আৰু
গতিশীলশিকনপৰিৱেশসৃষ্টিকৰাতশিক্ষকৰভূমিকাবর্ণনা কৰা।

৪) ভাষাৰমূল্যাঙ্কনআৰু মূল্যায়নৰপ্রয়োজনীয়তা আৰু গুৰুত্বৰবিষয়েবর্ণনা কৰা।

৫) শিকনসূচক, কর্মক্ষমতাভিত্তিকমূল্যাঙ্কন, শিক্ষার্থীৰপর্যবেক্ষণৰঅভিলেখবিকশিত কৰা।

৬) অবিৰত মূল্যাঙ্কন, বিদ্যালয়ভিত্তিকমূল্যাঙ্কন, গঠনমূলক আৰু সামষ্টিগত মূল্যাঙ্কন, আনুষ্ঠানিক, অনানুষ্ঠানিক, আৰু ৩৬০°মূল্যাঙ্কন বাবে কৌশলসমূহবর্ণনা কৰা,দলীয়কার্য-কলাপ, ক্ষেত্রপর্যবেক্ষণ, ৰেকর্ডিং আৰু প্রতিবেদনৰমূল্যায়ন কৰা।

৭) টেবুলঅৱস্পেচিফিকেশন (TOS), [ব্লুপ্রিণ্ট] প্রশ্নকাকতপ্রস্তুতকৰণৰওপৰতভিত্তি কৰি ব্যষ্টি/গোট পৰীক্ষাৰঅর্থ আৰুগুৰুত্বৰবিষয়েআলোচনা কৰা

৮) গুণগতশিকনঅভিজ্ঞতাৰ বাবে মনস্তত্ত্বিক, সমাজতাত্ত্বিকআৰু দার্শনিকদৃষ্টিভংগীৰঅপসাৰী / ভিন্নমুখীচিন্তা আৰু উদ্ভাৱনবিকশিত কৰা।

৯) ভাষাশিকন-শিক্ষণৰ সৈতে জড়িতগৱেষণাৰশেহতীয়াধাৰাসমূহআলোচনা কৰা।

১০) কার্য্যগৱেষণাৰঅর্থ, তাৎপর্য, পদক্ষেপ আৰু পৰিকল্পনাবর্ণনা কৰা:

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Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 **(10 Marks)**	**21st Century Skills for Learning** 1.1 Need for and importance of how to learn 21st century skills for learners and teachers of Language. 1.2 Psychological, sociological, and philosophical perspective of teaching and learning Language. 1.3 Qualities of a Language teacher as professional for enhancing teaching learning skills. 1.4 Role of a teacher in facilitating learning and creating dynamic learning environment of Language. **শিকনৰ একবিংশ শতিকাৰ কৌশল/ দক্ষতা** **১. ১** ভাষাশিকাৰু আৰু শিক্ষকৰ বাবে একবিংশশতিকাৰদক্ষতাকেনেকৈশিকিবপাৰিতাৰপ্রয়োজনীয়তা আৰু গুৰুত্ব। **১.২** ভাষাশিকোৱা আৰু শিক্ষণৰমানসিক, সমাজবিজ্ঞানসন্মত আৰু দার্শনিকদৃষ্টিভংগী। **১.৩** পাঠদানশিক্ষণদক্ষতাবৃদ্ধিৰ বাবে পেছাদাৰী হিচাপে ভাষাশিক্ষকৰগুণ। **১.৪** ভাষাশিক্ষণৰসুবিধা আৰু গতিশীলশিক্ষণ পৰিবেশ সৃষ্টি কৰাত এগৰাকী শিক্ষকৰ ভূমিকা।	9	1	-	10
2 **(10 Marks)**	**Assessment and Evaluation** 2.1 Assessment and evaluation: need for and importance of Languages. 2.2Development of learning indicators, performance-based assessment, learners' records of observations. 2.3Strategies for continuous assessment, school-based assessment, formative and summative assessment, formal, informal and 360^{o} assessment. 2.4 Performance assessment: assessment of group activities, field observations, recording and reporting, creating platform and portfolio management, assessment of lab skills, assignments, projects, and presentations. 2.5 Tools and techniques of assessment and evaluation; 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 criteria for school, assessment, and feedback mechanism in teaching learning of Languages.	9	1		10

	মূল্যাঙ্কনআৰু মূল্যায়ন **২.১** মূল্যাঙ্কন আৰু মূল্যায়ন: ভাষাৰপ্রয়োজনীয়তা আৰু গুৰুত্ব। **২.২** শিকনসূচক, কর্মক্ষমতাভিত্তিকমূল্যায়ন, শিক্ষার্থীৰঅভিলেখৰবিকাশপর্যবেক্ষণসমূহ। **২.৩** অবিৰত মূল্যাঙ্কন, বিদ্যালয়ভিত্তিকমূল্যাঙ্কন, গঠনমূলক আৰু সামষ্টিগত মূল্যাঙ্কন, আনুষ্ঠানিক, অনানুষ্ঠানিক আৰু ৩৬০°মূল্যাঙ্কন বাবে কৌশল। **২.৪** কর্মক্ষমতামূল্যাঙ্কন: দলীয়কার্যকলাপৰমূল্যাঙ্কন, ক্ষেত্রপর্যবেক্ষণ, ৰেকর্ডিং আৰু ৰিপর্টিং, প্লেটফর্ম আৰু পর্টফলিঅ' ব্যৱস্থাপনাৰসৃষ্টি, লেব-দক্ষতাৰ মূল্যাঙ্কন, এছাইনমেণ্ট, প্রকল্প, আৰু উপস্থাপনৰমূল্যাঙ্কন। **২.৫** মূল্যাঙ্কন আৰু মূল্যায়নৰসঁজুলি আৰু কৌশল; টেবুল অব স্পেচিফিকেশন (TOS)/ ব্লুপ্রিণ্ট আৰু ইয়াৰগুৰুত্বৰওপৰতভিত্তি কৰি একক/ গোটপৰীক্ষা; প্রশ্নকাকতনির্ধাৰণৰমূলপদক্ষেপসমূহ, টেষ্ট আইটেমৰপ্রকাৰ আৰু উত্তৰচাবি আৰু মাপকাঠীপ্রস্তুত কৰা, মূল্যাঙ্কন, আৰু ভাষাশিক্ষণ-শিকনত প্রতিপুষ্টিৰ ব্যৱস্থা।				
3 **(10 Marks)**	**Research and Innovative Practices in Teaching Languages** 3.1 Divergent thinking and innovation in psychological, sociological, and philosophical perspectives for quality learning experiences. 3.2 Recent trends in research related to teaching learning of Language. 3.3 Action research: meaning, significance, steps and planning. 3.4 Evidence-based practices and reflection, school-based research in Language. 3.5 Effective communication with special reference to multilingualism using Language lab and virtual lab. **ভাষাশিক্ষণৰগৱেষণা আৰু উদ্ভাৱনীমূলকপদ্ধতি** **৩.১** গুণগতশিকন অভিজ্ঞতাৰ বাবে মনস্তাত্ত্বিক, সমাজতাত্ত্বিক আৰু দার্শনিকদৃষ্টিভংগীৰ অপসাৰী / ভিন্নমুখীচিন্তা আৰু উদ্ভাৱনবিকশিত কৰা। **৩.২** ভাষাশিক্ষণ-শিকনৰ সৈতেজড়িতগৱেষণাৰশেহতীয়াধাৰা। **৩.৩** কার্যগৱেষণা: অর্থ, তাৎপর্য, পদক্ষেপ আৰু পৰিকল্পনা **৩.৪** প্রমাণভিত্তিকঅনুশীলন আৰু প্রতিফলন, ভাষাৰবিদ্যালয়ভিত্তিকগৱেষণা। **৩.৫** ভাষাৰ গৱেষণাগাৰ আৰু ভার্চুৱেললেবব্যৱহাৰ কৰি বহুভাষিকতাৰবিশেষউল্লেখনেৰে ফলপ্রসূ যোগাযোগ।	9	1		10
	Total	27	3		30

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Mode of Transaction: The course content transaction will include the following:

1. Lecture-cum-discussion
2. Project-based method
3. Problem-solving method
4. Experiential learning
5. Inquiry approach
6. ICT integrated learning
7. Interactive methods such as group discussions, peer tutoring, team teaching, workshops, observations and presentations.

১) বক্তৃতা-সম-আলোচনা

২) প্রকল্পভিত্তিক পদ্ধতি

৩) সমস্যা সমাধান পদ্ধতি

৪) অভিজ্ঞতাভিত্তিক শিকন

৫) অনুসন্ধান পদ্ধতি,

৬) তথ্য আৰু যোগাযোগ প্রযুক্তি সংহত শিক্ষণ,

৭) ইন্টাৰেক্টিভ পদ্ধতি যেনে দলীয় আলোচনা, সমনীয়া টিউচন, দলীয় পাঠদান, কর্মশালা, পর্যবেক্ষণ আৰু উপস্থাপন।

Mode of In-semester Assessment:

1.Two Sessional Tests (5+5) (10 marks)
2.Any one activity of the following: (10 marks)

- Design devices for assessment of Listening, Speaking, Reading, and Writing skills of
- Language through activities such as debate, extempore, group discussion, Speech, etc.
- Assess the peers in the Language and prepare an analytical report.
- Write a reflective note on two editorial pieces on the same topic from different newspapers from multilingualism perspective.
- Complete an online certificate course on Language from SWAYAM portal.
- Develop a write-up on the power of Language in regard to NEP 2020recommendations.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

- তর্ক, আকস্মিক বক্তৃতাৰ, দলীয় আলোচনা, বক্তৃতা, আদিকার্যকলাপৰজৰিয়তেভাষাৰ শ্ৰৱণ, কথন, পঠন আৰু লিখন কৌশলৰ দক্ষতাৰ মূল্যাঙ্কনৰ বাবে কৌশল প্রস্তুত কৰা।
- ভাষাতসমনীয়াসকলৰমূল্যায়ন কৰা আৰু বিশ্লেষণাত্মকপ্রতিবেদনপ্রস্তুত কৰা।
- বহুভাষিকতাৰদৃষ্টিকোণৰপৰাবাতৰিকাকতৰপৰাএকেটাবিষয়ৰদুটাসম্পাদকীয়ৰ সম্পর্কে এটা প্রতিফলিতটোকালিখা।
- SWAYAM পর্টেলৰপৰাভাষাৰ এটা অনলাইনচার্টিফিকেটপাঠ্যক্রমসম্পূর্ণ কৰা।
- ভাষাৰশক্তি সম্পর্কে ৰাষ্ট্রীয় শিক্ষানীতি ২০২০ৰ পৰামর্শৰসন্দর্ভতএটা টোকা প্রস্তুত কৰা।
- পাঠ্যক্রমৰ বিষয়বস্তুৰ বিষয়ে পাঠ্যক্রমৰ শিক্ষকে দিয়া অন্য কোনো কার্য।

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

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

- list the different concepts related to assessment and evaluation in Language Teaching,
- enumerate the characteristics of innovative practices in the teaching-learning process ofthe Language,
- discuss tools and techniques of assessment and evaluation in Language Teaching,
- examine issues in Language assessment and their impact on classroom teaching,
- apply ICT in the teaching-learning process of Language,
- develop e-content of Language using Language lab and virtual lab.

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শিক্ষণ ফলাফল

এই পাঠ্যক্রম সম্পূর্ণ কৰাৰ পিছত ছাত্ৰ-শিক্ষকসকলে নিম্নোক্ত বিষয় সমূহ কৰিব পাৰিব:

- ভাষা শিক্ষাত মূল্যায়ন আৰু মূল্যায়নৰ সৈতে জড়িত বিভিন্ন ধাৰণা সমূহৰ তালিকা প্ৰস্তুত কৰা।
- ভাষাৰ পাঠদান-শিক্ষণ প্ৰক্ৰিয়াত উদ্ভাৱনীমূলক পদ্ধতিৰ বৈশিষ্ট্য সমূহ গণনা কৰা,
- ভাষা শিক্ষাত মূল্যায়ন আৰু মূল্যায়নৰ সঁজুলি আৰু কৌশলৰ বিষয়ে আলোচনা,
- ভাষা মূল্যায়নৰ বিষয়সমূহ আৰু শ্ৰেণীকোঠাৰ পাঠদানত ইয়াৰ প্ৰভাৱ পৰীক্ষা কৰা,
- ভাষাৰ শিক্ষণ-শিকন প্ৰক্ৰিয়াত তথ্য আৰু যোগাযোগ প্ৰযুক্তিৰ প্ৰয়োগ কৰা,
- ভাষা গৱেষণাগাৰ আৰু ভাৰ্চুৱেল লেব ব্যৱহাৰ কৰি ভাষাৰ ই-কণ্টেণ্ট বিকশিত কৰা।

Suggested Readings:

1. Bora , Dr Mahendra : The Evolution of Assamese Script,1981, Asam Sahitya Sabha, Jorhat
2. Chapelle, C.A. : Computer application in second language acquisition. Foundation for teaching, testing and research. Cambridge. Cambridge University Press. 2001.
3. Dua, Hans R.: Perspective of Understanding Language, Yashoda Publications, Mysore
4. Freeman , Diane Larsen : Techniques and Principles in Language Teaching. 2nd ed. OUP, 2000
5. Kramsch : *Context and Culture in Language Classroom*, OUP, New Delhi
6. Lazar : *Literature and Language Teaching.* OUP, New Delhi
7. Matilal, B.K. : *The Word and the World : India's contribution to the Study of Language*, OUP, New Delhi
8. National Curriculum Framework for School Education, Government of India
9. National Education Policy 2020 (NEP 2020). Government of India. (English/ Assamese).
10. National Policy on Education, 1986 (With Modifications Undertaken In 1992). Ministry of Human Resource Development: New Delhi.
11. NCERT : Question Paper Setting, New Delhi
12. Richards Ur, Penny *A course in Language Teaching Practice and theory*. Cambridge University Press: Cambridge, U.K. 1996*Professional Development for Language Teachers*. Cambridge. Cambridge University Press.New Delhi 2013.
13. Richards, Jack C and Rodger Approaches and Methods in Language Teaching. 2nd Theodore S. ed. Cambridge University Press, 2001.
14. Stern, H. H.: Fundamental Concepts of Language Teaching, Oxford University Press, Oxford, 1983

15. The Right of Children to Free and Compulsory Education Act-2009, The Gazette of India, 2009.
16. Ur, Penny *A course in Language Teaching Practice and theory*. Cambridge University Press: Cambridge, U.K. 1996
17. Yule, George : The Study of Language. Third Edition. Cambridge University Press, 2000
18. গোস্বামী, ড° উপেন্দ্রনাথ: **অসমীয়া ভাষাৰ ৰূপকথা,** ৪র্থ প্রকাশ, ১৯৯৫, মণিমাণিক প্রকাশ,গুৱাহাটী
19. গোস্বামী, ড°উপেন্দ্রনাথ : **ভাষাবিজ্ঞান,**৫মসং১৯৮৬, মণি-মাণিকপ্রকাশ, পাণবজাৰ, গুৱাহাটী-১
20. গোস্বামী, তীন্দ্রনাথ : **মাতৃভাষা শিক্ষণ,** মণিমাণিক প্রকাশ,গুৱাহাটী
21. ঠাকুৰ, ড০ নগেন: **ভাৰতীয় ভাষাৰ পৰিচয়,** ১৯৮৩, ভাৰতী বুক ষ্টল, গোলাঘাট
22. দাস. হলিৰাম : **অসমীয়া মাতৃভাষা শিক্ষণ পদ্ধতি,** শ্রী ভূমি পাব্লিছিং কোম্পানি, কলকতা
23. নেওগ, ড° মহেশ্বৰ : **অসমীয়া সাহিত্যৰ ৰূপৰেখা**, ৮মপ্রকাশ, ১৯৯৫, চন্দ্রপ্রকাশ, গুৱাহাটী
24. পাঠক, ৰমেশ : **ভাষাবিজ্ঞানৰ ভূমিকা,** ২য় প্র ১৯৮৫, এল বি এছ পাব্লিকেশ্যন, গুৱাহাটী-১
25. পাঠকৰমেশ : **অসমীয়া ভাষাৰ ইতিহাস,** ১৯৮৫, জার্ণাল এম্প'ৰিয়াম, নলবাৰী
26. বৰুৱা, ড° ভীমকান্ত : **অসমৰ ভাষা,** ষ্টুডেণ্টচ এম্প'ৰিয়াম, ডিব্রুগড়
27. হাজৰিকা, বিশ্বেশ্বৰ : **অসমীয়া ভাষাৰ উৎপত্তি আৰু ক্রমবিকাশ ,**১৯৮৮, জাতীয় সাহিত্য প্রকাশ, গুৱাহাটী-
28. শর্মা, ড° মদন : **অসমীয়া ভাষা শিক্ষণপদ্ধতি,** ষ্টুডেণ্টছ ষ্টোৰছ, গুৱাহাটী
29. শর্মা, ড° সত্যেন্দ্রনাথ : **অসমীয়া সাহিত্যৰ সমীক্ষাত্মক ইতিবৃত্ত,** ৩য়প্র, ১৯৮৬, সৌমাৰ প্রিণ্টিং এণ্ড পাব্লিছিং প্রাইভেট লিমিটেড, গুৱাহাটী
30. ষষ্ঠশ্রেণীৰ পৰা দ্বাদশ শ্রেণীত প্রচলিত অসমীয়া পাঠ্যপুথিসমূহ, এখন আধুনিক অসমীয়া অভিধান, এখন আধুনিক অসমীয়া ব্যাকৰণ।

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**VI**
Course Title	**:**	**Content cum Pedagogy of Mathematics-III**
Nature of the Course	**:**	**Stage-Specific Content-Cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (14), Tutorial (06), Practicum (20)**

About the Course: Developing 21st-century skills is important for Mathematics teaching learning. Learning imagination, spatial visualization, and mathematical reasoning is important for novice learners. The course comprises three units describing 21st-century skills for learning, assessment and evaluation, and research and innovative practices in teaching Mathematics. This course also aims to improve the skills and competencies required for Mathematics teachers to conduct effective learner assessments. The course also describes various evaluation strategies and devices that can be efficiently used in teaching Mathematics and in developing skills among student teachers for improving student outcomes, conducting action research, and school-based research in Mathematics.

Course Objectives: The objectives of the course are to

1. enable the student teachers to develop an understanding of the significance of 21st-century skills in learning Mathematics.
2. enable the student teachers to design and implement assessment strategies that promote student learning and understanding in Mathematics.
3. enable the student teachers to develop an understanding of the current research and innovative practices in teaching Mathematics.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (10 Marks)	**21st Century Skills for Learning Mathematics** 1.6 The need and importance of integrating 21st-century skills such as practicing imagination, spatial visualization, mathematical reasoning, and problem-solving, etc., in teaching and learning of mathematics. 1.7 Psychological, sociological, and philosophical perspectives of teaching, learning, and development of Mathematics. 1.8 Qualities of a Mathematics teacher as a professional. 1.9 Role of a teacher in facilitating learning and creating a dynamic learning environment for Mathematics. (**Suggestions for Practicum:** design activities that promote problem-solving skills; develop exercises to enhance spatial visualization; create tasks that foster mathematical reasoning; identify and analyze case studies on teaching and learning mathematics,	4	2	6	12

	organize seminars on philosophical/sociological perspectives of mathematics education; develop a plan for ongoing professional development; design student-centered activities for mathematics learning).				
2 **(10 Marks)**	**Assessment for Learning in Mathematics** 2.1 Meaning, need, and organization of oral, written, and practical assessment in Mathematics. 2.2Construction of types of questions in Mathematics: objective, short answer, long answer, considerations for marking different types of questions in Mathematics. 2.3Planning and developing teachers made tests in Mathematics - Table of Specification (TOS), question paper setting and preparing answer key. 2.4 Tools to identify learning difficulties and provide corrective measures in Mathematics, concept of 360 ° assessment, holistic progress card and assessment of mathematical aspects of students. (**Suggestions for Practicum:** create objective, short answer, and long answer questions; design a marking scheme for different question types; construct a teacher-made test for a specific math topic; prepare an answer key for the test; set a question paper based on TOS; design corrective measures for students with difficulties; develop a holistic progress card for mathematics progress of fellow students; design feedback strategies for student improvement; develop rubrics in groups for mathematics projects).	5	2	6	13
3 **(10 Marks)**	**Research and Innovative Practices in Teaching of Mathematics** 3.1 Divergent thinking for innovations in mathematics: Psychological, sociological, and philosophical perspectives for quality learning experiences. 3.2 Innovative practices in Mathematics. 3.3 Research on issues of gender, class, and culture in Mathematics learning and achievement - expectations, attitudes and stereotypes; access to higher Mathematics; interrogating the notion of 'Achievement Gap'; construction of learners' identity in a Mathematics classroom. 3.4 Recent trends and research related to teaching learning of Mathematics – digital gaming, digital storytelling, using Artificial Intelligence for Mathematics teaching and learning.	5	2	8	15

	3.5. Action research for solving problems of teaching and learning of Mathematics: meaning, significance, steps, and planning. (**Suggestions for Practicum:** conduct brainstorming sessions on innovative mathematics teaching methods; design innovative lesson plans incorporating divergent thinking; research, identify, and analyze case studies on gender, class, and cultural issues in mathematics education; conduct survey research on attitudes and stereotypes towards mathematics; review literature on the achievement gap in mathematics education; create digital stories to teach mathematics concepts; design an AI-powered mathematics lesson plan; create a research plan to investigate a mathematics learning problem, analyze data from an action research project on mathematics teaching).				
	Total	14	06	20	40

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum discussion with multimedia /PowerPoint presentations.
2. group work, ICT-enabled methods, activity-based and art-integrated demonstration, field-based experiences, library visits, self-study, field observations, assignment preparation, classroom presentations, discussion forums, observation, flip classroom, use of the digital platform.
3. Hands-on experience in identifying mathematical concepts in nature and applying those in our day-to-day life.

Mode of In-semester Assessment:

1.Two Sessional Tests (5+5) (10 marks)

2.Any one activity of the following: (10 marks)

- List 21st-century skills concerning various topics of school Mathematics.
- Writing a paper on recent trends and research related to teaching-learning of Mathematics.
- Prepare a scrapbook for ‘Mathematics in Print Media’.
- Prepare a small video for recent trends in Mathematics on social media.
- Plan a teacher-made test for a unit of secondary Mathematics.
- Prepare a report after using an innovative idea to teach a difficult topic of secondary Mathematics.
- Plan for action research on any one problem of teaching-learning Mathematics.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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Integrated Teacher Education Programme with Secondary-Stage Specialization
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Learning Outcomes: After completion of this course, student teachers will be able to:

- analyze the sources of the development of 21st-century skills through Mathematics teaching and learning,
- determine the role of the teacher in facilitating learning and creating a dynamic learning environment in Mathematics,
- describe the need for and importance of assessment in the learning process of Mathematics,
- develop various types of tests for assessing students' learning in Mathematics,
- design and create innovative strategies and techniques for successful teaching and learning Mathematics,
- conduct school-based research in Mathematics teaching,
- explain the various methods of exploring knowledge,
- explore innovative ideas for teaching and learning Mathematics,
- assess the steps of action research.

Suggested Readings:

1. Butler, C.H. & Wren, F.L. (1960). The Teaching of Secondary Mathematics. McGraw-Hill Book Company, Tokyo.
2. Davis, David R. (1951). The Teaching of Mathematics. Addison-Wesley Press.
3. Garelick, Barry (2015). Teaching Math in the 21st Century. Createspace Independent Publication
4. James, Anice (2016). Methods of Teaching Mathematics. Neel Kamal Publication.
5. Mangal, S.K. (1989). Teaching of Mathematics. Prakash Brothers Publishers, Ludhiana.
6. Mangal, S.K. (2019). Pedagogy of Mathematics. Tandon Publication.
7. NCERT. A Handbook for Designing Mathematics Laboratory in Schools (Code-1555).
8. NCERT. Manual for Higher Secondary Mathematics Kit (Code-3165).
9. NCERT. National Curriculum Framework. New Delhi, India: NCERT.
10. NCERT. National Focus Group on Teaching of Mathematics. New Delhi, India: NCERT.
11. Oldham, Elizabeth; Afonso, Ana S.; Viseu, Floriano; Dourado, Luís; Martinho, Maria Helena (2020). Science and Mathematics Education for 21st Century Citizens: Challenges and Ways Forward. Nova Science Publishers.
12. Ollerton, Mike (2009). The Mathematics Teacher's Handbook. Continuum International Publishing Group Ltd
13. Sidhu, K.S. (2016). The Teaching of Mathematics. Sterling Publishers, New Delhi.

E-resources:

1. Christine Suurtamm, Denisse R. Thompson, Rae Young Kim , Leonora Diaz Moreno Nathalie (2016): **Assessment for Learning in Mathematics. https://library.oapen.org/bitstream/id/c9c29a03-5a0e-4b51-8c6e-918439b72f32/1002148.pdf.**
2. G. Xie, X. Liu (2023): Gender in mathematics: how gender role perception influences mathematical capability in junior high school. https://doi.org/10.1186/s40711-023-00188-3.
3. K. Subramaniam(2014): Innovative Practices in Mathematics Education: An Overview . http://158.144.44.204/med/wp-content/uploads/2014/01/KS_04-innov-prac-in-math-edu-y2.pdf.
4. NCERT: Pedagogy of Mathematics. https://ncert.nic.in/desm/pdf/Pedagogy_of_Mathematics_2_.pdf.
5. Sonia Verdugo-Castro, Alicia García-Holgado, M Cruz Sánchez-Gómez (2022): The gender gap in higher STEM studies: A systematic literature review. https://doi.org/10.1016/j.heliyon.2022.e10300.
6. Tara Paudel: **Gender Issue in Teaching and Learning Mathematics. https://www.researchgate.net/publication/342437701_GENDER_ISSUE_IN_TEACHING_AND_LEARNING_MATHEMATICS.**
7. **Upasak Das**and**Karan Singhal**(2022): Gender difference in mathematics learning in rural India. https://www.ideasforindia.in/topics/human-development/gender-difference-in-mathematics-learning-in-rural-india.html.

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**
Semester	**: VI**
Course Title	**: Content cum Pedagogy of Biological Sciences at Secondary Stage – Course (III)**
Nature of the Course	**: Stage-Specific Content-cum-Pedagogy Courses**
Total Credits Assigned	**: 2**
Distribution of Marks	**: End Semester: 30. In Semester: 20**
Distribution of Credits	**: Lecture (25), Tutorial (3), Practical (4)**

About the Course: A wide array of teaching-learning resources is available to modern day teachers. This course comprises of three units which aims to introduce various resources and discuss their appropriate utilization in teaching. In this course, student teachers are introduced to different units and lesson plan based on learning outcomes and experiential learning. Requisite skills such as the use of print media, non-print media and digital resources are discussed in the course. This course also focuses on familiarizing student teachers in ICT integration in teaching and preparing ICT based lesson plans for online teaching using suitable tools. This course aims to prepare student teachers for teaching Biological Sciences using different dimensions pedagogical and technological aspects.

Course Objectives: The objectives of the course are to:

1. explain the significance of acquiring 21st-century skills for Biological Sciences teaching.

2. outline the need for and importance of assessment and evaluation in the teaching of Biological Sciences.

3. appraise with various assessment strategies for continuous assessment in reference to teaching of Biological Sciences.

4. appropriate tools and techniques for assessment and evaluation in teaching learning of Biological Sciences.

5. identify recent trends in research related to the teaching and learning and its implications in teaching learning of Biological Sciences.

6. prepare unit test item based on TOSS and develop different types of test items.

7. construct and administer different type of tests.

8. plan offline and online activities for testing higher order thinking skills in teaching learning of Biological Sciences.

9. relate ICT integration and elaborate its use in classroom situations.

10. identify a problem in the context of Biological Sciences teaching learning and plan action research.

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Dibrugarh University, 2025

Units and Allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 **(10 Marks)**	**21st Century Skills for Learning:** 1.1Need for and importance of how to learn 21st century skills for learners and teachers of Biological Sciences. 1.2 Psychological, sociological, and philosophical perspective of teaching and learning Biological Sciences. 1.3 Qualities of a Biological Sciences teacher as professional for enhancing teaching learning skills. 1.4 Role of a teacher in facilitating learning and creating dynamic learning environment of Biological Sciences.	9	1		10
2 **(10 Marks)**	**Assessment and Evaluation:** 2.1Assessment and Evaluation: concept, need for and importance of teaching learning the Biological Sciences. 2.2 Assessment based on learning outcomes, strategies for continuous assessment, school-based assessment, qualitative assessment; formative and summative assessment, formal, informal, and 360-degree assessment. 2.3 Performance assessment: assessment of group activities, field observations, recording and reporting, creating platform and portfolio management, assessment of lab skills, assignments, projects, and presentations based on concepts of Biological Sciences. 2.4 Unit test based on Table of Specifications (TOS) and its importance; basic steps question paper setting of Biological Sciences, types of test items and preparing answer key and criteria for school, assessment, and feedback mechanism in teaching and learning the Biological Sciences at secondary stage.	8	1	2	11
3 **(10 Marks)**	**Research and Innovative Practices in Biological Sciences:** 3.1 Divergent thinking and innovation in psychological, sociological, and philosophical perspectives for quality learning experiences, creating a sensitive and conducive classroom environment for learning and practicing life skills. 3.2 Recent trends in research related to teaching	8	1	2	11

	learning of Biological Sciences. 3.3 Action research: meaning, significance, steps, and planning. 3.4 Evidence-based practices and reflection, school-based research in Biological Sciences.				
	Total	25	3	4	32

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum discussion
2. Demonstration
3. Hands-on activities
4. experiential learning
5. Inquiry
6. Group work
7. Presentations
8. Multimedia.

Mode of In-semester Assessment:

1.Two Sessional Tests (5+5) (10 marks)
2.Any one activity of the following (10 marks)

- Prepare, administer, and analyze scores of an achievement test.
- Explore AI based assessment tools and prepare an E-Portfolio for a student of Secondary Stage.
- Identify a topic and Plan action research at secondary stage.
- Conduct Simulated Teaching session for the concepts of Biological Sciences and observation by self, peer, and teacher.
- Apply innovative practices in classroom teaching learning of Biological Sciences.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- appraise different types of assessment and strategies for continuous assessment.
- distinguish between assessment and evaluation.
- compare merits and demerits of different types of assessment.
- develop unit test item based on TOS and develop different type of test items.
- construct and administer the achievement test.
- familiarize with basic statistical methods for analyzing performance in tests.
- plan offline and online activity for testing higher order thinking skills.
- recognize challenges in modern day classroom and plan appropriate strategies.
- relate ICT integration and elaborate its use in classroom situations.

Suggestive Readings:

1. Bhuyan S. & Konwar N. Teaching of Science II, Banalata Publishers, Dibrugarh, 2018.
2. Khan R.S. Professional Development of Secondary School Teachers, New Delhi, IASE Jamia Milia Islamia, 2003.
3. Kostas. K. & Mitchel J.R. Teaching of Biology in Schools, New York: Routledge, 2018.
4. Kuleshrestha S.P. Teaching of Biology, R. Lall Book Depot, 2005.
5. Lakshmi J.K. & Rao D.B. Methods of Teaching Biology, Discovery Publishing House, 2011.
6. Mangal S.K. Teaching of Biological Sciences, Meerut International Publishing House, 2004.
7. National Council of Educational Research and Training (April 2022). Mandate documents Guidelines for the development of National Curriculum Frameworks.
8. National Council of Educational Research and Training. (April 2022). Mandate
9. National Curriculum Framework for School Education.
10. National Education Policy 2020, MoE, Government of India.
11. National Educational Policy 2020, MoE, Government of India.
12. National Steering Committee for National Curriculum Frameworks, (2023). Draft
13. National Steering Committee for National Curriculum Frameworks, (2023). Draft National Curriculum Framework for School Education.
14. NCERT, Textbooks of Biological Sciences at Secondary Stage.
15. NCERT, Textbooks of Biological Sciences at Secondary Stage.

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

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
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Course Code	**:**	
Semester	**:**	**VI**
Course Title	**:**	**Content cum Pedagogy of Physical Sciences-III**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30, In Semester: 20**
Distribution of Credits	**:**	**Lecture (25), Tutorial (3), Practical (4)**

About the Course: This course comprises three units and a practicum. It focuses on assessment and evaluation. It also focuses on assessment based on learning outcomes, strategies for continuous assessment, school-based assessment, formative and summative assessment including 360◦ assessment. Student teachers are expected to identify various concepts and processes, list learning and behavioral outcomes, find out about various activities and experiments, and identify relevant evaluation techniques and strategies. It focuses on Psychological, Sociological and Philosophical Perspective of Activity Oriented Classrooms in Physical Sciences. The importance of planning science learning and teaching in secondary schools. In this course student teachers will learn how to plan different types of activities in online and offline mode. It emphasizes how to integrate and use ICT in the classroom of Physical Sciences. Assessment serves the dual purpose of tracking the performance of the learners as well as feedback mechanism for effectiveness of teaching. Today's scenario emphasizes competency-based assessment practices and tests higher order thinking skills and conceptual clarity. Major reforms in assessment are need of the hour to stay vibrant and effective in the process of teaching learning of Physical Sciences.

Course Objectives: The objectives of the course are to:

1. develop understanding about the significance of acquiring 21st-century skills for Physical Sciences teaching.
2. enable the students to outline the need for and importance of assessment and evaluation in the teaching of Physical Sciences.
3. appraise with various assessment strategies for continuous assessment in reference to teaching of Physical Sciences.
4. utilize appropriate tools and techniques for assessment and evaluation in teaching learning of Physical Sciences.
5. identify recent trends in research related to the teaching and learning and its implications in teaching learning of Physical Sciences.
6. prepare unit test item based on TOSS and develop different types of test items.
7. construct and administer different type of tests.
8. plan offline and online activities for testing higher order thinking skills in teaching learning of Physical Sciences.
9. relate ICT integration and elaborate its use in classroom situations.
10. identify a problem in the context of Physical Sciences teaching learning and plan action research.

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 **(10 Marks)**	**21st Century Skills for Learning** 1.1 Need for and importance of how to learn 21st century skills for learners and teachers of Physical Sciences. 1.2 Psychological, sociological, and philosophical perspective of teaching and learning Physical Sciences. 1.3 Qualities of a Physical Sciences teacher as professional for enhancing teaching learning skills. 1.4 Role of a teacher in facilitating learning and creating dynamic learning environment of Physical Sciences.	7	1		8
2 **(10 Marks)**	**Assessment and Evaluation** 2.1 Assessment and evaluation: need for and importance of Physical Sciences. 2.2 Assessment based on learning outcomes, strategies for continuous assessment, schoolbased assessment, qualitative assessment; formative and summative assessment, formal, informal and 360◦ assessment. 2.3 Performance assessment: assessment of group activities, field observations, recording and reporting, creating platform and portfolio management, assessment of laboratory skills, assignments, projects, and presentations. 2.4 Tools and techniques of assessment and evaluation - 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 criteria for school, assessment, and feedback mechanism in teaching learning the content of Physical Sciences.	10	1		11
3 **(10 Marks)**	**Research and Innovative Practices in Physical Sciences** 3.1 Divergent thinking and innovation in psychological, sociological, and philosophical perspectives for quality learning experiences. 3.2 Recent trends in research related to teaching learning of Physical Sciences. 3.3 Action research: meaning, significance, steps and planning. 3.4 Evidence-based practices and reflection,	8	1	4	13

	school-based research in Physical Sciences.				
	Total	**25**	**3**	**4**	**32**

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum discussion/demonstration
2. Demonstration
3. Discovery approach
4. Project approach
5. Inquiry approach
6. Problem-solving
7. Experiential learning.

Mode of In-semester Assessment:

1. **Two Sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following (10 marks)**

- Prepare, administer, and analyze scores of an achievement test.
- Explore AI based assessment tools and prepare an E-Portfolio for a student of Secondary Stage.
- Conduct Simulated Teaching session for the concepts of Physical Sciences and observation by self, peer, and teacher.
- Explore development of multidisciplinary projects and present using PowerPoint.
- Interpret the concept of Physical Sciences with Psychological, Sociological and Philosophical Perspective.
- Apply innovative practices in classroom teaching learning of Physical Sciences.
- Make a presentation on the role of Physical Sciences in sustainable development of society.
- Plan action research for Continuous Professional Development (CPD) of Physical Sciences teacher.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- explain the significance of acquiring 21st-century skills for Physical Sciences teaching.
- outline the need for and importance of assessment and evaluation in the teaching of Physical Sciences.
- appraise with various assessment strategies for continuous assessment in reference to teaching of Physical Sciences.
- utilize appropriate tools and techniques for assessment and evaluation in teaching learning of Physical Sciences.
- identify recent trends in research related to the teaching and learning and its implications in teaching learning of Physical Sciences.
- prepare unit test item based on TOSS and develop different types of test items.

- construct and administer different type of tests.
- plan offline and online activities for testing higher order thinking skills in teaching learning of Physical Sciences.
- relate ICT integration and elaborate its use in classroom situations.
- identify a problem in the context of Physical Sciences teaching learning and plan action research.

Suggested Readings:

1. Aggrawal, J.C.(2005). Essentials of Examination System. New Delhi: Vikas Publishing House Pvt. Ltd.
2. Anastasi, A. and Urbina, S. (2006), Psychological Testing, Prentice Hall: New Delhi.
3. Bhatnagar, A. B. & Bhatnagar, S. S. (2011) Teaching of Science. Meerut: R. Lal Book Depot
4. Das, R.C. (2009). Science Teaching in Schools. Sterling, New Delhi.
5. Davar. M. (2012). Teaching of Science, PHI Private Limited, New Delhi.
6. Ebel, R.L. (1960). Measuring Educational Achievement , Prentice Hall of India Pvt. Ltd. New Delhi
7. Freeman, F. S. (1962). Theory and Practice of Psychological Testing. Holt, Rinehart and Winston.
8. Ghosh, B.N. (2015). Scientific Method and Social Research, Sterling Publishers Pvt. Ltd. New Delhi.
9. Gupta, S. K. (1985). Teaching of Physical Science in Secondary Schools. New Delhi.
10. Heywood, D., & Parker, J. (2010). The pedagogy of physical science (Vol. 38). Dordrecht: Springer.
11. Joyce, Bruce, Marsha Weil and Emily Calhoun (2008). Models of Teaching. New Delhi:Prentice Hall of India Pvt. Ltd.
12. Kulshreshtha, S.P. (2005). Teaching of science. Meerut: R. Lall Book Depot.
13. Liversidge, T., Cochrane, M., Kerfoot, B., & Thomas, J. (2009). Teaching science: Developing as a reflective secondary teacher. Sage Publications.
14. Mangal, S. K. (1995). Teaching of Physical and Life Science. AVG Book Depot Karol Bagh
15. Mohan, R. (2019). Innovative science teaching for Physical Science teachers. PHI Learning Pvt. Ltd..
16. National Council of Educational Research and Training. (2005). National curriculum framework 2005.
17. National Council of Educational Research and Training. (2006). Position paper: National focus group on teaching of science.
18. National Council of Educational Research and Training. (2013). Pedagogy of Science: Physical Science Part-I.
19. National Council of Educational Research and Training. (2013). Pedagogy of Science: Physical Science Part-II.
20. National Council of Educational Research and Training. (April 2022). Mandate documents Guidelines for the development of National Curriculum Frameworks.
21. National Education Policy 2020, MoE, Government of India.

22. National Steering Committee for National Curriculum Framework, NCERT, (2023). National Curriculum Framework for School Education 2023
23. National Steering Committee for National Curriculum Frameworks, (2023). Draft National Curriculum Framework for School Education.
24. Rajput, S., Singh, A., Pandit, B.L., Tiwari, A.D. and Kumar, S.(2002). Handbook on Paper Setting. New Delhi: NCERT
25. Sharma, R.C. (2010). Modern Science Teaching. New Delhi: Dhanpat Rai Publishing Company (P) Ltd.
26. Sibia A. (2002). Valuing Teacher Questioning. New Delhi: NCERT
27. Siddiqi, N.N., and Siddiqi, M. N. (2005). Teaching of Science: Today and Tomorrow. Delhi: Doaba House.
28. Singh A. (2004). Instructional Objectives of School Subjects. New Delhi: NCERT
29. Singh A.K.(2012). Tests, Measurement and Research Methods in Behavioural Science. Patna: Bharatibhawan.
30. Thorndike, R.L. & Hagen , E.P. (1964). Measurement & Evaluation in Psychology & Education, John Wiley & Sons.
31. Tobin, K. (1993). The Practice of Constructivism in Science Education. Routledge Newyork.
32. Vaidya N (1997), The impact of Science Teaching Oxford & IBH Publication Co, New Delhi
33. Vaidya, N. (1999). Science Teaching for the 21st century. Deep and Deep Publications.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**VI**
Course Title	**:**	**Content cum Pedagogy of Social Sciences-III**
Nature of the Course:		**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned:		**2**
Distribution of Marks:		**End Semester: 30 In Semester: 20**
Distribution of Credits:		**Lecture (25), Tutorial (3), Practical (4)**

About the Course: This course focuses on the need and scope to know how to learn the concepts of Social Science. They will also understand the role of a teacher as facilitator. They will reconcile themselves as per National Professional Standards for Teachers (NPST) and National Mentoring Mission (NMM). The teacher will enable the students to understand the importance of continuous professional development to meet the current challenges. The students will get motivated to participate in professional development activities to develop 21st century skills to deal with various issues. They will also understand action research and will be able to conduct it for the improvement of Social Science practices. They will develop leadership attributes to lead for a good cause keeping in view Indian values and ethos. This course focuses on how to learn Social Science along with psychological, sociological, and philosophical perspective. It also emphasizes innovative practices to enhance effective communication to be a dynamic and innovative Social Science teacher. Therefore, the course highlights the need and significance of continuous professional development of a teacher to meet the current and forthcoming challenges. Assessment serves the dual purpose of tracking the performance of the learners as well as feedback mechanism for effectiveness of teaching. National Education Policy (NEP) 2020 emphasizes on the formative assessment, which is more competency based, promotes learning and holistic development of the students, and tests higher order skills such as analysis, critical thinking and conceptual clarity. It also focuses on assessment based on learning outcomes, strategies for continuous assessment, school-based assessment, formative and summative assessment including 360◦ assessment. This pedagogical course of Social Sciences aims to provide details about the concepts of assessment and evaluation, tools and techniques of assessment in Social Sciences.

Course Objectives: The objectives of the course are to:

- enable the student teachers to understand the 21st Century Skills for learning.
- enable the student teachers to understand the assessment and evaluation in Social Sciences.
- enable the student teachers to apply the innovative practices in Social Science.

Unit and allotted Marks	Course contents	L	T	P	Total Contact Hours
1 (10 Marks)	**21st Century Skills for Learning** 1.1Need for and importance of how to learn 21st century skills for learners and teachers of Social Sciences 1.2 Psychological, sociological, and philosophical perspective of teaching and learning Social Sciences. 1.3 Qualities of a Social Sciences teacher as professional for enhancing teaching learning skills. 1.4 Role of a teacher in facilitating learning and creating dynamic learning environment of Social Science	8	1	2	11

2 (10 Marks)	**Assessment and Evaluation** 2.1 Assessment and evaluation: need for and importance of Social Sciences. 2.2 Development of learning indicators, performance-based assessment, learners' records of observations. 2.3 Strategies for continuous assessment, school-based assessment, formative and summative assessment, formal, informal and 360o assessment. 2.4 Performance assessment: assessment of group activities, field observations, recording and reporting, creating platform and portfolio management, assessment of lab skills, assignments, projects, and presentations. 2.5 Tools and techniques of assessment and evaluation; 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 criteria for school, assessment, and feedback mechanism in teaching learning of Social Sciences	9	1		10
3 (10 Marks)	**Research and Innovative Practices in Teaching Social Sciences** 3.1 Divergent thinking and innovation in psychological, sociological, and philosophical perspectives for quality learning experiences. 3.2 Recent trends in research related to teaching learning of Social Sciences. 3.3 Action research: meaning, significance, steps and planning. 3.4 Evidence-based practices and reflection, school-based research in Social Sciences.	8	1	2	11
	Total	25	3	4	32

Mode of Transaction: The course content transaction will include the following:

1. Lectures with discussion
2. Hands-on activities
3. project approach
4. problem-solving
5. concept mapping
6. collaborative & cooperative approach
7. experiential learning, and toy/art/sports integrated learning.

Mode of In-semester Assessment:

1. **Two Sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**
   - Prepare, administer, and analyze scores of an achievement test.
   - Explore AI based assessment tools and prepare an E-Portfolio of a student of Secondary Stage.
   - Explore development of multidisciplinary projects in Social Sciences and present it using PowerPoint.

- Apply innovative practices in classroom teaching learning of Social Sciences.
- Plan action research for Continuous Professional Development (CPD) of Social Sciences teacher.
- Use new ways of assessment using educational technologies focusing on 21st century skills.
- Organize a field trip and write a detailed report evaluating the learning processes.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- discuss the meaning and need of how to learn the concepts of Social Science,
- identify the role of teacher in facilitating learning for Social Science,
- enumerate the characteristics of innovative practices in teaching-learning process of Social Science,
- plan action research to improve practices of Social Science,
- compare and apply the different types/modes of assessment,
- develop the learning indicators and construct test items to measure learning achievement,
- construct and administer achievement test,
- apply tools and techniques of assessment in teaching learning process.

Suggested Readings

1. Aggarwal J C (2004). ***Teaching of Social Studies***. Vikash Publishing House PVT. LTD, New Delhi.
2. Alen J Hoffman & Thomas F. Ryan (1973) *Social Studies and the Child's Expanding Self: Teaching with a Psycho-Social Approach*. Intext Educational.
3. Association of Teachers of Social Studies in the City of New York (1977). *Handbook for the Teaching of Social Studies*. Allyn and Bacon.
4. Batra P. (2010). *Social Science Learning in Schools: Perspective and Challenges.* Sage India
5. Central Board of Secondary Education, New Delhi. (2010).*Teacher's Manual: Continuous and Comprehensive Evaluation.*
6. Department of Teacher Education, NCERT (2012). *Impact of In-Service Teacher Training on Classroom Transaction*.
7. Department of Teacher Education, NCERT (2013). *National Study on Ten-Year School Curriculum Implementation*.
8. Douglas M P. (1967). *Social Studies: From theory to practice in Elementary education*.
9. Govt. of India.*National Policy on Education, 1968, 1986 and 2020*.
10. Inning Arthur &Bining David (1952) *Teaching of Social Studies in Secondary Schools*. McGraw-Hill.

11. Kochhar S K (2002). *Teaching of Social Studies*. Sterling Publishers Private Ltd, New Delhi.
12. Mangal S.K. & Mangal Uma (2011). *Teaching of Social Studies*. PHI Learning Private Limited, New Delhi.
13. National Council for Teacher Education (2009) *National Curriculum Framework for Teacher Education 2009.*
14. Nawani, D. (2016).*Teaching learning resources for school education.* Sage publication.
15. NCERT (2005). *National Curriculum Framework, 2005.*
16. NCERT (2023).*National Curriculum Framework of School Education, 2023.*
17. NCTE (2009) *National Curriculum Framework for Teacher Education: Towards Preparing Professional and Humane Teachers*.
18. Rajput, S., Singh, A., Pandit, B.L., Tiwari, A.D., and Kumar, S., *Handbook on Paper Setting*. NCERT.
19. Ridhoi, Subekti, Navarro&Hariyono (2021). *Embracing New Perspectives in History, Social Sciences, and Education: Proceedings of the International Conference on History, Social Sciences, and Education.*
20. Ruhela, S .P.*Lesson Plans in Social Sciences*. Neelkamal Publications Pvt. Ltd., Hyderabad
21. Ruhela, S. P.*Teaching of Social Sciences*. Neelkamal Publications Pvt. Ltd., Hyderabad.
22. Saiyidain K.G. (1948) *Education for International Understanding*. Hind Kitabs.
23. Shavade, Nawani, Manjrekar&Paliwal (2022). *Reflections On Educational Practice - Science, Social Science, And Mathematics.*
24. Singh Y. K. (2008). *The Teaching of Social Studies*. APH Publishing Corporation, New Delhi.
25. UNESCO (1981). *UNESCO Handbook for the Teaching of Social Studies*. Edited by Howard D. Mehlinger.
26. UNESCO (1984). *Epistemology of Social Science, the Scientific Status, Values and Institutionalisation*.

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**VI**
Course Title	**:**	**Pedagogy of Computer Science-III**
Nature of the Course	**:**	**Stage-Specific Content-cum-Pedagogy Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (24), Tutorial (3), Practical (6)**

About the Course: This course comprises of three units and a practicum. It lays the foundation of research by focusing on the significance of 21st-century skills in the context of teaching learning of Computer Science. It explores the essential skills that student teachers need to acquire and apply in the ever-evolving technological landscape. The course examines the psychological, sociological, and philosophical perspectives that influence teaching and learning Computer Science. Moreover, it identifies the qualities of a competitive Computer Science teacher, emphasizing their role in enhancing the learning experience. In this course, student teachers will recognize how assessment plays a crucial role in ascertaining learners' understanding and progress. The course will emphasis on fostering innovation and research in the teaching of Computer Science. Student Teachers will explore the concept of divergent thinking and its application in constructing quality learning experiences in teaching and learning of Computer Science. They will also review recent trends and research findings related to teaching and learning in the field of Computer Science. The course will introduce the concept of action research and school-based research to student teachers, and they will explore evidence-based practices and the importance of reflective practices in improving teaching methodologies.

Course Objectives: The objectives of the course are to

1. enable student-teachers to acquire and apply 21st-century skills-including critical thinking, innovation, and digital fluency-in the context of teaching and learning Computer Science.
2. develop an understanding of assessment and evaluation methods suitable for Computer Science education, with a focus on outcome-based, continuous, and performance-based assessment strategies.
3. foster research-oriented and reflective teaching practices by introducing student-teachers to action research, recent trends, and evidence-based innovations in the pedagogy of Computer Science.

Units and allotted Marks	**Course Contents**	**L**	**T**	**P**	**Total Contact Hours**
1 (10 Marks)	**21st Century Skills for Learning:** 1.1 Need for and importance of how to learn 21st century skills for learners and teachers of Computer Science. 1.2 Psychological, sociological and philosophical perspective of teaching and learning Computer Science. 1.3 Qualities of a Computer Science teacher as professional for enhancing teaching learning skills.	8	1	--	09

	1.4 Role of a teacher in facilitating learning and creating dynamic learning environment of Computer Science.				
2 **(10 Marks)**	**Assessment and Evaluation:** 2.1 Assessment and evaluation: need for and importance of Computer Science 2.2 Assessment based on learning outcomes, strategies for continuous assessment, school-based assessment, formative and summative assessment, formal, informal and 360^{o} assessment. 2.3 Performance assessment: assessment of group activities, field observations, recording and reporting, creating platform and portfolio management, assessment of lab skills, assignments, projects and presentations. 2.4 Tools and techniques of assessment and evaluation; 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 criteria for school, assessment, and feedback mechanism in teaching learning of Computer Science.	8	1	2	11
3 **(10 Marks)**	**Research and Innovative Practices in Teaching of Computer Science:** 3.1 Divergent thinking and innovation in psychological, sociological and philosophical perspectives for quality learning experiences in teaching of Computer Science. 3.2 Recent trends in research related to teaching learning of Computer Science. 3.3 Action research: meaning, significance steps and planning. 3.4 Evidence-based practices and reflection, school-based research in Computer Science.	8	1	4	13
	Total	24	3	6	33

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum demonstration method
2. discussion method
3. laboratory method
4. project method
5. inquiry approach
6. problem solving

7. experiential learning approach
8. flipped classrooms
9. mobile apps and interactive methods such as group discussions, peer tutoring, workshops, observations and presentations.

Mode of In-semester Assessment:

1. **Two Sessional Tests (5+5) (10 marks)**
2. **Any one activity of the following: (10 marks)**

- Prepare, administer and analyze the scores of an achievement test.
- Prepare an assessment tool on any one topic at Secondary Stage using E-Resources.
- Take a real-life case study where Computer Science played a vital role in solving problems and analyze its impact in such scenario and present your findings as a report.
- Analyze the ethical dilemmas related to Computer Science, such as data privacy, AI ethics and cyber security concerns. Reflect on the broader societal impact of these issues and prepare a Power Point presentation.
- Apply innovative practices in class room teaching learning of Computer Science and prepare an e-portfolio.
- Plan action research for continuous professional development of Computer Science teacher.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- explain the significance of acquiring 21st-century skills for Computer Science teaching,
- outline the need for and importance of assessment and evaluation in the teaching of Computer Science.
- appraise with various assessment strategies for continuous assessment in reference to teaching of Computer Science,
- utilize appropriate tools and techniques for assessment and evaluation in teaching learning of Computer Science,
- identify recent trends in research related to the teaching and learning and its implications in teaching learning of Computer Science,
- prepare unit test item based on TOSS and develop different types of test items,
- construct and administer different type of tests,
- plan offline and online activities for testing higher order thinking skills in teaching learning of Computer Science,
- relate ICT integration and elaborate its use in classroom situations,
- identify a problem in the context of Computer Science teaching learning and plan action research.

Suggested Readings:

1. Bağcı, H., Koçyiğit, M. (2019). 21st Century Skills and Education. United Kingdom: Cambridge Scholars Publisher.
2. Computer Science Education Research. (2005). (n.p.): CRC Press.

3. Ehtiram Raza Khan, H. A. (2019). *Research methods of computer science*. Laxmi Publications.
4. Kert, S. B. (2024). Effective Computer Science Education in K-12 Classrooms. United States: IGI Global.
5. National Council of Educational Research and Training.(April 2022). Mandate documents Guidelines for the development of National Curriculum Frameworks.
6. National Education Policy 2020, MoE, Government of India
7. National Steering Committee for National Curriculum Frameworks,(2023). Draft National Curriculum Framework for School Education.
8. NCERT (2019). Computer Science: Text book for class XI–XII.
9. NCERT (2019). Information and Communication Technology: A Textbook for Class IX-X.

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

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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**VI**
Course Title	**:**	**Content cum Pedagogy of Physical Education and Yoga-III**
Nature of the Course	**:**	**Stage- Specific content-cum-Pedagogy course**
Total Credits assigned	**:**	**2**
Distribution of Marks	**:**	**End semester : 30 In Semester : 20**
Distribution of Credits	**:**	**Lecture (24), Tutorial (4), Practical (4)**

About the Course: This course comprises three units and a practicum. It focuses on assessment and evaluation. It also focuses on assessment based on learning outcomes, strategies for continuous assessment, school-based assessment, formative and summative assessment including 360◦ assessment. Student teachers are expected to identify various concepts and processes, list learning and behavioral outcomes, find out about various activities and experiments, and identify relevant evaluation techniques and strategies. It focuses on Psychological, Sociological and Philosophical Perspective of Activity Oriented Classrooms in Physical Education and Yoga the importance of planning science learning and teaching in secondary schools. In this course student teachers will learn how to plan different types of activities in online and offline mode. It emphasizes how to integrate and use ICT in classroom of Physical Education and Yoga. Assessment serves the dual purpose of tracking the performance of the learners as well as feedback mechanism for effectiveness of teaching. Today's scenario emphasizes competency-based assessment practices and also tests higher order thinking skills and conceptual clarity. Major reforms in assessment are need of the hour to stay vibrant and effective in the process of teaching learning of Physical Education and Yoga.

Course Objectives: The objectives of the course are to

1. enable the student teachers to explain different types of assessment and strategies for continuous assessment,
2. enable the student teachers to distinguish between assessment and evaluation,
3. enable the student teachers to compare merits and demerits of different types of assessment,
4. enable the student teachers to prepare unit test item based on TOS and develop different type of test items, construct and administer the diagnostic and achievement test,
5. enable the student teachers to plan offline and online activity for testing higher order thinking skills,
6. enable the student teachers to analyze NEP 2020 with special reference to activity-oriented classrooms,
7. enable the student teachers to relate ICT integration and elaborate its use in classroom situations.

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Unit & allotted Marks	Course Content	L	T	P	Total Contact Hours
1 **(10 Marks)**	**21st Century Skills for Learning** 1.1 Need for and importance of how to learn 21st century skills for learners and teachers of Physical Education and Yoga. 1.2 Psychological, sociological and philosophical perspective of teaching and learning Physical Education and Yoga. 1.3 Qualities of a Physical Education and Yoga teacher as professional in enhancing learning. 1.4 Role of a teacher in facilitating learning and creating dynamic learning environment of Physical Education and Yoga.	9	1		10
2 **(10 Marks)**	**Assessment and Evaluation** 2.1 Assessment and evaluation: need for and importance of Physical Education and Yoga. 2.2 Assessment based on learning outcomes, strategies for continuous assessment, school based assessment, qualitative assessment; formative and summative assessment, formal, informal and 360◦assessment. 2.3 Performance assessment: assessment of group activities, field observations, recording and reporting, creating platform and portfolio management, assessment of laboratory skills, assignments, projects, and presentations. 2.4 Tools and techniques of assessment and evaluation - 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 criteria for school, assessment, and feedback mechanism in teaching learning the content of Physical Education and	7	1	4	12

	Yoga.				
3 **(10 Marks)**	**Research and Innovative Practices** 3.1 Divergent thinking and innovation in psychological, sociological, and philosophical perspectives for quality learning experiences. 3.2 Recent trends in research related to teaching learning of Physical Education and Yoga. 3.3 Action research: meaning, significance, steps, and planning. 3.4 Evidence-based practices and reflection, school-based research in Physical Education and Yoga.	8	2		10
	Total	24	4	4	32

Mode of Transaction: The course content transaction will include the following:

1. Lecture cum discussion
2. Demonstration
3. Hands-on activities
4. Experiential learning
5. Art integrated learning
6. Field activities.

Mode of In-Semester Assessment

1. **Two Sessional Tests (5+5) (10 Marks)**
2. **Any one activity of the following: (10 Marks)**
   - Assignments (individual/group): class room seminar presentation/ workshop based on the theoretical contents, practicum
   - Prepare, administer, and analyze scores of an achievement test.
   - Conduct Simulated Teaching session for the concepts of Physical Education and Yoga and observation by self, peer, and teacher.
   - Explore development of multidisciplinary projects and present using Power Point.
   - Interpret the concept of Physical Education and Yoga with Psychological, Sociological and Philosophical Perspective.
   - Apply innovative practices in classroom teaching learning of Physical Education and Yoga.
   - Make a presentation on the role of Physical Education and Yoga in sustainable development of society.
   - Conduct action research for Continuous Professional Development (CPD) of Physical Education and Yoga teacher.
   - Any other assignment assigned by the Course Teacher on the contents of the Course.

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

- appraise different types of assessment and strategies for continuous assessment,
- distinguish between assessment and evaluation,
- compare merits and demerits of different types of assessment,
- prepare unit test item based on TOS and develop different type of test items,
- construct and administer the diagnostic and achievement test,
- plan offline and online activity for testing higher order thinking skills,
- analyze NEP 2020 with special reference to activity-oriented classrooms,
- relate ICT integration and elaborate its use in classroom situations.

Suggestive Reading:

1. Brown, F. Y.(2000). *How to use yoga*. Delhi: Sports Publication.
2. Draft National Curriculum Framework for School Education.
3. Gharote M.L. (2004). Applied Yoga, Kaivalyadhama S.M.Y.M. Samiti, Lonvala.
4. Gharote, M. L. & Ganguly, H. (1988). *Teaching methods for yogic practices*. Lonawala: Kaivalyadham.
5. Iyengar, B K S. (2012). Light on yoga. New Delhi
6. M.M. Gore. (2007).Anatomy and Physiology of Yogic Practices,Motilal Banarsi Dass, New Delhi.
7. MDNIY.(2010). Yoga Teachers Manual for School Teachers
8. Morarji Desai National Institute of Yoga, ―Pranayama‖, New Delhi
9. Morarji Desai National Institute of Yoga, ―Yogasana" , New Delhi
10. Nancy Wile Yoga Education Institute. (2015). Iyengar Yoga.
11. National Council of Educational Research and Training. (April 2022). Mandate documents Guidelines for the development of National Curriculum Frameworks.
12. National Education Policy 2020, MoE, Government of India.
13. National Steering Committee for National Curriculum Frameworks, (2023).
14. NCERT, Health and Physical Education. Textbook for IX-XII class New Delhi.
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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**VI**
Course Title	**:**	**Mathematical and Quantitative Reasoning**
Nature of the Course	**:**	**Ability Enhancement & Value-Added Course**
Total Credit assigned	**:**	**2**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credits	**:**	**Lecture (15), Tutorial (06), Practicum (18)**

About the Course: This course introduces student teachers to the study of basic mathematical and quantitative reasoning for their practical usage. It is designed to provide student teachers with the knowledge and capacities required to analyze, interpret, and communicate quantitative data. Student teachers will learn to think critically about data and use quantitative reasoning to solve real-life problems.

Course Objectives: The objectives of the course are to:

1. enable the student teachers to develop an understanding of mathematical reasoning and its application to real-world problems.
2. enable the student teachers to analyze and interpret quantitative data, and to use mathematical and quantitative reasoning to solve problems.
3. enable the student teachers to develop an understanding of numerical representations, including formulas, graphs, and tables.

Units and allotted Marks	Course Contents	L	T	P	Total Contact Hours
1 (10 Marks)	**Introduction to mathematical and quantitative reasoning** 1.10 Meaning, nature, and scope of mathematical and quantitative reasoning. 1.11 Importance of mathematical and quantitative reasoning in various fields. 1.12 Types of quantitative reasoning. 1.13 Usage of mathematical and quantitative reasoning. 1.14 Concept of Mathematization (**Suggestions for Practicum**: engage in problem-solving activities that promote quantitative reasoning; identify examples of mathematical reasoning in various fields e.g., economics, science etc.: explore different types of quantitative reasoning (e.g., statistical, algebraic); develop mathematical models to solve real-world problems; group discussions on mathematical and quantitative reasoning).	5	2	4	11
2 (10 Marks)	**Introduction to Data in Education** 2.1 Data requirement, different sources of data 2.2 School enrolment: gross enrolment ratios, net enrolment ratios, educational progression: dropout	5	2	4	11

	rate, literacy: measures of literacy 2.3 Indian censuses, details of different items on which Indian censuses collect data. 2.4 Nationwide sample surveys, National family health survey, District level household survey, UDISE (**Suggestions for Practicum:** collect data on school enrollment, dropout rates, or literacy rates; analyze data from different sources (e.g., Indian censuses, UDISE); present data using graphs, charts, or maps; explore UDISE data on school education; group projects on data analysis and visualization; case study on educational indicators in a specific region).				
3 **(10 Marks)**	**Data Analysis & Interpretation** 3.1 Concept of data interpretation (equation, diagram, graph, tables) 3.2 Statistical analysis of data in the educational context and its applications (measures of central tendency, measures of variability, percentiles) 3.3 Visual and numerical representation of data and its application (bar diagram, histogram, and pie charts) 3.4 Learning analytics: concept, significance, types, levels, and its applications in the educational context. **(Suggestions for Practicum: a**nalyze and interpret graphs, charts, and tables; design equation-based problems and interpret results; create visual representations of data (e.g., bar diagrams, histograms); calculate and interpret measures of central tendency (mean, median, mode), variability (range, variance, standard deviation) and percentiles; analyze and interpret pie charts; project on learning analytics in education; using learning analytics to apprise instructional decisions; explore learning analytics tools and platforms).	5	2	10	17
	Total	15	06	18	39

Mode of Transaction: The course content transaction will include the following:

1. Active Learning: The active participation of the 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.
2. Real-World Applications: Using 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.

3. Collaborative learning: Student teachers towork 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.
4. Technology Integration: Incorporating technology-based tools such as calculators, spreadsheets, and interactive software to help student teachers visualize and solve mathematical problems more easily.
5. 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 In-semester Assessment:

1.Two Sessional Tests (5+5) **(10 marks)**
2.Any one activity of the following: **(10 marks)**

- Analyze the last five years of UDISE data on various indicators related to schools, teachers, and students.
- Research and present real-world examples of mathematical and quantitative reasoning in fields such as finance, science, engineering, economics, or medicine.
- Identify and analyze examples of quantitative reasoning in everyday life, such as personal finance, cooking, or shopping.
- Identify a real-world problem (e.g., population growth, resource allocation) and develop a mathematical model to describe and analyze the problem.
- Collect and analyze student performance data (e.g., test scores, grades) and calculate measures of central tendency (mean, median, mode) and variability (range, variance, standard deviation).
- Design and conduct a survey on a topic relevant to education (e.g., student attitudes towards mathematics) and visualize the data using bar diagrams, histograms, or pie charts.
- Any other assignment assigned by the Course Teacher on the contents of the Course.

Learning 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 the operational matrix,
- analyze educational data and create educational models& use them in decision-making,
- analyze and assess mathematical and quantitative reasoning problems and solutions.

Suggested Readings:

1. Bennett, J. O., & Briggs, W. L. (1998). Using and Understanding Mathematics: A Quantitative Reasoning Approach. Pearson Education.
2. District Level Household Survey (DLHS). Ministry of Health and Family Welfare, Government of India.
3. Garrett Henry E. (2005). Statistics in Psychology and Education, Paragon International Publishers.
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5. National Family Health Survey (NFHS). Ministry of Health and Family Welfare, Government of India.
6. NCERT (2012). Pedagogy of Mathematics, New Delhi:NCERT
7. NCERT.(2005) National Curriculum Framework. New Delhi, India: NCERT.
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9. Sidhu, K. S. Teaching of Mathematics,B'lore Sterling Publishers.
10. Unified District Information System for Education (UDISE). Ministry of Education, Government of India.Nationwide Sample Surveys. Various reports published by the National Sample Survey Office (NSSO), Ministry of Statistics and Programme Implementation, Government of India.
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Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Course Code	**:**	
Semester	**:**	**VI**
Course Title	**:**	**School Observation**
Nature of the Course	**:**	**School Experience**
Total Credit Assigned	**:**	**02**
Distribution of Marks	**:**	**End Semester: 30 In Semester: 20**
Distribution of Credit Hours	**:**	**Lecture (08), Practical (44)**

About the Course: As school is the heart of the teacher education programme, the student teachers need to gain hands-on experiences from various activities organized by the school. School observation offers an opportunity to learn the processes and practices in a school setup. To expose the student teachers to various schooling systems (urban, rural, tribal, residential, non-residential, government, private, affiliated to different school boards like Central Board, State Board, International Board) prevailing in the country. School observation will also prepare the student teachers to build relationships with various stakeholders. The school observation by the student teachers is aimed at helping them build perspective in the schooling system, student needs, pedagogies, and assessment.

Course Objectives: The objectives of the course are to

1. acquaint themselves with various schooling systems.
2. experience the processes, practices, and overall environment of the school.
3. establish a rapport with all the stakeholders of the school system.
4. observe the process of conducting different activities in the school.
5. analyse the role of human resources, including members of school management (SMC), school head, teachers, administrative and support staff.
6. observe the existing infrastructure available in the schools (classrooms, libraries, laboratories, playground, sanitation, drinking water facility, mid-day meal facility, inclusive facilities, safety and security, rainwater harvesting).
7. observe and document the availability and usage of TLM, including ICT.
8. study the available physical and digital documents, including UDISE data.
9. study interpersonal relationships among the stakeholders.
10. study various assessment processes adopted in different types of schools for holistic development of children.
11. prepare and present a comprehensive profile of the schools observed (including classroom processes)
12. analyse the role of parents and other community members in school activities.

Syllabus (1st Major – Education- ITEP)
Integrated Teacher Education Programme with Secondary-Stage Specialization
Dibrugarh University, 2025

Units and Allotted Marks	Course Contents/ Activities to be conducted	L	T	P	Total Contact Hours
1	**Preparation for school observation** 1.1. Orientation on the school observation process: Teacher educators will discuss the following contents in workshop mode 1.1.1 Concept of Monitoring, observation and supervision 1.1.2 Difference between monitoring, observation and supervision. 1.1.3 Components of school observation – • Different schooling system (Urban, rural, tribal, residential, non-residential, government, private, affiliated to different school boards like central board, state board, International Board) • School Infrastructure (School Development Plan, classroom infrastructure, library resources, laboratories, sports facilities, drinking water facilities, playground, rain water harvesting, electrification, sanitation, toilet facilities, multipurpose hall, resource rooms etc.) • School Discipline (Morning assembly, maintenance of records, hygienic practices, academic calendar) • Organisation of various activities (Laboratory activities, library activities, games and sports, debate/ elocution/essay writing and other competitions) • Student support services (Guidance and counselling, NCC, NSS, Health and wellness programme, career counselling programmes, school parliament) • Teaching practices (instructional approaches, teaching methods, teaching models, differentiated instructions and teachers' role) • Curriculum transaction process • Assessment, feedback and learning enhancement processes. • School well-being: Social and emotional environment of school. • Community and parental involvement. • School policies and culture (vision, mission, rules and regulations) • Provision for CWSN / Divyang Children • Understanding of different types (socio-economic status, ability) of students and their needs.	8			8
2	**School Observation** Visit to three different types of secondary schools (urban,			36	36

	rural, tribal, residential, non-residential, government, private, affiliated to different school boards like Central Board, State Board, and International Board) in three phasesand collect datawith observation formats developed in the institute. **Phase wise distribution of activities during school observation** **Phase I:** • Collect information about the demography of students in classes IX to XII. • Observe the availability of records, resources, infrastructure, availability and uses of ICT and TLMs. • Study the provisions of support services • Study the available opportunities for learning interdisciplinary subjects. **Phase II:** • Observe school processes and transactions of the curriculum. • Observe classroom teaching learning processes. • Observe assessment and feedback. • Observe the organisation of various activities like laboratory activities, library activities, games and sports, debate/ elocution/essay writing and other competitions. **Phase III:** • Interaction with teachers and students on the following- a. Linkage of the secondary stage with the middle stage and higher education. b. Implementation of ten bag-less days and internship opportunities to learn vocational subjects. • Interact with School heads and subject teachers to understand how students are evaluated by following different tools and techniques of evaluation, how examinations are conducted, how answers are assessed, and how the result is communicated to parents in at least two different types of schools.				
3	**Post-school observation session** 3.1. Analysis of the collected data from the schools and preparation of a comprehensive profile of the schools			**8**	**8**

	observed. 3.2. Individual presentation of the school profile and participation in discussion.				
Total		**8**		**44**	**52**

Mode of Transaction: The course content transaction will include the following:

1. Observation
2. Interaction
3. Discussion
4. Reviewing the available literature on the different schooling system
5. Collection of relevant documents and data

Mode ofAssessment:

In Semester: In Semester will comprise of 20 marks and will be assessed by teacher educators. Assessment will be based on observation of the activities carried out by the student teachers during school observation.

End semester: End Semester will comprise of 30 marks and will be assessed by a board of examinersincluding one external examiner assigned by the university. Assessment will be based on individual presentation and reflection of the student teachers on the comprehensive school profile/ report on school observation.

Distribution of End Semester Marks

Sl. No.	Content	Marks
1	Report	15
2	Presentation	10
3	Viva Voce	05
Total		30

Learning Outcomes: After completion of the course, 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,

- analyse various assessment processes adopted in different types of schools,
- prepare and present a comprehensive profile of the schools observed (including classroom processes).

Suggested Readings:

1. Alka, Kalra (1977) Efficient School Management and Role of Principals, APH Publishing Corporation, New Delhi.

2. Bagley, Classroom Management, New York: Macmillan

3. Buch, T (et al) (1980) Approaches to School Management, Harper & Row Publishers, London.

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9. Khan, M S (1990) Educational Administration, Asia, Publishing House, New Delhi.

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New Delhi, Kamal Publishing House.

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