

SRI VENKATESWARA UNIVERSITY: TIRUPATI

Institute of Advanced Study in Education- IASE



Course

Bachelor of Education (B.Ed)

Choice Based Credit System (CBCS)

Academic Year 2021 – 22

Vision

- To create Teachers for elementary, secondary and higher education holistically to train the future generations of the Country.

Mission

The department creates environment to train the teachers in leadership roles as caring teachers, professional experts. Training teachers in communication skills to communicate clearly and effectively, to solve problems, use effective education tools to meet the global standards.

The main purpose of establishing IASE is to uplift the Department of Education as IASE, to improve the quality of Teacher Education and Secondary Education.

PROGRAMME OUTCOMES

On successful completion of the two-year B.Ed. programme, pupil teachers will be able to develop-

1. Teaching competency: Know, select and use of learner-centered teaching methods, understanding of paradigm shift in conceptualizing disciplinary knowledge in school curriculum, necessary competencies for organizing learning experiences, select and use of appropriate assessment strategies for facilitating learning.
2. Pedagogical skills: Applying teaching skills and dealing with classroom problems.
3. Teaching through Nonconventional Modes: Evolving a system of education which enhances the potential of every learner to acquire, retain and transform knowledge leading to wisdom society through creative, experiential and joyful modes of learning.
4. Integration of Artificial Intelligence in Education: Transform the educational landscape by providing open access to quality, value based and socially relevant education to all by harnessing the disruptive potential of AI.
5. Critical Thinking: Analysis of Curriculum, construction of blue print, selecting appropriate teaching strategies according to needs of students and conducting action research to solve classroom problems.
6. Effective Communication: Presenting seminar before peer students and teachers and practicing communication skills through various linguistic activities and applying it for better classroom communication.
7. Sensitivity towards Inclusion: Identifying the diversities and dealing it in inclusive classrooms environment, guidance and counselling programmes for disabled students.
8. Content Analysis: Analyses the text-books and syllabus.
9. Effective Citizen Ethics: Understand different values, morality, and social service and accept responsibility for the society.
10. Self-directed Learning: Preparing scripts for seminars, lesson plans and online content.
11. Social Resilience: Understand about social entities and enable to tolerate absorb, cope up with adverse conditions of life.
12. Physical Development: Practice yoga, self-defence, sports and scouting-guiding.
13. Team Work: Enable to work as a member or leader in diverse teams and in multi-disciplinary settings by following the principles of collaborative learning, cooperative learning and team teaching.

PROGRAMME SPECIFIC OUTCOMES 1. Enable to comprehend the development in physical, cognitive, social and emotional areas, contemporary issues and educational policies of education system in India, teaching-learning methods, strategies, epistemological basis of education, school management, professional ethics and observation

of school activities by school internship.

2. Understand the individual differences among students, measuring the attainment, evaluating progress, and assessing learning abilities, guidance programmes and administering psychological tools, ICT based Communication and teaching and lesson planning.

3. Practice teaching in Schools, inculcate the real experiences of classroom teaching and online teaching for remote areas' students by using ICT and its different tools and software.

4. Understand the classroom diversities and enable them to deal with diverse learners in inclusive classroom setup, education for human rights and women empowerment, environmental education and developing online content.

SEMESTER -I

COURSE OUTCOMES

Course-I

PHILOSOPHICAL FOUNDATIONS OF EDUCATION

Objectives

To enable the student teachers to

1. Understand the concepts of Education and Philosophy
2. Understand the Indian Philosophical thought on Education
3. Understand the Implications of various western schools of thought on Education
4. Understand the implications made by recent thinkers on education.
5. Appreciate the nobility of teaching as a profession.

Course Content

Unit-1: Introduction to Philosophy and Education

- 1.1 Concept and Scope of Philosophy
- 1.2 Concept and Scope of Education
- 1.3 Types and Functions of Education
- 1.4 Relationship between Philosophy and Education.
- 1.5 Philosophy and aims of Education

Unit-2: Indian Education: Historical Perspective

- 2.1 Education during Ancient Period (Vedic Education, Buddhist Education and Jains)
- 2.2 Education during Medieval Period (Including Islamic Education)
- 2.3 Education during Modern Period (Pre-Independent and Post Independent era)
 - i. Rabindranath Tagore
 - ii. Sri Aurobindo Gosh
 - iii. Mohandas Karamchand Gandhi
 - iv. Jiddu Krishna Murthy
 - v. Dr.BR.Ambeddkar
 - vi Moulana Abdul Kalam Azad

Unit-3: Eastern Systems and Western Schools of Philosophy

- 3.1 Eastern Systems of Philosophy
 - i. Sankhya ii. Yoga iii. Nyaya iv. Vedanta
- 3.2 Western Schools of Philosophy
 - i. Idealism ii. Naturalism iii. Pragmatism iv. Existentialism

Unit-4: Value Education

- 4.1 Concept of Value
- 4.2 Classification of Values
- 4.3 Value Crisis
- 4.4 Approaches to inculcate Values
- 4.5 Values and Harmonious Life

Unit-5: Teaching as a Profession

- 5.1 Teacher: Professional Competencies and Commitments
- 5.2 Teacher as a Nation Builder
- 5.3 Teacher as a Creator and Facilitator of Knowledge
- 5.4 Professional ethics of teachers
- 5.5 Teacher and the Future Society.

CO-Po Attainment in outcome based Education

Course Name-**PHILOSOPHICAL FOUNDATIONS OF EDUCATION**

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|--|
| 1 | CO ₁ | Understand the concepts of Education and Philosophy |
| 2 | CO ₂ | Understand the Indian Philosophical thought on Education |
| 3 | CO ₃ | Understand the Implications of various western schools of thought on Education |
| 4 | CO ₄ | Understand the implications made by recent thinkers on education. |
| 5 | CO ₅ | Appreciate the Mobility of teaching as a profession. |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Programme Management | PO ₁₂ Lifelong Learning |
|-----------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 2 | - | - | - | 3 | 2 | 3 | - | - | - | 2 |
| CO ₂ | 3 | 2 | 2 | - | - | 3 | 3 | 3 | - | 2 | - | 3 |
| CO ₃ | 3 | 3 | 1 | - | - | 2 | 2 | 3 | - | 1 | - | 2 |
| CO ₄ | 3 | 3 | 2 | - | - | 3 | 2 | 3 | - | - | - | 2 |

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| CO₅ | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | - | 3 |
| PO Attainment | 15 | 12 | 07 | 03 | 03 | 14 | 11 | 15 | 02 | 05 | - | 12 |

Course-II

PERSPECTIVES IN CHILD DEVELOPMENT

Objectives

To enable the student teachers to

1. Compare relative merits and applications of different Approaches of Human Development
2. Recognize that childhood is a period of socialization and how socialization practices affect their development
3. Critically analyze developmental variations among children placed and exposed to different socio-cultural contexts
4. Appreciate the process of development with special focus on childhood and adolescence
5. Recognize that adolescence as a period of transition and threshold of adulthood

Course Content

Unit-1: Approaches of Human Development

- 1.1 Concept of Growth, Development and Maturation
- 1.2 Principles of Development
- 1.3 Stages of Growth and Development (Infancy Childhood, Adolescence)
- 1.4 Dimensions of Growth and Development (Physical, Cognitive, Emotional, Social, Moral, language)
- 1.5 Longitudinal and cross sectional approaches of understanding development

Unit-2: Theories of Development

- 2.1 Cognitive theory of Development (Piaget's)
- 2.2 Psycho-social theory of development (Erikson).
- 2.3 Theory of Moral Development (Kohlberg's).
- 2.4 Theory of psycho- sexual development (Freud).
- 2.5 Theory of Emotional Development (Goldstein).

Unit-3: Childhood as a period of Socialization

- 3.1 Characteristics of childhood – developmental tasks.
 - 3.2 Child development – Physical, cognitive, social, emotional, moral and language development during childhood.
 - 3.3 Child in different socio-cultural contexts.
 - 3.4 Process of socialization – conflicts resolution and social development.
 - 3.5 Stages of Social development – Isolated play, parallel play and social play.
- Characteristics of socially matured person.

Unit-4: Adolescence as a period of transition

- 4.1 Characteristics and needs in Adolescence
- 4.2 Genesis of problems during adolescence-Physical, cognitive, emotional, social, moral and language development

- 4.3 Adolescent Groups – Gangs
 4.4 Mechanisms of adjustment with special reference to defense mechanisms and holistic development
 4.5 Leadership: Types of Leadership, Development of Leadership qualities in adolescents and its educational implications.

Unit-5: Individual Differences

- 1.1 Dimensions of Individual differences-cognitive abilities, interests, aptitude, creativity, personality and values
 1.2 Theory of multiple intelligence (Gardner) – Implications for understanding differences in children
 1.3 Difference in children based on learning styles and socio cultural context (home language and Instructional language)
 1.4 Individual differences based on cognitive abilities – learning difficulties, slow learners and intellectually challenged, intellectual giftedness - implications for catering to individual variations in view of “differences” rather than “deficits” perspective.
 1.5 Fostering creativity among children

CO-Po Attainment in outcome based Education

Course Name-PERSPECTIVES IN CHILD DEVELOPMENT

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|--|
| 1 | CO ₁ | Compare relative merits and applications of different Approaches of Human Development |
| 2 | CO ₂ | Recognize that childhood is a period of socialization and how socialization practices affect their development |
| 3 | CO ₃ | Critically analyze developmental variations among children placed and exposed to different socio-cultural contexts |
| 4 | CO ₄ | Appreciate the process of development with special focus on childhood and adolescence |
| 5 | CO ₅ | Recognize that adolescence as a period of transition and threshold of adulthood |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Programme Management | PO ₁₂ Lifelong Learning |
|-----------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 2 | 3 | 1 | 1 | 3 | - | 3 | 3 | 3 | - | 3 |

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| CO ₂ | 3 | 3 | 3 | - | 2 | 3 | 3 | 3 | 3 | 3 | - | 2 |
| CO ₃ | 3 | 3 | 3 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | - | 2 |
| CO ₄ | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 2 | 3 | - | 3 |
| CO ₅ | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | - | 3 |
| PO Attainment | 15 | 14 | 15 | 07 | 07 | 14 | 11 | 15 | 13 | 15 | - | 13 |

Course-III

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOR ENRICHING TEACHING AND LEARNING

Objectives

To enable the student teachers to

1. explain the concept of educational technology
2. explain the concept of ICT in education
3. appreciate the influence of ICT for improving the professional competencies
4. comprehend communicative skills and effective classroom interaction
5. use different approaches of ICT integration in education

Course Content

Unit-1: Information and Communication Technology (ICT)

- 1.1 Educational Technology – Concept, Growth, Objectives, Characteristics, Advantages, Challenges and Impact
- 1.2 Information Technology - Knowledge Explosion, Preservation and Retrieval
- 1.3 Communication – Concept, Elements, Process, Barriers & Types – Teaching as Communication - Communication Technology – Its application in Education
- 1.4 Instructional Media and Aids – Aural, Print, Visual and multimedia
- 1.5 Concept, Importance, Characteristics and Scope of Information and Communication Technology (ICT)

Unit-2: ICT in Education

- 2.1 Knowledge Acquisition and Multi-sensory approach
- 2.2 Classroom Communication and Communicative Skills for Teachers and Students - Flanders Interaction Analysis Category System
- 2.3 Individualized Instruction – Concept, Need, Principles and Techniques
- 2.4 Programmed Learning - Principles, Types, modes of presentation, development, application and role of teacher
- 2.5 Changing roles of the learner and the teacher in ICT-Integration and Challenges

Unit-3: Computer Fundamentals and Applications

- 3.1 Types, Characteristics and features of Computers
- 3.2 Components of Computers – Hardware, Software, Memory and Maintenance of computers
- 3.3 Operating Systems - DOS, Windows and Macintosh and Mobile Apps for Teaching
- 3.4 Software for Word Processing, Presentation, Statistical & Graphical, Page Layout, multimedia and webpage creator
- 3.5 Concept, Applications and Challenges of Computer networks, Internet, E-mail

and Digital Space

Unit-4: ICT Enriched Learning Experiences

- 4.1 Application of ICT for Enriching Classroom Experiences
- 4.2 Application and use of Multimedia Educational Software for classroom situations
- 4.3 Use of Internet based media for teaching and learning enrichment - Acknowledgement
- 4.4 Project based learning using computers, Internet and Activities
- 4.5 Collaborative learning using group discussion, projects, field visits, blogs, etc.

Unit-5: Application of Computers in Education

- 5.1 Computer as a learning tool – Concept of E-learning
- 5.2 Web 2.0 Technologies-characteristics, types and examples
- 5.3 Virtual Classroom, Smart Boards, Tools and Opportunities
- 5.4 Open Educational Resources – Concept and Significance
- 5.5 Critical issues in Internet usage – Authenticity, Addiction, Plagiarism, Ethical and Legal Standards

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CO-Po Attainment in outcome based Education

Course Name-INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOR ENRICHING TEACHING AND LEARNING

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|---|
| 1 | CO ₁ | Explain the concept of educational technology |
| 2 | CO ₂ | Explain the concept of ICT in education |
| 3 | CO ₃ | Appreciate the influence of ICT for improving the professional competencies |
| 4 | CO ₄ | Comprehend communicative skills and effective classroom interaction |
| 5 | CO ₅ | Use different approaches of ICT integration in education |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | | | | | | | | | | | | |
|--|------------------------------------|-----------------------------------|--|---|--------------------------------------|----------------------------------|--------------------------------------|---------------------------------|------------------------------------|---|---|--|
| | PO₁ Knowledge | PO₂ Analysis | PO₃ Investigation | PO₄ Design develop | PO₅ ModernTools | PO₆ Society | PO₇ Environment | PO₈ Ethics | PO₉ Team work | PO₁₀ Communication | PO₁₁ ProgrammeManagement | PO₁₂ LifelongLearning |
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| CO ₁ | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 3 | - | 3 | - | 3 |
| CO ₂ | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 1 | 3 |
| CO ₃ | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 3 |
| CO ₄ | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 1 | 3 |
| CO ₅ | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 1 | 2 |
| PO Attainment | 15 | 12 | 14 | 10 | 14 | 12 | 10 | 15 | 8 | 15 | 5 | 14 |

Course-IV

PEDAGOGY OF MATHEMATICS

Objectives

To enable the student teachers to

1. develop insight into the meaning, nature, scope and objectives of mathematics education
2. appreciate the role of mathematics in day to day life
3. understand history, development of mathematics and the contributions of Indian mathematicians to mathematics
4. understand aims and objectives of different branches of mathematics
5. Identify the role of branches of mathematics and their implications on the society.

Course Content

Unit-1: Meaning, Nature, and Scope of Mathematics

- 1.1 Meaning, Nature, and scope of mathematics.
- 1.2 History of Mathematics with special emphasis on teaching of mathematics.
- 1.3 Contributions of Indian Mathematicians
a) Aryabhatta b) Brahmagupta c) Varahamihira d) Bhaskaracharya e) SrinivasaRamanujan.
- 1.4 Contributions of Western Mathematicians
a)Euclid b)Pythagoras c) Renedescarte d) Geroje Cantor.
- 1.5 Correlation of Mathematics with other school subjects and with other branches of mathematics.

Unit-2: Aims and objectives of Teaching Mathematics

- 2.1 Need for establishing general objectives for teaching mathematics.
- 2.2 Aims, Values and general objectives of teaching mathematics.
- 2.3 Specific objectives and teaching points of various content areas in different branches of secondary school mathematics.
- 2.4 Recommendations of various Educational Committees and Commissions as regards to Aims and Objectives of Teaching Mathematics.
- 2.5 Meaning and Concept of Academic Standards of CCE.
- 2.6 Linking Blooms Taxonomy with Academic Stands.

Unit-3: Methods, Approaches and Strategies in Teaching and Learning of Mathematical Concepts

- 3.1 Nature of Concepts, types of Concepts, Concept Formation and concept assimilation; distinguishing and stating necessary and sufficient conditions in the process of teaching concepts. Comparing and contrasting. Giving counter example and non example in teaching concepts. Planning and implementation strategies in teaching concepts.
- 3.2 Creating awareness among student teachers on various concepts of Arithmetic,

Algebra, Geometry, Trigonometry and Probability and Statistics from classics VI to X.

3.3 Methods of Teaching Mathematics: Inductive and Deductive : Analytic and Synthetic: Laboratory. Heuristic, Project Method and Activity Based Teaching.

3.4 Problem solving- Stages and Steps in problem solving; Discovering or Exploring various options for solving a given problem in Algebra, Arithmetic, Geometry, Trigonometry, Probability and Statistics.

3.5 Concept Attainment Model of Jerome Bruner.

Unit-4: Planning for Teaching – Learning Mathematics

4.1 Microteaching: Concept, Definition, Microteaching cycle, Components of Microteaching, Merits and Limitations.

4.2 Microteaching Skills: Introducing a lesson, Explaining a Concept, Stimulus Variation, Illustrating with Examples, Probing Questioning, Reinforcement, Structuring Classroom Questions, and Blackboard writing.

4.3 Planning of Instruction: Unit plan, Period plan based on Blooms Taxonomy and academic standards.

4.4 Technology Integrated Lesson-Planning the Lesson by digital technology.

Unit-5: Learning Resources in Mathematics

1.1 Mathematics Text Book – Importance and Criteria of good Mathematics text book.

1.2 A Critical Analysis of existing Secondary School Mathematics Text Books.

1.3 Audio, Visual and Multimedia resources – Selection and designing.

5.4 On line Resources – ICT based Pedagogical tools.

5.5 Using community resources for mathematics learning. Visits, mathematical field trips and excursions.

5.6 Handling hurdles in utilizing resources.

CO-Po Attainment in outcome based Education

Course Name-PEDAGOGY OF MATHEMATICS

Course Outcome

| Sl.No | Course Number | Co's Description |
|--------------|-----------------------|---|
| 1 | CO₁ | Develop insight into the meaning, nature, scope and objectives of mathematics education |
| 2 | CO₂ | Appreciate the role of mathematics in day to day life |
| 3 | CO₃ | Understand history, development of mathematics and the contributions of Indian |
| 4 | CO₄ | Understand aims and objectives of different branches of mathematics |
| 5 | CO₅ | Identify the role of branches of mathematics and their implications on the society. |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | | | | | | | | | | | | |
|--|--------------------------------|---------------------------------------|--|----------------------|--|----------------------------------|--------------------------------|---------------------------------|---------------------------------------|--------------------------------------|----------------------------------|---|
| | P O 1 Knowle | PO₂ Analy sis | PO₃ Investi gation | P O 4 | PO₅ Moder nTools | PO₆ Society | P O 7 Enviro | PO₈ Ethics | PO₉ Team work | P O₁₀ Commu | P O 11 Program | PO₁₂ Lifelon gLeerin g |
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| CO ₁ | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 1 | 3 |
| CO ₂ | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 1 | 3 |
| CO ₃ | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 1 | 3 |
| CO ₄ | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 1 | 3 |
| CO ₅ | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 1 | 3 |
| PO Attainment | 15 | 15 | 11 | 11 | 14 | 09 | 11 | 15 | 14 | 15 | 05 | 15 |

Course-IV

PEDAGOGY OF SOCIAL SCIENCES

Objectives

To enable the student-teachers to

1. understand the meaning and scope of Social Sciences
2. develop general and specific aims of teaching social sciences
3. inculcate values through teaching of Social Sciences
4. understand major concepts and develop critical thinking through teaching inter disciplines of Social Sciences
5. acquire knowledge on different strategies and approaches of teaching and developing skills in connection of resources.

Course Content

Unit-1: Social Sciences as an integrated area of Study

- 1.1 Meaning, Nature and Scope of Natural and Social Sciences
- 1.2 Distinction between Natural and Social Sciences
- 1.3 Meaning, History, Nature, Scope and Development of Social Studies
- 1.4 Distinction between social sciences and social studies
- 1.5 Understanding society through various social sciences

Unit-2: Aims Objectives and Academic Standards of Social Sciences

- 2.1 Major aims and objectives of teaching Social Sciences
- 2.2 Bloom's taxonomy of Educational Objectives
- 2.3 Academic Standards and Learning outcomes of teaching Social Sciences
- 2.4 Recommendations of NPE 1986, NCF 2005, APSCF 2011
- 2.5 Values of Teaching Social Sciences

Unit-3: Approaches, Methods, Strategies and Techniques of Teaching Social Sciences

- 3.1 Meaning, need and significance of various approaches, methods, strategies and techniques of Teaching Social Sciences
- 3.2 Teacher Centered Approaches – Lecture, Lecture-demonstration, Source and Supervisory Study
- 3.3 Learner centered approaches –Project, Problem Solving, Discussion, Inductive and Deductive, Observation, Constructivist Approach
- 3.4 Strategies / Techniques - Brain Storming, Team Teaching, Mind Mapping, Questioning
- 3.5 Activities – Dramatization, Role play, Field Trips, Social Science Clubs, Exhibitions

Unit-4: Planning in Teaching Social Sciences

- 4.1 Microteaching – Meaning, Concept and Steps
- 4.2 Microteaching Skills - Introduction, Explanation, Questioning, Reinforcement, Stimulus Variation
- 4.3 Year Plan and Unit Plan
- 4.4 Need and Importance of Lesson Planning (Period Planning)
- 4.5 Technology Integrated Lesson Planning

Unit-5: Teaching Learning Resources in Social Sciences

- 5.1 Community Resources – Human and Material
- 5.2 Social Science Library, Laboratory and Museum
- 5.3 Need and Significance of Current and Controversial issues in teaching social sciences
- 5.4 Handling hurdles in utilizing resources
- 5.5 Professional Development of Social Sciences Teacher

CO-Po Attainment in outcome based Education

Course Name-PEDAGOGY OF SOCIAL SCIENCES

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|--|
| 1 | CO ₁ | Understand the meaning and scope of Social Sciences |
| 2 | CO ₂ | Develop general and specific aims of teaching social sciences |
| 3 | CO ₃ | Inculcate values through teaching of Social Sciences |
| 4 | CO ₄ | Understand major concepts and develop critical thinking through teaching inter disciplines of Social Sciences |
| 5 | CO ₅ | Acquire knowledge on different strategies and approaches of teaching and developing skills in connection of resources. |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | PO ₁ Analysis | PO ₂ Investigation | PO ₃ Design development | PO ₄ Modern Tools | PO ₅ Society | PO ₆ Ethics | PO ₇ Environment | PO ₈ Team work | PO ₉ Communication | PO ₁₀ Program Management | PO ₁₁ Lifelong Learning | |
|-----------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|---------------------------|--------------------------------|------------------------------|----------------------------------|--|---------------------------------------|---|
| CO ₁ | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 |

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|------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| CO ₂ | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 |
| CO ₂₃ | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 |
| CO ₄ | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 |
| CO ₅ | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 |
| PO Attainment | 15 | 14 | 13 | 11 | 10 | 15 | 10 | 15 | 15 | 15 | 10 | 15 |

Course-IV

PEDAGOGY OF BIOLOGICAL SCIENCES

Objectives

To enable the student-teachers to

1. develop an insight on the meaning, scope, nature and aims of biological science
2. identify and relate everyday experiences with the learning of biological science
3. integrate the knowledge of biological science with other school subjects
4. facilitate the development of scientific attitude in the learners of biological science
5. develop competencies for teaching and learning biological science through

Herbarium and Constructivist approaches

Herbarium and Constructivist approaches

Course Content

Unit-1: Introduction to Science

- 1.1. Meaning and Functions of Science
- 1.2. Nature and Scope of Science
- 1.3. Structure of Science
- 1.4. Branches of Science
- 1.5 History of Biological Science

Unit-2: Aims and Values of Biological Science

- 2.1. Aims of Teaching Biological Science
- 2.2. Values of Teaching Biological Science
- 2.3. Competences of a Biological Science Teacher
- 2.4. Correlation of Biological Science with other school Subjects

Unit-3: Objectives of Teaching Biological Science

- 3.1. Meaning and Importance of objectives
- 3.2. Revised Blooms Taxonomy of Educational Objectives.
- 3.3. Instructional Objectives and specifications with examples
- 3.4. Academics Standards mentioned in the school biological science text Book published by government of Andhra Pradesh

Unit-4: Methods and Techniques of Teaching Biological Science

- 4.1 Micro Teaching Techniques
- 4.2 Lecture Method, lecture Demonstration Method, and Laboratory Method
- 4.3 Scientific Method (Inductive and Deductive Method)

4.4 Project Method

Unit-5: Planning for Teaching Biological Science

5.1 Year Plan

5.2 Lesson Plan

5.3 Period Plan (Herbartian and Constructivist approach and CCE Model)

5.4 Learning Experiences

5.5 Planning ICT Applications in Learning Biology.

CO-Po Attainment in outcome based Education

Course Name-PEDAGOGY OF BIOLOGICAL SCIENCES

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|---|
| 1 | CO ₁ | Develop an insight on the meaning, scope, nature and aims of biological science |
| 2 | CO ₂ | Identify and relate everyday experiences with the learning of biological science |
| 3 | CO ₃ | Integrate the knowledge of biological science with other school subjects |
| 4 | CO ₄ | Facilitate the development of scientific attitude in the learners of biological science |
| 5 | CO ₅ | Develop competencies for teaching and learning biological science through |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | | | | | | | | | | | | |
|--|---------------------------------------|---------------------------------------|--|---------------------------|--|----------------------------------|---|---------------------------------|---------------------------------------|--|--|---|
| | P O 1 Knowle dge | PO₂ Analy sis | PO₃ Investi gation | P O 4 D | PO₅ Moder nTools | PO₆ Society | P O 7 Enviro nment | PO₈ Ethics | PO₉ Team work | P O₁₀ Commu nication | P O₁₁ Program meMana | PO₁₂ Lifelon gLeerin g |
|--|---------------------------------------|---------------------------------------|--|---------------------------|--|----------------------------------|---|---------------------------------|---------------------------------------|--|--|---|

| | | | | Design develop ment | | | | | | | gement | |
|-------------------------------|----|----|----|---------------------------|----|----|----|----|----|----|--------|----|
| CO ₁ | 3 | 3 | 3 | 1 | 2 | 1 | 3 | 3 | 2 | 3 | - | 3 |
| CO ₂ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - | 3 |
| CO ₃ | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | - | 3 |
| CO ₄ | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | - | 3 |
| CO ₅ | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 1 | 3 | - | 3 |
| PO Attainme nt | 15 | 15 | 15 | 13 | 13 | 10 | 13 | 15 | 09 | 15 | - | 15 |

Course-V

PEDAGOGY OF PHYSICAL SCIENCES

Objectives

To enable the student-teachers to

1. Know the nature of science, structure, value and correlation with other school subjects.
2. Draw the attention on development of science and the contributions of western and Indian scientists.
3. Understand the aims and objectives of teaching physical sciences.
4. Develop the skill of organizing science curriculum and critique on the present secondary school physical sciences curriculum.
5. Organize the content into plan of action and practice the micro and macro teaching skill.

Course Content

Unit-1: Introduction to Science and Physical Sciences

- 1.1 Science and Physical Sciences – Meaning, Nature, Scope and Importance
- 1.2 Structure of Science – Syntactic Structure (Process of Science – Domain of Inquiry), Substantive Structure - Product of Science-Facts, Concepts, Theories, Laws and Principles – characteristics in the context of Physical sciences (citing examples)
- 1.3 Values of Learning Physical Sciences
- 1.4 Correlation of Physical Sciences with Mathematics, Biological Sciences, Social Studies, Languages, Fine Arts, Environment, Health, Development, Peace and Equity
- 1.5 Analysis of selected concepts of Physics and Chemistry from 6-10 classes

Unit-2: Development of Science - Physical Sciences

- 2.1 Milestones in the Development of Sciences – Physics and Chemistry
- 2.2 Contributions of Western and Indian Scientists
- 2.3 Landmarks, Status and Development Indian Science and Technology
- 2.4 Physical Science and Human Life
- 2.5 Rationale in Inspiring Students to study Physical Science

Unit-3: Aims, Objectives and competencies of Teaching Physical Sciences

- 3.1 Aims and Objectives of Teaching Physical Sciences
- 3.2 Taxonomy of Educational Objectives – Bloom, Krathwohl, Simpson, et al – Revised Bloom’s Taxonomy and Higher Order Thinking Skills
- 3.3 Instructional Objectives of Teaching Physical Sciences
- 3.4 Behavioral or Specific Objectives of Teaching Physical Sciences
- 3.5 Competencies for Teaching of Physical Sciences

Unit-4: Approaches, Methods and Techniques of Teaching Physical Sciences

- 4.1 Concept of Teaching with special reference to Physical Science – Approaches and Methods – Student Participation in Learning
- 4.2 Teacher-centered Methods - Lecture, Lecture-cum-Demonstration, Historical
- 4.3 Student-centered Methods - Heuristic, Project, Scientific and Laboratory (Illustration of each method by taking examples from specific contents of Physics and Chemistry)
- 4.4 Modern Teaching Techniques - Brainstorming, Team Teaching and Models of Teaching – Concept Attainment Model and Enquiry Training Model
- 4.5 Microteaching - Concept and Meaning, Skills of Microteaching, Practice of Microteaching Skills

Unit-5: Planning for Teaching Physical Sciences

- 5.1 Importance of Planning for Teaching
- 5.2 Year Plan
- 5.3 Unit Plan
- 5.4 Period Plan (Lesson Plan) – Herbertian Steps vs. Constructivist Approach
- 5.5 Teaching Strategies and Academic Standards, CCE model period plan for classroom teaching

CO-Po Attainment in outcome based Education

Course Name-PEDAGOGY OF PHYSICAL SCIENCES

Course Outcome

| Sl.No | Course Number | Co’s Description |
|-------|-----------------|--|
| 1 | CO ₁ | Know the nature of science, structure, value and correlation with other school students |
| 2 | CO ₂ | Draw the attention on development of science and the contributions of western and Indian scientists. |
| 3 | CO ₃ | Understand the aims and objectives of teaching physical sciences. |
| 4 | CO ₄ | Organize the content into plan of action and practice the micro and macroteaching skill |
| 5 | CO ₅ | Organize the content into plan of action and practice the micro and macro |

CO-PO Mapping Matrix/Programme Articulation Matrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Programme Management | PO ₁₂ Lifelong Learning |
|----------------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 1 | 1 | 1 |
| CO ₂ | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 3 | 1 | 1 | 1 | 2 |
| CO ₃ | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 3 | 2 | 1 | 1 | 2 |
| CO ₄ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 |
| CO ₅ | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| PO Attainment | 15 | 15 | 14 | 14 | 13 | 13 | 08 | 15 | 11 | 09 | 09 | 09 |

Course-V

PEDAGOGY OF ENGLISH

Objectives

To enable the student-teacher to

1. understand the place of English Language Teaching in India
2. understand the different roles of language
3. understand the importance of home language, school language and the role of mother tongue in education.
4. understand different skills of English language
5. identify different Methods, Approaches and Techniques needed for teaching different skills of ELT in the Indian context

Course Content

Unit-1: Introduction to ELT

- 1.1 Meaning, nature and scope of ELT
- 1.2 Status of English Language in the global and Indian contexts
- 1.3 Aims and Objectives of Teaching English in India
- 1.4 Language and Education Policy in India
- 1.5 Teaching English in Bilingual/Multi-lingual contexts

Unit-2: Methods and Approaches in ELT

- 2.1 Method, Approach and Technique
- 2.2 Grammar Translation Method, Direct Method, Bilingual Method and Dr. West's Method
- 2.3 Oral, Situational and Structural Approaches
- 2.4 Communicative Language Teaching
- 2.5 Micro skills in ELT

Unit-3: Listening and Speaking Skills

- 3.1 Types and Sub-skills of Listening
- 3.2 Techniques of and materials for teaching Listening
- 3.3 Sub-skills of Speaking
- 3.4 Techniques of and materials for teaching Speaking

3.5 Activities to develop Listening and Speaking skills.

Unit-4: Reading and Writing Skills

4.1 Types and Sub-skills of Reading; Methods of Teaching Reading

4.2 Reading and Reflecting on text

4.3 Mechanics of Writing

4.4 Sub-skills and techniques of Writing

4.5 Activities to develop Reading and Writing skills.

Unit-5: Developing integrated skills and use of ICT in English Language Teaching

5.1 Teaching of Prose

5.2 Teaching of Poetry

5.3 Use of Multi-media in ELT

5.4 Online resources for ELT

5.5 ELT and Social Networking

CO-Po Attainment in outcome based Education

Course Name-PEDAGOGY OF ENGLISH

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|---|
| 1 | CO ₁ | Understand the place of English Language Teaching in India |
| 2 | CO ₂ | Understand the different roles of language |
| 3 | CO ₃ | Understand the importance of home language, school language and the role of mother tongue in education |
| 4 | CO ₄ | Understand different skills of English language |
| 5 | CO ₅ | Identify different Methods, Approaches and Techniques needed for teaching different skills of ELT in the Indian context |

CO-PO Mapping Matrix/Programme Articulation Matrix:

| | | | | | | | | | | | | |
|--|---|--|----------------------------------|--|---------------------------------|---------------------------------------|---|--|-----------------------|------------------------|------------------------|------------------------|
| | PO₁ Analy sis Knowle | PO₂ Investi gation | PO₃ Society | PO₄ Moder nTools | PO₅ Ethics | PO₆ Team work | PO₇ Commu Program | PO₈ Lifelon gLeerin g | PO₉ | PO₁₀ | PO₁₁ | PO₁₂ |
|--|---|--|----------------------------------|--|---------------------------------|---------------------------------------|---|--|-----------------------|------------------------|------------------------|------------------------|

| | dge | | | D Design evelop ment | | | nment | | | nication | meMana gement | |
|-------------------------------|-----|----|----|-------------------------------|----|----|-------|----|----|----------|------------------|----|
| CO₁ | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 |
| CO₂ | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 3 |
| CO₃ | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 3 | 2 | 3 |
| CO₄ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| CO₅ | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 |
| PO Attainme nt | 15 | 14 | 14 | 13 | 14 | 14 | 11 | 15 | 09 | 15 | 12 | 15 |

**Course-V
PEDAGOGY OF TELUGU**

భాషా విద్య (తెలుగు)

లక్ష్యాలు:

రెండేళ్ళ శిక్షణ పూర్తి చేసుకున్న భాషావిద్యార్థులు:

- 1) సమాజంలో భాష పాత్రను అర్థం చేసుకుంటారు, ప్రాధాన్యతను గుర్తిస్తారు.
- 2) భాషకు, సాహిత్యానికి మధ్య గల సంబంధాన్ని గుర్తిస్తారు.
- 3) వివిధ భాషా రూపాలను ప్రకంపిస్తారు, సొంతం చేసుకుంటారు.
- 4) భాషల మధ్య అనువాదం యొక్క ప్రధాన్యతను గుర్తించి తమ విద్యార్థులను అనువాదం చేయమని ప్రోత్సహిస్తారు.
- 5) సాహిత్య, శాస్త్ర, భాషా గ్రంథాలను సంప్రదిస్తారు, ప్రకంపిస్తారు, విశ్లేషిస్తారు.
- 6) సందర్భానుగుణ భాషావయోగాన్ని అలవర్చుకుంటారు, తమ విద్యార్థులకు అలవేరుస్తారు.
- 7) పిల్లల భాష - ఇంటి భాష, జన వ్యవహార భాషలను ప్రకంపిస్తారు.
- 8) భాషా బోధన - అభ్యాసన పై భారతీయ - ప్రాచీన దృక్పథాలను తులనాత్మకంగా అనుగుణంగా పరిశీలిస్తారు.

I. భాష, సమాజం భావనలు

భాష మరియు సమాజం - సమాజంలోని వివిధ వర్గాల భాష - భాష మరియు లింగ వివక్ష - భాష మరియు అస్త్రత్వం - భాష మరియు సాధికారత, సామాజిక విడులు.

భాష వివిధ భావనలు

గృహ భాష (ఇంటి భాష) వైయక్తిక, కుటుంబ భాషలు - పరిసరాల్లోని భాషలు - పాఠశాలల్లో భాష - పాఠశాలలో వ్యవహారాల్లో భాష - పిల్లల భాష - తెలుగు వాచకాల్లో భాష - భాషాభివృద్ధి వాచకాల్లో భాష - ఒక పాఠ్యాంశంగా భాష మార్గము భాష (ప్రాధాన్యత, పరిమితులు) - భాష మరియు మాతృమ భాషల మాతృగల సంబంధాలు.

భాషావిద్య - రాజ్యాంగ అధికరణాలు - నిబంధనలు, సిఫార్సులు

భారత రాజ్యాంగం అధికరణాలు 343 - 351, 350 (A)

ముదలియూర్ కమిషన్ (1952), కొలార్ విద్యాసంఘం (1964-66)

జాతీయ విద్యావిధానం (1986) కార్యదరణ పథకం (1992)

జాతీయ విద్యా ప్రాణాళిక పటం (2005) సిఫార్సులు

ఇతర కమిటీలు - కమిషన్ల సిఫార్సులు - అధికార భాష - త్రిభాషా సూత్రం.

భాషా విద్య (తెలుగు)

లక్ష్యాలు:

రెండేళ్ళ శిక్షణ పూర్తి చేసుకున్న భాషాపాఠ్యాయులు:

- 1) సమాజంలో భాష పాత్రను అర్థం చేసుకుంటారు, ప్రాధాన్యతను గుర్తిస్తారు.
- 2) భాషకు, సాహిత్యానికి మధ్య గల సంబంధాన్ని గుర్తిస్తారు.
- 3) వివిధ భాషా రూపాలను ప్రశంసిస్తారు, సొంతం చేసుకుంటారు.
- 4) భాషల మధ్య అనువాదం యొక్క ప్రధాన్యతను గుర్తించి తమ విద్యార్థులను అనువాదం చేయమని ప్రోత్సహిస్తారు.
- 5) సాహిత్య, శాస్త్ర, భాషా గ్రంథాలను సంప్రదిస్తారు, ప్రశంసిస్తారు, విశ్లేషిస్తారు.
- 6) సందర్భానుగుణ భాషాపయోగాన్ని అలవర్చుకుంటారు, తమ విద్యార్థులకు అలవర్చుస్తారు.
- 7) పిల్లల భాష - ఇంటి భాష, జన వ్యవహార భాషలను ప్రశంసిస్తారు.
- 8) భాషా బోధన - అభ్యాసన పై భారతీయ - ప్రాచ్యుత్వ దృక్పథాలను తులనాత్మకంగా అనుగుణంగా పరిశీలిస్తారు.

1. భాష, సమాజం భావనలు

భాష మరియు సమాజం - సమాజంలోని వివిధ వర్గాల భాష- భాష మరియు లింగ వివక్ష - భాష మరియు ఆస్తిత్వం - భాష మరియు సాధికారత, సామాజిక విధులు.

భాష వివిధ భావనలు

గృహ భాష (ఇంటి భాష) వైయక్తిక, కుటుంబ భాషలు- పరిసరాల్లోని-భాషలు - పాఠశాలల్లో భాష-పాఠశాలేతర వ్యవహారాల్లో భాష -పిల్లల భాష - తెలుగు వాచకాల్లో భాష - భాషేతర వాచకాల్లో భాష-ఒక పాఠ్యాంశంగా భాష మాధ్యమ భాష (ప్రాధాన్యత, పరిమితులు)-భాష మరియు మాధ్యమ భాషల మధ్యగల సంబంధాలు.

భాషావిద్య- రాజ్యాంగ అధికరణాలు - నిబంధనలు, సిఫార్సులు

భారత రాజ్యాంగం అధికరణాలు 343 - 351, 350 (A)

ముదలియార్ కమిషన్ (1952), కొలారి విద్యాసంఘం (1964-66)

జాతీయ విద్యావిధానం (1986) కార్యచరణ పథకం (1992)

జాతీయ విద్యా ప్రణాళిక చట్టం (2005) సిఫార్సులు

ఇతర కమిటీలు - కమిషన్ల సిఫార్సులు - అధికార భాష - త్రిభాషా సూత్రం.

CO-Po Attainment in outcome based Education

Course Name- Pedagogy of Telugu

Course Outcome

| Sl. No | Course Number | Co's Description |
|--------|-----------------|---|
| 1 | CO ₁ | సమాజంలో భాష పాత్రను అర్థం చేసుకుంటారు, ప్రాధాన్యతను గుర్తిస్తారు. |
| 2 | CO ₂ | భాషకు, సాహిత్యానికి మధ్య గల సంబంధాన్ని గుర్తిస్తారు. |
| 3 | CO ₃ | వివిధ భాషా రూపాలను ప్రశంసిస్తారు, సొంతం చేసుకుంటారు.. |
| 4 | CO ₄ | భాషల మధ్య అనువాదం యొక్క ప్రధాన్యతను గుర్తించి తమ విద్యార్థులను అనువాదేయమని ప్రోత్సహిస్తారు. |
| 5 | CO ₅ | సాహిత్య, శాస్త్ర, భాషా గ్రంథాలను సంప్రదిస్తారు, ప్రశంసిస్తారు, విశ్లేషిస్తారు. |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Programme Management | PO ₁₂ Lifelong Learning |
|----------------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 3 | 3 | 2 | 2 | 3 | 1 | 3 | - | 3 | 1 | 2 |
| CO ₂ | 3 | 3 | 2 | 2 | 2 | 2 | - | 3 | - | 3 | 1 | 1 |
| CO ₃ | 3 | 3 | 2 | 1 | 2 | 2 | - | 3 | - | 3 | 2 | 2 |
| CO ₄ | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | - | 3 | 1 | 1 |
| CO ₅ | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 1 | 3 | 1 | 1 |
| PO Attainment | 15 | 15 | 13 | 11 | 12 | 13 | 03 | 15 | 01 | 15 | 06 | 07 |

SEMESTER-II

Course-VI

SOCIOLOGICAL FOUNDATIONS OF EDUCATION

Objectives

To enable the student-teachers to

1. understand the sociological basis of Education
2. understand the impact of culture and socialization on Education
3. sensitize the student teacher about the impact of Education on the quality of life
4. understand the preamble of the constitution in the light of Education
5. organize various programmes to achieve national integration and international Understanding

Course Content

Unit-1: Sociology and Education

- 1.1 Meaning, nature and scope of sociology
- 1.2 Relationship between sociology and Education
- 1.3 Agencies of socialization (Family, peer group, school, Media, Religion)
- 1.4 Role of Teacher in Socialization process
- 1.5 Impact of Socialization on Education

Unit-II: Culture and Education

- 2.1 Meaning and definitions of culture
- 2.2 Characteristics of culture
- 2.3 Dimensions of culture, cultural lag, cultural pluralism
- 2.4 Impact of culture on Education
- 2.5 Role of Education in preservation, transmission and promotion of culture

Unit-III: Social Change and Education

- 3.1 Meaning and factors responsible for Social change
- 3.2 Concept and attributes of Modernization
- 3.3 Social stratification, Social Mobility and Education
- 3.4 Education as a facilitator for social change
- 3.5 Social Networking its implications on social cohesion and education

Unit-IV: Democracy and Education

- 4.1 Concept and Principles of Democracy
 - 4.2 Equality and equity in Education
 - 4.3 Preamble of the Constitution in relation to Education
 - 4.4 Role of Education in strengthening democracy and democratic citizenship
- Teacher as a democrat

Unit-V: Education and National Integration

- 5.1 Concept, Need for National Integration
- 5.2 Education as an instrument for national integration
- 5.3 Programmes to promote National Integration and International understanding,
- 5.4 Peace education in schools
- 5.5 Social Crisis and its Management

CO-Po Attainment in outcome based Education

Course Name-SOCIOLOGICAL FOUNDATIONS OF EDUCATION

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|--|
| 1 | CO ₁ | Understand the sociological basis of Education |
| 2 | CO ₂ | Understand the impact of culture and socialization on Education |
| 3 | CO ₃ | Sensitize the student teacher about the impact of Education on the quality of life |
| 4 | CO ₄ | Understand the preamble of the constitution in the light of Education |
| 5 | CO ₅ | Organize various programmes to achieve national integration and international |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Programme Management | PO ₁₂ Lifelong Learning |
|----------------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 2 | 3 | 2 | 1 | 3 | 2 | 3 | 2 | 2 | 2 | 3 |
| CO ₂ | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 |
| CO ₃ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO ₄ | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 |
| CO ₅ | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 |
| PO Attainment | 15 | 11 | 15 | 14 | 13 | 15 | 14 | 15 | 14 | 11 | 14 | 15 |

Course-VII

LEARNING AND TEACHING

Objectives

To enable the student-teachers to

1. To be aware of the process of learning and information processing
2. To gain an understanding of different theoretical perspectives on learning
3. To reflect on their own implicit understanding of the nature and kinds of learning
4. To explore the possibilities of designing learning environment and experiences at school
5. To appreciate the critical role of learner differences and social contexts in making meanings and drawing implications for schools and teachers

Course Content

Unit-1: Process of Learning

- 1.1 Concept of learning, types of learning and factors influencing learning
- 1.2 Learning process: Attention, sensation, perception, and concept formation
- 1.3 Memory & forgetting: concept, types of memory, applicability to learning and strategies for better management of memory.
- 1.4 Transfer of learning: concept, theories and types(Horizontal and Vertical)
- 1.5 Role of motivation in learning; methods of improving motivation

Unit-2: Behaviorist Perspectives of Learning

- 2.1 Trial and error - Thorndike, Laws of learning, concept and principles and classroom implications
- 2.2 Classical Conditioning - Pavlov, concept and principles and classroom implications
- 2.3 Operant Conditioning – Skinner, concept and principles and classroom implications
- 2.4 Compare these perspectives in terms of their merits and applicability to classroom learning

Unit-3: Cognitive and Humanist Perspectives of Learning

- 3.1 Cognitive perspectives of learning (insight learning – Kohler, Discovery learning - Bruner, Developmental theory of learning - Piaget, Social Learning - Bandura, Social constructivism – Vygotsky)
- 3.2 Humanist perspectives of learning (Learner centered approach – Rogers)

Unit-4: Teaching Process

- 4.1 Concept of teaching, teaching as a profession and teacher as a professional, teaching as an art and science
- 4.2 Distinction between Instruction, training and teaching
- 4.3 Phases of teaching: planning, execution and reflection
- 4.4 Role of teacher in teaching learning process: teacher as a model, facilitator, negotiator, co-learner, reflective practitioner and classroom researcher
- 4.5 Functions of a teacher in classroom, school and community

Unit-5: Learning Environment and Learning Engagement

- 5.1 Meaning of learning environment and learning engagement
- 5.2 Creating positive and productive environment for learning - creation of emotionally safe learning environment to increase learning
- 5.3 Development of emotional intelligence
- 5.4 Role of culture in the educative process, creating culturally responsive learning environment, create cultural congruity between home and school
- 5.5 Assisted performance, supervised discussion and reciprocal teaching as strategies to enhance motivation and learning

Course-VIII

CLASSROOM MANAGEMENT LEADERSHIP AND ACTION RESEARCH

Objectives

To enable the student-teachers to

1. understand the importance of classroom organization
2. understand the importance of classroom Management
3. develop ability to face the problems in managing the classroom.
4. understand the role of leadership of a teacher
5. undertake different action research projects to improve professional practices

Course Content

Unit-1: Classroom Organization

- 1.1 Classroom organization – Meaning and purpose
- 1.2 Classroom Seating Arrangement for different purposes
- 1.3 Technology integration – OHP/ LCD, Smart board, Chalk board, White board, Display boards, multimedia, E-Classroom.
- 1.4 Characteristics of Classroom Environment - Learner friendly and inclusive
- 1.5 Management and maintenance of physical and material resources to optimize access to learning; Sharing of resources – School Complex

Unit-2: Classroom Management

- 2.1 Classroom management – concept, need and approaches .
- 2.2 Managing with different types of students – Leader, Follower, passive
- 2.3 Classroom behavior management – problems, mistakes, disciplinary practices, corporal punishments, classroom rules, routines and regulations.
- 2.4 Violation of rights of children – legal consequences.
- 2.5 Strategies to manage behavior problems- preventive, supportive and corrective.
- 2.6 Time management in a classroom – Allocated time, instructional time, engaged time and Academic learning time.

Unit-3: Role of Teacher in School Functions

- 3.1 Teacher as a facilitator of learning
- 3.2 Perspective planning and coordination with authorities for support.
- 3.3 Accountability and self assessment of teachers and feedback mechanisms.
- 3.4 Conducive school environment – team work, transparency, self esteem among head teacher, teachers, students.

Unit-4: Teacher as a Leader

- 4.1 Concept, Nature and Characteristics of a Leader
- 4.2 Types of Leadership
- 4.3 Strategies to develop leadership qualities
- 4.4 Role of a teacher as a leader in managing classroom dynamics

Unit-5: Action Research in Education

- 5.1 Action Research – Meaning, Need and Scope
- 5.2 Steps in Action Research
- 5.3 Action Research Cycle
- 5.4 Action Research Problem Areas – Student, Classroom, School, Teacher, Administration, etc.

Co-Po Attainment in outcome based Education

Course Name-CLASSROOM MANAGEMENT LEADERSHIP AND ACTION RESEARCH

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|--|
| 1 | CO ₁ | Understand the importance of classroom organization and classroom Management |
| 2 | CO ₂ | Develop ability to face the problems in managing the classroom. |
| 3 | CO ₃ | Understand the role of leadership of a teacher |
| 4 | CO ₄ | Develop the Leadership Qualities in Student Teacher |
| 5 | CO ₅ | Undertake different action research projects to improve professional practices |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Programme Management | PO ₁₂ Lifelong Learning |
|----------------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | - | - | - | 2 | - | - | - | 2 | 2 | - | 2 |
| CO ₂ | 3 | 2 | 3 | 2 | 2 | - | - | - | 2 | 2 | - | 2 |
| CO ₃ | 3 | 2 | 3 | 2 | 2 | - | - | - | 2 | 2 | - | 2 |
| CO ₄ | 2 | 3 | 2 | 1 | 2 | - | - | - | 2 | 2 | - | 1 |
| CO ₅ | 3 | 2 | 3 | 3 | 2 | - | - | - | 3 | 3 | - | 2 |
| PO Attainment | 14 | 09 | 11 | 08 | 10 | - | - | - | 11 | 11 | - | 09 |

Course-IX

ART EDUCATION

Objectives

To enable the student-teachers to

1. integrate Art with Education and become better communicator.
2. develop creative thinking through different Art forms.
3. realize that liberal arts help in making better professionals.
4. understand Art as a medium of expression.
5. understand the role of Art as a medium of Education.

Course Content

Unit-1: Art and Aesthetics

- 1.1 Aesthetics – as a branch of Philosophy.
- 1.2 Aesthetics – its meaning, dimensions and constituents.
- 1.3 Art as a form of Aesthetics.
- 1.4 Indian Art and Rasa principle.
- 1.5 Importance of Arts in Education

Unit-2: Art and Education

- 2.1 Art as a medium of education.
- 2.2 Art as a unifying principle in education.
- 2.3 Art and Society.
- 2.4 Art and Human development.
- 2.5 Art for self- expression, keen observation, and sense of appreciation.

Unit-3: Place of Visual Art and Performing Arts in Teaching

- 3.1 Different forms of visual and performing Arts.
- 3.2 Teaching as an Art.
- 3.3 Drama as a form of Teaching.
- 3.4 Identification of local Art forms and their integration to teaching – learning.
- 3.5 Evaluation strategies; assessing the different forms of Art.

Unit-4: Contributions made by Contemporary thinkers on Art and Education

- 4.1 Rabindranath Tagore
- 4.2 A.K. Coomara Swamy
- 4.3 Herbert Read
- 4.4 Elliot Eisener

Unit-5: Art and Craft in Education

- 5.1 Art in Craft
- 5.2 Craft in Art
- 5.3 Traditional Craft and their relevance to Education
- 5.4 Local Craft and their place in SUPW
- 5.5 Indian Festivals and its Artistic significance

CO-Po Attainment in outcome based Education

Course Name-ART EDUCATION

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|--|
| 1 | CO ₁ | Integrate Art with Education and become better communicator. |
| 2 | CO ₂ | Develop creative thinking through different Art forms. |
| 3 | CO ₃ | Realize that liberal arts help in making better professionals. |
| 4 | CO ₄ | Understand Art as a medium of expression. |
| 5 | CO ₅ | Understand the role of Art as a medium of Education. |

CO-PO Mapping Matrix/Programme Articulation Matrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Programme Management | PO ₁₂ Lifelong Learning |
|----------------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 3 | 1 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 2 |
| CO ₂ | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 3 |
| CO ₃ | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 1 |
| CO ₄ | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| CO ₅ | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| PO Attainment | 13 | 11 | 06 | 11 | 09 | 13 | 10 | 13 | 12 | 10 | 12 | 10 |

SEMESTER-III

Course-X

PEDAGOGY OF MATHEMATICS

Objectives

To enable the student-teachers to

1. Appreciate Mathematics as a tool to engage the mind of the student
2. Appreciate mathematics to strengthen the students resource
3. See mathematics as something to talk about to communicate through to discuss among themselves to work together on.
4. Construct appropriate assessment tools for evaluating mathematics learning.
5. Stimulate curiosity, creativity and inventiveness of mathematics

Course Content

Unit-1: Mathematics Curriculum:

- 1.1 Meaning and objectives of curriculum
- 1.2 Principles for designing and Organizing Curriculum
- 1.3 Approaches for Organizing Curriculum
- 1.4 Meaning of syllabus and difference between syllabus and curriculum
- 1.5 Recommendations and critical appraisal of NCFSE- 2005, APSCF – 2011 and other commissions on Mathematics curriculum.
- 1.6 Discussion of important concepts, principles and processes from the topics of the branches as specified below.
 - i. Arithmetic: Development of number system, Ratio and Proportion, Percentages and other topics based on them.
 - ii. Algebra: Sets and Operations on them, Systems of Linear Equations and their graphical solutions, Quadratic Equations, theory of Indices and Logarithms, Remainder and factor theorems.
 - iii. Probability and Statistics: Basic concepts of Probability, Representation of data, Measures of Central Tendencies.
 - vi. Geometry: Theoretical, Practical and Co-ordinate Geometry, Distance formula, section formula.
Menstruation; Areas and Volumes
 - v. Trigonometry: Trigonometrical Ratios, Identities. Composite Angles, Multiple and Sub multiple angles, Heights and Distances.

Unit-2: Language and Aesthetic sense of Mathematics

- 2.1 Aesthetic Sense in Mathematics; three aesthetic experience variables identified by Brikhoof and their relation.
- 2.2 Co-existence of Precision and beauty in Mathematics- order pattern, structure and symmetry
- 2.3 Recreational Mathematics – Mathematical games, puzzles, and riddles.
- 2.4 Language of Mathematics

Unit-3: Assessment and Evaluation

- 3.1 Testing of Mathematical abilities of children
- 3.2 Meaning of Assessment, measurement and evaluation in mathematics
- 3.3 Achievement test in mathematic- Arithmetic, Algebra, and Geometry.
- 3.4 Speed test in Mathematics - Arithmetic, Algebra, and Geometry.
- 3.5 Preparation of test items – Precautions to be taken while preparing test items in different branches of mathematics
- 3.6 Concept of CCE and measurement of different behavioral changes like interest attitude, and aptitude in learning mathematics.

Unit-4: Mathematics for all

- 4.1 Speed and accuracy in Mathematics
- 4.2 Understanding Learners – Gifted slow, backwardness and dyscalculia
- 4.3 Activities enriching Mathematics learning- Mathematical Clubs, fairs and its activities, Olympiad, Recreational activities
- 4.4 Mathematic Laboratory and its effective use
- 4.5 Teaching learners with special needs - Co-operative learning, Peer learning, Reciprocal learning – Breur, using technology to meet diverse needs of learners.

Unit-5: Professional Development in Mathematics Teacher

- 5.1 In-service programmes for Mathematics Teacher
- 5.2 Mathematics Teachers Associations – Role, and Uses
- 5.3 Journals and other resource material in Mathematics Education
- 5.4 Professional Growth – Participation in conferences/Seminars/ Workshops and E-Learning

CO-Po Attainment in outcome based Education

Course Name-PEDAGOGY OF MATHEMATICS

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|--|
| 1 | CO ₁ | Appreciate Mathematics as a tool to engage the mind of the student |
| 2 | CO ₂ | Appreciate mathematics to strengthen the students resource |
| 3 | CO ₃ | . See mathematics as something to talk about to communicate through to discuss among themselves to work together on. |
| 4 | CO ₄ | . Construct appropriate assessment tools for evaluating mathematics learning |
| 5 | CO ₅ | . Stimulate curiosity, creativity and inventiveness of mathematics |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ ModernTools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Teamwork | PO ₁₀ Communication | PO ₁₁ ProgrammeManagement | PO ₁₂ LifelongLearning |
|-----------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|--------------------------------|----------------------------|--------------------------------|---------------------------|-----------------------------|-----------------------------------|---|--------------------------------------|
| CO ₁ | 3 | 2 | 2 | 1 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 |
| CO ₂ | 3 | 3 | 1 | 1 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 2 |
| CO ₃ | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 2 |
| CO ₄ | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 |

| | | | | | | | | | | | | |
|-----------------|----|----|----|----|----|----|---|----|----|----|----|----|
| CO ₅ | 3 | 3 | 1 | 1 | 3 | 2 | 1 | 3 | 3 | 2 | 2 | 2 |
| PO Attainment | 15 | 14 | 07 | 06 | 13 | 10 | 8 | 15 | 14 | 12 | 10 | 11 |

Course-X

PEDAGOGY OF SOCIAL SCIENCES

Objectives

To enable the student teachers to

1. understand the teaching and learning of geography, economics, history, political science and identify the difference among them
2. understand the importance of social science curriculum and its organization
3. understand various teaching aids for social sciences
4. understand the assessment process through CCE
5. sensitize and equip teachers to handle social issues and concerns in a responsible manner

Course Content

Unit-1: Teaching and Learning of Geography and Economics

- 1.1 Fundamental concepts of Geomorphology - Latitudes, longitudes, earth movements, climatology, temperature, pressure, wind, humidity; Hydrology and Oceanography – Hydrological Cycle, Ocean and Ocean deposits
- 1.2 Indian Geography-Political divisions, Rivers and Landforms
- 1.3 Meaning, Nature and Scope of Economics; Key concepts in Economics
- 1.4 Classification of Economic Systems
- 1.5 Teaching strategies of geography and economics

Unit-2: Unit-VII: Teaching Learning of History and Political Science

- 2.1 Periodisation of World History, Indian History – Ancient, Medieval, Modern and Contemporary society with special reference to Secondary School Social Studies Textbooks
- 2.2 Capitalism, Democracy and Citizenship – American and French Revolutions
- 2.3 Nature and Scope of Political Science; Key concepts and current trends
- 2.4 Indian Constitution – Fundamental Rights and Duties; Organs of Government-Legislature, Executive and Judiciary
- 2.5 Teaching Strategies of Teaching History and Political Science

Unit-3: Social Science Curriculum

- 3.1 Curriculum – Meaning, Nature and Scope
- 3.2 Principles of Social Sciences Curriculum Construction
- 3.3 Approaches of organizing social studies curriculum – concentric, spiral, chronological, topical and correlation
- 3.4 Qualities and Characteristics of Good Social Science Textbook
- 3.5 Analysis of Social Science Textbook of State Board and CBSE

Unit-4: Teaching Learning Material in Social Sciences

- 4.1 Need and significance of Teaching Learning Material in Teaching Social Sciences
- 4.2 Globe and Maps – Types of Maps – Map Language, Map Reading and Map Making
- 4.3 Charts and Graphs – Types of Charts – Chronology, Tabular, Diagrammatic and Pictorial; Types of Graphs – Bar, Pie, Line and Pictorial
- 4.4 Models – Working, Still and Diorama
- 4.5 Objects, Specimens and Scrap book

Unit-5: Evaluation in Learning Social Sciences

- 5.1 Meaning, Nature and Characteristics of Evaluation
- 5.2 Forms of Evaluation

5.3 Quantitative and Qualitative Tools of Evaluation in Social Sciences

5.4 CCE Model of assessment in social sciences

5.5 Analysis and Interpretation of test scores

CO-Po Attainment in outcome based Education

Course Name-PEDAGOGY OF SOCIAL SCIENCES

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|---|
| 1 | CO ₁ | Understand the teaching and learning of geography, economics, history, political science and identify the difference among them |
| 2 | CO ₂ | Understand the importance of social science curriculum and its organization |
| 3 | CO ₃ | Understand various teaching aids for social sciences |
| 4 | CO ₄ | Understand various teaching aids for social sciences |
| 5 | CO ₅ | Understand the assessment process through CCE |

CO-PO Mapping Matrix/Programme Articulation Matrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Program Management | PO ₁₂ Lifelong Learning |
|----------------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 |
| CO ₂ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 |
| CO ₃ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO ₄ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 |
| CO ₅ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 |
| PO Attainment | 15 | 15 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 11 | 14 | 15 |

Course-X

PEDAGOGY OF BIOLOGICAL SCIENCES

Objectives

To enable the student-teachers to

1. Understand the curriculum development issues in biological science
2. Identify the role and use of laboratory, ICT, and TLM in the teaching of biological science teaching effectively
3. Develop the skill of writing lesson plan period plan
4. Develop micro teaching skills
5. Develop the skill of constructing test papers

Course Content

Unit-1: Biological Science Curriculum and Textbooks

- 1.1 Meaning and Definitions of curriculum
- 1.2 Principles of Curriculum Construction
- 1.3 Organizational Approaches of Curriculum: Logical, Psychological,
- 1.4 Topical concentric and spiral
- 1.5 Steps involved in the development of science curriculum
- 1.6 Basic Criteria of Validity of a Science Curriculum context, - Cognitive, Process, Historical, Environmental Science and Ethical Validity
- 1.7 Curriculum at upper Primary, Secondary and Higher secondary stages.
- 1.8 National Curriculum Framework, 2005 – Position paper on Science
- 1.9 Andhra Pradesh State Curriculum Framework 2011- Science
- 1.10 Qualities of good biological science text books
- 1.11 Analysis of Secondary School Biological Science text book

Unit-2: Biological Science Laboratory

- 2.1 Importance of practical work in Biological Science
- 2.2 Planning of science laboratories, Lecture cum laboratory, all-purpose laboratory, mobile science laboratory
- 2.3 Procurement, care and maintenance of laboratory equipment
- 2.4 First Aid

Unit-3: Teaching Learning Materials

- 3.1 Edgar Dale's Cone of experience
- 3.2 Audio, visual Instructional aids
- 3.3 Activity aids (Aquarium, Vivarium, Terrarium, Herbarium), Electronic Teaching Aids
- 3.4 Improvisation of Teaching aids

Unit-4: Resources for Teaching Biological Science

- 4.1 Science Kit
- 4.2 Science library
- 4.3 Science club
- 4.4 Science exhibition and science fair
- 4.5 Science Museum
- 4.6 Community Resource

Unit-5: Evaluation in Biological Science

- 5.1 Concept of test, measurement and evaluation
- 5.2 Evaluation- meaning, types, Process, and tools
- 5.3 Qualities of a Good test and types of tests

- 5.4 Preparation of Continuous Comprehensive Evaluation (CCE) Record
- 5.5 Analysis and interpretation of test scores.
- 5.6 Assessment of performance of the student, electronic assessment
- 5.7 Preparation of portfolio

CO-Po Attainment in outcome based Education

Course Name-PEDAGOGY OF BIOLOGICAL SCIENCES

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|--|
| 1 | CO ₁ | Understand the curriculum development issues in biological science |
| | CO ₂ | . Identify the role and use of laboratory, ICT, and TLM in the teaching of biological science teaching effectively |
| 3 | CO ₃ | Develop the skill of writing lesson plan period plan |
| 4 | CO ₄ | Develop teaching skills |
| 5 | CO ₅ | Develop the skill of constructing test papers |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Programme Management | PO ₁₂ Lifelong Learning |
|----------------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 2 | 3 | 1 | 2 | 2 | 3 | 3 | 2 | 2 | - | 2 |
| CO ₂ | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | - | 3 |
| CO ₃ | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | - | 3 |
| CO ₄ | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | - | 3 |
| CO ₅ | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 3 | - | 2 |
| PO Attainment | 15 | 14 | 15 | 13 | 13 | 08 | 11 | 15 | 13 | 14 | - | 13 |

Course-XI

PEDAGOGY OF PHYSICAL SCIENCES

Objectives

To enable the student-teachers to

1. understand the importance of physical science curriculum and its organization
2. develop the skill, procurement and maintenance of the science laboratory.
3. equip the resources for effective teaching of physical sciences.
4. utilize the applications of science and technology on society.
5. construct the achievement test on CCE model and analyze the results

Course Content

Unit-1: Science Curriculum and Textbooks

- 1.1 Curriculum - Concept and Meaning, Principles of Curriculum Construction
- 1.2 Different Approaches of Curriculum Organization: Concentric, Topical, Psychological & Logical – Learner Centered curriculum
- 1.3 Curriculum organization in terms of NCF-2005, RTE-2009, NCFTE-2009, APSCF-2011
- 1.4 Characteristics of a Good Physical Sciences Text Book
- 1.5 Learning Resources for Physical Science – Exploring alternative resources

Unit-2: Instructional Material for Physical Sciences Teaching

- 2.1 Importance of Practical Work in Physics and Chemistry
- 2.2 Planning and Organization of Science Laboratories, Procurement and Care of Laboratory Equipment, Registers, Safety and First-Aid – Conduct of Laboratory experiments
- 2.3 Development of Improvised Apparatus for concrete and abstract concepts
- 2.4 ICT and multimedia resources for teaching Physical Sciences - Simulated computer based laboratory activities
- 2.5 Self Learning Material (SLM) – Characteristics and Functions - Preparation of Self Learning Material on one lesson – Analysis of its Effectiveness by Classroom Discussion and Preparation of SLM by each student for their classroom use

Unit-3: Lifelong Physical Sciences Learning

- 3.1 Science Clubs, Science Exhibition, Science Museums, Science Fairs and Olympiads
- 3.2 Role of Government and Non-Governmental Organizations in the Propagation of Science
- 3.3 Utilizing Knowledge Resources – Identification of online and offline resources – context and challenges in Utilization
- 3.4 Science Communication in India – DST-NCSTC Network – National Children Science Congress, National Teachers Science Congress, Initiative for Research and Innovation in Science
- 3.5 Development of Scientific Temper and encouraging and inspiring students to

choose science as career and to become scientists

Unit-4: Professional Development of Physical Sciences Teachers

4.1 Professional development of Physical Sciences Teachers

4.2 Participation in Seminars, Conferences, Workshops and In-service Training Programmes

4.3 Membership in Professional Organisations; Teachers as a community of learners

4.4 Role of reflective practices in professional development of physical science teachers

4.5 Teacher as a researcher: Action Research in Physical science - Learning to understand how children learn science

Unit-5: Evaluation in Physical Science

5.1 Evaluation of Learning Outcomes in Physical Sciences

5.2 Qualities of a good test - Written and Practical

5.3 Planning, Preparation and Conduct of Achievement Test in CCE model

5.4 Evaluation of Responses, Scoring and Tabulation

5.5 Analysis and Interpret

CO-Po Attainment in outcome based Education

Course Name-PEDAGOGY OF PHYSICAL SCIENCES

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|---|
| 1 | CO ₁ | . understand the importance of physical science curriculum and its organization |
| 2 | CO ₂ | develop the skill, procurement and maintenance of the science laboratory |
| 3 | CO ₃ | equip the resources for effective teaching of physical sciences |
| 4 | CO ₄ | utilize the applications of science and technology on society |
| 5 | CO ₅ | construct the achievement test on CCE model and analyze the results |

CO-PO Mapping Matrix/Programme Articulation Matrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Programme Management | PO ₁₂ Lifelong Learning |
|-----------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 |
| CO ₂ | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 3 | 2 | 2 | 2 |
| CO ₃ | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 2 | 2 | 2 |
| CO ₄ | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 2 | 2 | 2 |
| CO ₅ | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 2 | 2 | 2 |

| | | | | | | | | | | | | |
|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| PO Attainment | 15 | 15 | 15 | 13 | 15 | 14 | 06 | 15 | 14 | 10 | 11 | 10 |
|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|

Course-XI

PEDAGOGY OF ENGLISH

Objectives

To enable the student-teachers to

1. get acquaintance with skills of communication for classroom teaching
2. develop creativity among learners
3. use multilingualism as a strategy in the classroom situation
4. understand the basics of English grammar
5. develop the skills of presentation of vocabulary

Unit-1: Language across Curriculum

- 1.1 Need for Communication
- 1.2 Communication for classroom teaching
- 1.3 Classroom interaction patterns
- 1.4 Interpersonal skills
- 1.5 Individual/Pair/Group activities

Unit-2: Teaching of Grammar

- 2.1 Need and importance of teaching Grammar
- 2.2 Types of Grammar and Techniques of Teaching Grammar
- 2.3 Using Authentic materials to teach Grammar
- 2.4 Grammar Games and the related activities
- 2.5 Remedial teaching in Grammar

Unit-3: Teaching Vocabulary, Study and Reference skills

- 3.1 Selecting and Grading vocabulary items
- 3.2 Techniques of teaching vocabulary
- 3.3 Vocabulary games
- 3.4 Techniques of teaching Study Skills: Note-making/Note-taking/Mind mapping/Brain-storming
- 3.5 Techniques of teaching Reference Skills: Dictionary, Thesaurus, Encyclopedia and Bibliographies

Unit-4: Introduction to Phonetics

- 4.1 Vowels and Diphthongs
- 4.2 Consonants
- 4.3 Stress
- 4.4 Intonation
- 4.5 Techniques of using Language Laboratory

Unit-5: Language Assessment and Evaluation

- 5.1 Concept of Evaluation and Characteristics of a good test in English
- 5.2 Progress and assessment of development of language skills; CCE; techniques of evaluation – oral and written; self evaluation; peer evaluation; group evaluation.
- 5.3 Typology of questions: activities and tasks reflecting - problem solving, creative and critical thinking and enhancing imagination.
- 5.4 Preparing tests for different skills of language – Listening, speaking, reading, writing, study skills and reference skills
- 5.5 Preparation of Scholastic Achievement Test (SAT) giving weightages to objectives and learning experiences.

CO-Po Attainment in outcome based Education

Course Name-PEDAGOGY OF ENGLISH

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|--|
| 1 | CO ₁ | Get acquaintance with skills of communication for classroom teaching |
| 2 | CO ₂ | develop creativity among learners |
| 3 | CO ₃ | use multilingualism as a strategy in the classroom situation |
| 4 | CO ₄ | understand the basics of English grammar |
| 5 | CO ₅ | develop the skills of presentation of vocabulary |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Programme Management | PO ₁₂ Lifelong Learning |
|----------------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 |
| CO ₂ | 3 | 3 | 2 | 2 | 3 | 2 | 1 | 3 | 3 | 3 | 3 | 3 |
| CO ₃ | 3 | 3 | 3 | 2 | 3 | 2 | 1 | 3 | 3 | 3 | 2 | 3 |
| CO ₄ | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 |
| CO ₅ | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 3 | 3 | 3 |
| PO Attainment | 15 | 15 | 13 | 13 | 15 | 12 | 06 | 15 | 15 | 15 | 13 | 15 |

భాషావిద్య (తెలుగు)

లక్ష్యాలు:

రెండేళ్ళ శిక్షణ పూర్తి చేసుకున్న భాషాసాధ్యులు:

- 1) పద్యం, గద్యం, వ్యాకరణం, వ్యాసం, కథ వాచిక మున్నగు ప్రక్రియల బోధనను సమర్థంగా నిర్వహిస్తారు.
- 2) పాఠ్యబోధనకు అనువైన వ్యాఖ్యానాలు, భోదన సామగ్రిని ఎంపిక చేసుకుంటారు.
- 3) విద్య ప్రణాళిక, విషయ ప్రణాళిక, పాఠ్యపుస్తకాల మధ్యగల సంబంధాలను అవగతం చేసుకుంటారు.
- 4) భాషా మూల్యంకనం భావనలను అర్థం చేసుకొని, తమ విద్యార్థుల ఉప-లబ్ధిని వివిధ మూల్యంకన విధానాల్లో అంచనావేస్తారు.
- 5) భాషాభ్యాసనం/భోధనలో భాషా ప్రయోగకాల, కంప్యూటర్ల ప్రధాన్యతను గుర్తిస్తారు. తమ బోధనలో వినియోగిస్తారు.
- 6) తెలుగు భాషాసాహిత్యాలు, ప్రజల సంస్కృతి వారసత్వాల విత స్పృహను పెంపొందించుకొని తమ విద్యార్థులలో సంస్కృతీస్పృహను పెంపొందిస్తారు.

1. భాష - సాహిత్యం - సాంఘిక శిల్పము

భాష - ఆలోచనలు-స్పృహనాత్మకత

భాష వివిధ సాహిత్య ప్రక్రియలు - లక్షణాలు (1వ తరగతి నుండి 10వ తరగతి తెలుగు ప్రథమ ద్వితీయ భాషా వాచకాల్లో పరిచయమైన ప్రక్రియలు)

పద్యప్రక్రియలు - ఇతిహాస కవిత - పురాణ కవిత - కావ్యకవిత - ఆధునిక పద్యం

పదన ప్రక్రియలు - గద్యం - లేఖ - వ్యాసం - సంపాదకీయం - జీవిత చరిత్ర, ఆత్మకథ

- దినచర్య - యాత్రాకథనం - కథానిక

వాటక ప్రక్రియలు - సంభాషణ - వాచిక

బాల సాహిత్యం - బాల కవిత్యం - అభ్యుదయ కవిత్యం - విప్లవ కవిత్యం - స్త్రీవార

సాహిత్యం - దళిత వాద సాహిత్యం - మైనారిటీ వాద సాహిత్యం, జాతీయోద్యమ కవిత్యం -

అంబోద్యమ కవిత్యం - శాస్త్ర సాహిత్యం.

ఇతర ప్రధాన ప్రక్రియలు - నవల, నవలీక ఇత్యాదులు

తెలుగు సాహిత్య చరిత్రలో ప్రముఖ రచయితలు - కవులు - కవయిత్రులు

II. భాషాసాహిత్యాలు - బోధనాప్రక్రియలు:

గద్య బోధన - వాచకబోధన - ఉపవాచక బోధన - పద్యబోధన-సంభాషణ/నాటక బోధన వ్యాకరణ బోధన వ్యాస రచన బోధన- కథా బోధన.

(యూనిట్ - III లో పొందుపరచిన పద్ధతులు అన్వయం చేసుకోవాలి)

- * భాషా సాహిత్యాల బోధనలో ప్రాధాన్యతలు - భాష - పరిసరాలు విద్యార్థుల అనుభవాలు ఆసక్తులతో సమన్వయం.
- * ప్రశంసా శక్తిని, సృజనాత్మకతలను పెంపొందించుటకు ప్రక్రియల బోధన

III. భాషాభ్యసనం, బోధన ప్రణాళికలు, బోధన సామాగ్రి నిర్మాణం.

*** విద్యా ప్రణాళికలు:**

విద్యా ప్రణాళికల్లో తెలుగు భాషా స్థానం (మాతృభాషగా మాత్రమే భాషగా)

డిజిటల్ మాధ్యమాలు:

- * పాఠ్యపుస్తకం- నిర్మాణం - లక్షణాలు.
- * తగరతి బోధన ప్రణాళికలు - వార్షిక పథకం - సమగ్ర పాఠ్యపథకం - దైనిక పాఠ్యపథకం. ఆవశ్యకత- మౌఖిక భావనలు - తయారీలో మెలకువలు.
- * భాషా నిహ పాఠ్య కార్యక్రమాలు - భాషా క్రిడలు - రచనా క్రిడలు - భాషణ క్రిడలు - భాషా సాహిత్య యాత్రలు - సాహిత్య సభలు.

* గ్రంథాలయాలు : పఠామర్శ గ్రంథాలు - నిఘంటువులు - విజ్ఞాన సర్వస్వాలు-మూల గ్రంథాలు-వినయోగం.

* భాషా బోధనాభ్యసన ఉపకరణాలు: భాషా ప్రయోగ శాల - కంప్యూటర్లు, దృశ్యశ్రవ్య, శ్రవ్య దృశ్య - ద్విమితీయ, త్రిమితీయా ఉపకరణాలు.

* మాధ్యమాలు: అచ్చుమాధ్యమాలు-దృశ్యమాధ్యమాలు (ప్రింట్ అండ్ విజువల్ మీడియా)

IV. భాషాభ్యసనం - బోధన - అధునిక ధోరణులు.

* కార్యక్రమయుత బోధన - బృంద బోధన, నియోజనాల బోధన (వ్యక్తి పద్ధతి) కంప్యూటర్ సహాయక బోధన/ అధ్యసనం-లోపనివారణ - బోధన కృత్యాదార బోధన, స్వయం అధ్యయనం పేర్కావేక్షనాత్మక అధ్యయనం - మౌఖిక భావనలు - పరిమెతులు.

భాషా సాహిత్య కృషిలో వివిధ సంస్థలు :

తెలుగు అకాడమీ - ఆంధ్రసాహిత్య పరిషత్ (నాకినాడ), వేటపాలెం గ్రంథాలయం -పి.సి. బ్రౌను అకాడమీ, కడప-తెలుగు విశ్వవిద్యాలయం, తిరుపతి ప్రాచ్యలిఖిత పుస్తక భాండాగారము ఆంధ్రప్రదేశ్ సాహిత్య అకాడమీ, లలిత కళా అకాడమీ, నాటక అకాడమీలు, తదితర సంస్థలు

V. భాషాభ్యసనం - బోధన - మూల్యాంకనం:

మూల్యాంకనం - పరీక్ష - నికష - పరిగణన, భావనలు- సామర్థ్యాధారిత మూల్యాంకనం - నిరంతర సమగ్ర మూల్యాంకనం- రూపణ మూల్యాంకనం - సంకనల మూల్యాంకనం - లోప నిర్ధారణ మూల్యాంకనం - ప్రాగ్నాటిక మూల్యాంకనం-మూల్యాంకనానికి ప్రశ్నపత్రాలు - ప్రశ్నల తయారీ- వివిధ ప్రశ్నరూపాలు, ప్రశ్నల లక్షణాలు - మెలకువలు- పాఠాంత నికషలు - అంతర్గత మూల్యాంకనం - బాహ్య మూల్యాంకనం, విద్యార్థులు/అభ్యాసకుల స్వీయ మూల్యాంకనం- మూల్యాంకనం - భాషా కౌశల నికషలు - శ్రవణ నికష - పఠన నికష - భాషణ నికష - లేఖన నికష - అభిరుచి నికష-అనక్షి నికష - సృజనాత్మక నికష, ప్రశంసానికష, భాషా స్పృహ నికష - నిర్మాణం - విశ్లేషణ - మెలకువలు - మార్పిడి సమాధాన పత్రాలు- ప్రశ్నపత్రాల సమాధానాలను సరిచూచుట - ఫలితాల నివేదన - గ్రేడింగ్ - ఫలితాల వ్యాఖ్యానం

బోధన సంబంధ కృత్యాలు:

1. ఏదేని కూడు స్థానిక వార్తాపత్రికల్లోని - సంపాదకీయ వ్యాసాలు, వార్తా వ్యాఖ్యలను సమీక్షించి, ముఖ్యభావనలను, భాషా లక్షణాలను క్రోడీకరించి, వ్యాసరూపంలో నివేదిక తయారు చేయుట.
2. సచ్చిస ఒక కవి/రచయితల ఒక కవిత/కథను ప్రశంసిస్తూ రాయుట.
3. కార్యక్రమయూత బోధనపై ఒక పాఠం సిద్ధం చేయుచుట.
4. బాలల పత్రికలు - భాషాభ్యసనానికి వాటి తోడ్పాటుపై పిల్లల అభిప్రాయ సేకరణ.
5. స్థానిక భాషా విశేషాలు - జాతీయాలు - సామెతలు - పొదుపు కథలు - సేకరణ.

పరామర్శ గ్రంథాలు:

కోర్సు V నందు పొందుపరచబడినవి.

Co-Po Attainment in outcome based Education

Course Name- Pedagogy of Telugu

Course Outcome

| Sl. No | Course Number | Co's Description |
|--------|-----------------|---|
| 1 | CO ₁ | పద్యం, గద్యం, వ్యాకరణం, వ్యాసం, కథ నాటిక మున్నగు ప్రక్రియల బోధనను నిర్వహిస్తారు. |
| 2 | CO ₂ | పాఠ్యబోధనకు అనువైన వ్యూహాలు, భోదన సామాగ్రిని ఎంపిక చేసుకుంటారు. |
| 3 | CO ₃ | విద్య ప్రణాళిక, విషయ ప్రణాళిక, పాఠ్యపుస్తకాల మద్యగల సంబంధాలను అవగతం చేసుకుంటారు. |
| 4 | CO ₄ | భాషా మూల్యాంకనం భావనలను అర్థం చేసుకొని, తమ విద్యార్థుల ఉప లబ్ధిని వివిధ మూల్యాంకన విధానాల్లో అంచనావేస్తారు. |
| 5 | CO ₅ | భాషాభ్యాసనం/బోధనల్లో భాషా ప్రయోగశాల, కంప్యూటర్ల ప్రధాన్యతను గుర్తిస్తారు. తమ బోధనలో వినియోగిస్తారు. |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | P O 1 Knowle dge | PO ₂ Analy sis | PO ₃ Investi gation | P O 4 D Design evelop ment | PO ₅ Moder nTools | PO ₆ Society | P O 7 Enviro nment | PO ₈ Ethics | PO ₉ Team work | P O 10 Commu nication | P O 11 Program meMana gement | PO ₁₂ Lifelon gLeerin g |
|-------------------------------|------------------------------|---------------------------------|--------------------------------------|--|------------------------------------|----------------------------|--------------------------------|---------------------------|---------------------------------|-----------------------------------|---|---|
| CO ₁ | 3 | 3 | 3 | 2 | 2 | 3 | 1 | 3 | - | 3 | 1 | 2 |
| CO ₂ | 3 | 3 | 2 | 2 | 2 | 2 | - | 3 | - | 3 | 1 | 1 |
| CO ₃ | 3 | 3 | 2 | 1 | 2 | 2 | - | 3 | - | 3 | 2 | 2 |
| CO ₄ | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | - | 3 | 1 | 1 |
| CO ₅ | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 1 | 3 | 1 | 1 |
| PO Attainme nt | 15 | 15 | 13 | 11 | 12 | 13 | 03 | 15 | 01 | 15 | 06 | 07 |

Course-XII

LEARNING ASSESSMENT

Objectives

To enable the student-teachers to

1. Understand the nature of assessment and evaluation and their role in teaching learning process.
2. Understand the perspectives of different schools of learning on learning assessment
3. Realize the need for school based and authentic assessment
4. Examine the contextual roles of different forms of assessment in schools
5. Understand the different dimensions of learning and the related assessment procedures, tools and techniques

Course Content

Unit-1: Perspectives on Assessment and Evaluation

- 1.1 Meaning of Assessment, Measurement, Tests, Examination, Appraisal, and Evaluation and their interrelationships
- 1.2 Purpose(s) and principles of Assessment, characteristics of quality assessment
- 1.3 Current thinking about learning based on Behaviorist, Cognitivist and Constructivist learning theories and their implications for classroom assessment changing the culture of classroom assessment
- 1.4 Classification of assessment: based on *purpose* (prognostic, formative, diagnostic and summative), *scope* (teacher made, standardized), *attribute measured* (achievement, aptitude, attitude, etc.), *nature of information gathered* (qualitative, quantitative), *mode of response* (oral and written; selection and supply), *nature of interpretation* (self-referenced, norm-referenced, criterion-referenced) and *context* (internal, external)
- 1.5 Policy perspectives on examinations and evaluation: Recommendations in National Policies of Education and curriculum frameworks- continuous and comprehensive assessment

Unit-2: Formative and Summative Assessment

- 2.1 Formative Assessment (FA) meaning, purpose, essential elements (formative assessment in practice), major barriers to wider use of FA, role of students and teachers in formative assessments,
- 2.2 Observation, questioning, reflection on learning as strategies for using assessment in the process of learning;
- 2.3 Use of Projects, Assignments, Work sheets, Practical work, Performance-based activities and Reports as assessment devices; Self, Peer and Teacher assessments- use of rubrics,
- 2.4 Summative assessment: meaning, purpose, summative assessment in practice, use of teacher-made and standardized test
- 2.5 Aligning formative and summative assessments

Unit-3: Tools of Assessment

- 3.1 Assessment of cognitive learning: understanding and application; thinking skills –convergent, divergent, critical, problem solving, and decision making;
- 3.2 Selected-Response Assessment: Multiple Choice, Binary Choice, and Matching and Constructed Response Assessment: Completion, Short-Answer, and essay Items as tools-nature, advantages and limitations, guidelines for their construction and scoring
- 3.3 Assessment of affective learning: attitude and values, interest, self-concept; tools and procedures for their assessment; observation, interview, rating scales,

check-lists, inventories as tools/techniques, their uses and preparation

3.4 Assessment of Performance/ project-based assessment- meaning, characteristics, scope; using rubrics to grade a performance-based assessment

3.5 Portfolios: meaning, types, purposes, guidelines for portfolio entries and assessing portfolios

Unit-4: Planning, Construction, Administration and Reporting of assessment

4.1 Planning: Deciding on what, why and how to assess- difference between instructional, learning and assessment objectives, stating of assessment objectives , deciding on the nature and form of assessment - oral tests and written tests; open book examination; weightage to content, objectives, allocation of time; Preparation of a blue print

4.2 Construction/selection of items: writing test items/questions, reviewing and refining the items, assembling the test items; writing test directions and guidelines for administration (if any), Scoring procedure – manual and electronic; Development of Rubrics

4.3 Administration, item analysis and determining item and test characteristics; Item response analysis, ascertaining student needs, identifying student interests and feeding forward for improving learning

4.4 Analysis and Interpretation of Students' Performance

Processing test data: graphical representations; calculation of measures of central tendency and variability, and derived scores- percentiles, percentile rank, percentage score, grade point averages, z-scores; and Frame of reference for interpretation of assessment data: norm-referenced, criterion-referenced and self-referenced i.e., relative and absolute interpretation;

4.6 Reporting Student Performance – content and formats; Progress reports, Cumulative records, Profiles, and Open house; Using feedback for reporting to different stakeholders – students, parents, and administrators

4.7 Use of Feedback for teachers' self-improvement and curriculum revision

Unit-5: Issues, Concerns and Trends in Assessment and Evaluation

5.1 Existing Practices: Class/Unit tests, half- yearly and annual examinations, Board examinations and Entrance tests, State and National achievement surveys;

Management of assessment and examinations; Use of question bank

5.2 Issues and Problems: Marking Vs Grading, Non-detention policy, Objectivity Vs Subjectivity; Impact of entrance test and public examination on teaching and learning – the menace of coaching.

5.3 Trends in assessment and evaluation: Online examination, Computer-based examination and other technology based examinations, Standards- based assessment – international practices

CO-Po Attainment in outcome based Education

Course Name-LEARNING ASSESSMENT

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|---|
| 1 | CO ₁ | Understand the nature of assessment and their role in teachinglearningprocess |
| 2 | CO ₂ | Develop assessment tasks and tools to access learners performance |
| 3 | CO ₃ | Analyze , Manage and Interpret assessment data |
| 4 | CO ₄ | Analyze the reporting procedures of learners performance in schools |
| 5 | CO ₅ | Understand the policy prospective on examinations and evaluation and their implementation practices |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ ModernTools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ ProgrammeManagement | PO ₁₂ LifelongLearning |
|----------------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|--------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|---|--------------------------------------|
| CO ₁ | 3 | - | - | - | 2 | - | - | - | 2 | 2 | - | 2 |
| CO ₂ | 3 | 2 | 3 | 2 | 2 | - | - | - | 2 | 2 | - | 2 |
| CO ₃ | 3 | 2 | 3 | 2 | 2 | - | - | - | 2 | 2 | - | 2 |
| CO ₄ | 2 | 3 | 2 | 1 | 2 | - | - | - | 2 | 2 | - | 1 |
| CO ₅ | 3 | 2 | 3 | 3 | 1 | - | - | - | 1 | 3 | - | 2 |
| PO Attainment | 14 | 09 | 11 | 08 | 09 | - | - | - | 09 | 11 | | 09 |

Course-XIII

UNDERSTANDING THE SELF

Objectives

To enable the student-teachers to

1. understand that any Self is a human resource to exercise all the resources: cognitive, affective and psychomotor resources.
2. make them realize that the Self does not have independent existence but related to Nature, other selves and the „Unknown“ causing it and this great design of the Universe.
3. make the student-teacher perform one's function to the possible extent as any part of the Nature is silently doing so; thereby developing self-actualization and selfesteem.
4. realize that one is responsible as a person and as a teacher for the integrated development of oneself and one's pupils: Physical, cognitive, social, emotional, aesthetic, moral, and spiritual developments.
5. realize the commonness and uniqueness prevalent in Nature and human nature and feel equality as the reality and contribute to the furtherance of evolution at mental level.

Course Content

Unit-1: Self as a human resource:

- 1.1 Cognitive resources of the self: Self-critical awareness about one's abilities and opportunities to develop independent thinking-critical thinking and creative thinking, decision making and problem solving and develop them as skills.
- 1.2 Affective resources: Feelings of love, joy, appreciation; emotions like fear, anger, jealousy, affection, happiness to be understood both as assets and threats or limiting factors.
- 1.3 Sensitize the ability to identify the structural and functional commonality of the human body except the organs of reproduction and allied features of the human kind.
- 1.4 Empathic understanding of geographical, climatic and genetic conditions causing physical differences.

Unit-2: Self in relation to social identities:

- 2.1 Self-critical awareness of the causes for one's positive and negative relations with the people based on caste, class, language, religion, nation, region etc.,
- 2.2 Self-critical understanding of the basic realities of the man- made divisions over the time-scale.
- 2.3 Critical understanding of the Nature's necessity of gender difference for the onset and continuity of human race.
- 2.4 Critical understanding of the basic realities of cultural differences across the time-scale and across the globe.

Unit-3: Self (person) as a part of the Nature:

- 3.1 Nature, harmony in existence and co-existence
- 3.2 Dependence of Self on the Nature for the very life; dependence of self on other selves for comfortable living.
- 3.3 Responsibility of self towards conservation, protection and enrichment of plant and animal life.

3.4 Responsibility of self towards other human beings in the family, society, and people across the globe.

Unit-4: Self in relation to profession:

4.1 Self-critical awareness of teaching competency: adequacy of subject matter knowledge, professional skills, and effective communication to the students.

4.2 Self-critical awareness of one's attitudes towards students, teaching, teaching material, interest in students and subject and one's aptitude in the inculcation of interest in students and in tapping their abilities to realize the values identified in the lesson.

4.3 Self-critical awareness of suitability of one's role being performed contextually to enrich learners' capabilities and guiding them for self-actualization while interacting.

4.4 Self-critical awareness of involvement in team work with colleagues, head of the institution parents of learners and management for the development of the learners.

Unit-5: Self- development through self-learning (Self-knowledge):

5.1 Development of self and social identities in the learners to enrich human resources and self-esteem; Realistic understanding of any self as depending on the source of the whole existence for spiritual awakening free of any religious identity.

5.2 Objective view of beliefs, prejudices and stereotypes to liberate from irrational tendencies.

5.3 Understanding human roots in animal and possibility of heights in the divinity through the philosophers like Swamy Vivekananda, Sri Aurobindo and J. Krishnamurti to awaken oneself to Truth, beauty and goodness both inside and outside.

5.4 Yogic practices for physical, mental and spiritual health and to lay the seeds or foundations for Self-realization.

CO-Po Attainment in outcome based Education

Course Name- Understanding the Self

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|--|
| 1 | CO ₁ | understand that any Self is a human resource to exercise all the resources: cognitive, affective and psychomotor resources |
| 2 | CO ₂ | make them realize that the Self does not have independent existence but related to Nature, other selves and the „Unknown“ causing it and this great design of the Universe. |
| 3 | CO ₃ | make the student-teacher perform one's function to the possible extent as any part of the Nature is silently doing so; thereby developing self-actualization and self-esteem |
| 4 | CO ₄ | realize that one is responsible as a person and as a teacher for the integrated development of oneself and one's pupils: Physical, cognitive, social, emotional, aesthetic, moral, and spiritual developments. |
| 5 | CO ₅ | realize the commonness and uniqueness prevalent in Nature and human nature and feel equality as the reality and contribute to the furtherance of evolution at mental level. |

CO-PO Mapping Matrix/Programme Articulation Matrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Program Management | PO ₁₂ Lifelong Learning |
|-----------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 3 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 2 | - | 3 |
| CO ₂ | 2 | 3 | 2 | 1 | 1 | 2 | 2 | - | 2 | 1 | - | - |
| CO ₃ | 3 | 3 | 3 | 2 | - | 3 | 3 | 2 | 2 | 2 | - | 2 |
| CO ₄ | 3 | 3 | - | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 |
| CO ₅ | 2 | 3 | 2 | 2 | - | 2 | 2 | 3 | 2 | 2 | - | 3 |

| | | | | | | | | | | | | |
|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| PO Attainment | 13 | 15 | 09 | 07 | 03 | 11 | 12 | 10 | 09 | 09 | 01 | 10 |
|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|

SEMESTER-IV

Course-XIV

CONTEMPORARY INDIA AND EDUCATION

Objectives

To enable the student-teachers to

1. Understand and Contextualize ideals of the Constitution of India;
2. Appreciate humanistic agenda of the Constitution on India;
3. Value and recognize the role of education in realizing the ideals of the Constitution;
4. Develop critical awareness about the issues of education that are coming in the way of realization of the values of the Constitution;
5. Understanding and develop positive attitudes towards various forms of exclusion;

Course Content

Unit-1 Normative Vision of Indian Education: Indian Constitution

1.1 Constitution of India Basic Features

- i. Fundamental Rights
- ii. Directive principles of state policy
- iii. Federal Structure

1.2 Preamble of the Constitution : The ideals

- i. Sovereign Nation
- ii. Democratic and Secular polity
- iii. Liberty equality & fraternity
- iv. Justice: Social, Economic and political

Unit- 2 Education as Fundamental Right

2.1 Human Rights; Meaning Nature , and Classification;

2.2 Right of Children : International convention and Indian Constitution; Education as Fundamental Right of Children-2009

2.3 Issues in Implementing RTE-2009: A critical understanding

- i. Issues that affect and negate the children"s right to education (Child Labor: Street children, abandoned and orphans)
- ii. Differently abled children: Attitude towards the girl child and her participation in schooling, punishment, abuse and violence in Schools).

Unit-3 Contemporary Indian Schooling: Concerns and Issues

3.1 Equality of Educational Opportunity : Meaning and nature : Forms of inequality : Religion, Regional, Caste, Gender and other marginalized groups.

3.2 Inequality in Schooling: Public – Private schools , Rural – urban schools, Masselite schools , single teacher schools and many other forms of in-equal school systems. Critical understanding of Paradox of Equal opportunity and in-equal schooling: positive discrimination; concept and issues and policy interventions.

3.3 Schooling: Quality concerns and issues

- i. Universal access
- ii. Universal Enrollment
- iii. Universal retention
- iv. Universal success

Unit-4 Understanding Exclusion in schooling

4.1 Exclusion: Meaning and Nature

4.2 Forms of Exclusion: a) physical / Psychological Exclusion

4.3 Different types of differently abled children: Nature of problems and their impact on learning

- 4.4 Measure to address the issue of learning of differently abled children and professional preparedness of Institutions;
- 4.5 Socio-cultural and economic exclusion: Understanding different forms of socioculture and economic exclusion in schooling – Caste, Class, Gender, Minority, and other Marginalized sections of the society.

Unit- 5 Secondary Education: Concerns and Issues

- 5.1 Secondary School stage: its linkages with primary and higher secondary stages of education;
- 5.2 Aims of Secondary School Stages of Education
- 5.3 Universalisation of Secondary School stages of Education: Its Status
- i. Quantitative expansion , Qualitative consolidation and Equity perspective – A sociological understanding;
 - ii. Issues in Secondary school stages of Education :Privatization, Vocationalization
 - iii. Reforms in Secondary School Stages Education: Curricular , Pedagogical and Examinations;
- 5.4 Rashtriya Madhyamika Shiksha Abhiyan (RMSA): Goals and policy intervention for Quality Secondary School Stages of Education

CO-Po Attainment in outcome based Education

Course Name-CONTEMPORARY INDIA AND EDUCATION

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|--|
| 1 | CO ₁ | Understand and Contextualize ideals of the Constitution of India |
| 2 | CO ₂ | Appreciate humanistic agenda of the Constitution on India; |
| 3 | CO ₃ | Value and recognize the role of education in realizing the ideals of the Constitution; |
| 4 | CO ₄ | Develop critical awareness about the issues of education that are coming in the way of realization of the values of the Constitution |
| 5 | CO ₅ | Understanding and develop positive attitudes towards various forms of exclusion |

CO-PO Mapping Matrix/Programme Articulation Matrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Programme Management | PO ₁₂ Lifelong Learning |
|-----------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 2 | - | 2 | 2 | 3 | 2 | 3 | 2 | 2 | - | 1 |

| | | | | | | | | | | | | |
|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|
| CO ₂ | 3 | 2 | - | 2 | 2 | 3 | - | 3 | 2 | 2 | - | 1 |
| CO ₃ | 3 | 3 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 |
| CO ₄ | 3 | 2 | 1 | 1 | 2 | 3 | 2 | 3 | 2 | - | 2 | 2 |
| CO ₅ | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 3 | 2 | 2 | 1 | 2 |
| PO Attainment | 14 | 11 | 03 | 08 | 10 | 14 | 09 | 15 | 10 | 08 | 05 | 08 |

Course-XV

GENDER, SCHOOL AND SOCIETY

Objectives

To enable the student-teachers to

1. understand the gender related issues
2. develop sociological perspectives about the impact of culture. Tradition, Socialization, division of labour on gender aspects
3. create an awareness about the impact of gender on Education
4. understand the dynamics of gender perspectives and sensitization
5. create the knowledge regarding equality and its relationship to women education

Course Content

Unit-1: Basics of Gender

- 1.1 Concept, Meaning, Scope of gender,
- 1.2 The difference between sex and Gender - Gender discrimination
- 1.3 The characteristics of patriarchal system and its impact on Women's status
- 1.4 The need and importance of Women's Education – its benefits

Unit-2: Factors affecting gender Discrimination

- 2.1 Factors influencing gender differences and practices- inequality in ratio, female infanticide, feticide, crime, violence.
- 2.2 Religious, Physical, Sociological, Economic, Political, Legal, employment, Psychological etc .
- 2.3 Sociolisation process and its impact on decision making Women / Girls Education
- 2.4 Rural / Urban /Tribal Societies in relation to girls Education
- 2.5 Women and Girls status at present in our Society

Unit-3: Historical Perspectives and changing status of Women

- 3.1 Epic . Vedic age – Kaikeyi, Sathyabhama, Gargi, Maitreyi, Lopamudra etc.
- 3.2 Medieval age – Rami Lakshmi Bai, Chennamma, Rudramadevi.
- 3.3 British Age – Victoria, Elizebeth, Noorjahan
- 3.4 Present Age – Indira Gandhi, Sushma Swaraj, Bandaranayake, Kiranbedi, Kalpana Chawala, Prathibapatil, Meerakumar.

Unit-4: Legal issues of Gender

- 4.1 Women's Rights

- 4.2 Legal Provisions
- 4.3 Equality of Sexes
- 4.4 Education and division of Labour – Home, School, Society, work place

Unit-5: Gender and Education

- 5.1 Educational provisions specially meant for girls Education
- 5.2 Emerging trends in the field of girls Education – Reservations
- 5.3 Gender as an influencing factor in course choices
- 5.4 Women empowerment through girls education – its need – National Development

CO-Po Attainment in outcome based Education

Course Name-GENDER, SCHOOL AND SOCIETY

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|---|
| 1 | CO ₁ | understand the gender related issues |
| 2 | CO ₂ | develop sociological perspectives about the impact of culture. Tradition, Socialization, division of labour on gender aspects |
| 3 | CO ₃ | create an awareness about the impact of gender on Education |
| 4 | CO ₄ | understand the dynamics of gender perspectives and sensitization |
| 5 | CO ₅ | create the knowledge regarding equality and its relationship to women education |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | | | | | | | | | | | | |
|--|---------------------------------------|---------------------------------------|--|---------------------------|--|----------------------------------|---|---------------------------------|---------------------------------------|--|--|---|
| | P O 1 Knowle dge | PO₂ Analy sis | PO₃ Investi gation | P O 4 D | PO₅ Moder nTools | PO₆ Society | P O 7 Enviro nment | PO₈ Ethics | PO₉ Team work | P O 10 Commu nication | P O 11 Program meMana | PO₁₂ Lifelon gLeerin g |
|--|---------------------------------------|---------------------------------------|--|---------------------------|--|----------------------------------|---|---------------------------------|---------------------------------------|--|--|---|

| | | | | Design develop ment | | | | | | | gement | |
|-------------------------------|----|----|----|---------------------------|----|----|----|----|----|----|--------|----|
| CO ₁ | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 1 | 3 |
| CO ₂ | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 1 | 2 | 2 | 3 |
| CO ₃ | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 1 | 3 |
| CO ₄ | 3 | 2 | 1 | 1 | 1 | 3 | 2 | 3 | 3 | 2 | 2 | 1 |
| CO ₅ | 3 | 2 | 1 | 2 | 1 | 3 | 2 | 3 | 3 | 2 | 1 | 2 |
| PO Attainme nt | 14 | 10 | 07 | 10 | 08 | 15 | 10 | 15 | 12 | 10 | 07 | 11 |

Course-XVI

INCLUSIVE EDUCATION

Objectives

To enable the student-teachers to

1. Acquire knowledge about the concept of inclusive education for different types of special needs children.
2. Able to identify the different types of special needs children and their characteristics.
3. Develop understanding in identification and assessment of children with special needs.
4. Critically evaluate the policy perspectives emerged at national and international levels for empowering children with special needs.
5. To develop the required skills for teaching children with special needs in regular schools.

Course Content

Unit-1: Concept of Inclusive Education

- 1.1 Inclusive Education – concept, meaning, definition and importance.
- 1.2 Concept of Impairment, Disability and Handicap
- 1.3 Concept of Special Education, Integrated Education, Mainstreaming and Inclusive Education
- 1.4 Need for Inclusive Education in India for children with special needs.

Unit-2: Types and Characteristics of Children with Special Needs

- 2.1 Concept, types and characteristics of different types of children with special learning needs:
- 2.2 Children with Physical challenges– Visual, Hearing, Loco-motor and Neurological.
- 2.3 Children with Intellectual challenges – Gifted, Mentally Challenged, Autism (ASD) and Learning Difficulties (LD).
- 2.4 Children with Emotional and Behavioral deviations with special reference to ADHD and Juvenile Delinquency.
- 2.5 Children with Socio- cultural deviations (SC, ST, Minorities) and Linguistic Minorities.

Unit-3: Identification, Assessment and Educational Provisions

- 3.1 Identification, assessment and education of Children with physical challenges – Visual, Hearing, Loco-motor and Neurological.
- 3.2 Identification, assessment and education of Children with Intellectual challenges – Gifted, Mentally Challenged, Autism, Learning Difficulties (LD).
- 3.3 Identification, assessment and education of Children with Emotional and

Behavioral deviations with special reference to ADHD and Juvenile Delinquency.

3.4 Identification, assessment and education of Children with Socio- cultural deviations and Linguistic minorities.

3.5 Challenges and prospects in Identification and assessment of children in inclusive education.

Unit-4: Policy Perspectives for Children with Special Needs

4.1 International Legislations –Salmanca Declaration, UNESCAP, UNCRRPD

4.2 National Legislations – NPE-1986, PoA-1992, RCI Act-1992, PWD Act-1995 with latest amendments , National Trust Act-1999, RTE Act-2009

4.3 Government schemes and provisions – SSA, RMSA with special reference to the provisions and activities aimed at meeting the needs of children with special learning needs.

Unit-5: Educating Children in Inclusive Classrooms

5.1 Need for creation of physical, psychological, sociological barriers free environment within and outside the classroom

5.2 Assistive devices and technologies required for education of children with special needs in inclusive classroom

5.3 Need for parent and community involvement to promote positive behaviours and social competence in children with special learning needs

5.4 Need for multi-disciplinary approach to address the educational needs of children with special learning needs

5.5 Challenges and prospects in providing education in inclusive classrooms.

CO-Po Attainment in outcome based Education

Course Name- Inclusive Education

Course Outcome

| Sl.No | Course Number | Co's Description |
|--------------|-----------------------|---|
| 1 | CO₁ | Acquire knowledge about the concept of inclusive education for different types of special needs children |
| 2 | CO₂ | Able to identify the different types of special needs children and their characteristics. |
| 3 | CO₃ | Develop understanding in identification and assessment of children with special needs |
| 4 | CO₄ | Critically evaluate the policy perspectives emerged at national and international levels for empowering children with special needs |
| 5 | CO₅ | To develop the required skills for teaching children with special needs in regular schools |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | PO ₁ Knowledge | PO ₂ Analysis | PO ₃ Investigation | PO ₄ Design development | PO ₅ Modern Tools | PO ₆ Society | PO ₇ Environment | PO ₈ Ethics | PO ₉ Team work | PO ₁₀ Communication | PO ₁₁ Programme Management | PO ₁₂ Lifelong Learning |
|-----------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|---------------------------------|----------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------|--|---------------------------------------|
| CO ₁ | 3 | 2 | 2 | 2 | 1 | 3 | 1 | 3 | 2 | 1 | 2 | 2 |
| CO ₂ | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 1 | 2 | 2 | 1 |
| CO ₃ | 3 | 1 | 1 | 1 | 2 | 3 | 1 | 3 | 1 | 1 | 1 | 1 |
| CO ₄ | 3 | 2 | 1 | 1 | 1 | 3 | 1 | 3 | 1 | 0 | 1 | 1 |
| CO ₅ | 3 | 3 | 2 | 1 | 1 | 3 | 1 | 3 | 1 | 1 | 1 | 1 |
| PO Attainment | 15 | 10 | 09 | 07 | 07 | 15 | 06 | 15 | 06 | 05 | 07 | 06 |

Course-XVII

ENVIRONMENTAL EDUCATION

Objectives

To enable the student-teachers to

1. recognizes the concept and importance and participate in various activities of swatch bharath
2. recognizes the need and importance of environmental education.
3. identify the factor responsible for environmental degradation and environmental pollution
4. develop strategies to curb out environmental degradation in their house and locality.
5. recognizes the role of government and non government agencies in reducing the environmental issues faced by mankind.

Course Content

Unit-1: Swatch Bharath- an Environmental Awakening

- 1.1 Meaning, concept, definition of Swatch Bharath
- 1.2 Evolution of the concept of Swatch Bharath, objectives, its campaign and execution.
- 1.3 Integration of Swatch Bharath campaign with educational institutions
- 1.4 Strategies to implement the Swatch Bharath campaign in schools and other educational institutions.

Unit-2: Objectives, Scope and Nature of Environmental Education

- 2.1 Meaning, importance, definition, characteristics and objectives of environmental education
- 2.2 Importance, objectives, scope and guiding principles of environmental education.
- 2.3 Factors of degradation of environment – adverse socio –economic impacts of degradation of environment.
- 2.4 Types of pollution: Land, Air, Water, Noise, and Radiation
- 2.5 Green house effect - Ozone layer depletion.
- 2.6 Importance of need and scope of environmental conservation and regeneration.
- 2.7 Impact of industry/mining/transport on environment

Unit-3: Environmental Management and Protection

- 3.1 Need for environmental management – functions and characteristics of environmental management
- 3.2 Dimensions of environmental management. Factors responsible for flora and

fauna extinction

3.3 Measures to conserve flora and fauna.- causes for forest fire- measures of prevention

3.4 Major environmental problems in India – Environmental protection and polices in India

3.5 Need and objectives of conservation – Environmental conservation measures taken in India, waste management, alternative sources of energy, organic farming, rain water harvesting, community participation in nature resource management, water and forests.

3.6 Constitutional amendments made and Environmental laws,

Unit-4: Environmental Movements and Developments

4.1 Environmental movements in India: Silent Valley movement, Chipko movement, Narmada Bachao, Andolan, National Test Range at Balipal, Orissa.

4.2 Conditions for achieving the goals of sustainable development

4.3 Strategies for sustainable development in India

4.4 The Stockholm conference 1972 – Brundtland commission 1983 –Nairobiconference 1982 – The Rio Summit 1992

4.5 The Rio Declaration at the earth charter – Major achievements of the Rio Summit – Main features of the Rio Declaration

4.6 Kyoto conference and part on Global Warming 1997.

Unit-5: Environmental Education in the School Curriculum and Means to Sensitize the Students

5.1 Environmental education at Primary, Secondary and Higher Education level

5.2 Major constraints for its implementation at these levels.

5.3 Teacher's role – national resource center for environmental education.

5.4 Characteristics of good teaching method.

5.5 Seminar, Workshop, Problem-solving, Field trips and Surveys, Projects, Exhibition and other methods.

5.6 Relative efficiency of teaching methods, Role of IT and media in environment and human health.

CO-Po Attainment in outcome based Education

Course Name- Environmental Education

Course Outcome

| Sl.No | Course Number | Co's Description |
|-------|-----------------|---|
| 1 | CO ₁ | recognizes the concept and importance and participate in various activities of swatch bharath |
| 2 | CO ₂ | Recognizes the need and importance of environmental education. |
| 3 | CO ₃ | Develop the strategies to curb our environmental degradation in their house and locality |
| 4 | CO ₄ | Recognize the role of teacher in a school in promoting the environmental awareness among the children |
| 5 | CO ₅ | Develop strategies to sensitize the students regarding the environmental problems faced in a country |

CO-PO MappingMatrix/ProgrammeArticulationMatrix:

| | PO₁ Knowledge | PO₂ Analysis | PO₃ Investigation | PO₄ Design development | PO₅ Modern Tools | PO₆ Society | PO₇ Environment | PO₈ Ethics | PO₉ Team work | PO₁₀ Communication | PO₁₁ Program Management | PO₁₂ Lifelong Learning |
|-----------------------|------------------------------------|-----------------------------------|--|---|---------------------------------------|----------------------------------|--------------------------------------|---------------------------------|------------------------------------|---|--|---|
| CO₁ | 2 | 1 | 2 | 2 | - | 3 | 3 | 3 | 2 | 2 | 2 | 3 |
| CO₂ | 3 | - | - | - | 2 | 3 | 3 | 2 | - | 2 | - | 2 |
| CO₃ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 3 |
| CO₄ | 3 | 2 | - | - | 2 | 3 | 3 | - | 2 | 2 | - | 2 |
| CO₅ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | - | 2 | - | 2 |
| PO Attainment | 14 | 09 | 08 | 08 | 10 | 15 | 15 | 08 | 06 | 10 | - | 12 |