SEMESTER - 1

II. SYLLABUS OF DIFFERENT COURSES

Course-I

PHILOSOPHICAL FOUNDATIONS OF EDUCATION

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

Activities:

1. Critically review a selected book written by Contemporary Educationalist in India.
2. Thoughts and reflections of Western Philosophical schools and its relevance to the present day Indian Education – A Report
3. Identify the different roles played by an ideal teacher in the classroom, school and community and report
4. Visit nearby schools under different managements and describe the functioning of the schools
5. List out the values which make an individual a righteous human being

COURSE-II
PERSPECTIVES IN CHILD DEVELOPMENT

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.

Activities

1. Visit a balwadi centre/ NGO centers for orphans/ street children homes and prepare a detailed report on the care taken by these centers
2. Description of cases – 1. A Child with any type of disability and 2. A child from disadvantaged section of the society
3. Describe the salient features of Child Rights Act 2005
4. Interact with five adolescents and collect information about their attitudes, interests, aspirations in respect of their educational and occupational choices

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

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 - Flander s Interaction Analysis Category System

2.3 Individualised 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

Activities

1. Use various visual aids in the classroom and report their effectiveness on learning of the students
2. **Prepare Self Instructional Material on any one topic and analyse its effectiveness for individualized learning**

3. Observe and analyse classroom Interaction and report the dynamics of classroom
4. Prepare a computer assisted lesson of your choice from school curriculum

Course-IV
PEDAGOGY OF MATHEMATICS

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) Srinivasa Ramanujan.
1.4 Contributions of Western Mathematicians
a) Euclid b) Pythagoras c) Renedescarte d) Geroge 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.

Activities

1. Create different activities to realize concept attainment by children in any unit from Mathematics Text books of 6-10 classes

2. Each student has to collect and present history and contributions of one Indian or Western mathematician
3. Preparation of T.L.M. for any one topic from classes 6-10 mathematics
4. Preparation of power point presentation (PPP) for any one topic from a different branch of mathematics
5. Identifying suitable methods/ approaches of teaching different topics from mathematics text of any one class (Inductive/ Deductive/ Analytic/ Synthetic/ Laboratory/ Heuristic/ Project methods and Activity based learning)

Course-IV
PEDAGOGY OF SOCIAL SCIENCES

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 Centred Approaches – Lecture, Lecture-demonstration, Source and Supervisory Study

3.3 Learner centered approaches –Project, Problem Solving, Discussion, Inductive and Deductive, Observation, Constructivistic Approach

3.4 Strategies / Techniques - Brain Storming, Team Teaching, Mind Mapping, Questioning

3.5 Activities – Dramatisation, 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

Activities

1. Identify values in depicted in the lessons of social sciences of any one class and prepare a report
2. Select and plan appropriate strategies for teaching a lesson of social science of your choice and submit
3. Identify any village/ward/ colony and make social survey and find out the literacy rate, adult education programmes, electricity, toilets, sanitary and water facilities, maintenance of roads, etc and submit village/ward description report
4. Organise a programme in the school in connection with celebration of national festivals, birthdays of social scientists/ National leaders, etc.

Course-IV
PEDAGOGY OF BIOLOGICAL SCIENCES

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

Activities

1. Visit any zoological park/Botanical Garden/Agro based industry/ food park/ institution of scientific interest or Science and Technological Museum in your vicinity and report.
2. Identify and write the objectives and specifications under the three domains on any topic of your choice
3. Sketch the life history and write his/her contributions of any one Biologist
4. Name any common branch of both Botany and Zoology and explain how you integrate the pedagogy in dealing with the content.
5. Organize an event on Earth Day/ Environment Day/ Population Day, etc. in the school during the internship and report.

Course-V
PEDAGOGY OF PHYSICAL SCIENCES

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 Behavioural 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-centred Methods - Lecture, Lecture-cum-Demonstration, Historical

4.3 Student-centred 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

Activities

1. Identify the most abstract concepts (difficult topics) from any class physical science textbook suggest ways and means to make it easy to understand and concrete.

2. Identify Concrete and Abstract Concepts in Physics and Chemistry of any class and suggest the appropriate Teaching methods and approaches to teach them and report
3. Prepare an assignment on any physical sciences and its application and implications with other branches of knowledge
4. Prepare biographical sketch of and scientist and his/her contributions to Physics/ Chemistry
5. List out different content aspects of a unit in Physics/ Chemistry and write down the objectives and specifications under Cognitive Domain associated with them.

Course-V
PEDAGOGY OF ENGLISH

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

Activities

1. Prepare a report on Language policies given in the reports of Kothari Commission, NPE 1986 and POA 1992.
2. Prepare a detailed report on how, when and why you are going to use various methods, approaches and techniques in teaching the English language skills.
3. Enumerate ten activities (5 for listening and 5 for speaking) from the text books of classes VI to X. Suggest your own activities using supplementary materials.
4. Critically analyse the writing activities given in the text books of classes VI to X and report.
5. Analyze the tasks given at the end of any one unit in the textbook and check their relevance to cognitive, affective