LEARNING OUTCOME BASED CURRICULUM FRAMEWORK FOR UNDERGRADUATE, GRADUATE AND POST-GRADUATE PROGRAMMES

REGIONAL INSTITUTE OF EDUCATION (NCERT) BHUBANESWAR

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Foreword

Education plays a key role in achieving the objective of becoming a global leader of skilled workforce. This skill and competent workforce can be nurtured if teachers are empowered to facilitate learning where students develop higher order thinking skills, effective communication, collaboration, and other skills that they need in the 21st century. The most important way to promote competent learners embedded with the practice of equity in education is constructing systems which assist teachers in continuing professional learning and improvement of teaching practice. A teacher who facilitates and inspires student learning and creativity, maximizes the potential learning experiences in multiple modalities. Keeping in view the significance of teachers in the education system, the NEP-2020 has underlined the role of teachers along with the desired attributes of teachers for nation-building. In this policy, the teachers have been put at the center of the most needed fundamental reforms in the education system. It also emphasized re-establishing teachers, at all levels, as the most respected and essential members of our society, as they shape the future generation of the country. Now the question arises, who is a good or ideal teacher? What are the desired attributes that an ideal teacher should possess? Who will judge or assess a teacher's acquiring attributes to consider him/her as an ideal teacher? Can we identify some attributes that every teacher is to imbibe? Keeping this queries at the background the Regional Institute of Education, Bhubaneswar (NCERT), visualizes its learner to acquire strong pedagogical knowledge and skills with an extensive exposure to content, pedagogy and skill courses precisely amalgamated with rich teaching-learning experiences in the classroom and outside the classroom using simulated, virtual/blended and real practices and methodologies, while at the same time addressing the academic, socio-cultural, linguistic, regional and contextual diversities of the learners. The teacher education programs of the institute have evolved into the outcome-based approach and hence Program outcomes (POs) and Course learning outcomes (CLOs) encompassed in this document highlight the attributes mentioned above.

Contents

1.1. Introduction

Learning outcomes can also be implemented at the program or institutional level to assess student learning over multiple courses, and to monitor whether students have acquired the necessary knowledge and skills at one stage to be able to move onto the next. Program learning outcomes will include subject-specific skills and generic skills, including transferable global skills and competencies, the achievement of which the students of a specific program of study should be able to demonstrate for the award of the certificate/Diploma/Degree qualification. The program learning outcomes would also focus on knowledge and skills that prepare students for further study, employment, and citizenship. They help ensure comparability of learning levels and academic standards across colleges/institutions.

The achievement by students of course-level learning outcomes leads to the attainment of the program learning outcomes. Course-level learning outcomes will be aligned to program learning outcomes. Course-level learning outcomes are specific to a course of study within a given program of study. At the course level, each course may well have links to some but not all graduate attributes as these are developed through the totality of student learning experiences across the years of their study. A course framework would indicate the linkage between course learning outcomes and each program learning outcome. Individual programs of study will have defined learning outcomes which must be attained for the award of a specific certificate/diploma/degree.

1.2. Mapping of CLOs of B. Ed., M. Ed., B. Sc.- B. Ed. and B. A.-B. Ed. Program with POs

Program Outcomes B. Ed. Program:

The course outcomes (CO) are mapped on the revised Bloom's Taxonomy using the following abbreviations: **R- Remembering, U- Understanding, Ap- Applying, An- Analyzing, E- Evaluating, C- Creating**

Sl. No.	On completing the course, the student	Cognitive level
1.	Elaborates basic concepts, theories and principles of education; psychology, sociology and philosophy of education to apply them in improving the classroom teaching learning practices.	U, An
2.	Apply the knowledge of technology, subject, content and pedagogy using resources like books, library, journals, etc. in designing technology integrated learning experiences.	Ap
3.	Designs lesson plan, concept map, case study, project based learning on methods and techniques following constructivism and carry out action research.	C
4.	Applies skills of listening, reading, writing, management skills and utilizing the same in understanding language diversity and for effective communication in the classroom.	Ap
5.	Creates/ develops different teaching learning resources, e-content and .	U
6.	Describes how interdisciplinary and trans-disciplinary approach functions, understands the logic behind selection of knowledge and develops ability to imply the knowledge for developing a professional attitude.	U, An, Ap
7.	Exhibits skills like identification and understanding of self, leadership, team building and other teaching.	Ap
8.	Establishes and achieves global benchmarks in quality concerns of education system, and having a right mix of global competencies by analyzing and implementing changes in policies and practices. Addresses the issue related to various aspects of education.	An

9.	Identifies and differentiates individual differences, personality, creativity, learning disability, diversity etc. and apply the same in planning curricular activities.	Ap, An
10.	Elaborates the importance of yoga, health and physical education through various curricular and co-curricular activities, clubs etc.	U, Ap
11.	Plans and designs evaluation and assessment strategies using traditional methods and digital tools appropriate for outcomes defined in every course of the curriculum.	Ap, C
12.	Identifies diverse learners and design outcome based remedial lesson plans for teaching.	Ap, C
13.	Develops proficiency in imparting micro teaching and simulation in the skill classes for critically reflecting, observing and preparing a report.	U, Ap
14.	Demonstrates ethical, moral and social values by elaborating issues related to gender, caste, class, religion, environment etc. and develops the ability towards leading a life with mental wellbeing and global citizenship.	U, An, E
15.	Demonstrates critical awareness of professional ethics and the ability to critically engage in reflective practices.	U, An
16.	Discusses the constitutional provisions for education in the context of national development, development of human resources and inclusive development.	U, C

Paper-Wise Mapping of Course Outcome of 2 year B. Ed. Program

Sl. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
CO→ PO ↓	PE-1	PE-2	CPS-1	CPS-2 SS-1	CPS-2 SS-1	CPS-2SS 2	CPS-2 SS 2	EPC-1	EPC-2	EF-1	PE-3	PE-4	PE-5	EPC-3	EF-2	PE-6	EPC-4	EPC-5	EF-3	PE-7	PE-8	PE-9	EPC-6	EPC-7	EPC-8	EF-4	Total
1																											6
2																											5
3																											9
4																											5
5																											8
6																											7
7																											5
8																											6
9																											2
10																											3
11																											8
12																											2
13																											6
14																											5
15																											2
16																											3
Total	3	3	3	5	4	6	6	4	2	3	4	4	2	3	3	2	2	2	4	2	2	3	2	4	2	2	

Program Outcomes M. Ed. Program:

The course outcomes(CO) are mapped on the revised Bloom's Taxonomy using the following abbreviations:

R- Remembering, U- Understanding, Ap- Applying, An- Analyzing, E- Evaluating, C- Creating

Sl. No.	On completing the Program, the student	Cognitive level
1	Analyzes and explains the concepts of teacher education, educational psychology and its organizational structure, institutions and agencies, status of teaching as a profession. Demonstrates self- directed learning.	U, An
2	Applies knowledge of technology, subject, content and pedagogy and history of subject using resources like books, library, journals, etc, in designing technology integrated teacher education.	Ap
3	Enumerated strategies of organizing and supervising school experience programs (SEC) and different regulatory bodies.	C
4	Analyze the present curricula of various stages of school education. Elaborates different educational policies, models and its implementation and administration strategies.	Ap
5	Exhibits competencies in self-development, communication, leadership, team building and management skills to be a professional teacher educator.	Ap
6	Applies knowledge in the aims and objectives of the curriculum and organizes teacher education curriculum and related aspects.	U, Ap
7	Identifies the Indian traditions and ethos of teacher education along with innovative ideas to reform and revamp teacher education in India.	An and Ap
8	Identifies individual differences and creativity, learning diversity, etc. and apply the same in planning curriculum and preserving indigenous knowledge.	Ap, An
9	Uses different statistical methods, techniques, designs and types of research in framing, planning, analyzing, interpreting and concluding research work / dissertation or any other form of writing.	Ap
10	Illustrates the relationship of education with multiculturalism, social stratification, educational equity and social mobility.	U, Ap

11	Demonstrates skills of using practice teaching, peer teaching, teaching-learning practices, methods and techniques in effective curriculum transaction and educational research.	U, Ap
12	Plans and designs evaluation and assessment strategies using traditional methods and digital tools appropriate for outcomes defined in every course of the curriculum.	Ap, C
13	Identifies issues and plans strategies related to teacher education, educational research and curriculum evaluation. Elaborates issues related to intellectual property rights, etc.	Ap, C
14	Analyzes the importance of curriculum development, pedagogy and assessment at different stages of school education.	An, Ap
15	Designs strategies to address gender issues, universalization of education, inclusive education and appreciates Universal Design of Learning, differentiated instruction and provisions in RPwD Act for various disabilities.	An, E
16	Discusses the constitutional provisions for education in the context of national development, development of human resources.	U, C

Paper-wise Mapping of Program Outcome of M. Ed. Program

Sl. No.	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	
CO→ PO↓	PC-1	PC-2	PC-3	PC-4	PC-5	PC-6	TC-1	TC-2	TC-3	TC-4	TC-5	TEC-1	TEC-2	CCS-1	CCS-2	Internship-I	TS-I	TS-II	TS-III	Internship-II	Dissertation	Total
1																						12
2																						3
3																						9
4																						3
5																						5
6																						4
7																						3
8																						6
9																						3
10																						2
11																						4
12																						2
13																						9
14																						4
15																						1
16																						2
Total	3	2	3	1	3	3	2	1	4	4	4	4	3	5	4	5	5	5	3	4	5	

PO of B. Sc. B.Ed. Program:

The course outcomes (CO) are mapped on the revised Bloom's Taxonomy using the following abbreviations:

R- Remembering, U- Understanding, Ap- Applying, An- Analyzing, E- Evaluating, C- Creating

Sl. No.	On completing the Program, the student	Cognitive level
1	Elaborates knowledge and performance competencies in science and mathematics.	U
2	Demonstrates the theories, laws and principles related to the subject domain.	U and Ap
3	Applies self-directed learning, ability to work in a group and ability to think critically, analytically, abstract reasoning, creativity and problem-solving skills.	Ap and C
4	Explains and applies the latest innovation related to the content area and integrates the knowledge into practice.	U and Ap
5	Elaborates the latest innovation in science in different fields like health care, technology, agriculture, etc. for the betterment of society.	U and Ap
6	Describes how interdisciplinary and trans-disciplinary approach functions.	U
7	Explains the logic behind selection of knowledge and develops ability to imply the knowledge for developing a professional attitude.	U and Ap
8	Exhibits critical awareness of professional ethics, code of conduct, social cultural values, human dignity and ability to critically engage in reflective practices.	U
9	Uses laboratory devices and processes effectively and efficiently in planning and execution of experiments related to the subject area.	Ap
10	Applies the knowledge of content aspects of the teaching learning process suitable for science at secondary level of school education.	Ap
11	Demonstrates integration of theoretical and practical knowledge of their respective subject in classroom practice and demonstrates practical skill in practicing schools.	U and Ap
12	Analyzes the issues and complex problems related to the chosen field of study.	An
13	Identifies issues related to natural resources and promotes eco-friendly practices & sustainability.	Ap
14	Prepares low-cost/no-cost materials to demonstrate scientific concepts in classroom teaching.	U, Ap
15	Exhibit Content competency and skills for effective classroom teaching.	U, Ap
16	Plans projects under guidance of faculty members and communicates their findings through seminar/workshop.	U, C
17	Demonstrates scientific temper for the benefits and development of the society.	Ap, C

Paper-wise mapping of Program Outcome of B. Sc. -B. Ed. Program

Sl. No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
CO→ PO↓	GE/CC-1.1/1.2	GE/CC-2.1/2/2	SEC-1/2	GE/CC-3.1/3.2	GE/CC-4.1/4.2	DSE-1.1/1.2	CC-5.1/5.2	CC-6.1/6.2	CC-7.1/7.2	CC-8.1/8.2	CC-9.1/9.2	CC-10.1/10.2	CC-11.1/11.2	CC-12.1/12.2	CC-13.1/13.2	CC-14.1/14.2	DSE-II	Total
1																		4
2																		7
3																		12
4																		6
5																		7
6																		10
7																		5
8																		2
9																		8
10																		9
11																		5
12																		9
13																		5
14																		5
15																		7
16																		6
17																		5
Total	7	6	6	5	5	8	5	5	6	6	5	8	6	7	9	11	8	

POs of B. A. B.Ed. Program

The course outcomes (CO) are mapped on the revised Bloom's Taxonomy using the following abbreviations: **R- Remembering, U- Understanding, Ap- Applying, An- Analyzing, E- Evaluating, C- Creating**

Sl. No.	On completing the course, the student teacher	Cognitive level
1.	Explains and applies the latest benchmark in quality concerns related to content area.	Un and Ap
2.	Applies self-directed learning, critical thinking, abstract reasoning, creativity and problem-solving skills.	Ap
3.	Demonstrates the knowledge of theories and features in Social Science and Humanities	Ap
4.	Elaborates latest innovation and discoveries in Social Science for the growth of society.	R and C
5.	Describes how interdisciplinary and trans-disciplinary approaches function in different disciplines of Social Science.	C
6.	Demonstrates ability to imply the knowledge for developing a positive attitude towards society.	Un and Ap
7.	Exhibits critical awareness of code of conduct, socio-cultural values and ability to critically reflect.	Un
8.	Uses laboratory resources and processes effectively in planning and execution of practical related to the subject area.	Ap
9.	Demonstrates creative thinking to help in understanding the relations between objects and phenomena related to respective subjects in classroom practice.	Un and C
10.	Applies the content knowledge suitable for Social Science in school education.	Ap
11.	Analyzes the complex issues related to paradigm shift in the subject area or chosen field of study.	Ap
12.	Compares and classifies different aspects of the education system in chosen fields of study.	An
13.	Explains the integration and application of science and technology in particular subject domain.	Un and An
14.	Exhibits skills of communication, leadership, team building for leading a life as a responsible citizen.	Un
15.	Demonstrates artistic values, morality and democratic attitude towards life.	Un
16.	Plans investigatory projects under guidance of faculty members and communicates their findings through seminar/workshop.	E and C

Paper-wise mapping of Program Outcome of B. A. -B. Ed. Program

Sl. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
CO→ PO↓	CC-1\ GE-1.1/2.1	CC-2	CC-3/ GE 1.2/2.2	CC-4	CC-5/ GE-1.3/2.3	CC-6	CC-7/ GE-1.4/2.4	CC-8	CC-9	CC-10	CC-11	CC-12	CC-13	CC-14	DSE	SEC	CBCS	AECC-I	AECC-II	AECC-III	Total
1																					12
2																					9
3																					7
4																					5
5																					5
6																					2
7																					4
8																					3
9																					7
10																					2
11																					4
12																					5
13																					4
14																					4
15																					3
16																					6
Total	5	6	5	4	6	4	4	4	4	4	3	2	4	2	3	3	5	4	7	4	

1.3. One Year M. Phil. Program

The M. Phil. program is crucial for a prospective researcher at the pre-doctoral level. The program is designed to build the research capacity of scholars from varied backgrounds and provide a strong orientation in different areas of education.

M.Phil program will include two courses–Core course and Area of Specialization. In addition, all the students will be required to undertake a Dissertation. The course will also include advance seminar in which student will present a paper on any educational theme in research colloquium and clear a viva voce examination.

Blueprint/table of specification of the program

Semester I

Paper	Title	Int. Marks	Ext. Marks	Total Marks
a) Core Courses				
	Theory, Practices and Contemporary Issues in Education	20	80	100
	Advanced Educational Research Methodology	20	80	100
b) Area of Specialization (any one of the following)				
	1. Early Childhood Care and Education (ECCE) 2. Elementary Education 3. Planning and Management of Education 4. Gender Studies 5. Comparative Education 6. Teacher Education 7. Educational Assessment and Evaluation 8. Guidance and Counselling 9. Education of Disadvantaged 10. Education of Differently Abled Children 11. Language Teaching/Learning	20	80	100
c)	**Data Analysis and Management**	50		
d)	**Presentation of Research Proposal**	50		
	Total of Semester I	**160**	**240**	**400**

Semester II

Paper	Title	Int. Marks	Ext. Marks	Total Marks
	Dissertation		200	200
	Advanced Seminar	50		50
	Viva voce		100	100
	ICT Lab work (2 hrs per week)	50		50
	Total of Semester II			**400**
	Total of I and II Semester			**800**

PROGRAM LEARNING OUTCOMES

The students:

- Reflects on the basic parameters within which the system of school education operates in terms of learner, teacher, teaching-learning process, pedagogy, school context, larger societal context, support systems and various connections and interconnections between these parameters.
- Uses different research methods, equipping scholars with relevant tools and techniques, Data collection and analysis by using statistical measures, use of conceptual understanding in practical research work and writing a research report.
- Lists out problems of education and methodology and suggests alternative solutions.
- Demonstrate competency in undertaking leadership in the areas of School Education and Teacher Education.
- Analyzes and creates a rational conceptualization of educational research.
- Demonstrate competency in undertaking independent micro and macro level research projects in the priority areas of school education and teacher education.

COURSE (PAPER)	LEARNING OUTCOMES On completing the course, the student teacher:
Core course: Theory, Practices and Contemporary Issues in Education	● Elaborates the nature of education as an area of study with interdisciplinary knowledge base; ● Explains the emerging nature of educational theories by making linkages between the theoretical understanding and practices and/or field experiences; ● Identifies and reflects on the basic parameters of school education (i.e., the learner, the teacher, the teaching-learning process, pedagogy, the school context, the larger societal context, the support systems and various connections and interconnections between these parameter) ● Points out contemporary issues in education and finds its solution. ● Explains the principles of curriculum construction, approach to curriculum construction and transaction of curriculum and emerging practices of evaluation process.
Core course- II Advanced Educational Research Methodology	● Explains the nature of science, different approach to educational research. ● Demonstrates objectivity and ethical concerns in educational research. ● Distinguishes different approaches to Research: Qualitative (Positivism, Phenomenology, empiricism, Ethnography, Symbolic Interactionism) and Quantitative (Experimental, Descriptive, Survey). ● Identifies and selects suitable research problems, provides justification, applies various methods and techniques of Educational research.

	● Uses different tools and techniques for data collection and applies various methods of sampling. ● Uses statistical methods for analysis of research data. ● Applies various qualitative data analysis techniques. ● Critical analysis of the scope, merits and limitations of various approaches of research in Elementary Education. ● Prepares research proposals and reviews research papers and research reports.
Area of Specialization AS1. Early Childhood Care and Education (ECCE)	● Explains the need and importance of early childhood care and education. ● Elaborates different aspects of child growth and development. ● Makes use of child care and child rearing practices. ● Demonstrates different models of ECCE discusses various issues and concerns of ECCE. ● Examines pre-schooling facilities in India and points out the importance of pre-school for accelerating school readiness. ● Analyzes various teaching- learning strategies used in preparing teachers for ECCE.
AS2.Elementary Education	● States the vision and mission of Elementary Education in the country. ● Develops methods for enhancing learner's achievement. ● Examines the innovative approaches of elementary education. ● Discusses issues related with elementary education ● Critically analyzes quality dimensions of elementary education. ● Examines the existing reports to develop concerns of elementary education. ● Reflects on various issues related with elementary education.
AS3. Planning and Management of Education	● Elaborates the planning and management of education in general and school stage in particular. ● Illustrates the perspective of School education, issues, strategies and normative policy aspect related to state effort in enhancing the human resource development as vital subsystem to economic development through provision of schooling

	● Analyzes critically process of micro –planning and management technique relevant to school education ● Demonstrates skills to undertake educational planning exercise in the form of action research at micro-level relevant to present issues in school education.
AS4. Gender Studies	● Analyzes the critical status of women in society. ● Identifies norms of patriarchy and gender roles across culture and communities. ● Plans methods and strategies to bridging gender gaps in education and women empowerment. ● Organizes a gender inclusive teaching learning environment. ● Analyzes gender issues in girls' education and empowerment. ● Constructs awareness of legislative measures in favour of women.
AS5. Comparative Education	● Compares global, national, regional and local issues of education. ● Examines the theories and methods applied in the field of comparative education. ● Lists the importance of intra and inter educational analysis of problems and issues in education ● Discusses critically the issues related to education in comparative perspectives within and across countries. ● Compare the scenario of the national system of education, educational structure and system of evaluation at different levels of school education in India, UK, USA and Third World Countries.
AS6. Teacher Education	● Builds policy perspectives of teacher education. ● Develops professional growth and development of teachers through different means. ● Identifies the current strategies being followed for the professional development of teachers. ● Uses different modes of INSET- traditional and technology based ICT. ● Applies the pedagogies relevant for adult education practices. ● Illustrates short term and long term training courses offered by the state and national level bodies.

	● Discusses innovations and Research on Teacher Education and prepares a write up upon it.
AS7. Educational Assessment and Evaluation	● Determines the nature and philosophy of assessment and evaluation. ● Analyses the significance of assessment in the teaching learning process. ● Explains various models, approaches and theories of educational measurement and assessment. ● Executes basic skills and competencies in the use of various types of evaluation and assessment tools and techniques, their administration, analysis, interpretation, reporting and feedback. ● Uses suitable measurement theory and evolves appropriate assessment and evaluation strategies in evaluation studies. ● Compares issues related to educational evaluation and assessment.
AS8. Guidance and Counseling	● Lists the importance & scope of Guidance and Counseling. ● Applies various techniques and procedures of counseling. ● Critically analyzes career development theories and its application in school situations. ● Identifies the importance of occupational information and plan activities in the content of school. ● Points out the need for research in guidance and counseling. ● Undertakes small research projects and conducts evaluation of school guidance programs.
AS9. Education of Disadvantaged	● Classifies the advantaged and disadvantaged groups and identifies their needs. ● Discusses the learning difficulties of disadvantaged learners and organizes inclusive classrooms. ● Lists recommendation of various Commissions and Committees on Education of Children from Disadvantaged Group in India. ● Compares teaching strategies and multilingualism in education of disadvantaged. ● Reviews research reports in Education of Disadvantaged
AS10. Education of Differently Abled Children	● Critically discusses the perspectives of special education. ● Critically analyzes the various issues related to practice of the education of the differently abled.

	● Develops strategies to help Students with Underachievement. ● Builds positive significance of affective sensitivity towards all students with exceptionalities. ● Illustrates the importance of effective training to students with giftedness.
AS11. Language Teaching/Learning	● Summarizes the fundamental theoretical concepts and issues relevant to language learning/teaching in the classroom. ● Examines various factors affecting language learning. ● Discusses Multi-Lingualism, Bilingualism and Language Policy and Language Planning. ● Executes theories and teaching of language skills. ● Develops the nature and scope of research in the area of language learning and teaching

1.4. Two Year M.Ed. Program

Program Outcomes for 2-year M.Ed. Program:

The 2-year M.Ed. program aims at preparing the prospective teacher educators to:

- Demonstrate self-directed learning.
- Illustrate various philosophies and their role in the present context of education.
- Inculcate entrepreneurship skills and self- development.
- Describe social structure, multiculturalism, socialization, social and educational equity.
- Apply innovative ideas to reform and revamp teacher education in India.
- Organize and involve with the various activities and system of teacher education.
- Conduct research using different research methods.
- Design and develop with relevant data collection tools and techniques.
- Analyze qualitative and quantitative data by using statistical measures, use of conceptual understanding in practical research work and writing a research report.
- Use suitable learner-centered teaching methods.
- Describe paradigm shift in conceptualizing disciplinary knowledge in school curriculum, necessary competencies for organizing learning experiences.
- Select and use appropriate assessment strategies for facilitating learning.
- Apply pedagogical skills in dealing with classroom problem

Two Year M.Ed. – Semester wise paper and distribution of marks

Semester-I	Cr	Ext	Int	Semester-II	Cr	Ext	Int	Semester-III	Cr	Ext	Int	Semester-IV	Cr	Ext	Int
18				**22**				**22**				**18**			
PC1-Introduction to Educational Studies	4	70	30	PC4-PhilosophyofEducation	4	70	30	TC4- Advanced Research Method in Education	4	70	30	TS-Thematic Specialization –Paper I*	4	70	30
PC2-Psychology of Learning and Development	4	70	30	TC3- Research Methods in Education(Preliminary)	4	70	30	PC5-Sociology of Education	4	70	30	TS-Thematic Specialization – Paper II	4	70	30
PC 3-History and Political Economy	4	70	30	TEC 2-TeacherEducationII	4	70	30	PC6-Curriculum Studies	4	70	30	TS-Thematic Specialization –Paper III	4	70	30
												CBCS**	4	70	30
TEC1-TeacherEducationI	4	70	30	CCS1-Elementary / Secondary Education– I	4	70	30	CCS2-Elementary/Secondary Education–II	4	70	30	TC-5Academicwriting	2		50
TC1-Self-Development	1		25	TE-Internship in Teacher Education Institution	4		100	TS–Internship in Theme specialization	4		100	Dissertation	4	50	50
TC2-CommunicationandExpositoryWriting	1		25	Dissertation	2		50	Dissertation	2		50				
Credits/Marks	18	280	170		22	280	270		22	280	270		18	310	140
Total Marks		450				550				550				450	
Total Credit -80 TotalMarks-2000															

Choice Based Credit Courses will be offered in the thematic specialization areas as intra departmental credit accumulation. Each course will be of four credit weight-age with four contact hours per week. External and internal marks will be allotted on par with other papers of 4 credits. Courses from M.Sc. Ed. will also be offered for inter/intradepartmental credit transfer within the institution.

*Students have to choose any one of the theme specialization asspecifiedaspage-6

**Paper-I of the thematic specialization will be taken as free elective for CBCS

SEMESTERWISE COURSE OUTCOMES OF 2 - YEAR M. Ed.

Course/Paper	Learning outcomes
	SEMESTER- I
On completing the course, the student teacher:	
PC1-Introduction to Education Studies (5 Units)	● Describes the concept of education in the present context. ● Assesses dualities involved in educational practices. ● Explains education as disciplinary knowledge. ● Supports the educational ideas and systems of various thinkers and develops the ability to theorize educational practices. ● Interprets the changing meaning, purpose and nature of education. ● Contextualizes the education process in different situations.
PC2-Psychology of Learning and Development (5 Units)	● Describes the concept of growth and development. ● Applies appropriate approaches in different theoretical perspectives. ● Identifies the causes of individual differences among learners. ● Prepares framework for teaching-learning situations. ● Uses the strategies for management of learning.
PC 3-History and Political Economy (5 Units)	● Probes into history of schooling. ● Describes the origin and nature of schooling in different times. ● Elaborates education from a political economy perspective. ● Discusses the issue of Intellectual Property Rights. ● Points out the relationship between education and political economy. ● Describes the strategies to develop consciousness and sensitivities among learners towards preservation of indigenous knowledge.
TEC1-Teacher Education I (5 Units)	● Narrates the growth and the development of teacher education in the country. ● Elaborates the concept and the status of teaching as a profession. ● Describes the role of various regulatory bodies and support institutions for improving quality teacher education in the country. ● Enumerates the strategies of organizing and supervising school experience programs (SEP). ● Explains the methods of preparing a teacher as a reflective practitioner.
TC1-Self-Development (Theme 6)	● Demonstrates the skills for developing self and own professionalism in classroom context. ● Doesn't show gender biases while teaching in the class. ● Shows independent, critical and creative thinking, decision making, problem solving, goal setting etc. skills. ● Shows responsibility towards conservation, protection and nurturing plants towards animal life. ● Demonstrates professional skills, and effective communication to the students. ● Uses teamwork with colleagues, parents and learners for holistic development of the learners.

	• Performs its own role for physical, mental and spiritual health.
TC2- Communication and Expository Writing	• Uses of listening skill • View things in the right perspective. • Exhibits fluent reading. • Speaks effectively. • Demonstrates effective communication skills.
SEMESTER-II	
PC4: Philosophy of Education (5 Units)	• Describes the purpose of philosophy in education. • Lists out the relationship between philosophy and education. • Identifies processes and sources of knowledge in different subject knowledge. • Describes the normative nature of education. • Uses tools to analyze emerging concerns in education.
TC3: Research Methods in Education (Preliminary) (5 Units)	• Explains the concept, characteristics, types and perspectives of educational research. • Utilizes the literature for educational research. • Identifies and formulates suitable research problems. • Differentiates and selects appropriate methods of research • Computes the different measures of descriptive statistics. • Identifies the issues related to sampling techniques, data organization.
TEC2: Teacher Education II Perspectives, Research and Issues in Teacher Education (5 Units)	• Identifies factors influencing teacher development. • Narrates different approaches to teacher developments. • List out the organizations and agencies involved in teacher education. • Highlights the different existing programs and practices for the preparation of teachers of different disciplines.
CCS 1-Elementary / Secondary Education – I **Specialization Core Course** Elementary Education -1 **(Unit V)**	• Describes philosophical, sociological and psychological perspective on Elementary Education. • Elaborates the status of Elementary Education in India. • Examines the policies of Elementary Education in India. • Performs the importance of curriculum development, pedagogy and assessment at Elementary Education. • Analyzes organizational structure of Elementary Education and role of various organizations, institutions and agencies in Elementary Education • Suggest the Program and implementation strategies to achieve universalization of elementary education. • Analyzes the importance of curriculum development, pedagogy and assessment at Elementary Education. • Analyzes various Elementary Education curriculum in the country. • Argues in favor of vitality of inclusive education at elementary stage.

CCS 1-Elementary / Secondary Education – I Specialization Core Course Secondary Education -1	● Describes philosophical, sociological and psychological perspectives on secondary education. ● Examines policies related to secondary education in Indian context. ● Analyzes organizational structure and functions of institutions in administration and management of secondary education at various levels. ● Suggest the Program and implementation strategies to achieve universalization of secondary education. ● Argues in favor of vitality of inclusive education at secondary stage. ● Analyzes various secondary education curricula in India.
TE- Internship in Teacher Education Institution	● Organizes pre-service teacher education curriculum and other related aspects. ● Exhibits competencies and skills required for organization of internship and working with community. ● Demonstrates professional attitudes, values and interests needed to function as a teacher educator.
SEMESTER-III	
TC4- Advanced Research Method in Education	● Tests hypotheses by using different statistical techniques. ● Analyzes quantitative data of educational research based on types of measurement. ● Analyzes and interprets the qualitative data in educational research. ● Triangulates quantitative and qualitative data. ● Uses different software for data analysis. ● Analyzes and identifies the role of quantitative, qualitative and triangular approaches in educational research. ● Identifies issues of data collection and their treatment. ● Prepares research report, research abstract the research paper.
PC5-Sociology of Education	● Analyzes, interprets and synthesizes various concepts and sociological principles related to educational phenomena. ● Explains educational institutions as an agency of socialization. ● Applies the knowledge of sociology in the analysis of the present-day educational system. ● Analyzes the relationship of education with culture, social stratification and social mobility. ● Relates the educational issues to educational systems and practices. ● Analyzes education from different sociological perspectives and theoretical frameworks. ● Reviews the seminal works in the Sociology of Education.
PC6- Curriculum Studies	● Explains and compares various types of curriculums in India. ● Explains the epistemological, sociological and the psychological bases of curriculum development. ● Narrates various approaches and models of curriculum development. ● Describes the meaning and various methods/media for curriculum Transaction.

	• Describes various guiding principles for selection and organization of learning experiences. • Defines the process of curriculum evaluation. • Describes issues in curriculum evaluation.
CCS 2-Elementary / Secondary Education – II Specialization Core Course Elementary Education -II	• Analyzes the organizational structure of Elementary Education. • Roles of various organizations, institutions and agencies in Elementary Education. • Enumerates the functioning of various support services at Elementary Level. • States the various issues and challenges in elementary education. • Justifies the significance of EMIS and Research in bringing positive changes in elementary education.
CCS 2-Elementary / Secondary Education – II Specialization Core Course Secondary Education -II	• Analyses the role of various organizations, institutions and agencies in Secondary Education. • Establishes the transition from elementary education to secondary education. • Explains the functioning of various student support services at Secondary Level. • Supports the significance of vocational education at secondary level. • Points out issues and challenges in secondary education. • Justifies the significance of Research in bringing positive changes in secondary education.
TS – Internship in Theme Specialization Curriculum, Pedagogy and Assessment	• Prepares curriculum at elementary/secondary stage in a state. • Analyzes various activities and processes of an institution/agency working on textbook preparation conducting examination at the state level. • Demonstrates activities, competencies and skills required for effective transaction of curriculum and organization. • Prepares an assessment tool for the learners.
Educational Technology and ICT	• Analyses e-learning content and courses through experiential learning. • Analyses the e-content development process in an institutional set up. • Plans, designs and develops e-content at school or teacher education level using design principles and FOSS tools • Uses e-learning materials to school students or teacher trainees and assesses its impact and report.
Internship in Inclusive education	• Shows positive attitudes, values and interests needed to function as an inclusive teacher educator. • Demonstrates competencies and skills required for effective implementation of Inclusive education. • Collects and organizes curriculum materials and resources needed for inclusive education. • Identifies the issues and problems related to inclusive education. • Conducts various activities for inclusive education, in order to gain an insight into the multiple roles of a teacher educator.

SEMESTER-IV	
Thematic Specialization –1 **Educational Management, Administration and Leadership** **TS paper- 1: Educational Administration and Management**	● Explains the role of different agencies in educational administration and management. ● Identifies different sub-structures operating within the educational system and their interrelationships. ● Examines the present administrative/managerial practices and the issues related to India. ● Outlines challenges and opportunities emerging in the management. ● Uses the concept of management in areas of the educational system.
Educational Management, Administration and Leadership **TS2: Educational Planning**	● Describes the teacher-educators with the concepts, nature, principles, procedures and approaches of Educational Planning. ● Demonstrates skills in planning and using a variety of administrative strategies. ● Explains macro-planning and micro-planning and management techniques. ● Narrates the role and contribution of different agencies in educational planning.
Educational Management, Administration and Leadership **TS3: Educational Leadership and Supervision**	● Describes the teacher-educators with the critical knowledge of the leader's skill, task and the role for classroom management. ● Explains the role of the leader in the professional growth of the personnel. ● Demonstrates the skill of evaluation and appraisal of educational institutions.
Thematic Specialization - 2:**Curriculum Pedagogy and Assessment** **TS paper- 1: Curriculum Theory, Planning and Development**	● Describes the meaning, nature, types and characteristics of various approaches of curriculum. ● Identifies the factors affecting curriculum planning. ● Explains the role of different state and national level agencies in curriculum planning and development. ● Compare the school curriculum of different countries and states ● Prepares outlines of curriculum with reference to its major elements. ● Designs a Curriculum Frameworks for school education in reference to NEP-2020.
Curriculum Pedagogy and Assessment **TS2: Learning and Pedagogy of School Subjects**	● Explains the meaning, nature and interrelationships among learning, knowledge and pedagogy. ● Describes the meaning, characteristics and use of various pedagogical approaches. ● Uses the popular models of teaching in designing and transacting lessons. ● Prepares lesson plans on their subjects using ICON design and 5E models.

	● Prepares lesson plans on their subjects integrating pedagogy, technology and contents. ● Prepares unit plans on their subjects.
Curriculum Pedagogy and Assessment **TS3: Assessment in Education**	● Differentiates the meaning of test, examination, measurement, assessment and evaluation. ● States the importance of assessment in student learning. ● Differentiates between formative and summative assessment. ● Uses Interpretation Construction (ICON) Design model and 5-E model in teaching learning process. ● Differentiates between the ideas behind assessment of learning, assessment for learning, and assessment as learning. ● Selects and uses appropriate tools and techniques in assessment of student learning. ● States the pros and cons of different processes/systems of assessment followed in schools, i.e., Annual system, Semester system, Grading, Credit system; and school-based assessment. ● Uses locally available materials/ resources in contextualizing teaching learning processes. ● Uses various alternative assessment techniques such as Portfolio, Rubrics, Reflective diary, self-evaluation, peer evaluation. ● Assesses learning of children with Special Needs (CWSN) using alternative techniques.
Thematic Specialization - 3:**Educational Technology and ICT** **TS paper- 1: Foundations of Educational Technology**	● Differentiates various terminologies associated with educational technology. ● Maps the timeline of emergence and evolution of various educational media. ● Explains various approaches to educational technology. ● Describes the integration of technology for pedagogy, assessment, administration and Continuing Professional Development (CPD). ● Applies principles and practices associated with technology enhanced learning in classroom situations. ● Assesses various problems and issues related to information and communication technologies and its integration in education.
Educational Technology and ICT **TS2: E-Content: Design and Development**	● Explains the relationships between learning theories and digital technologies. ● Identifies the salient features of different instructional design models. ● Plants and presentations of e-content on a specific topic for digital learning. ● Uses different online and offline tools for creating e-content. ● Analyzes learning situations and identifies associated technology-related design challenges.

Educational Technology and ICT **TS-3** **E-Learning**	● Explains the elements of technology leadership in providing technology supported learning environments. ● Uses e-learning from OERs while designing e-learning. ● Analyzes a comprehensive range of approaches to e-Learning in detail. ● Evaluates critically the practices associated with e-Learning ● Relates e-Learning systematically to a range of broader issues in both pedagogy and formal education. ● Collaborates, communicates and have dialogue in digital learning environment ● Designs the quality of e-Learning programs.
Thematic Specialization -4: **Inclusive Education** **TS paper- 1: Understanding Inclusive Education**	● Explains the concept, different perspectives and meaning of Inclusive Education. ● Incorporates the key legislations and policies for inclusive education. ● Develops critical understanding of the recommendations of various commissions, policies, schemes and committees on inclusive education, ● Prepares conducive teaching learning environment in inclusive schools in the Indian context. ● Prepares a status report on school education of learners with diverse needs. ● Evaluates the text books from the perspective of learners with diverse needs. ● Prepares a comprehensive report of a visit to a special/inclusive classroom. ● Prepares a lesson plan for a classroom with diverse learners.
Inclusive Education **TS paper-2: Addressing the diverse needs in Inclusive setting**	● Enumerates an understanding of the educational needs of children from the socially disadvantaged background. ● Evaluates the needs and magnitude of the challenges faced by learners with disabilities. ● Prepares reports related to education of children with diverse needs in regards to Indian context. ● Analyses the policy documents (National and International) related to diversity. ● Uses of different study aids and equipment for diverse students' learning.
Inclusive Education **TS paper-3:** **Concerns, Challenges, and Issues in Inclusive Education**	● States the concerns, challenges and issues in implementation of IE in Indian schools. ● Appreciates the role of teachers in inclusive practices. ● Uses of resources for sustaining inclusive practices. ● Analyses action research activities of schools in the present context. ● Uses of various research methods and tools in IE in order to explore these issues further.

TC-5: **Academic writing**	● Writes academic documents in different styles. ● Prepares professional documents and academic reports. ● Enjoy reading journal articles. ● Engages in creative writing.

1.5. Two Year B.Ed. Program

PROGRAM OUTCOMES:

The 2-year B.Ed. program aims at preparing the prospective teachers to:

- Apply knowledge and competencies of content and pedagogy to set goals and objectives for learning based on the set standard of a professional teacher.
- Create a learning environment which integrates theory and practice.
- Draw out latent talents and creativity through varied curricular and co- curricular programs.
- Use effective and appropriate, verbal and non-verbal, written and media communication, techniques in the teaching, professional collaboration and interaction with stakeholders
- Demonstrate the understanding of intellectual/ cognitive, social and emotional development and other characteristics of the diversity of learners and implement it in the classroom procedure, behavior management and organization of the learning environment.
- Demonstrate critical awareness of professional ethics and an ability to engage in reflective practices.
- Apply the meaningful learning experiences to seek better employment and generate resources for the economy.

- Engage in the process of self-directed learning through the use of innovative practices.
- Engage in culturally responsive teaching practices to nurture diverse learners.
- Demonstrate their commitment to continuous self improvement by engaging in professional learning, collaborative practices and contribute to renewal of the teaching profession.

Two Year B.Ed. Semester wise paper and distribution of marks

Semester-I	Cr	Ext.	Int.	Semester-II	Cr	Ext	Int.	Semester-III	Cr	Ext	Int.	Semester-IV	Cr	Ext.	Int.
PE1- Basics in Education	4	70	30	PE3- LearningandTeaching	4	70	30	PE 6-Knowledge and Curriculum	4	70	30	PE7- Schooling, Socialization and Identity	4	70	30
PE2-Childhood and Growing Up	4	70	30	PE 4- AssessingLearning	4	70	30	EPC4-Art in Education	2		50	PE8-Vision of Indian Education	4	70	30
CPS1- Language across the Curriculum	2		50	PE5- Creating an Inclusive Classroom	2	35	15	EPC5- Library resources	2		50	PE9-Educational Planning, Management and Leadership**	4	70	30
CPS2- Pedagogy of School Subject-1 – Part I : Language(Odia/Hindi/ Bengali/English); Mathematics; Biological Science	4	70	30	CPS2- Pedagogy of School Subject-1–Part II: Language (Odia/Hindi/ Bengali/ English); Mathematics; Biological Science	4	70	30	EF3-Internship	10		250	EPC6- Understanding the Self	2		50
CPS3- Pedagogy of School Subject-2 –Part I: Social Science; Physical Science	4	70	30	CPS3- Pedagogy of School Subject-2-Part-II: Social Science; Physical Science	4	70	30					EPC7- Health, Yoga and Physical Education	2		50
EPC1- Learning to Function as a Teacher	2		50	EPC3-Reading and Reflecting on Texts	2		50					EPC8- ICT Practicum	2		50
EPC2-Understanding ICT and Its Application	2		50	EF2-School Exposure (Multicultural Placement)	2		50					EF4-Working with Community	2*		Grade
EF-1 School Exposure	2*		Grade												
Credits/Marks	22 + 2*	280	270		22	315	235		18	70	380		18 + 2*	210	240
Total Marks		550+Grade				550				450				450+Grade	
Total Credit – 80 +4*				**TotalMarks-2000+Grade**											

Choice Based Credit Courses will be offered in the area of Educational planning, management and leadership as intra departmental credit accumulation. Each course will be of four credit weight-age with five contact hours per week. External and internal marks will be allotted on par with other papers of 4 credits. Courses of B.Sc**.** B**.**Ed &B.A.B.Ed. will also be offered for inter /intra departmental credit transfer within the institution.*non numerical credits**Course offered as CBCS.

SEMESTER-WISE COURSE LEARNING OUTCOMES.

COURSE (PAPER)	LEARNING OUTCOMES
SEMESTER I	
On completing the course, the student teacher:	
PE-1 (Perspectives in Education) **PE-1: Basic in Education**	● Analyses and explains the basic educational concepts, contexts as well as meaning, nature and process of education. ● Elaborates the philosophical, psychological and sociological foundation and the process of education. ● Analyses the Educational thoughts of prominent educational thinkers and reflect on their relevance in the present educational context ● Discusses the constitutional provisions for education in the context of national development, development of human resources and inclusive development. ● Analyses the role of education as a sub -system of the social system and its role in social change and modernization.
PE-2: Childhood and Growing Up (CGU)	● Explains the process of growth and development and factors influencing development and individual differences. ● Uses socio-cultural, psychological and educational theories in Indian context. ● Analyses and interprets the nature of memory, transfer of learning, motivation and creativity in the process of development of a child. ● Creates opportunities to surmount childhood and adolescent problems.
Curriculum and Pedagogic studies (CPS) **CPS-1: Language across the curriculum**	● Interprets the language background of students in the context of regional varieties, standard languages and multilingualism. ● Uses language appropriately in the classroom context. ● Demonstrates better communication skills. ● Uses different strategies and approaches for language and curriculum transactions in the classroom.
CPS-2: Pedagogy of School subject: 1 Language (Odia/ Hindi/Bengali/English); PART-1	● Explains the role of language in various subjects. ● Organizes activities using audio-video material, ICT and internet. ● Plans the process of language assessment. ● Uses language of the context such as grammar and vocabulary. ● Identifies methods, approaches and material for teaching English at various levels in the Indian context.
CPS-2: Pedagogy of School subject: 1 Mathematical Science PART-1	● States the nature of mathematics and scope and values of mathematics in the school curriculum. ● Specifies the objectives of teaching and learning mathematics at the secondary and higher secondary levels of school education. ● Develops long term and short term plans for conducting continuous and comprehensive assessment of and for students learning mathematics at the school stage. ● Elaborates and uses different approaches and methods of teaching and learning mathematics.

CPS-2: Pedagogy of School subject: 1 Biological Science PART-1	● States the nature of biological science and facilitates inculcation of scientific attitude among the learners. ● Organizes activities using the immediate natural surrounding and everyday experiences in developing the concept of biological sciences. ● Utilizes biological science as a dynamic and expanding body of knowledge. ● Designs inquiry episodes, problem solving situations and investigatory projects based on the curriculum. ● Determines strategies and applies different approaches in teaching and learning biology.
CPS-3: Pedagogy of School subject-2, Social Science PART-1	● States the nature of social science both of individual discipline and as an integrated/ interdisciplinary area of study. ● Identifies, prepares and collects different teaching-learning resource materials and uses in the classroom. ● Examines the prevailing pedagogical practices in classrooms while facilitating learning of social sciences. ● Develops lesson plans by integrating it with life, nature, mathematics, science and technology for effective teaching-learning in social sciences. ● States the concepts of History, Geography, Political sciences and Economics included in the secondary curriculum and make pedagogical analysis of these concepts.
CPS-3: Pedagogy of School subject-2, Physical Science PART-1	● Explains the meaning and nature of physical science. ● Determines the aims and objectives of learning physical science. ● Analyzes the process of science and demonstrates the appropriate use of laboratories in teaching- learning situations. ● Applies and uses various approaches of teaching-learning of physical science. ● Develops different learning resources and materials in learning different units in Physical Science.
EPC (Enhancing Professional capacity) EPC-1: Learning to Function as a Teacher	● Creates lesson plans. ● Engages students in various activities as per the emerging demands in the classroom. ● Develops self-confidence and skills to engage learners and meet their diverse needs.
EPC-2: Understanding ICT and its application	● Elaborates the historical development of various educational media. ● Demonstrates understanding the main components of the computer hardware in use. ● Uses various digital technologies (hardware and software) for creating resources for all types of learners (including differently abled). ● Uses various ICT for creating project based/problem based constructivist learning environments. ● Critically analyzes social, economic, and ethical issues associated with the use of ICT.

EF (Engagement with the Field) **EF 1: School Exposure**	● Demonstrates the experiences of school activities in totality. ● Compiles the functioning of school and its relation with the neighborhood. ● Develops the insight into the role of a teacher and a student.
SEMESTER- II	
PE 3: Learning and Teaching	● Identifies the differential learning needs of the learners. ● Distinguishes learning as transmission and reception vs. learning as construction. ● Elaborates theoretical perspectives of learning including the constructivist perspective. ● Explains nature and strategies of meaningful and concept learning, role of multiple intelligence. ● Develops professional competencies of a teacher.
PE 4-Assessing Learning	● Elaborates nature, purpose and types of educational assessment and evaluation. ● Constructs different types of tools and techniques for continuous and comprehensive assessment of learning in the school situation. ● Explains the importance of assessment for learning and its process for enhancing the quality of learning teaching. ● Analyses the trends and issues in learning and learner assessment. ● Analyses and interprets results of the assessment using elementary statistical methods.
PE-5 Creating an Inclusive School	● States Policy and legislative frameworks promoting inclusion. ● Elaborates the elements of diversity for Inclusive Education due to disabilities and socio-cultural and economic factors. ● States the linkages and collaborations for addressing diversities in inclusive set-up.
CPS-2: Pedagogy of School subject: 1 Language (Odia/ Hindi/Bengali/English); PART-2	● Explains the role of language in various subjects. ● Prepare a tools for collection of information on the milestone of English/Odia/Hindi/Bengali language in India ● Prepare a report on the three language formula being implemented in the schools ● Prepare a lesson plan in the pedagogy subject which is relevant to the learners ● Prepare activities of the pedagogy subject keeping in view of the constructivism in a language classroom. ● Organizes activities using audio-video material, ICT and internet. ● Plans the process of language assessment. ● Uses language of the context such as grammar and vocabulary. ● Identifies methods, approaches and material for teaching English at various level in the Indian context.
CPS-2: Pedagogy of School subject: 1 Mathematical Science PART-2	● Develops innovative teaching- learning strategies for teaching of specific mathematical concepts. ● Develops and uses learner friendly ICT for enhancing quality of mathematics learning.

	● Develops innovative teaching learning materials and activities in mathematics. ● Builds awareness on innovations in teaching learning processes of mathematics and its application in classroom practices. ● Demonstrates various ways of continuing professional development as mathematics teacher.
CPS-2: Pedagogy of School subject: 1 Biological Science PART-2	● Applies different concepts and themes in biological sciences in the real life situation. ● Creates different learning situations for different concepts is biological sciences for learners for different abilities. ● Organizes activities and laboratory experiments for biological sciences. ● Constructs assessment tools for evaluation of learning in biological sciences. ● Conducts case study on pedagogy of biology from a critical point of view.
CPS-3: Pedagogy of School subject-2, Social Science PART-2	● Nurtures characteristics of professionally competent social science teacher. ● Analyses textbooks and syllabus of social science at different stages of school education. ● Constructs tools and techniques for assessment of students learning in social science. ● Organizes appropriate activities related to social sciences.
CPS-3: Pedagogy of School subject-2, Social Science PART-2	● Explains meaning and nature of physical science. ● Determines the aims and objectives of learning physical science. ● Analyzes the process of science and demonstrates the appropriate use of laboratories in teaching- learning situations. ● Applies and uses various approaches of teaching-learning of physical science. ● Develops different learning resources and materials in learning different units in Physical Science.
EPC 3: Reading and Reflecting on Texts	● Demonstrates proficiency in reading and responding to written texts. ● Examines authentic literary and non-literary texts. ● Demonstrates study and reference skills. ● Plans, drafts, edits and presents a piece of writing related to his or her interpretation of a text.
EF 2 : School Exposure(Multicultural Placement)	● Plans activities to engage students in classrooms through observing the practice adopted by regular teachers. ● Organizes school activities with different cultural set up. ● Manages a substitute (arrangement class). ● Conducts case studies and develops a report.
SEMESTER III	
P E 6: Knowledge and Curriculum	● Explains the concept of knowledge, process and sources of knowing. ● Compares and Analyses teacher- centric and learner -centric knowledge transmission.

	● Differentiates curriculum framework, curriculum and syllabus. ● Relates recommendations of the NCF 2005 and practices in school. ● Lists processes and principles of curriculum development and plan activities for curriculum transaction, evaluation and renewal.
EPC 4 : Arts in Education	● Expresses ideas and emotions about different aspects of life through different art forms. ● Appreciates and experiments with different art forms. ● Creates awareness about the rich cultural heritage of their own locality or state or region. ● Combines the knowledge of art with daily life through different media and techniques.
EPC 5: Library resources	● Makes use of library facilities, resources and services. ● Organizes library resources and services. ● Examines and interprets information based on one's interest. ● Searches different resources in the library in minimum time. ● Observes different aspects of the school library and prepares report. ● Prepares a plan for setting up of a school library.
EF 3 : School Internship	● States clearly the general and specific objectives of teaching the subject, the different units, and the individual lessons, ● Plans and organizes classroom for elementary level students. ● Assess students' progress at different stages of learning. ● Appraises peer teaching. ● Conducts action research. ● Plans, organizes and guides various co-curricular activities, which are important constituents of a rich education for the citizens of tomorrow.
SEMESTER IV	
PE 7 Schooling , Socialization and Identity	● Reflects critically on factors that shape identity formation. ● Develops sense of self and shapes one's own sense of identity as 'student' and a 'person' located in multiple social contexts and roles. ● Develops basic understanding about and familiarities with key concepts-gender, gender-bias, gender parity, patriarchy and feminism and transgender
PE 8 Vision for Indian Education	● Contrasts the education system from Vedic period to post independence era. ● Formulates vision for school education on the basis of new social order and technological advancement. ● Addresses the issues and concerns relating to different stages of education (elementary, secondary and higher secondary).

PE 9 Educational Planning, Management and Leadership	● Explains the concepts, types and approaches of educational planning. ● Prepares institutional plan and school development plan. ● Reflects on the recommendations of different five year plans relating to school education. ● Analyzes the concept, nature and approaches of educational management. ● Uses the skills of different managerial and leadership styles for effective management of a school.
EPC6-Undestanding the self	● Elaborates the concepts of 'self' and 'identity' and identifies the factors that shape the understanding of 'self'. ● Develops effective communication skills including the ability to listen, observe etc. ● Appraises the critical role of teachers in promoting 'self' and student's wellbeing.
EPC 7: Health, Yoga and Physical Education	● Analyzes the concept of holistic health, its various dimensions and determinants for all round development. ● Identifies the health problems and takes steps for taking remedial measures. ● Familiarizes with the rules of safety in hazardous situation. ● Builds right habits about exercise, games and sports, sleep, rest and relaxation. ● Discusses various policies and programs related to health, physical education and yoga. ● Explains the process of assessment of health and physical fitness.
EPC8-ICT practicum 2	● Plans hands on experience for creating ICT related teaching materials.
EF 4: Working with Community	● Develops understanding of social realities working within the society or community. ● Develops the dignity of labor among student-teachers. ● Spreads awareness regarding various educational problems and needs of the society. ● Creates interest in social and economic reconstruction of the country. ● Executes actions leading to sustainable development. ● Builds the personality of the student teacher through community service.

1.6. Four Year B.Sc.- B.Ed. Program

The four-year integrated B.Sc.-B.Ed. program aims at preparing quality teachers in science and mathematics for upper primary and secondary stages of education by integrating general studies comprising science and mathematics, language studies to enhance communication skills, and professional studies comprising foundations of education, pedagogy of school subjects, and practicum related to the tasks and functions of a school teacher. It maintains a balance between theory and practice, and coherence among the components of the program, representing a wide knowledge base of a secondary school teacher. The program shall be of four academic years consisting of eight semesters including school-based experiences and internship-in-teaching. Student teachers shall, however, be permitted to complete the program within a maximum period of six years from the date of admission to the program. On successful completion of the program, they may enter the teaching profession or opt for higher education in their respective areas of interest.

PROGRAM OUTCOMES FOR FOUR YEAR B.Sc.- B. Ed.:

The 4-year integrated B.Sc.-B.Ed. program aims at enabling the student teachers to

- Demonstrate knowledge and competencies in science and mathematics.
- Analyze the nuances of child psychology and how children learn.
- Explain the linkage of content and pedagogical aspects of the teaching learning process.
- Exhibit the skill of communication.
- Apply the innovative strategies approach in classroom transactions.
- Demonstrates critical awareness of professional ethics and the ability to critically engage in reflective practices.
- Use laboratory devices and processes effectively and efficiently.
- Demonstrate the skill of thinking, abstract reasoning, creativity and problem -solving skills.
- List out issues related to natural resources and promote eco-friendly practices & sustainability.
- Create and use low-cost/no-cost materials to demonstrate scientific concepts.
- Elaborate familiarity with ICT and uses it as a teaching learning tool.
- Demonstrate the quality of effective teachers of science and mathematics at secondary level by imbibing appropriate professional values.
- Plan investigatory projects under guidance of faculty members and communicate their findings through seminar/workshop.

Table 1: PROGRAM STRUCTURE (Four year B.Sc.-B.Ed.)

(**L**: Lecture, **P**: Practical, **Semi**: Seminar, **Cr**: Credit, **CH**: Contact Hours, **W**: Weeks)

Semester	CC	GE-I	GE-II	DSE	AECC	SEC	CBC*	Education	Total
I	CC-1: 100 4(L)+2(P)=6 Cr: 4+2=6	GE-I-1: 100 4(L)+2(P)=6 Cr: 4+2=6	GE-II-1: 100 4(L)+2(P)=6 Cr: 4+2=6		AECC-1:100 4(L))=4 Cr:4=4			PE-1:100, EPC-1:50 CH :4, 2 Cr: 4+2 =6	Marks: 400+150=**550** CH: 24+4=**28** Credit: 22+6=**28**
II	CC-2: 100 4(L)+2(P)=6 Cr: 4+2=6	GE-I-2: 100 4(L)+2(P)=6 Cr: 4+2=6	GE-II-2: 100 4(L)+2(P)=6 Cr: 4+2=6			SEC:100 2(L)+2(P)=4 Cr: 4		PE-2:100, CPS-1:50 CH:4, 2 Cr: 4+2=6	Marks: 400+150=**550** CH: 22+6=**28** Credit: 22+6=**28**
III	CC-3: 100 4(L)+2(P)=6 Cr: 4+2=6	GE-I-3: 100 4(L)+2(P)=6 Cr: 4+2=6	GE-II-3: 100 4(L)+2(P)=6 Cr: 4+2=6		AECC-2:100 4(L)-4 Cr: 4=4			PE-3:100, PE-4:100 CH:4,4 Cr: 4+4=8	Marks: 400+200=**600** CH: 24+6=**30** Credit: 22+8=30
IV	CC-4: 100 4(L)+2(P)=6 Cr: 4+2=6	GE-I-`4: 100 4(L)+2(P)=6 Cr: 4+2=6	GE-II-4: 100 4(L)+2(P)=6 Cr: 4+2=6	DSE-1:100 4(L)+2(P)=6 Cr: 4+2=6				PE-5:100,PE-6:50 CH:4,2 Cr: 4+2=6	Marks: 400+150=**550** CH:24+6=**30** Credit: 24+6=**30**
V	CC-5 &,6: 100x2 [4(L)+2(P)=6]x2 [Cr: 4+2=6]x2 CC- 7&8: 100x2 [4(L)+2(P)=6]x2 [Cr: 4+2=6]x2							CPS2-1:100, CPS3-1:100, EPC-2:50 CH:4,4,4 Cr: 4+4+2=10	Marks: 400+250=**650** CH: 24+12=**36** Credit: 24+10=**34**
VI	CC-9&10: 100x2 [4(L)+2(P)=6]x2 [Cr: 4+2=6]x2 CC-11&12: 100x2 [4(L)+2(P)=6]x2 [Cr: 4+2=6]x2						CBC:100* 4(L)* Cr:4*	CPS2-2:100, CPS3-2:100, FE-1:50 CH:4,4,2W Cr:4+4+2=10	Marks: 400+100***+2**50=**650+100*** CH: 24+4*+10+2W=**34**+4*+**2** **W** Credit: 24+10=**34**
VII								PE-7:100, EPC-3:50, EPC-4:50, FE-2:350 CH:4,2W,2W,16W Cr: 4+2+2+14=22	Marks: 000+550=**550** CH: 4+**20W** Credit: 0+22=**22**
VIII	CC-13: 100 4(L)+2(P)=6 Cr: 4+2=6 CC-14: 100 4(Pr) Cr: 6			DSE-2 Project:100 CH:4, Cr: 4				PE-8:100, EPC-5:50, EPC-6:50, EPC-7:50,FE-3:50 CH:4,2W,2,2,2W Cr:4+2+2+2+2=12	Marks: 300+300=6**00** CH: 16+12+2W+2W=**28+4** **W** Credit: 16+12=**28**
Total	Marks:14x10 0=1400 CH:56+28=8 4 Cr: 56+28=84	400 CH:16+8=24 Cr: 24	400 CH:16+8=24 Cr: 24	2x100=200 CH:6+4=10 Cr: 6+4=10	2x100=200 CH:4+4=8 Cr: 4+4=8	100 CH:4 Cr: 4	100* CH:4* Cr: 4*	Marks: 2000 CH: 56+24W Credit: 80	Marks:2700+100*+2000=4700+100* CH: 154+4*+56+24W=208+4*+24W Credit: 154+4*+80=234+4*

SEMESTERWISE COURSE LEARNING OUTCOMES OF FOUR-YEAR B. Sc.-B. Ed. PROGRAM(Botany)	
Course/Paper	**Learning outcomes**
SEMESTER-I	
On completing the course, the student teacher:	
GE/CC 1.1 Biodiversity (Microbes, Algae, Fungi and Archegoniate)	Explores the microbial world and its physicochemical and biochemical characteristics. Identifies Algae, Fungi, Bryophyta, Pteridophyta and Gymnosperms. Compare and classify between Algae, Fungi, Bryophytes, Pteridophytes and Gymnosperms. Describes the developmental stage of biodiversity up to Gymnosperm.
SEMESTER-II	
GE/CC 2.1 (Plant physiology and metabolism)	Illustrates the plant water relationship and mechanism like transpiration by root pressure and guttation. Classifies minerals in different categories and elaborates its translocation through xylem and phloem. Describes and explains each phase of photosynthesis in detail. Differentiate and demonstrate the effect of different growth regulators.
SEC 1 (Medicinal Botany)	Elaborates the history, scope and importance of medicinal plants. Elaborates the history and developmental stage of AYUSH. Explain and apply different methods of propagation of medicinal plant and its use in nurseries. Elaborates the ethnobotany, ethnomedicine and ethnoecology and its wide application.
SEMESTER-III	
GE/CC 3.1 (Plant taxonomy, Ecology and Economic Botany)	Explains the different classification system and its implication in real life. Identifies and classifies the different families and its economic importance. Elaborates the structural and functional component of the ecosystem along with its importance. Applies the technique of botany in cultivation of rice, soyabean, jute, and groundnuts.
SEMESTER-IV	
GE/CC 4.1 (Plant anatomy and Embryology)	Analyzes the structural and functional components in pollen germination and its maturation. Explores the transfer of pollens and fertilization. Describes and differentiate the tissues and its functions. Explains the organization of stem and leaf.
DSE I(Economic Botany and Biotechnology)	Elaborates the origin of cultivated plants and its morphology with special reference of gram and soybean. Illustrates the use and importance of species, beverages, oils, fats and cotton. Describes biotechnology and its wide implication in the field of culture. Explains different DNA recombinant technologies along with its application.

DSE II (Bioinformatics)	Elaborates the branches of bioinformatics and its scope and area of research. Explains the working and importance of different organizations in sequencing biological data. Differentiates the techniques and importance of sequence alignments and molecular phylogeny. Elaborates the wide use of bioinformatics.
SEMESTER-V	
CC 5.1 (Mycology and phytopathology)	Identifies, classifies and elaborates the life cycle of fungi. Elaborates and applies the role of mycology in the food industry in a controlled manner. Interprets the symbiotic relationship and its implication. Interprets the relationship between host and pathogen and its effect.
CC 6.1 (Plant morphology and systematic)	Elaborates the morphological description of flowering plants. Elaborates the history and basis of taxonomy. Classifies and categorizes different plant families on the basis of its diagnostic features and economic importance.
CC 7.1 (Biomolecules and cell Biology)	Describes the structural and functional component of biomolecules. Differentiates carbohydrates and proteins based on its structure and functions. Demonstrates the structure, storage and importance of lipids and nucleic acids. Elaborates different models of cell wall and plasma membrane and its importance.
CC 8.1. (Economic Botany)	Elaborates the concept of origin of cultivated plant and its importance. Explains the origin, morphology, processing and uses of cereals, legumes, sugar and starch. Describes the economic importance and wide use of species and beverages. Elaborates about different timber yielding plants and its use.
SEMESTER-VI	
CC 9.1. (Biodiversity, ecology and phytogeography)	Explores the biodiversity management and role of different organizations. Analyzes biodiversity and ways to conserve it for sustainable development. Lists the component of ecology and its role. Explains the theories of phytogeography.
CC 10.1. (Plant physiology and biochemistry)	• Contrasts the transpiration of different minerals. • Illustrates the mechanism and effect of plant growth regulators. • Describes the catabolic and anabolic metabolism. • Demonstrates the lipid metabolism and nitrogen metabolism.
CC 11.1 (Plant breeding and biostatistics)	Illustrates the different methods of crop improvement. Describes the importance of crop management and its implication. Illustrates of central tendency and its application in crop management. Analyzes the implication of statistics in crop improvement.
CC 12.1 (Plant molecular biology)	Connects the nucleic acid as a carrier of genetic information. Illustrates the structure of nucleosome and chromatin structure. Elaborates the central dogma and the genetic code. Describes the process of translation of prokaryotes and eukaryotes.

CBC (Herbal plants for home gardening)	Elaborates different types of gardening and computer application is landscaping like soil layering, manuring, etc. Plans and develops herbal gardens on the basis of identification, names, characteristics, history, etc. Create models of indoor and outdoor gardening and differentiate the two on the basis of management and care. Identifies locally available traditional medicinal plants according to their use in primary health care.
SEMESTER-VIII	
CC 13.1 (Plant Genetics and breeding)	Elaborates the Mendelian view of genetics and its application. Describes the extra-chromosomal DNA and its complications. Explains the factors of linkage, crossing over and chromosomal mapping and its implication. Illustrates the variation in chromosome number and its structure.
CC 14.1 (Plant biotechnology)	Explains the plant tissue culture and its tools. Demonstrates the techniques of tissue culture and its implication. Illustrations of gene transfer in plants. Applies the practical aspects of agriculture biotechnology.

SEMESTER WISE COURSE LEARNING OUTCOMES OF FOUR YEAR B. Sc.-B. Ed. PROGRAM (Chemistry)	
Course/Paper	**Learning outcomes**
SEMESTER-I	
On completing the course, the student teacher:	
GE/CC 1.1 (Inorganic and organic Chemistry)	● Interprets how atomic orbitals are and chemical bonds are formed between different orbitals. ● Relates how different organo-metallic compounds react to form different compounds. ● Classifies different elements present in the periodic table and lists the characteristics of it. ● Elaborates IUPAC and common name of different organic compounds. ● Inspects different spatial arrangements of atoms in molecules.
SEMESTER-II	
GE/CC 2.1 (Organic and Physical Chemistry	● Recognizes and distinguishes between aromatic and antiaromatic compounds by their structures. ● Describes solids, liquids and gases in terms of the spacing, ordering and motion of atoms or molecules ● Compares different chemical and ionic equilibrium. ● Examines the presence of cations and anions in salt mixture.
SEC 1 (Soil Chemistry)	● Verifies the compositional limits of natural soil types and optimal growth conditions for the various plant communities. ● Recognizes principles governing development of soil profiles. ● Applies analytical and theoretical knowledge in the improvement of agricultural production
SEMESTER-III	
GE/CC 3.1 (Inorganic and Physical Chemistry)	● Explain about processes involved in the ore extraction. ● Knows the allotropes of carbon. ● Use knowledge of the periodic table to locate the position of the d block and the transition metals, ● Describes the general physical properties of common transition metals in order to compare the properties to other metals. ● Use the law of thermodynamics in real life situations and know about thermochemistry. ● Explain and summarize about the properties of solution and Understands how the properties of the solution are linked to concentration of solute in the solution. ● Knows about standard solutions and recognizes elements in a given sample solution.
SEMESTER-IV	

GE/CC 4.1 (Inorganic Organic and Physical Chemistry)	● Discusses the properties of coordination compounds, determines molecular structure, how different coordination compounds react and identifies the degree of association between the two species involved in the state of equilibrium. ● Interprets the mechanism for nucleophilic addition and nucleophilic addition-elimination reactions of aldehydes and ketones, and be able to predict the products of such reactions. ● Explains the relative reactivity of carbonyl compounds toward nucleophilic addition. ● Explains about aliphatic hydrocarbons and their derivatives. ● Understands the concept of rate of change associated with chemical change, recognizing that the rate of change and how it can be measured. ● Identifies organic compounds through functional group analysis.
DSE I (Green Chemistry)	● Know about the environmental status, public awareness in evolution and Explains principles involved in green chemistry, bio-catalytic reactions, global warming and its control measures, availability of green analytical methods
DSE II (Polymer Chemistry	● Differentiate between the polymers and summarize the evolution. ● Describes different properties of polymers. ● Categorizes polymerization reactions with respect to mechanisms and distinguishes differences of these reactions. ● Understands the relationships between polymer molecular weight, molecular weight distribution
SEMESTER-V	
CC 5.1 (inorganic Chemistry)	● Explains how different complexes are formed from s and p block elements and know their properties, preparation and uses. ● Understands the common themes running through ionic, covalent and metallic descriptions of chemical bonding. ● Identifies the key properties of the lanthanides, actinides and noble gases. ● Describes the electron configurations of the lanthanide and actinide elements. ● Differentiate between iodometry and iodimetry.
CC 6.1 (Analytical and Physical Chemistry)	● Understands about qualitative and quantitative information of molecular compounds. ● Explains thermodynamic applications using the second law of thermodynamics. ● Describes various reactions of kinetics and has a brief concept of various theories of reaction rates. ● Knows about the concept of Spectro photochemistry and polarimetry.
CC 7.1 (Organic Chemistry)	● Derives mechanism of a reaction ● Explains the properties and preparation of sulfur and nitrogen containing compounds ● Differentiates between the types of carbohydrates. ● Develops some of the organic compounds.

CC 8.1 (Inorganic Organic and Physical Chemistry)	● Identifies and defines nuclear fusion, fission and decay reactions. ● Identifies and builds fundamental theoretical signs of heterocyclic chemistry. ● Understands the basic concepts of catalysis, the different types of catalysts, their mechanism of action and their applications. ● Understands about energy Flow and Chemical Change.
SEMESTER-VI	
CC 9.1 (Inorganic Chemistry)	● Understands the characteristics of transition metal complexes. ● Define importance of inorganic elements in vital systems and explains the importance of minerals to live. ● Develops a fundamental principle of organo metallic compounds and know how chemical properties are affected by different organometals.
CC 10.1 (Organic Chemistry)	● Predicts the different types of amino acids and recognizes the basic properties (structure, physical and chemical properties) of amino acids. ● Interprets the interactions of synthetic dyes and natural dyes on natural and artificially-made fabrics. ● Knows about various pharmaceutical compounds and about alkaloids and terpenes and their uses
CC 11.1 (Physical Chemistry)	● Recognizes the electrochemical processes and evaluates electrodes and cells. ● Compares the properties of different states of matter and Describes quantitatively the different phases of matters and their characteristics. ● Knows about different techniques of measurements.
CC 12.1 (Analytical and Physical Chemistry)	● Correlates among molecular and organic spectroscopy. ● Understands the mathematical foundations of quantum chemistry and predicts chemical and physical properties of molecules and materials. ● Knows and Understands about different techniques of measurements.
CBC (Chemistry and our life)	● Visualize the importance of chemistry and chemical substances in daily life. ● Describes the concept of a drug and its classification. ● Describes the importance of water in the human body. ● Explains the concept of energy and energy sources. ● Differentiates between renewable and non renewable sources of energy. ● Describes polymers and their use in daily activity.
SEMESTER-VIII	

CC 13.1 (Analytical, Inorganic and Organic Chemistry)	● Understands about chromatographic techniques and its functions. ● Understand about various processes of extraction of compounds and learn about different estimation processes. ● Develops a concept about lipids, fats, oil and detergents and differentiate among them. ● Defines the term 'enzyme' and explains the working principle of enzyme on a single substrate.
CC 14.1 (Inorganic Organic and Physical Chemistry)	● Knows about the various industrial processes using organo-metallic compounds. ● Develops a deep understanding about polymers, petroleum and its derivatives. ● Defines Atomic packing, Crystal, Lattice, unit cell and Translation vectors. ● Explains Crystal systems, Crystal planes and directions, Miller indices, Diffraction of waves by crystals and Bragg's law and Explains bonding type in crystal. ● Describes and Explains different types of colloidal systems and interactions between colloidal particles and stability and instability.

SEMESTER WISE COURSE LEARNING OUTCOMES OF FOUR YEAR B. Sc.-B. Ed. PROGRAM (Physics)	
Course/ Paper	**Learning outcomes**
SEMESTER-I	
On completing the course, the student teacher:	
GE/CC 1.1 (Mechanics)	● States basic laws of physics in the areas of mechanics, Newtonian gravitation, special theory of relativity, etc. ● Explains relative motion, inertial and non-inertial frames of reference. ● Applies analytical mechanics as a systematic tool for problem solving. ● Identifies various parameters used to define the motion of mechanical systems and their degrees of freedom. ● Explains basic concepts of properties of matter to real-world problems. ● Demonstrates skills to model the energy and momentum of a relativistic object. ● Infersthe special relativity and its application in high velocity phenomenon
SEMESTER-II	
GE/CC 2.1 (Electricity and Magnetism)	● Explains the fundamental laws and concepts in Electricity and Magnetism. ● Adapts the knowledge of electricity and magnetism to explain natural physical processes and related technological applications. ● Solves problems based on Electricity and Magnetism. ● Explains the dielectric and magnetic properties of materials. ● Applies theorems to construct and solve problems related to electrical circuits. ● Develops competency to give plausible physical origin of simple electromagnetic phenomenon in nature based on the course taught to the students.
SEC 1 (Basic Instrumental Skill)	● Demonstrates skills and technical knowledge to effectively run various instrumentation systems. ● Explains the fundamentals of measuring instruments and demonstrates them practically. ● Demonstrates various aspects of instruments and their usage through hands on mode. ● Demonstrates skills to operate various Analog and Digital instruments effectively. ● Explains the working of instruments like frequency and function generators, digital meters, and counters.
SEMESTER-III	
GE/CC 3.1 (Waves and Optics)	● Identifies and illustrates the physical concepts and terminologies used in optics. ● Explains basic concepts of wave physics, mechanical and acoustic waves: superposition, standing waves and Doppler Effect. ● Explains and compares basic concepts of electromagnetic waves and optics: interference, diffraction, polarization etc. ● Compares and judges various optical and wave phenomena. ● Identifies and applies formulas to solve problems of optics and wave physics. ● Plans and executes experiments related to wave and optics.
SEMESTER-IV	

GE/CC 4.1 (Thermal Physics)	● Explains empirical laws of thermodynamics. ● Classifies and compares various thermodynamic processes. ● Elaborates the physical concepts of work, heat, internal energy, temperature, entropy with examples. ● Identifies and applies a thermodynamic equation to Describe a thermal process. ● Analyzes heat process to calculate efficiency. ● Applies thermodynamic equation to explain phase change.
DSE I (Computational Physics)	● Solves mathematical problems independently using numerical methods. ● Writes programs independently using various languages. ● Formulates and computationally solves a selection of problems in Physics. ● Uses computational methods to solve quantum mechanical and statistical problems.
DSE II (Nano Materials and Applications)	● Explains the basics of nanoscience and their applications to the real world. ● Explains the nanostructures in different dimensions (1D, 2D, 3D). ● Describes the effect of size on the properties of nanomaterials. ● Describes various synthesis methods of nanomaterials. ● Explains various techniques used for characterization of nanomaterials. ● Describes the application of nanotechnology in various fields. ● Identifies problems where nanotechnology can be used.
SEMESTER-V	
CC 5.1 (Mathematical Physics-I)	● Describes the basic theory of calculus and vector integration. ● Analyses the transformations of curvilinear coordinates systems. ● Solves problems related to Dirac delta function. ● Solves any sort of physical problem using mathematical methods.
CC 6.1 (Classical Mechanics)	● Explains the discipline specific knowledge in classical mechanics. ● Analyses the world around them from the perspective of fundamental concepts of mechanics. ● Explains the idea of constraints: holonomic & non-holonomic, Degrees of freedom, generalized coordinates & velocities. ● Describes the concept of virtual work, Hamilton's principle, Lagrangian, cyclic coordinates. ● Solves practical problems using Lagrangian and Hamilton's equations of motion. ● Explains very complex applications like launching rockets and satellites.
CC 7.1 (Quantum Mechanics and Applications)	● Explains the need and origin of quantum mechanics. ● Explains the principles of quantum mechanics to calculate the observables on known wave functions. ● Describes the concept of wave particle duality. ● Solves Schrodinger equations for simple potentials like harmonic oscillator and Hydrogen like atoms. ● Explains the outcome of measurements using commutation relations. ● Explains the basics of angular momentum, space quantization. ● Explains the basic approach which is applied in Solid state physics and Nuclear Physics.

CC 8.1(Digital and Analog Circuits and Oscillators, Rectifiers)	● Explains the difference between digital and analog circuits. ● Solves logic circuits using Boolean algebra. ● Explains the characteristics of various semiconductor devices like Zener diose, LED, BJT, etc. ● Uses basic mathematical operations like addition, subtraction, multiplication, division, and some logical operations using its Arithmetic, Logical Unit. ● Explains the use of operational amplifiers as adder, subtractor, differentiator, integrator. ● Explains principles of operations of oscillators and rectifiers along with its applications.
SEMESTER-VI	
CC 9.1 (Mathematical Physics-II)	● Identifies a physical problem and use mathematical methods/techniques to solve them. ● Solves any physical problems in different branches of physical sciences using different mathematical methods. ● Solves problems related to Fourier series and its application in simple PDE. ● Finds solutions of differential equations using separation of variables for different cases. ● Solves differential equations using Frobenius method. ● Explains various types of errors and their propagation. ● Solves various problems using the special functions.
CC 10.1 (Maxwell Equations and EMT)	● Explains the physical Interpretation Maxwell's equations. ● Analyses the Maxwell's equations in differential or integral form ● Identifies and solves boundary value problems at different interfaces. ● Explains the propagation of electromagnetic wave in different medium (bounded and unbounded). ● Explains the propagation of electromagnetic waves through optical fibre. ● Describes the characteristics of materials and their interaction with electric and magnetic fields. ● Solves Maxwell's equations to calculate potentials and explains conservation laws. ● Explains the phenomenon of polarization associated with electromagnetic waves.
CC 11.1 (Statistical Mechanics)	● Explains the concepts of macro and microstate of a system. ● Explains the concept of ensembles, phase space and partition function. ● Explains the basic nature of thermodynamics and statistical mechanics. ● Calculates different macroscopic properties from microscopic models by using statistical mechanics. ● Explains the properties of thermal radiation. ● Defines various distribution functions. ● Defines Bose-Einstein and Fermi-Dirac Statistics; states where they can be applied; explains their difference.

CC 12.1 (Solid State Physics)	● Explains the crystal system, diffraction in solids. ● Explains various properties of solids based on the thermal properties of phonons. ● Explains heat capacity of materials using various theories. ● Explains properties of different types of magnetic materials. ● Explains the properties and applications of Semiconductors. ● Describes the free electron gas model and band theory of solids. ● Explains the basics of X-ray diffraction and elastic properties of solids. ● Describes the theory and application of LASER. ● Explains the superconductivity and its related properties.
CBC (Renewable Energy and Harvesting)	● Explains the limitations of fossil fuels and need for renewable energy. ● Illustrates various non-conventional energy resources. ● Elaborates importance of solar energy and various methods of its harvesting. ● Describes the fundamentals of wind energy, construction and working of wind turbines and its components. ● Discusses the potential of ocean energy over solar and wind energy. ● Explains geothermal energy and its production from geothermal plants. ● Elaborates hydropower resources and related technologies for hydropower generation.
SEMESTER-VIII	
CC 13.1 **(Mathematical Physics-III)**	● Explains advanced topics in mathematical physics, such as applications of complex analysis. ● Identifies complex functions and applies its knowledge for analyzing various problems. ● Explains the concepts of residues and residue theorem and its application in solving definite integrals. ● Solves different processes like one dimensional diffusion/heat flow equations with the help of Fourier transform. ● Solves differential equations using Laplace transform.
CC 14.1 (Nuclear and Particle Physics)	● Explains the concepts in nuclear and particle physics. ● Describes the structure of atoms, the constituents and properties of nucleus, and different types of radiations. ● Explains different nuclear models (shell model and liquid model) along with their significance. ● Explains the elementary ideas of various radioactive decay processes like alpha, beta and gamma decay. ● Describes the process of interaction of radiation with matter and explains the principles and working of detectors. ● Explains the design and working of various particle accelerators. ● Describes the classifications and properties of elementary particles.

SEMESTER WISE COURSE LEARNING OUTCOMES OF FOUR YEAR B. Sc.B. Ed. PROGRAM (Mathematics)	
Course/Paper	**Learning outcomes**
SEMESTER-I	
On completing the course, the student teacher:	
GE/CC 1.1 (Elementary algebra and Calculus)	● States the properties of complex numbers and its applications. ● Applies the concepts and principles of differential calculus to find the curvature, concavity and point of inflection, asymptotes of different curves. ● Solves the system of linear homogeneous and non-homogeneous equations. ● Determines the rank of a matrix and algebra of matrices and its types ● Solves various problems using Leibnitz rule and L'Hospital rule. ● Derives reduction formulae for some complex integration. ● Applies the integral calculus to find length of plane curves, surface area and volume of surface of revolution
SEMESTER-II	
GE/CC 2.1 (Solid Geometry and differential equations-I)	● Familiarizes with geometrical terminologies and have a detailed clear cut idea of the Planes, Straight lines in 3D, Sphere, Cones, Cylinders and Conicoid, along with the equations of tangent line and tangent plane at a point. ● Differentiates the types of differential equations. ● Solves various types of differential equations ● Illustrates the geometrical meaning of solutions of differential equations.
SEC 1 (Discrete mathematics)	● States the basic rules of logic, including the role of axioms or assumptions. ● Applies mathematical logic to solve problems. ● Formulates problems and solves recurrence relations. ● Demonstrates the basic counting (including pigeon-hole principle, generalized permutations and combinations)
SEMESTER-III	
GE/CC 3.1 (Real analysis-I)	● Demonstrates basic proof techniques and fundamental definitions related to the real number system. ● Differentiates different types of sets. ● Demonstrates some of the fundamental theorems of analysis. ● Develops analysis skills in sets, sequences, and infinite series of real numbers ● States limits and their use in sequences, series.
SEMESTER-IV	
GE/CC 4.1 (Real analysis-II)	● Describes the limit and their use in Continuity and Differentiability of real functions. ● Defines and recognizes the continuity of real functions, differentiability of real functions and its related theorems. ● Appreciates how abstract ideas and rigorous methods in mathematical analysis can be applied to important practical problems.

DSE I(Number theory)	● States and prove theorems and definitions in number theory. ● Identifies the order of an integer, primitive roots, Euler's criterion, the legendre symbol, jacobi symbol and their properties. ● Demonstrates modular arithmetic number theoretic functions.
DSE II(Mathematical modelling)	● Translates everyday situations into mathematical statements (models) which can be solved/analyzed, validated, and interpreted in context. ● Assess the validity and accuracy of their approach relative to what the problem requires. ● Communicates mathematics in both oral and written form to a broad mathematical and lay audience, including the "end users" of a modeling problem, who may be utterly unfamiliar with the mathematics used. ● Improves mathematical models so that they will better correspond to empirical information and/or will support more realistic assumptions.
DSE III (Classical Geometry)	● Understands the central concepts, conditions, definitions, theorems, assumptions, structure. ● Proves general cases of geometric theorems/axioms and applies these theorems to solve problems in Euclidean geometry. ● Understands geometry over fields which include ordered fields and algebra structures. ● Understands segments arithmetic and coordinates.
SEMESTER-V	
CC 5.1 (Advanced calculus and differential equation -II)	● Distinguishes conceptual variations while advancing from one variable to several variables in calculus. ● Finds the extrema of function of two variables by method of lagrange's multipliers. ● Calculates the line integral, surface integral and volume integral. ● Identifies the importance of Green, Gauss and Stokes theorem. ● Solves the first and second order differential equations by power series method. ● Find the Laplace transform of a function and inverse Laplace transform. ● Uses a method of Laplace transform to solve initial value problem.
CC 6.1 (Abstract algebra)	● Recognizes the mathematical object called groups. ● Links the fundamental concepts of groups and symmetries of geometrical objects. ● Explains the significance of the notions of cosets, normal subgroups and factor groups. ● Analyzes the consequences of Lagrange's theorem, fundamental theorem of group & ring. ● Describes the fundamental concepts of ring theory such as of the ideals, quotient rings, integral domains and fields
CC 7.1 (Partial differential equations and system of ordinary differential equation)	● Differentiates the linear and non-linear partial differential equations of first and second order. ● Solves the system of linear differential equations ● Classifies PDEs and transforms into canonical form. ● Finds the solution of wave equation, heat equation and Laplace equation by the method separation of variables.

CC 8.1(Object oriented programming C++)	● Creates simple programs using classes and objects in C++. ● Implements Object Oriented Programming Concepts in C++. ● Develops applications using stream I/O and file I/O. ● Implements simple graphical user interfaces. ● Writes a C code using algorithms. ● Writes a program that performs operations using derived data types.
SEMESTER-VI	
CC 9.1 (Riemann integration and series of functions)	● Lists the properties of Riemann integrable functions and applies the fundamental theorem of calculus. ● Identifies and tests the convergence of improper integrals. ● Calculates the radius of convergence and finds the interval of convergence of power series expansion. ● Find the convergence of sequence and series of functions by different methods
CC 10.1 (Linear programming)	● Understand the basics of Linear Programming Problem (LPP). ● Solves the LPP in two variables graphically and develops the concepts of convex sets and extreme points. ● Applies simplex method to solve LPPs. ● Differentiates between the primals and dual problems. ● Describes the applications of transportation, assignment and two-person zero sum game problems.
CC11.1(Numerical analysis)	● Derives numerical methods for various mathematical operations and tasks such as interpolation, differentiation, integration, the solution of linear and nonlinear equations, and the solution of differential equations. ● Demonstrates the theoretical and practical aspects of the use of numerical analysis.
CC 12.1 (Probability and Statistics)	● Applies the principle concepts of probability in real life problems. ● Applies concepts of various probability distributions to find probabilities. ● Employs concepts of normal distribution to find probability ● Uses appropriate statistical terms to describe data. ● Applies and proves the central limit theorem. ● Makes estimations for a mean, variance, standard deviation and proportions
CBC(General mathematics)	● Familiarizes with the history and real-life applications of Mathematics. ● Explains the definitions of a set, operation of set and theorem related to sets. ● Identifies the number sets. ● Solves number series, letter series, coding-decoding, analogy test, relationship and calendar problems and arithmetical related problems. ● Analyzes logical structures of the proposition which is asked for proving. ● Solves the problem using appropriate types of reasoning. ● Explains the benefits and features of different types of Graphs.
SEMESTER-VIII	

CC 13.1 (Metric Spaces and Complex analysis)	● Describes the concepts of metric spaces and their properties like openness, closedness, completeness, Bolzano weierstrass property, compactness and connectedness. ● Identifies complex numbers as points in R^2 and describes the stereographic projection of the complex plane. ● Describes the differentiability and analyticity of complex functions. ● Applies Cauchy integral formula in evaluation of contour integrals. ● Classifies the nature of singularity, poles and residues and applications of Cauchy residue theorem. ● Finds Taylor and Laurent series expansion of analytic functions.
CC 14.1 (Linear Algebra)	● Describes the basics of vector spaces and some of its applications. ● Identifies and constructs linear transformations of a matrix. ● Characterizes linear transformations as onto, one to one. ● Solves linear systems represented as linear transforms. ● Express linear transforms in other forms such as matrix equations, and vector equations. ● Differentiates which spaces are inner product spaces.

SEMESTER WISE COURSE LEARNING OUTCOMES OF FOUR YEAR B. Sc.B. Ed. PROGRAM (Zoology)	
Course/Paper	**Learning outcomes**
SEMESTER-I	
On completing the course, the student teacher:	
GE/CC 1.1 (Animal diversity, Non-chordates)	● Identifies different specimens of the animal kingdom (Non-chordata). ● Compare The characteristics of different animals (Non-chordata). ● Classifies organisms into different taxa (up to class). ● Evaluates the phylogenetic relationships among non-chordates. ● Justifies the systematic classification of organisms (Non-chordata).
SEMESTER-II	
GE/CC 2.1 (Animal diversity (Chordates)	● Identifies different specimens of the animal kingdom(Chordata). ● Compares the characteristics of different animals(Chordata). ● Classifies organisms into different taxa (upto order). ● Examines the phylogenetic relationships among chordates. ● Justifies the systematic classification of organisms (Chordata). ● Distinguish between poisonous and non-poisonous snakes of India (Morphology).
SEC 1 (Aquaculture)	● Identifies different locally available edible fishes. ● Analyzes the pathogenicity of fish diseases. ● Describes the principles and step wise process for few locally relevant aquaculture practices. ● Prepares appropriate type and quantity of fish feed for a particular culture system.
SEMESTER-III	
GE/CC 3.1 (Histology, Embryology & Ethology)	● Compare the histology of different tissues, glands and correlate it with their biological functions. ● Illustrates the structure and function of different tissues ● Analyses the structure of animal tissues using microscopy as a tool. ● Compares different types of eggs and cleavage patterns in animals ● Prepares temporary mount and/or permanent slides for microscopic study of cellular and sub-cellular intricacies. ● Explains the fundamental principles of ethology (generalized). ● Analyze the social behavior of honeybees.

SEMESTER-IV	
GE/CC 4.1 (Human Physiology & Comparative Anatomy)	● Explains the structural components of the organ system involved in various vital life processes of the organisms. ● Co-relates the structure with function of organ systems. ● Compares the anatomy of integumentary system, urinogenital system and circulatory system across vertebrate taxa. ● Describes the location, structure and function of vertebrate endocrine glands. ● Examines the degree of interrelationship among the function of different endocrine glands in maintaining homeostasis.
DSE I (Economic and Applied Zoology)	● Justify the economic importance of earthworm and insects like Honeybee, Lac insect, and Silk-moth. ● Explores techniques of pest management. ● Examines the role of pathogens with reference to human diseases. ● Compares the communicable and non-communicable diseases. ● Describes the methods of fish culture with special focus on induced breeding techniques ● Evaluates the economic importance of animal husbandry with reference to food production and pharmaceuticals.
DSE II (Animal Behavior	● Explains the fundamental principles of ethology (generalized). ● Explores different mechanisms of animal behavior. ● Compares the patterns of behavior(Reflex, Orientation, Learning) ● Analyze the social structure and behavior of honeybees. ● Interprets honey bee dance language.
SEMESTER-V	
CC 5.1 (Cytology)	● Differentiate between prokaryotic and eukaryotic cell types and their structure and function. ● Explains structure and functions of sub-cellular components of animal cells. ● Examine the role of cytoskeleton in functioning of the cell. ● Compare the different stages of cell division. ● Describes the structure and chemical composition of different types of chromosome.
CC 6.1 (Genetics)	● Describes the laws of inheritance. ● Examine pedigree charts to assess the inheritance pattern of a certain genetic disease. ● Categorize the different genetic diseases and disorders based on characteristics and causes. ● Describes the process of sex determination in organisms. ● Prepare and maintain a culture medium for drosophila culture.
CC 7.1 (Comparative anatomy & evolution)	● Compare the anatomy of the integumentary system, nervous system, urinogenital system and circulatory system across vertebrate taxa. ● Assess the evolutionary pattern of vertebrate kidney, heart, brain and gonads. ● Evaluate the validity of theories of biological evolution. ● Apply concepts from paleontology, molecular biology, developmental biology and morphology to collect evidence of biological evolution.

CC 8.1 (Biochemistry)	● Analyze (Quantitatively and qualitatively) for the presence of proteins, carbohydrates and lipids in biological samples. ● Classify biomolecules on the basis of their structure and functions ● Separate amino acids using paper chromatography ● Demonstrate the catalytic effect of enzymes and the effect of different physicochemical factors on them.
SEMESTER-VI	
CC 9.1 (molecular Biology & Instrumentation)	● Describes the structure, composition and function of nucleic acids. ● Explains the different processes related to expression of genes in prokaryotes and eukaryotes. ● Examine the regulation of gene expression in prokaryotes. ● Use analytical instruments or techniques like light microscope, pH meter, spectrophotometer, centrifuge, colorimeter, paper chromatography.
CC 10.1 (Animal Physiology)	● Explains the principles of homeostasis. ● Examine the structure function relationship of organ systems in vertebrates. ● Discusses the modalities for regulation of life processes. ● Measure physiological parameters like blood pressure, blood sugar, heartbeat, pulse rate, hemoglobin, differential count of WBC, clotting time, bleeding time and erythrocyte sedimentation rate in humans using appropriate apparatus and technique. ● Justify the role of organ systems and their interplay to maintain homeostasis.
CC 11.1 (Endocrinology & Immunology)	● Use a tissue microtome to prepare permanent slides ● Describes the location, structure and function of vertebrate endocrine gland ● Explains the mechanism of hormone action. ● Classify immunity based on functional aspects. ● Characterize the components of immunity with respect to their structure and function. ● Compare the structure and function of different types of immunoglobulin. ● Apply techniques like ELISA for immunoassay. ● Examine endocrine disorders with reference to their causes, symptoms and treatment.
CC 12.1 (Developmental Biology)	● Compares different types of eggs and cleavage patterns in animals. ● Describes the principles of development ● Explains the process of gametogenesis and it's regulation. ● Trace the development of stages in frog and chick. ● Correlates the structure and function of extraorbryonic membrane invertebrates. ● Explains the process of regeneration metamorphosis and parthenogenesis in organisms. ● Evaluates the medical implications of assisted reproductive techniques and justify its rationale ● Examines the role of endocrine glands on reproductive biology.

CBC(Food nutrition and Public health)	● Analyses the symptoms of nutritional disorders and diseases (communicable and non-communicable). ● Appreciates the role of food and nutrients in maintenance of health ● Identifies vectors for selected vector borne diseases. ● Suggests preventive measures for some common diseases.
SEMESTER-VIII	
CC 13.1 (Biotechnology & Microbiology)	● Prepares and uses culture media for microbes and animal tissue. ● Uses fermenters for cultures of microbes. ● Explains the theoretical principles of genetic engineering and recombinant DNA technology. ● Classifies microorganisms on the basis of structure and characteristics. ● Discusses the life cycle of bacteriophage. ● Examines the structure classification and reproduction in bacteria.
CC 14.1 (Ecology & Biostatistics)	● Characterize the ecosystem with reference to structure, function and interdependence. ● Analyze the effect of ecological parameters on animals (special reference to aquatic flora and fauna) ● Assess the role of different attributes on ecological population dynamics. ● Apply different mathematical models for analysis and prediction of the trends in population dynamics. ● Apply bio statistical techniques to logically Interprets the biological phenomena for consistency, feasibility and modeling of life ● Solve bio statistical problems with regard to measures of central tendencies (Mean, median, mode) and SD. ● Represent bio statistical data in forms of frequency distribution table, frequency polygon and histogram

Professional Educational Components of B. Sc. B.Ed. Program

Semester I	
COURSE	**COURSE LEARNING OUTCOME**
On completing the course, the student teacher:	
P.E. -I **Basics in Education**	● Analyses and explains the basic educational concepts, contexts as well as meaning, nature and process of education. ● Elaborates the philosophical, psychological and sociological foundation and the process of education. ● Analyses the Educational thoughts of prominent educational thinkers and reflect on their relevance in the present educational context

	● Discusses the constitutional provisions for education in the context of national development, development of human resources and inclusive development. ● Analyses the role of education as a sub -system of the social system and its role in social change and modernization.
EPC-1: Understanding ICT and its application	● Elaborates the historical development of various educational media. ● Demonstrates understanding the main components of the computer hardware in use. ● Uses various digital technologies (hardware and software) for creating resources for all types of learners (including differently - abled). ● Uses various ICT for creating project based/problem-based constructivist learning environments. ● Critically analyzes social, economic, and ethical issues associated with the use of ICT.
Semester II	
P.E.- II Childhood and Growing Up	● Explains the process of growth and development and factors influencing development and individual differences. ● Uses socio-cultural, psychological and educational theories in Indian context. ● Analyses and interprets the nature of memory, transfer of learning, motivation and creativity in the process of development of a child. ● Creates opportunities to surmount childhood and adolescent problems.
C.P.S.- I Language Across Curriculum	● Interprets the language background of students in the context of regional varieties, standard languages and multilingualism. ● Uses language appropriately in the classroom context. ● Demonstrates better communication skills. ● Uses different strategies and approaches for language and curriculum transactions in the classroom.
Semester III	
P.E.- III Learning and Teaching	● Identifies the differential learning needs of the learners. ● Distinguishes learning as transmission and reception Vs. learning as construction. ● Elaborates theoretical perspectives of learning including the constructivist perspective. ● Explains nature and strategies of meaningful and concept learning, role of multiple intelligence. ● Develops professional competencies of a teacher.
P.E.- IV Schooling Socialization and Identity	● Reflects critically on factors that shape identity formation. ● Develops sense of self and shapes one's own sense of identity as 'student' and a 'person' located in multiple social contexts and roles. ● Develops basic understanding about and familiarities with key concepts-gender, gender-bias, gender parity, patriarchy and feminism and transgender
Semester IV	
P.E.- V	● Elaborates nature, purpose and types of educational assessment and evaluation.

Assessment for Learning	● Constructs different types of tools and techniques for continuous and comprehensive assessment of learning in the school situation. ● Explains the importance of assessment for learning and its process for enhancing the quality of learning teaching. ● Analyses the trends and issues in learning and learner assessment. ● Analyses and interprets results of the assessment using elementary statistical methods.
P.E.- VI **Creating Inclusive Classroom**	● States Policy and legislative frameworks promoting inclusion. ● Elaborates the elements of diversity for Inclusive Education due to disabilities and socio-cultural and economic factors. ● States the linkages and collaborations for addressing diversities in inclusive set-up.
Semester V	
CPS-2: Pedagogy of School subject: 1 Language (Odia/ Hindi/Bengali/English) ; **PART-1**	● Explains the role of language in various subjects. ● Organizes activities using audio-video material, ICT and internet. ● Plans the process of language assessment. ● Uses language of the context such as grammar and vocabulary. ● Identifies methods, approaches and material for teaching English at various levels in the Indian context.
CPS-2: Pedagogy of School subject: 1 Mathematical Science **PART-1**	● States the nature of mathematics and scope and values of mathematics in the school curriculum. ● Specifies the objectives of teaching and learning mathematics at the secondary and higher secondary levels of school education. ● Develops long term and short-term plans for conducting continuous and comprehensive assessment of and for students learning mathematics at the school stage. ● Elaborates and uses different approaches and methods of teaching and learning mathematics.
CPS-2: Pedagogy of School subject: 1 Biological Science **PART-1**	● States the nature of biological science and facilitates inculcation of scientific attitude among the learners. ● Organizes activities using the immediate natural surrounding and everyday experiences in developing the concept of biological sciences. ● Utilizes biological science as a dynamic and expanding body of knowledge. ● Designs inquiry episodes, problem solving situations and investigatory projects based on the curriculum. ● Determines strategies and applies different approaches in teaching and learning biology.
CPS-3: Pedagogy of School subject-2, Social Science **PART-1**	● States the nature of social science both of individual discipline and as an integrated/ interdisciplinary area of study. ● Identifies, prepares and collects different teaching-learning resource materials and uses in the classroom. ● Examines the prevailing pedagogical practices in classrooms while facilitating learning of social sciences. ● Develops lesson plans by integrating it with life, nature, mathematics, science and technology for effective teaching-learning in social sciences.

	● States the concepts of History, Geography, Political sciences and Economics included in the secondary curriculum and make pedagogical analysis of these concepts.
CPS-3: Pedagogy of School subject-2, Physical Science PART-1	● Explains the meaning and nature of physical science. ● Determines the aims and objectives of learning physical science. ● Analyzes the process of science and demonstrates the appropriate use of laboratories in teaching- learning situations. ● Applies and uses various approaches of teaching-learning of physical science. ● Develops different learning resources and materials in learning different units in Physical Science.
E.P.C.- II Learning to Function As A Teacher	● Creates lesson plans. ● Engages students in various activities as per the emerging demands in the classroom. ● Develops self-confidence and skills to engage learners and meet their diverse needs.
Semester VI	
CPS-2: Pedagogy of School subject: 1 Language (Odia/ Hindi/Bengali/English) ; PART-2	● Explains the role of language in various subjects. ● Prepare a tools for collection of information on the milestone of English/Odia/Hindi/Bengali language in India ● Prepare a report on the three language formula being implemented in the schools ● Prepare a lesson plan in the pedagogy subject which is relevant to the learners ● Prepare activities of the pedagogy subject keeping in view of the constructivism in a language classroom. ● Organizes activities using audio-video material, ICT and internet. ● Plans the process of language assessment. ● Uses language of the context such as grammar and vocabulary. ● Identifies methods, approaches and material for teaching English at various levels in the Indian context.
CPS-2: Pedagogy of School subject: 1 Mathematical Science PART-2	● Develops innovative teaching- learning strategies for teaching of specific mathematical concepts. ● Develops and uses learner friendly ICT for enhancing quality of mathematics learning. ● Develops innovative teaching learning materials and activities in mathematics. ● Builds awareness on innovations in teaching learning processes of mathematics and its application in classroom practices. ● Demonstrates various ways of continuing professional development as mathematics teacher.
CPS-2: Pedagogy of School subject: 1 Biological Science PART-2	● Applies different concepts and themes in biological sciences in the real life situation. ● Creates different learning situations for different concepts is biological sciences for learners for different abilities. ● Organizes activities and laboratory experiments for biological sciences. ● Constructs assessment tools for evaluation of learning in biological sciences. ● Conducts case study on pedagogy of biology from critical point of view.

CPS-3: Pedagogy of School subject-2, Social Science PART-2	● Nurtures characteristics of professionally competent social science teacher. ● Analyses textbooks and syllabus of social science at different stages of school education. ● Constructs tools and techniques for assessment of students learning in social science. ● Organizes appropriate activities related to social sciences.
F.E.- I Multicultural Placement	● Plans activities to engage students in classrooms through observing the practice adopted by regular teachers. ● Organizes school activities with different cultural set up. ● Manages a substitute (arrangement class). ● Conducts case studies and develops a report.
Semester VII	
P.E.- VII Knowledge and Curriculum	● Explains the concept of knowledge, process and sources of knowing. ● Compares and Analyses teacher- centric and learner -centric knowledge transmission. ● Differentiates curriculum framework, curriculum and syllabus. ● Relates recommendations of the NCF 2005 and practices in school. ● Lists processes and principles of curriculum development and plan activities for curriculum transaction, evaluation and renewal.
E.P.C.- III Arts in Education	● Expresses ideas and emotions about different aspects of life through different art forms. ● Appreciates and experiments different art forms. ● Creates awareness about the rich cultural heritage of their own locality or state or region. ● Combines the knowledge of art with daily life through different media and techniques.
E.P.C.- IV ICT Practicum	● Plans hands on experience for creating ICT related teaching materials.
F.E.- II School Internship	● States clearly the general and specific objectives of teaching the subject, the different units, and the individual lessons, ● Plans and organizes classroom for elementary level students. ● Assess students' progress at different stages of learning. ● Appraises peer teaching. ● Conducts action research. ● Plans, organizes and guides various co-curricular activities, which are important constituents of a rich education for the citizens of tomorrow.
Semester VIII	
P.E.- VIII Vision of Indian Education	● Contrasts the education system from Vedic period to post independence era. ● Formulates vision for school education on the basis of new social order and technological advancement. ● Addresses the issues and concerns relating to different stages of education (elementary, secondary and higher secondary).
E.P.C.- V Understanding the Self	● Elaborates the concepts of 'self' and 'identity' and identifies the factors that shape the understanding of 'self'. ● Develops effective communication skills including the ability to listen, observe etc.

	● Appraises the critical role of teachers in promoting 'self' and students wellbeing.
E.P.C.- VI Health Yoga and Physical Education	● Analyzes the concept of holistic health, its various dimensions and determinants for all round development. ● Identifies the health problems and takes steps for taking remedial measures. ● Familiarizes with the rules of safety in hazardous situations. ● Builds right habits about exercise, games and sports, sleep, rest and relaxation. ● Discusses various policies and programs related to health, physical education and yoga. ● Explains the process of assessment of health and physical fitness.
E.P.C.- VII Reading and Reflecting on Text	● Demonstrates proficiency in reading and responding to written texts. ● Examines authentic literary and non-literary texts. ● Demonstrates study and reference skills. ● Plans, drafts and presents a piece of writing related to his or her interpretation of a text.
F.E.- III Working with Community	● Develops understanding of social realities working within the society or community. ● Develops the dignity of labour among student-teachers. ● Spreads awareness regarding various educational problems and needs of the society. ● Creates interest in social and economic reconstruction of the country. ● Executes actions leading to sustainable development. ● Builds the personality of the student teacher through community service.

1.7. Four Year B.A.- B.Ed. Program

The four-year integrated B.A.B.Ed. program aims at preparing quality teachers in Social Sciences(SS) and Languages for upper primary and secondary stages of education by integrating general studies comprising SS and language studies to enhance communication skills, and professional studies comprising foundations of education, pedagogy of school subjects, and practicum related to the tasks and functions of a school teacher. It maintains a balance between theory and practice, and coherence among the components of the program, representing a wide knowledge base of a secondary school teacher. The program is of four academic years consisting of eight semesters including Field Experiences(FE, i.e. Multicultural Placement, Internship-in-teaching and Community work).Student-teachers shall, however, be permitted to complete the program within a maximum period of six (4+2) years from the date of admission to the program. On successful completion of the program, they may enter the teaching profession or opt for higher education in their respective areas of interest.

PROGRAM OUTCOMES FOR FOUR YEAR B.A.B. Ed.:

The 4-year integrated B.Sc.-B.Ed. program aims at enabling the student teachers to

- Demonstrate knowledge and performance competencies in Social Sciences and languages.

- Explain the nuances of child psychology and how children learn.
- Exhibit the skill of linking content and pedagogical aspects of the teaching learning process suitable for secondary level of school education.
- Enhance the skill of communication.
- Apply innovative strategies in classroom transactions.
- Demonstrates critical awareness of professional ethics and the ability to critically engage in reflective practices.
- Exhibit skill of thinking, abstract reasoning, creativity and problem-solving skills.
- List out issues related to natural resources and promote eco-friendly practices & sustainability.
- Create and use low-cost/no-cost learning materials to illustrate the social science and language concepts;
- Demonstrate functional familiarity with ICT and use it as a teaching learning tool.
- Creates awareness about the environment.

Course learning outcomes of AECC (Ability Enhancement Compulsory courses) and DSE (Discipline Specific Elective) subjects for B.A.- B.Ed. Course

COURSE (PAPER)	LEARNING OUTCOMES
On completing the course, the student teacher:	
AECC-I: ABILITY ENHANCEMENT COMPULSORY COURSE ❖ **COMMUNICATIVE ENGLISH -I)**	● Recognizes the elements of communication as they apply to various types of communication context. ● Identifies different verbal and non-verbal communication patterns across cultures. ● Prepares and delivers an effective oral presentation. ● Identifies common errors and rectify them.
AECC-II **COMMUNICATIVE ENGLISH – II**	● Generates questions while reading the text. ● Classifies various types of questions. ● Infers their own and their peers' questions by connecting ideas. ● Uses the language of letter writing and reporting ● Recognizes how to plan and complete reports for maximum impact ● Identifies key features of the structure and format of memos ● Writes an internal memo ● Produces a resume that describes their education, skills, experiences and measurable achievements with proper grammar, format and brevity.
AECC-III **Environmental Studies**	● Articulates the interconnected and interdisciplinary nature of environmental studies ● Demonstrates an integrative approach to environmental issues with a focus on sustainability. ● Uses critical thinking, problem-solving, and the methodological approaches of the social sciences, natural sciences, and humanities in environmental problem solving. ● Communicates complex environmental information to both technical and non-technical audiences
DSE (Discipline Specific Elective **(English, Odia, Hindi and Bengali)**	● Reflects critically on various literary texts. ● Analyzes various aspects of literature produced in different forms. ● Analyzes literary productions of various centuries from different locations.

Course learning outcomes of History subject for B.A.B.Ed. course (HISTORY)	
On completing the course, the student teacher:	
CC-1 COLONIALISM AND THE NATIONAL MOVEMENT IN INDIA **(AD 1750-1950)**	● Describes the various phases of colonialism in India ● Lists different administrative changes introduced by the British ● Compares between the modern and british education system. ● Explains the different socio-religious reform movements.
CC-II (ROOTS OF MODERN WORLD)	● Describes the different aspects of the Roots of Modern World ● Compares and classifies similarities of early colonial empires of Asia and South America ● Explains the relevance of revolution to modern world ● Constructs views on the industrial economy.
CC-III (THEMES IN EARLY NORTH INDIAN HISTORY)	● Describes Features of Colonial Writings on Early Indian History ● Explains The Harappan Civilization ● Classifies and compares different socio religious movements ● constructs views, arguments and ideas on the basis of State and administrative institutions of the gupta political system.
CC-IV (ISSUES IN MODERN WORLD)	● Defines the contemporary History ● Compares Imperialism in Asia, Africa and Latin America ● Assess the impact of first world war ● Analyses nazism and fascism during interwar period
CC-V (SOCIAL FORMATION AND CULTURAL PATTERN OF THE PRE-MODERN TIMES)	● Interprets evolution in pre modern times ● Examines agriculture and food production of pre modern times ● explains origin and crisis of feudalism from 7th to 15th AD centuries ● Describes religion and culture in medieval europe ● Outlines the rise of Islam in central Asia
CC-VI (THEMES IN MEDIEVAL INDIAN HISTORY (AD 650 - 1750))	● Compares between colonial and nationalists writings on medieval Indian History ● Explains the political and economic systems of delhi sultanate ● Interprets region and cultural developments ● Describes state, religion and agrarian system of mughals.
CC-VII (MAKING OF CONTEMPORARY INDIA)	● Analyses the negotiation and popular movements towards an independent India ● Summarizes drafting and working of democratic constitution ● Examines issues and challenges in Indian democracy ● Relates culture with the economy of the society.
CC-VIII (HISTORY OF MODERN CHINA)	● Identifies the key issues in transformation of China into an informal colony ● Explains the cause and effects in republic during the revolution period of 1911 ● Describes the maoist ideology and programs in china ● Summarizes the agenda of communist revolution 1949

HISTORY OF EAST ASIA- JAPAN (1868-1945)	● Recalls the issues related to the History of East – Asia Japan from the time period 1868 to 1945. ● Interprets the transition of Japan from feudalism to capitalism ● Demonstrates the Crisis of Tokugawa Bakuhan system ● Summarizes the Japan Imperialism ● Justifies the post war changes in Japan
NATIONAL LIBERATION MOVEMENTS IN 20TH CENTURY WORLD	● Describes Nationalism: Theory and Practice ● Compares Nature of Imperialism and colonialism ● Classifies National Movements in Africa and Latin America. ● Explains National Movement in Asia—China, Indonesia, India.
CC-XI **HISTORY OF SCIENCE AND TECHNOLOGY IN INDIA**	● Distinguishes the conception of science in ancient and Medieval India ● Examines the Science and technology in Pre-Modern India ● Compares the Science and Technology in colonial and Post-Colonial India ● Classifies Great Scientist and their biographies
CC- XIII- HISTORY OF THE UNITED STATES OF AMERICA (c.1776-1960) **(4 Units)**	● Recognizes the land and indigenous people. ● Explains The War of Independence and its historical interpretations. ● Analyzes the American Civil War (1861-65) and its Limitations. ● Reflects Modern Initialization and Growth of capitalism.

Course learning outcomes of Geography subject for B.A. B.Ed. Course (GEOGRAPHY)	
On completing the course, the student teacher:	
CC-I (ENVIRONMENT AND ECOSYSTEMS)	● Describes the basic principles of ecology and the characteristics of the major biomes and ecosystems of the Earth. ● Explains the interrelationships between land, sea, the atmosphere and the living things ● Discusses the role that humans play in affecting the characteristics of the environment. ● Evaluates current environmental issues ● Evaluates problems including the solutions and management practices.
CC-II OCEANOGRAPHY	● Evaluates scientific data to create a conclusion about oceanographic processes ● Illustrates interdisciplinary nature of oceanography ● Explains interrelationships of oceans to other Earth Systems ● Evaluates the interaction between humans and the ocean ● Explains how physical and chemical factors in the ocean affect the climate in the past, present, and future.
CC-III CLIMATOLOGY	● Explains the elements climate, weather and atmosphere ● Describes the process of Air Circulation and Condensation ● lists different forms of condensation and atmospheric humidity ● Classifies climate changes.
PRACTICAL	● Interprets climatic diagrams ● Draws weather maps
CC-IV INDIA: PHYSICAL GEOGRAPHY	● Classifies physiography of India ● Interprets the geological structures of river systems in India ● Analyses different climatic conditions of India ● Classifies soils and natural vegetation
CC-V GEOMORPHOLOGY	● Explains the development of various landforms ● identifies the cause and effects of earth movements leading to natural disasters ● Classifies different forms of soil ● Illustrate different theories for the origin of earth.
PRACTICAL	● Draws various profiles of landforms ● Interprets topo-sheet to study relief and drainage
CC-VI HYDROLOGY	● Elaborates concept, function and precipitation of hydrological cycle ● Discusses the different factors of topography and morphometry ● Examines the different fundamentals of remote sensing including EMR and GIS ● Implements the principles and applications of water management
CC-VII QUANTITATIVE TECHNIQUES IN GEOGRAPHY	● Analyze and distributes the geographical data through mapping ● Calculates the measures of central tendency and dispersion ● Uses statistical relationships to correlate ● Computes matrix functions for quantitative geography

CC-VIII **INDIA: SOCIAL AND ECONOMIC GEOGRAPHY**	● Explains the process of production and distribution of major and commercial crops ● Describes various methods of production and distribution of minerals ● Criticizes the cultural diversities of India ● Lists out major tribes and special distributions in India
CC- IX **REGIONAL PLANNING AND DEVELOPMENT**	● Describes the changing concept of the region from an interdisciplinary view-point ● Interprets the approaches to delineation of different types of regions and their utility in planning. ● Defines the concept of multi-level planning, decentralized planning, and people's participation in the planning process.
CC- X **ECONOMIC GEOGRAPHY**	● Analyzes the meaning and Scope of Economic Geography, Economic Activities and their types. ● Discusses Resources; concepts, types, distribution and global problems ● Identifies various economic activities ● Explains different Theories of industrial and Agriculture location
CC- XI **HUMAN GEOGRAPHY**	● Describes the Nature and scope of human geography. ● Illustrates various Major Ethnic groups ● Analyzes Human Adaptation to the environment ● Analyzes the Distribution of population
CC- XIII **POPULATION & SETTLEMENT GEOGRAPHY**	● Examines the Composition of the population. ● Describes the nature of Migration and its Classification ● Analyzes Multiple & Nuclear theory, Sectoral theory, Concentric zones ● - Interprets the Spatial Organization of settlements

Course learning outcomes of Political Science subject for B.A.B.Ed. Course (POLITICAL SCIENCE)	
On completion of course the student teacher:	
CC-I UNDERSTANDING POLITICAL THEORY	● Analyzes what is Politics and explains the approaches to the Study of Political Science – Normative, Behavioral, Post Behavioral, and Feminist. ● Describes the Marxist Approach to politics. ● Explains basic concepts of Liberty, Equality, Rights, Law, and Justice. ● Assess empirical Political Theory: System's Analysis, Structural Functionalism
CC-II CONSTITUTIONAL GOVERNMENT AND DEMOCRACY IN INDIA	● Explains stages of constitution making prior to the formation of Constituent Assembly ● Describes the nature of representation of the Constituent Assembly ● Argues within the Constituent Assembly on some of the salient features of the Indian Constitution. ● Explains the factors that shaped the ideological orientation of the Constituent Assembly.
CC-III POLITICAL THEORY, CONCEPTS AND DEBATES	● Explains negative and positive importance of freedom ● Analyses significance of equality ● Examines Indispensability of Justice ● Lists the rights of Universality
CC-IV POLITICAL PROCESS IN INDIA	● Outlines political parties and electoral process in India ● Determines voting behaviors of Indians. ● Identifies regional political parties succession ● Classifies action policies based on gender, class and caste.
CC-V INTRODUCTION TO COMPARATIVE GOVERNMENT AND POLITICS	● Compares approaches of politics ● Explains the historical context of modern government ● Compares between colonialism and de-colonialism ● Differentiates between governments of U.K and U.S.A
CC-VI PERSPECTIVES ON PUBLIC ADMINISTRATION	● Compares public and private administrations ● Analyzes scientific and ideal management theories ● Explains neoclassical theories ● Describes the contemporary theories
CC-VII PERSPECTIVES ON INTERNATIONAL RELATIONS AND WORLD HISTORY	● Explains the development of international relations ● Distinguishes between classical, neo realism and liberalism ● Compares marxist and feminist approaches of IR ● Examines issues related of cold war
CC-VIII INDIAN POLITICAL THOUGHTS	● Describes the political thoughts of politicians ● Compares between the thoughts of Indian politicians ● Analyze the key features to built an ideal society
CC-IX PUBLIC POLICY AND ADMINISTRATION IN INDIA	● Examines Public Policy process in India. ● Describes the Meaning, Significance of Decentralization. ● Identifies Citizens and Administration Interface. ● Analyzes Social Welfare Policies.

CC- X **GLOBAL POLITICS**	● Elaborates the meaning, features and debates related to globalization. ● Lists out the issues related to global politics.
CC-XI **CLASSICAL POLITICAL PHILOSOPHY**	● Criticizes political thoughts by different thinkers and political philosophers.
CC-XII **Project cum seminar-I**	● Discusses the primary and secondary sources related to social and political studies. ● Writes papers on issues related to development issues in the area of interest.
CC- XIII **MODERN POLITICAL PHILOSOPHY**	● Criticizes Modernity and its Discourses. ● Describes the Theory of State. ● Compares various theories by different philosophers.
CC-XIV **Project cum seminar-II**	● Discusses the primary and secondary sources related to social and developmental issues. ● Writes papers on issues related to development issues in the area of interest.

Course learning outcomes of Economics subject for B.A. B.Ed. Course (ECONOMICS)	
On completion of course the student teacher:	
CC-I MICROECONOMICS-I	● Defines the basic concepts in Microeconomic Theory ● Explains the fundamental hypothesis in Microeconomic Theory ● Interprets given graph and derives conclusions ● Analyses consumer equilibrium ● Assess consumer preferences ● Defines curves and explains their properties of budget line ● Defines budget constraint ● explains the budget properties ● Calculates price, income and cross-price elasticity ● Explains the factors affecting the sensitivity of demand to price changes ● Interprets the relation between prices change and elasticity
CC-II MONEY & BANKING	● Discusses why people hold money. ● Explains the working of monetary policy. ● Describes the working of commercial banks. ● Discuss the role and functioning of RBI.
CC-III PUBLIC ECONOMICS	● Differentiates between the public and private finances ● Explains public expenditure ● List outs resources of public revenue ● identifies the methods of public debt redemption
CC-IV INDIAN ECONOMY-I	● Compares the economy of different periods ● Estimates the population through demographic features ● Explains the agricultural reforms and green revolution ● Analyzes issues related to industrial economy
CC-V MICRO ECONOMICS-II	● Derives and compares market demand and supply curves ● Calculates Short-run and Long-run Equilibrium of firm and industry ● Determines price-output 0f monopoly and oligopoly ● Explains theories of marginal productivity
CC-VI QUANTITATIVE TECHNIQUES	● Distinguishes types of studies and their limitations and strengths, ● Describes a data set including both categorical and quantitative variables to support or refute a statement, ● Applies laws of probability to concrete problems, ● Performs statistical inference in several circumstances and interpret the results in an applied context.
CC-VII MACRO ECONOMICS	● Uses graphs in common economic applications ● Explains and graphically illustrates market equilibrium, surplus and shortage ● Explains the price elasticity of demand and price elasticity of supply, and compute both using the midpoint method ● Explains and calculates other elasticities using common economic variables ● Explains policy implications of Keynesian economics.

CC-VIII **DEVELOPMENT ECONOMICS-I**	● Explains inequalities between rich and poor countries. ● Explains the concept of economic growth. ● Differentiates measurements of poverty and inequality, and pros and cons of the different measurements. ● Explains the development of international trade patterns and central theories of international trade.
CC- IX **INDIAN ECONOMY-II**	● Criticizes Growth & Development of the Indian Economy. ● Interprets the Trends & policies in poverty, Inequality and unemployment in India. ● Distinguishes the various components of HDI ● Justifies the Objectives and strategies of Indian planning
CC- X **DEVELOPMENT ECONOMICS-II**	● Inspects Demography & Development. ● Demonstrates the distribution of land ownership, Land reform and its effect on productivity. ● Deducts the linkages between environment and economy. ● Discusses the historical perspective of Globalization.
CC- XI **ECONOMIC THOUGHT**	● Critically reflects and analyzes issues related to economic thoughts like mercantilism, scientific socialism. ● Discusses the change in economic thoughts from the early and classical period till capitalism.
CC- XII **Project cum seminar-I** **(TERM PAPERSON DEVELPOMENT ISSUES)**	● Discusses the primary and secondary sources related to social and developmental issues. ● Writes papers on issues related to development issues in the area of interest.
CC- XIII **INTERNATIONAL ECONOMICS**	● Illustrates International trade, theories of comparative advantage ● Demonstrates Gains from Trade, their measurement and distribution ● Examines Balance of payments and trade, concepts and components ● Calculate Foreign exchange market, determination of equilibrium, rate of exchange and related theories.
CC- XIV **Project cum seminar-II**	● Discusses the primary and secondary sources related to Economic Studies. ● Writes papers on issues related to development issues in the area of interest.

Course learning outcomes of English subject for B.A. B.Ed. Course (ENGLISH)	
On completion of course the student teacher:	
Course	**Course learning outcome**
CC –I (HISTORY OF ENGLISH LITERATURE AND FIGURES OF SPEECH)	● Comprehends ideas on the literary developments through different ages of English literature. ● Understanding of the social factors played their roles behind literary compositions during different phases. ● Differentiates and applies to various figures of speech.
CC -II **ENGLISH POETRY**	● Recognizes poetry from a variety of cultures, languages, and historic periods ● Analyses the various elements of poetry, such as diction, tone, form, genre, imagery, figures of speech, symbolism, theme, etc. ● Recognizes the rhythms, metrics and other musical aspects of poetry ● discusses selected poems in translation ● Applies the principles of literary criticism of poetry.
CC-III SEMANTICS AND ORAL COMMUNICATION	● Reflects the Syntax of English structure ● Analyses Semantics of English Language ● Demonstrates the skill of communicate effectively
CC –IV ENGLISH NOVEL, SHORT-STORIES AND ESSAYS	● Reflects the issues related to English Novels, short stories and Essays. ● Analyses short stories composed in English ● Understands the background and features of essay as an art form
CC –V GENERAL LINGUISTICS AND MODERN ENGLISH STRUCTURES	● Critically reflects on modern English structures ● Analyses the issues related to general linguistics ● Examines various aspects of language studies in relation to the other languages known to them
CC –VI READING AND APPRECIATING DRAMA	● Critically reflect the chronological development of British Drama ● analyzes the issues related to reading and appreciating English Dramatic literature ● focus of the specific dramatic texts in relation to their background and performance
CC -VII SOCIOLINGUISTICS AND LANGUAGE ACQUISITION	● Critically reflects on language in relation to society ● Analyzes issues related to sociolinguistics especially in respect of English ● Understands the factors behind language acquisition

CC -VIII LITERARY CRITICISM	● Critically reflect on Classical and Renaissance criticism ● Lists the importance of English Neoclassical criticism ● Analyzes the issues related to Romantic and Victorian criticism and also literary Criticism of the twentieth century
SEMESTER- V	
CC – IX AMERICAN LITERATURE	● Have a critical understanding of the History of American Literature ● Reflects and analyzes the issues related to the American Literature ● Demonstrates different dimensions of selected fictional and nonfiction texts
CC - X CONTEMPORARY LITERARY THEORY	● Reflects different stances for investigating texts ● Elaborates various factors and philosophies influencing formation of literary theories ● Analyzes issues related to various literary theories and knowing seminal texts concerning them
DSE- ASPECTS OF LITERATURE	● Reflects various aspects of literature produced in different forms in different countries. ● Analyzes fictional texts and to be aware of literary values ● Elaborates the importance of non-fictional writings as literary texts
SEMESTER- VI	
CC - XI INDIAN WRITING IN TRANSLATION	● Analyzes the issues related to modern Indian literature translated into English ● Critically reflect on Historical development of Indian writing in translation ● Appreciate different aspects of selected texts and realise the literary values therein
CC - XII WORLD LITERATURE	● Analyzes the issues related to English Literature written in countries other than England and America ● Reflects values and literary devices in the selected texts ● Elaborates the background of composition of the texts
SEMESTER- VIII	
CC- XIII DRAMA, POETRY AND PHILOLOGY	● Critically reflect issues related to philology ● Elaborates the formation of English language and the factors behind its present shape ● Analyzes and evaluate the dramatic texts and poetry
CC- XIV PROJECT CUM SEMINAR	

Course learning outcomes of Bengali subject for B.A.B.Ed. Course (BENGALI)	
COURSE (PAPER)	**LEARNING OUTCOMES**
On completion of course the student teacher:	
SEMESTER I	
CC-1/GE-1.1/GE-2.1 (বাংলাসাহিত্যের ইতিহা	● A systematic analysis, explanation and review of the ancient-medieval Bengali Literature focusing on time period.

স- *প্রাচীনওমধ্যযুগ*/Bengali Literature— Ancient &Medieval Age)	• Elaborates the religious, philosophical, psychological, ethical and sociological trends of the ancient and medieval age. • Discuss the self-identity, tradition, gradual development of language, classical rhythm and ornamentation, literary and historical value of the ancient-medieval Bengali Literature. • A clear idea of the difference between the ancient and modern literature will be developed.
CC-2 (আধুনিকবাংলাকাব্য/ Modern Bengali Poetry)	• Interprets about the spirit and concepts of poetic justice & modern Bengali poets. • Identifies in detail about the forms and divisions of modern Bengali Poetry Or poetic movements. • Developed a clear idea of the difference between ancient lyrical poetry and modern lyrical poetry. • Skill and proficiency in reciting poem on socio-cultural events.
SEMESTER- II	
CC-3/GE-1.2/GE-2.2 (বাংলাসাহিত্যের *ইতিহাস- আধুনিকযুগ*/ Bengali Literature— Modern Age)	• Explains the importance of age of reason and individualism in the Nineteenth century. • Explains the origin and development of middle class society in Bengal & modern Bengali Literature is dominated by the Middle class. • Interprets The origin and development of Bengali prose in different norms. • Analyses the influence of Bengal Renaissance in India and the trends of meaningful social reform. .
CC-4(বাংলাভাষার *ইতিহাস* /History of Bengali Language)	• Explains the origin and development of Bengali Language from New Indo-Aryan. • Elaborates the elements of the changing process of Bengali Alphabet from early stages to modern times. • Analyzes the concept, nature and variations in Bengali vocabulary. • Explains the importance of various types of dialects in different communities of our diverse country.
SEMESTER III	
CC-5/GE-1.3/GE-2.3 (বাংলানাটক/ BENGALI DRAMA)	• Explains the concept of Dramatization and Adaptation in Bengali Play. • The role of Bengali Play in stimulating the Nationalist Movement of India. • Compares and Analyzes the evolution from amateur theater to commercial theatre and the empowerment of middle class society actresses empowerment in Bengali Theatre. • Expresses ideas and emotions about different aspects of life through performing art.
CC-6 (বাংলাপ্রবন্ধ/ Bengali Essay)	• Expresses ideas and plan based on facts, thoughts, arguments & theories. • Making decisions through dispassionate view and logical analysis. • Distinguish between objective and subjective essay. • Comprehension of analytical speaking and writing skill acquisition.

SEMESTER IV	
CC-7/GE-1.4/GE-2.4 (বাংলাছন্দওঅলংকার/ Bengali Rhythm and Rhetoric)	● Explain how rhythm and rhetoric are used in poetry. ● Analyses the basic concept of syllable, unit, beat, stanza as well as meaning, nature and process of poetry. ● Reflects on factors of poem that shape identity formation. ● Explain the artistic value and dimension of poetry.
CC-8 (বাংলালোকসাহিত্য/ Bengali Folklore)	● Analyses the definition of folklore and the concept of various dimensions of folk-literature. ● Creates awareness about the rich cultural heritage in depth of their own locality or state or region. ● Expresses ideas and emotions about different aspects of society, subaltern life through different art forms of Bengal folklore. ● Combines the knowledge of art with daily life through different prominent branches of folk literature.
SEC**(বাংলাভাষাপরিচয় ওব্যাকরণ/ The Introduction of Bengali Language and Grammar)**	● Interprets the language background of students in the context of regional varieties, standard Bengali languages and multilingualism. ● Analyzes the concept, nature and variations in Bengali vocabulary. ● Elaborates and uses different approaches and methods of Bengali Grammar. ● Prepares a plan for teaching with proper pronunciation and correct spelling of words.
SEMESTER V	
CC-9 (আধুনিকবাংলাকবিতা/ Modern Bengali Poem)	● Identifies in detail about the forms and divisions of modern Bengali Poem poetic movements. ● Explain the artistic value and dimension of poetry. ● The modern age is defined by suffering, urbanism, sense of evil and human values. ● Skill and proficiency in reciting poems on socio-cultural events.
CC-10(বাংলাসমালোচনাসাহিত্য/Criticism in Bengali Literature)	● Analyses the concept and different method of Criticism in Bengali Literature. ● Identifies the literary terms and can apply literary terms and can apply literary theory in literary criticism. ● Explains the origin and development of Criticism in Bengali Literature and Language. ● Elaborates theoretical perspectives of different methods of Criticism.
DSE (বাংলাকবিতা, গল্পওব্যাকরণ/Bengali Poem, Story &Literature)	● Explain the artistic value and dimension of poetry. ● Demonstrates the skill of imagination, moral values and mental strength. ● Elaborates and uses different approaches and methods of Bengali Grammar. ● Prepares a plan for teaching with proper pronunciation and correct spelling of words.
SEMESTER VI	

CC-11 (সাহিত্যতত্ত্ব-প্রাচ্যওপাশ্চাত্য/ Literary Theory—Eastern and Western)	● Explain the different genres and division of literary theories and various types of philosophical aspects. ● Discusses the difference between eastern and western literary theory and philosophical aspects. ● Identifies the literary terms and can apply literary theory in literary criticism. ● Elaborates theoretical and aesthetical value of Literature.
CC-12 (বাংলাভাষায়কম্পিউটারেরব্যবহার/ Uses of Computer in Bengali Literature)	● Engages students in various activities as per the emerging demands in the classroom. ● Develops self-confidence and skills of Bengali learners and meet their diverse needs. ● Demonstrates understanding the main components of the computer hardware in use. ● Uses various digital technologies (hardware and software) for creating resources for all types of learners (including differently abled).
SEMESTER VIII	
CC-13 (অনুবাদওবাংলাঅনুবাদসাহিত্য/ Translation and Bengali Literature)	● Interpretation of foreign language, literature, culture and theory in the age of globalization. ● Explains the nature of provincial language, culture and literature in the diverse part of our country. ● Analyses how the translation from Sanskrit in the Medieval age increased the quality and power of Bengali Language. ● The translation will enable analysis of Indian epics in Bengali Language and reach a wider audience.
CC-14(প্রোজেক্টএবংসেমিনার/ Project and Seminar)	● Learners will be encouraged in the research field with project work. ● Organizes seminars, conferences, resources and services. ● Use a project to Identify many unknown aspects of civilizations. ● Uses various ICT for creating project based/problem based constructivist learning environments.

Course learning outcomes of Hindi subject for B.A. B.Ed. Course (HINDI)	
Paper	**Learning Outcomes**
On completion of course the student teacher:	
SEM- I	
CC-I/GE1.1/GF2.1 हिन्दीसाहित्यकाइतिहास	●बच्चे विभिन्न कालोंमें हिन्दी साहित्य के साहित्यिक इतिहास का आलोचनात्मक विश्लेषण करते हैं। ●आदिकाल, भक्तिकाल, रीतिकाल और आधुनिक कालमें हिन्दी साहित्य को उस की विशेषता ओं के आधार पर वर्गीकृत करते हैं। ●भारतें दुयुगीन काव्य और द्विवेदी युगीन काव्य की प्रमुख प्रवृतियों का वर्णन करते हैं। ●छायावाद और प्रगतिवाद की विशेषताओं की तुलना करते हैं।
CC-II	●मध्यकालीन कवियों और उनकी कृतियों को पहचानते हैं

मध्यकालीनकविता (1)	●कबीर और जायसी के पदोंका सारांस बताते है और वर्णन करते हैं। ●सूरदास और तुलसीदास के पदों का उल्लेख करते हैं। ●मध्यकाल की कविताओं की नीतियों को प्रतिबिंबित करते हैं।
SEM- II	
CC-III/GE1.2/GE2.2 मध्यकालीनकविता (2)	●मध्यकालीन कविताओं की भाषा शैली और मर्मको समझते हुए सारांश देते हैं। ●मीरा के पद, रसखान और रहीम जैसे कवियों की कृतियोंका प्रत्य स्मरण करते हैं। ●बिहारी के दोहों के विभिन्न पहलुओं को प्रस्तुत करतेहैं ।
CC-IV आधुनिककविता	●आधुनिक कविताओं के मर्म का वास्तविक समाज और संस्कृति से संबंध स्थपित करते हैं। ●विभिन्न कवियों के काव्यों के शब्द-चयन और विषय- वस्तुओं में विभेद करते हैं। ●मैथिली शरणगुप्त, नागर्जुन, पंत, निराला, आदि कवियों से अवगत होतेहै और प्रासंगिकता ओंक उल्लेख और चर्चा करते हैं।
SEM- III	
CC-V/GE1.3/GE2.3 गद्यसाहित्यऔर आलोचना	●निबंध, कहानी एवं आलोचना की प्रकृति की तुलना करते हैं। ●हजारीप्रसाद द्विवेदी, महादेवीवर्मा, अज्ञेय, आदि के निबंधो और कहानियों से परिकल्पना करते है और निष्कर्ष निकालते हैं। ●आलोचना के विविधप्रकारों और गुणों की विवेचना करते हैं। ●विवेचकों के विभिन्न दृष्टियों की परिचर्चा करते हैं और औचित्यस्थापित करते हैं ।
CC-VI नाटक(विस्तृतअध्ययन)	●नाटक और एकांकी की प्रकृति का आलोचनात्मक ढ़ंग से विश्लेषण और विभेदीकरण करतें हैं। ●नाटक के स्वरूप और प्रकारका विवरण देते है और अंतरस्पष्ट करते हैं। ●नाटक और एकांकीके उद्भव और विकास का विस्तृत वर्णन करते हैं।
SEM- IV	
CC-VII/GE1.4/GE2.4 प्रयोजनमूलकहिंदी	●प्रयोजन मूलक हिंदी के अर्थ और स्वरूप से अवगत होते है तथा उसके उदाहरण और प्रयोगप्रदर्शित करते हैं। ●कार्यालयी और साहित्यि क हिंदी के बीचअन्तर स्पष्ट करते हैं। ●जन संचार के प्रकार और माध्यमों का वर्णन करते है तथा दृष्टांत देते हैं। ●पारिभाषिक शब्दावली में प्रमुख शब्द, वाक्यांस और पदनाम को पहचानतें हैं और उनका सृजनात्मक प्रयोग करते हैं।
CC-VIII काव्यशास्त्र	●काव्यशास्त्र की सौंदर्यपूर्ण प्रकृति का वर्णन करते हैं। ●काव्य की शब्दशक्ति से परिभाषा एवं उदाहरण व्यक्त करते हैं। ●रस की परिभाषा और भेदों का संक्षिप्त विवरण देते हैं। ●अलंकार के सौन्दर्य, लक्षण तथा उदाहरण की परिचर्चा करते हैं। ●छंद के लक्षण, उदाहरण एवं विविध प्रकारों की विश्लेषण करते हैं।
SEM- V	
CC-IX भाषाविज्ञान	●भाषा विज्ञान की विभिन्न शाखाओं (ध्वनिविज्ञान, पदविज्ञान, अर्थ विज्ञान और वाक्य विज्ञान) के बीतअंतर्संबंध स्थापित करते हैं । ●स्वर, व्यंजन, शब्द, पदजै से पदों को उदाहरण सहितपरिभाषितकरतेहै।

	●ध्वनि, पद, अर्थ, तथा वाक्य की हिंदी भाषा के अंतर्गत परिवर्तन के कारण एवं दशाओं की विस्तृत व्याख्या करता हैं। ●वाक्य के प्रकारों (अर्थऔररचनाकीदृष्टीसे) का संक्षिप्तविवरण देते हैं। ●भाषा विज्ञान की शाखाओ का संगठित संश्लेषण करते हैं तथा विभिन्न प्रकार के वाक्यों का निर्माण करते हैं।
CC-X **हिंदीभाषाऔर लिपि**	●भाषा की परिभाषा, प्रकृति और रूपों को प्रस्तुत करते हैं। ●संस्कृत के युग से आजतक, हिंदी भाषा केउद्भव और विकास पर संक्षिप्त टिप्पणी देते हैं। ●देवनागरी लिपिकी विशेषताओं का उल्लेख करते हैं। ●हिंदी भाषा और उसकी क्षेत्रीयबोलियों का परिचय देते है और उनकी संरचनात्मक विविधताओं की चर्चा करतें हैं । ●हिंदी भाषा के रूपों और शब्द भंडारसे अवगत होते हुए उसकी वर्तमान दशा और दिशा को प्रतिबिंवित करते हैं। ●चर्चायवाची शब्द, प्रत्यय, उपसर्ग, मुहावरे और लोकोक्तियों को समझते हैं और हिंदी भाषा में उनका प्रयोग करते हैं।
SEM- VI	
CC-XI **प्रेमचंद**	●प्रेमचंद के साहित्य की सामान्य प्रकृति का आलोचनात्म कवि श्लेषण करते हैं । ●'गोदान' उपन्यास की विस्तृत विवेचना करते हैं। ●प्रेमचंद की सर्वश्रेष्ठ कहानियों से अवगत होते हुए उनपर संक्षिप्तटिप्पणी करते हैं। ●प्रेमचंद का निबंध संग्रह- 'कुछविचार'का अपनेशब्दों में वर्णन करते है ।
CC-XII **साक्षात्कारसमाचारऔरफीचर-लेखन**	●साक्षात्कार के अर्थ और प्रकारों की आलोचना करते हैं । ●सामाचार-लेखन और फीचर-लेखन में विभेदी करण करते हैं। ●अपने वास्तविक जीवन के घटना से संबंधित फीचर-लेखन करते हैं (लगभग 125 शब्दोंमें) ●निज अनुभव के आधार पर किसी विशेष अवसर के लिए फीचर-लेखन करते हैं।
SEM- VII	
CC-XIII **जयशंकरप्रसाद**	●जय शंकर प्रसाद के विशिष्टकाव्य और नाटक का आलोचनात्मक प्रस्तुतिकरण करते हैं। ●'कामायनी' की विस्तृत व्याख्या करते हैं। ●'श्रद्धा'सर्ग की कथावस्तु और काव्य वैशिष्टय पर संक्षि प्तटिप्पणी करते हैं। ●'ध्रुवस्वामिनी' के प्रमुख पात्रों का चरित्र चित्रण करते हैं और समीक्षा करते हैं ।
CC-XIV **Project cum Seminar**	●अनुवाद के अर्थ, परिभाषा और स्वप्न का वर्णन करते हैं। ●अनुवाद के प्रकार और प्रक्रिया अधिग्रहण के पश्चात उनका प्रयोग करते हैं। ●अनुवादक के गुणों तथा विशेषताओं को चिन्हित करते हैं तथा उल्लेख करतें हैं। ●अनुवादक की समस्याओं पर चर्चा करते है। ●साहित्य और साहित्येत्तर अनुवाद को प्रतिबिंबित कतते हैं। ●अनुवाद के गुण धर्म और प्रक्रिया का संश्लेषण कर के अंग्रेजी के अनुच्छेदों का हिन्दी अनुवाद करते हैं।
SEC **सामान्यभाषाज्ञान**	●भाषा के संदर्भ में उसकी प्रकृति, उद्भव, विकास तथा संप्रेषण के प्रकार्य की जानकारी प्रस्तुत करते हैं। ●राजभाषा के रूप में हिन्दी की दशा तथा संक्षिप्त टिप्पणी करते हैं। ●जन संचार के माध्यमों को वर्गी कृत करते हैं।

	●कार्यालयी तथा व्यक्तिगत पत्र के स्वरूपों में अंतरस्पष्ट करते हैं। ●अपठित गद्यांशो का सारांश व्यक्त करते हैं। ●संक्षेप तथा उसपर आधारित प्रश्नों के उत्तर की व्याख्या करते हैं।

Professional Educational Components of B. A. B. Ed. Program

Semester I	
COURSE	**COURSE LEARNING OUTCOME**
On completion of course the student teacher:	
P.E. -I **Basics in Education**	● Analyses and explains the basic educational concepts, contexts as well as meaning, nature and process of education. ● Elaborates the philosophical, psychological and sociological foundation and the process of education. ● Analyses the Educational thoughts of prominent educational thinkers and reflect on their relevance in the present educational context ● Discusses the constitutional provisions for education in the context of national development, development of human resources and inclusive development. ● Analyses the role of education as a sub -system of the social system and its role in social change and modernization.
EPC-1: Understanding ICT and its application	● Elaborates the historical development of various educational media. ● Demonstrates understanding the main components of the computer hardware in use. ● Uses various digital technologies (hardware and software) for creating resources for all types of learners (including differently abled). ● Uses various ICT for creating project based/problem based constructivist learning environments. ● Critically analyzes social, economic, and ethical issues associated with the use of ICT.
Semester II	
P.E.- II Childhood and Growing Up	● Explains the process of growth and development and factors influencing development and individual differences. ● Uses socio-cultural, psychological and educational theories in Indian context. ● Analyses and interprets the nature of memory, transfer of learning, motivation and creativity in the process of development of a child. ● Creates opportunities to surmount childhood and adolescent problems.
C.P.S.- I Language Across Curriculum	● Interprets the language background of students in the context of regional varieties, standard languages and multilingualism. ● Uses language appropriately in the classroom context. ● Demonstrates better communication skills. ● Uses different strategies and approaches for language and curriculum transactions in the classroom.
Semester III	
P.E.- III **Learning and Teaching**	● Identifies the differential learning needs of the learners. ● Distinguishes learning as transmission and reception Vs. learning as construction. ● Elaborates theoretical perspectives of learning including the constructivist perspective. ● Explains nature and strategies of meaningful and concept learning, role of multiple intelligence.

	● Develops professional competencies of a teacher.
P.E.- IV **Schooling Socialization and Identity**	● Reflects critically on factors that shape identity formation. ● Develops sense of self and shapes one's own sense of identity as 'student' and a 'person' located in multiple social contexts and roles. ● Develops basic understanding about and familiarities with key concepts-gender, gender-bias, gender parity, patriarchy and feminism and transgender
Semester IV	
P.E.- V **Assessment for Learning**	● Elaborates nature, purpose and types of educational assessment and evaluation. ● Constructs different types of tools and techniques for continuous and comprehensive assessment of learning in the school situation. ● Explains the importance of assessment for learning and its process for enhancing the quality of learning teaching. ● Analyses the trends and issues in learning and learner assessment. ● Analyses and interprets results of the assessment using elementary statistical methods.
P.E.- VI **Creating Inclusive Classroom**	● States Policy and legislative frameworks promoting inclusion. ● Elaborates the elements of diversity for Inclusive Education due to disabilities and socio-cultural and economic factors. ● States the linkages and collaborations for addressing diversities in inclusive set-up.
Semester V	
CPS-2: Pedagogy of School subject: 1 Language (Odia/ Hindi/Bengali/English) ; **PART-1**	● Explains the role of language in various subjects. ● Organizes activities using audio-video material, ICT and internet. ● Plans the process of language assessment. ● Uses language of the context such as grammar and vocabulary. ● Identifies methods, approaches and material for teaching English at various levels in the Indian context.
CPS-2: Pedagogy of School subject: 1 Mathematical Science **PART-1**	● States the nature of mathematics and scope and values of mathematics in the school curriculum. ● Specifies the objectives of teaching and learning mathematics at the secondary and higher secondary levels of school education. ● Develops long term and short term plans for conducting continuous and comprehensive assessment of and for students learning mathematics at the school stage. ● Elaborates and uses different approaches and methods of teaching and learning mathematics.
CPS-2: Pedagogy of School subject: 1 Biological Science **PART-1**	● States the nature of biological science and facilitates inculcation of scientific attitude among the learners. ● Organizes activities using the immediate natural surrounding and everyday experiences in developing the concept of biological sciences. ● Utilizes biological science as a dynamic and expanding body of knowledge. ● Designs inquiry episodes, problem solving situations and investigatory projects based on the curriculum. ● Determines strategies and applies different approaches in teaching and learning biology.

CPS-3: Pedagogy of School subject-2, Social Science PART-1	● States the nature of social science both of individual discipline and as an integrated/ interdisciplinary area of study. ● Identifies, prepares and collects different teaching-learning resource materials and uses in the classroom. ● Examines the prevailing pedagogical practices in classrooms while facilitating learning of social sciences. ● Develops lesson plans by integrating it with life, nature, mathematics, science and technology for effective teaching-learning in social sciences. ● States the concepts of History, Geography, Political sciences and Economics included in the secondary curriculum and make pedagogical analysis of these concepts.
CPS-3: Pedagogy of School subject-2, Physical Science PART-1	● Explains the meaning and nature of physical science. ● Determines the aims and objectives of learning physical science. ● Analyzes the process of science and demonstrates the appropriate use of laboratory in teaching- learning situations. ● Applies and uses various approaches of teaching-learning of physical science. ● Develops different learning resources and materials in learning different units in Physical Science.
E.P.C.- II Learning to Function As A Teacher	● Creates lesson plans. ● Engages students in various activities as per the emerging demands in the classroom. ● Develops self-confidence and skills to engage learners and meet their diverse needs.
Semester VI	
CPS-2: Pedagogy of School subject: 1 Language (Odia/ Hindi/Bengali/English) ; PART-2	● Explains the role of language in various subjects. ● Prepare a tools for collection of information on the milestone of English/Odia/Hindi/Bengali language in India ● Prepare a report on the three language formula being implemented in the schools ● Prepare a lesson plan in the pedagogy subject which is relevant to the learners ● Prepare activities of the pedagogy subject keeping in view of the constructivism in a language classroom. ● Organizes activities using audio-video material, ICT and internet. ● Plans the process of language assessment. ● Uses language of the context such as grammar and vocabulary. ● Identifies methods, approaches and material for teaching English at various levels in the Indian context.
CPS-2: Pedagogy of School subject: 1 Mathematical Science PART-2	● Develops innovative teaching- learning strategies for teaching of specific mathematical concepts. ● Develops and uses learner friendly ICT for enhancing quality of mathematics learning. ● Develops innovative teaching learning materials and activities in mathematics. ● Builds awareness on innovations in teaching learning processes of mathematics and its application in classroom practices. ● Demonstrates various ways of continuing professional development as a mathematics teacher.

CPS-2: Pedagogy of School subject: 1 Biological Science PART-2	● Applies different concepts and themes in biological sciences in the real life situation. ● Creates different learning situations for different concepts is biological sciences for learners for different abilities. ● Organizes activities and laboratory experiments for biological sciences. ● Constructs assessment tools for evaluation of learning in biological sciences. ● Conducts case study on pedagogy of biology from critical point of view.
CPS-3: Pedagogy of School subject-2, Social Science PART-2	● Nurtures characteristics of professionally competent social science teacher. ● Analyses textbooks and syllabus of social science at different stages of school education. ● Constructs tools and techniques for assessment of students learning in social science. ● Organizes appropriate activities related to social sciences.
F.E.- I Multicultural Placement	● Plans activities to engage students in classrooms through observing the practice adopted by regular teachers. ● Organizes school activities with different cultural set up. ● Manages a substitute (arrangement class). ● Conducts case studies and develops a report.
Semester VII	
P.E.- VII Knowledge and Curriculum	● Explains the concept of knowledge, process and sources of knowing. ● Compares and Analyses teacher- centered and learner -centric knowledge transmission. ● Differentiates curriculum framework, curriculum and syllabus. ● Relates recommendations of the NCF 2005 and practices in school. ● Lists processes and principles of curriculum development and plan activities for curriculum transaction, evaluation and renewal.
E.P.C.- III Arts in Education	● Expresses ideas and emotions about different aspects of life through different art forms. ● Appreciates and experiments with different art forms. ● Creates awareness about the rich cultural heritage of their own locality or state or region. ● Combines the knowledge of art with daily life through different media and techniques.
E.P.C.- IV ICT Practicum	● Plans hands on experience for creating ICT related teaching materials.

F.E.- II School Internship	● States clearly the general and specific objectives of teaching the subject, the different units, and the individual lessons, ● Plans and organizes a classroom for elementary level students. ● Assess students' progress at different stages of learning. ● Appraises peer teaching. ● Conducts action research. ● Plans, organizes and guides various co-curricular activities, which are important constituents of a rich education for the citizens of tomorrow.
Semester VIII	

P.E.- VIII **Vision of Indian Education**	● Contrasts the education system from Vedic period to post independence era. ● Formulates vision for school education on the basis of new social order and technological advancement. ● Addresses the issues and concerns relating to different stages of education (elementary, secondary and higher secondary).
E.P.C.- V **Understanding the Self**	● Elaborates the concepts of 'self' and 'identity' and identifies the factors that shape the understanding of 'self'. ● Develops effective communication skills including the ability to listen, observe etc. ● Appraises the critical role of teachers in promoting 'self' and students wellbeing.
E.P.C.- VI **Health Yoga and Physical Education**	● Analyses the concept of holistic health, its various dimensions and determinants for all round development. ● Identifies the health problems and takes steps for taking remedial measures. ● Familiarizes with the rules of safety in hazardous situations. ● Builds the right habits about exercise, games and sports, sleep, rest and relaxation. ● Discusses various policies and programmes related to health, physical education and yoga. ● Explains the process of assessment of health and physical fitness.
E.P.C.- VII **Reading and Reflecting on Text**	● Demonstrates proficiency in reading and responding to written texts. ● Examines authentic literary and non-literary texts. ● Demonstrates study and reference skills. ● Plans, drafts, edits and presents a piece of writing related to his or her interpretation of a text.
F.E.- III **Working with Community**	● Develops understanding of social realities working within the society or community. ● Develops the dignity of labour among student-teachers. ● Spreads awareness regarding various educational problems and needs of the society. ● Creates interest in social and economic reconstruction of the country. ● Executes actions leading to sustainable development. ● Builds the personality of the student teacher through community service.