SCHOOL OF EDUCATION

Bachelor of Education (B. Ed)

SYLLABUS
2011-2012
CURRICULUM OVERVIEW

The curriculum has been designed keeping in view of the Goals and Mission of School of Education. The goal is to prepare competent and professional secondary school teachers, who will be able to provide leadership in schools.

The programme aims at developing competency relevant to separate pedagogy in secondary school subjects such as Physics, Chemistry, Biology, Social Science, English and Mathematics.

Further the course aims at preparing teachers who will innovate and deliver effective learning resources, and able to conduct systematic action research on problems pertaining to the field of education.

On completion of B.Ed programme, the teacher trainee will understand the nature, purpose and philosophy of secondary education, develop an understanding of the psychology of learners and develop skills for providing guidance and counseling. They will be proficient in the usage of technology in teaching curriculum transaction and evaluation.
# B.Ed Course Structure

## FIRST SEMESTER

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<tr>
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<th>Title</th>
<th>Hours</th>
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<tr>
<td>EDU 131</td>
<td>Educational Psychology</td>
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<td>EDU 132</td>
<td>Educational Management &amp; School Administration</td>
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<td>EDU 134*</td>
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<td>134- A(Social Science)</td>
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<td>EDU 183</td>
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**Value Added Course**

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<td>Personality Development</td>
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<td>EDU 185</td>
<td>Theatre in Education</td>
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<td>EDU 186</td>
<td>Holistic Education</td>
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## SECOND SEMESTER

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<td>Educational Thought and Practice</td>
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<td>EDU 232</td>
<td>Educational Technology and Modern Trends in Education</td>
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<td>EDU 235</td>
<td>Contemporary Concerns and Issues in Education</td>
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<tr>
<td>EDU 284</td>
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<td>EDU 285**</td>
<td>Practice Teaching Method I</td>
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<tr>
<td>EDU 286**</td>
<td>Practice Teaching Method II</td>
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**Practice Teaching will be held in selected schools for a period of one month. Prior to Practice Teaching, simulated practice teaching will be held in the School of Education. Each student has to take two lessons in each method during simulated teaching.**
PAPER: EDU 131: EDUCATIONAL PSYCHOLOGY

DESCRIPTION

This paper is offered as general paper in the first semester. It develops the knowledge of Educational psychological methods and its application in the educational context. It enhances the views of a teacher towards the pupils in a positive way viz., Intelligence, Individual differences, Interest, Attention, Attitude, Memory etc. It helps to develop teachers attitude and to retain healthy atmosphere of the class room.

LEARNING OBJECTIVES

- To acquaint the meaning and methods of Educational psychology
- To understand the adolescents and to recognize their role
- To able to use different techniques of testing IQ
- To understand the different kinds of personality and methods to assess the pupils.
- To understand the meaning, nature and various theories of learning
- To understand the cognitive psychology of learner

UNIT 1- MEANING AND SCOPE OF EDUCATIONAL PSYCHOLOGY 07 Hours
Level of Knowledge – Conceptual and Basic

Meaning and Scope of Educational Psychology -Methods of Educational Psychology; Observation, Case Study, Experimentation - Meaning, Steps - Uses and Limitations
Need of Educational Psychology to the teacher.

UNIT 2- LEARNER AS A DEVELOPING INDIVIDUAL 12 Hours
Level of Knowledge – Application


UNIT 3 - UNDERSTANDING THE DIFFERENCE BETWEEN THE LEARNERS
Level of Knowledge – Comprehension 10 Hours

Individual differences - Meaning , Classifying factors , Role of Heredity and Environment -Intelligence - Meaning , different types of test with examples, IQ - its distribution Multiple Intelligence – Howard Gardner -Emotional Intelligence : concept,

Meaning, Characteristics, Causes and Remedial instruction - Creativity - Meaning, Characteristics of creative children, Role of teachers and parents in fostering creativity. Differences between individual learners, learning style, self-concept, self-esteem, attitude, aptitude, skills and competencies, interest.

UNIT 4 - PERSONALITY
Level of Knowledge – Conceptual

07 Hours

Personality - Meaning, Classification - Structure of Personality - Sigmund Freud's theory - Assessment of Personality - Subjective, Objective and Projective techniques - Role of a teacher in molding personality

UNIT 5 - THEORITICAL PERSPECTIVES OF LEARNING - AN OVERVIEW
Level of Knowledge – Theoretical

12 Hours

Learning - Meaning and Nature - Learning Theories ; Meaning, Classification - Trial & Error learning theory and laws of learning - Classical conditioning theory & its educational implications - Operant conditioning theory & its educational implications - Gestalt theory & its educational implications - Gagne's hierarchy of learning & its educational implications - Modes of learning - Enactive, Iconic & Symbolic, & its educational Implications - Constructivism - Concept formation, Concept learning - meaning, types, approaches to teach concepts. Learning in constructivist’s perspective; Pedagogic principles for organizing learning: behaviouristic, cognitivist, and humanistic - A critical analysis of the relevance and applicability of various learning theories for different - kinds of learning situations

UNIT 6 - FACTORS AFFECTING LEARNING
Level of Knowledge – Comprehension

12 Hours

Maturation ; Meaning & Educational Implications - Motivation ; Meaning & Techniques to motivate the students, Humanistic Model on Motivation by C.R. Rogers - types - STM & LTM, Process - registration, retention, recall & recognition. - Transfer of learning – meaning types, & its educational implications. Biological and hereditary factors influencing learning - Factors related to the subject matter content and learning material - Factors related to the method of learning - Attention, interest, motivation and readiness as factors influencing scholastic learning, Maturation- Abraham Maslow’s theory of motivation

Skill Development

1. Able to develop Teaching learning strategies catering to heterogeneous group of students such as slow learners, educationally backward children, average learner & special children.
2. Solving practical problems in school situations through psychological methods.
3. Case studies


References


EXTERNAL EXPERTS

1 Prof. Roopmala Koneri
Principal
New Horizon college of Education
Indiranagar
Bangalore08

2. Prof G Vijaya Kumari
Vijaya Teachers college
Jayanagar
Bangalore-560011
PAPER: EDU132: EDUCATIONAL MANAGEMENT AND SCHOOL ADMINISTRATION

DESCRIPTION

This paper is offered as a general paper in first semester. It will help the students in acquiring the knowledge management and administration of secondary education. They will understand the challenges and strategies related to imparting quality education at secondary stage, and also help them acquire the knowledge of principles and process of Management, Organisation and Management of school programmes etc.

LEARNING OBJECTIVES

- Acquire the knowledge of secondary education during post independent India
- Understand the challenges and strategies related to importing quality education at secondary stage.
- Understand the importance and issues related to professional growth of Teachers.
- Acquire the knowledge of various agencies in secondary education.
- Acquire the knowledge of principles and processes of management
- Understanding of Organization and management of school programmes
- Understanding Concept and importance of time management

UNIT-1 INDIAN EDUCATION POLICIES AND PROGRAMMES 12 Hours
Level of Knowledge-Fundamental


UNIT 2  PROFESSIONAL GROWTH OF SECONDARY SCHOOL TEACHERS 10 Hours
Level of knowledge-Basic

Teaching as a profession – Code of Professional Ethics for Teachers -Motivation of Teachers – Factors affecting Teacher Motivation - Accountability of Teachers -In-service Education of Teachers – Importance, Nature & Various Agencies providing in service Education -Role of Professional Organization of Teachers.

UNIT 3 - ROLE OF VARIOUS AGENCIES IN EDUCATION 10 Hours
Level of Knowledge- Basic

NCERT, DSERT, CTE, NGOs, NCTE
Salient features of different boards of Education in India
UNIT 4 - MANAGEMENT OF HUMAN RESOURCES 06 Hours
Level of Knowledge - Basic

Concept, Principles and process of Educational Management - Duties of Head master as a Teacher, Supervisor and Manager - Qualities and Functions of Teachers

UNIT 5 - MANAGEMENT OF TIME 08 Hours
Level of Knowledge – Theoretical and Practical

Concept of Time Management – Annual Programming - Factors to be considered in Annual Programming - Time Table – Principles of framing Time Table and types of Time Table ; Developing learning related competencies- Subject related; expository; organizational competencies

UNIT 6 - MANAGEMENT OF MATERIAL RESOURCES 08 Hours
Level of Knowledge- Theoretical and Practical

School Plant, infrastructural facilities, preparation of School budget, sources of Income and Expenditure of school School Complex, meaning, purpose & function - Maintenance of School records - purpose and types of School Records

UNIT 7 - MANAGEMENT OF SCHOOL ACTIVITIES AND PROGRAMMES 06 Hours
Level of Knowledge - Theoretical and Practical

Co-Curricular activities - Meaning, importance and types of Co. curricular activities - Principles of organizing Co. curricular Activities - School Health Education - Importance, various school health services - Physical Education – Importance and Programmes - Managing engagement with parents/ community- Service Learning Concepts- Concept, types of service learning- Significance of Service Learning- Strategies

SKILL DEVELOPMENT

1. Visit to Schools for practical experience on organizing Co-curricular activities, School plant etc
2. Group Discussion on Motivation of teachers, role of professional organization of teachers etc.
3. Presentations on Time Management, School records etc
REFERENCES


EXTERNAL EXPERTS

1. Prof. Roopmala Koneri
   Principal
   New Horizon college of Education
   Indiranagar
   Bangalore- 08

2. Prof. G Vijaya Kumari
   Vijaya Teachers college
   Jayanagar
   Bangalore-560011
PAPER: EDU 133: EDUCATIONAL EVALUATION AND ASSESSMENT

DESCRIPTION
This paper is offered as a core paper in the First semester. It helps in understanding the concept of Evaluation and the different types of evaluation methods existent in Secondary Schools. It helps in construction of objective based Achievement test and diagnostic tests. It develops skills in computing certain parametric tests.

LEARNING OBJECTIVES
- To understand the role and importance of Evaluation in the teaching-learning process
- To acquire knowledge of the different types and tools of Evaluation
- To construct Diagnostic test and organize remedial teaching
- To prepare an objective based Question bank
- To develop skills in the graphical representation of data
- To develop the skill necessary to compute important statistical estimates and interpret the test scores by applying them.
- To familiarize with the new trends in evaluation and assessment

UNIT 1  EVALUATION AND ASSESSMENT  07 Hours
Level of Knowledge – Conceptual and Basic

Clarifying terms – Measurement- Evaluation- Test- Assessment; Examination and their inter-relationships; Continuous Comprehensive Evaluation-Concept, uses.

UNIT – 2  ASSESSMENT TOOLS  08 Hours
Level of Knowledge – Conceptual and Working Knowledge

Characteristics of a Good Tool; Types of Tests : Teacher made, Standardized – Meaning, construction and uses; Diagnostic Test-Concept, Construction, uses, Remedial teaching; Construction of Test Items – Objective type, Short Answer & Essay Type, Qualitative and Quantitative Tools-Observation- Interview and self-reporting techniques.

UNIT -3  STATISTICAL METHODS  15 Hours
Level of Knowledge – Conceptual and Working Knowledge

Descriptive Statistics; Measures of Central Tendencies-Mean, Median, Mode-Meaning, Computation for grouped and ungrouped data, uses; Measures of Variability-Range, Standard Deviation, Quartile deviation-Meaning, Computation for grouped and ungrouped data, uses- Need and Importance of Statistics in Educational Evaluation-Tabulation of Data -Frequency Distribution Table

UNIT-4  STATISTICAL INTERPRETATION  15 Hours
Level of Knowledge – Conceptual and Working Knowledge
Graphical representation of data- Bar diagram, Histogram, Frequency Polygon, Pie Chart-construction and uses; Correlation: Meaning and uses; Coefficient of correlation: Meaning, Computation by Rank Difference method; Interpretation based on Measures of
UNIT -5 NEW TRENDS IN EVALUATION AND ASSESSMENT 15 hours

Level of Knowledge – Conceptual and Working Knowledge

Constructivist perspective on Assessment, Grading System – Concept, features, CBSE & State evolved indicators, Self Assessment, Peer Assessment, Performance Assessment, Maintaining student portfolios using Rubric Assessment procedures, Feedback -Types of teacher feedback, peer feedback, performance feedback, Open Book Exam, On-line Exam, Credit System, Question Bank

Skill Development

1. Group debate on Grading System and Internal Assessment system
2. Drill work in Statistics
3. Construction and administration of Questionnaire
4. Conducting Interviews
5. Construction and administration of Achievement test and Diagnostic tests

References:


EXTERNAL EXPERTS

1 Prof. Roopmala Koneri
Principal
New Horizon college of Education
Indiranagar

2. Prof G Vijaya Kumari
Vijaya Teachers college
Jayanagar
Bangalore-560011
PAPER  EDU 134-A - CONTENT CUM METHODOLOGY OF TEACHING SOCIAL SCIENCE

This paper is offered as an elective in I semester. Students who opt for this elective will get to know the Instructional objectives and instructional strategies of the subject and mode of lesson plan preparation. This paper provides students with the learning opportunities needed to become proficient Social Science teachers with a strong knowledge base in History, Geography and other allied subjects of social studies.

**Learning Objectives:**

- To acquire knowledge about the content of Social Science
- To acquaint with the nature of the subject Social Science
- To analyse the aims and values of Social Science
- To understand the curricular approaches of Social Science
- To array the set of instructional objectives and specifications
- To master the instructional strategies of the subject
- To acquire the skill of planning an effective lesson.

**UNIT 1 - CONTENT OF SOCIAL SCIENCE**

**Level of Knowledge - Conceptual and Basic**

The First world war- causes and consequences, The Second world war- Causes and consequences – Role and significance of UNO -River Valley Civilizations -French, Chinese and Russian Revolution -Colonization of India and the Impact of Colonial Rule - India’s Struggle for freedom, First war of Indian Independence -Indian Constitution- Fundamental Rights and Duties -Local Self Government and Democracy -The Planet Earth – Human Interaction with the environment – Components of Environment -Basic concepts of Economics

**UNIT 2 - NATURE AND SCOPE OF SOCIAL SCIENCE**

**Level of Knowledge - Conceptual knowledge**

Difference between Social Science and Social Studies - Core Subjects of Social Sciences - History, Civics, Geography, Economics and the inter relationship between them - Scope of Social science and contemporary status of Social Science Education in India-Theme of Social Sciences - standards in teaching Social Science (NCSS_U.S.A) -Values of Social Science

**UNIT 3 - CURRICULAR APPROACHERS IN SOCIAL SCIENCE**

**Level of Knowledge - Theoretical and Practical knowledge**


**UNIT 4 TAXONOMY OF INSTRUCTIONAL OBJECTIVES**

**08 Hours**
Level of Knowledge – Practical knowledge

Difference between Educational and Instructional objectives -Benjamin S. Bloom’s Taxonomy of Instructional Objectives and its Specifications – Domain wise analysis

UNIT 5  INSTRUCTIONAL STRATEGIES IN SOCIAL SCIENCE  18 Hours
Level of Knowledge – Theoretical and Practical knowledge

Learner directed Instructional Strategies -Project Method - Computer assisted instruction -Assignment Method -Group Directed instructional strategies -Panel Discussion -Problem Solving - Dramatization - Role Play -Teacher Directed Instructional Strategies - Source Method -Supervised Study -Dalton Plan -Story Telling -Models of Teaching - Jurisprudential Model

UNIT 6  PLANNING IN SOCIAL SCIENCE  08 Hours
Level of Knowledge - Practical knowledge

Need and Importance of Lesson Planning -Steps and Format of Lesson Plan, Unit Plan and Year Plan

[Total60 hours]

Skill Development

1. Use appropriate Instructional objectives and specifications in teaching of Social Science
2. Use appropriate Methods and Models of teaching social science.
3. Develop Pedagogical skill in the subject concerned.
4. Design and plan the Lesson Plan and Unit Plan and Year plan

REFERENCES


EXTERNAL EXPERTS

1 Prof. Roopmala Koneri
Principal
New Horizon college of Education

2. Prof G Vijaya Kumari
Vijaya Teachers college
Jayanagar
PAPER : EDU 134 B -CONTENT CUM METHODOLOGY OF TEACHING BIOLOGY

DESCRIPTION

This paper is offered as elective in the first semester. It develops the content as well as practical knowledge of Teaching Biology at secondary school. It deals with various methods and approaches, and its application in the educational context. It enhances the views of a teacher towards the pupils in a positive way viz., Content, Individual differences, Interest arousal, Attitude etc. It helps to develop the depth of knowledge in Biological discipline.

LEARNING OBJECTIVES

- To acquaint the fundamental concepts of Secondary school Biology.
- To construct the instructional objectives of teaching Biology at secondary school level
- To acquaint the knowledge of nature and scope of Biology.
- To acquaint the usage of various methods and approaches of teaching Biology.
- To acquaint the skill of writing the Lesson plan and Unit plan for lessons in Biology

UNIT 1 CONTENT IN SECONDARY SCHOOL BIOLOGY 10 Hours
Level of Knowledge – Fundamental

Living World – Classification of organisms and salient features of major groups of organisms. Study of cells –Cell division, Plant and Animal tissues -Microbes –in relation to human life and welfare; special reference to HIV -Life processes – Major life processes in plants and Human physiology

UNIT 2 MEANING AND SCOPE OF BIOLOGICAL SCIENCE 12 Hours
Level of Knowledge – Theoretical + Skill

Science - Meaning and Nature with particular reference to the Biology -Scope of Biological Science with respect to agriculture, medicine, conservation of natural resources, new careers in Biological science- VermiCulture -Abilities of Biological Science; observation, collection, discussion, preservation -Microscopic study, classification and experimentation- Meaning & advantages - Scientific attitude- Meaning nature & different ways of developing the same
UNIT 3 TAXONOMY OF EDUCATIONAL OBJECTIVES 10 Hours
Level of Knowledge – Theoretical + Skill

Difference between Aims & Objectives - Bloom’s taxonomy of -Objectives:cognitive, affective & psycho-motor domains - Instructional objectives (I.O.) –meaning, classifications & characteristics - Writing of I.O. in terms of specific learning outcomes.

UNIT 4 AN EFFECTIVE PLANNING FOR TEACHING BIOLOGY 12 Hours
Level of Knowledge – Theoretical + Skill

Lesson plan –meaning, need, steps and importance, based on evaluation approach. - Designing a lesson plan for topic of secondary school Biological Science - Unit plan – meaning, steps, importance and its format.

UNIT 5 APPROACHERS AND METHODS OF TEACHING BIOLOGY 16 Hours
Level of Knowledge – Comprehension

Meaning, Steps, Merits, Demerits/Limitations and Application in the Context of Teaching Biology at Secondary School Level. - Scientific Method -Lecture Demonstration Method -Project Method -Inductive Deductive Method - Problem Solving Approach(according to Maier) -Critical Inquiry Approach - Structural Functional Approach - (meaning, illustration, merits and demerits) - Type-Species Approach - (meaning, illustration, merits and demerits)

[Total 60 hours]

Skill Development

1. Effective usage of teaching techniques in a class room context.
2. Effectively analyse the unit, content and task for various activities.
3. Design the lesson plan for Biological topics.
4. Design the unit plan for Biological chapters.
5. Select and Use the steps of various methods and approaches to deal with suitable topics.

References

2. Kulshreshtha S.P., Teaching of Biology, Meerut, Surya publications, Meerut:. 2006
5. Thurber W.A. and Colletta A., A Teaching Science in today’s Secondary schools, Prentice Hall of India. 1964


**EXTERNAL EXPERTS**

1. **Prof. Roopmala Koneri**  
   Principal  
   New Horizon college of Education  
   Indiranagar  
   Bangalore 08

2. **Prof. G Vijaya Kumari**  
   Vijaya Teachers college  
   Jayanagar  
   Bangalore-560011
DESCRIPTION

This paper is offered as an elective in the First and Second semester. This paper introduces students to the aims and objectives of teaching Mathematics at secondary school level. It introduces the essential elements of good mathematics teaching, practice needed to teach mathematics in an effective and inspirational manner.

LEARNING OBJECTIVES

- To acquire the knowledge of the content of Mathematics operating at the secondary school level (8th and 9th grades)
- To acquire the knowledge of nature of Mathematics
- To appreciate the role of Mathematics in daily life
- To understand the Aims and Objectives of teaching Mathematics
- To state meaningful specific objectives in behavioral terms
- To develop the skill to prepare Unit plan and Lesson plan
- To achieve mastery over Methods, Approaches and Models of teaching Mathematics

UNIT-1 MATHEMATICS SYLLABUS SECONDARY SCHOOL  
Level of Knowledge – Working Knowledge

Arithmetic: Number system, Sets, Matrices, Statistics; Algebra : Basics, Operations, Exponents, Factorization; Geometry : Basics, Polygons – Triangles & Quadrilaterals, Circles, Surface Area and Volume of solids

UNIT-2 INTRODUCTIONS TO TEACHING MATHEMATICS  
Level of Knowledge – Conceptual and Basic

Meaning, nature, scope of Mathematics; Application and significance of Mathematics in daily life; Importance of Mathematics as a school subject – Practical, disciplinary, Cultural and recreational functions of Mathematics.
UNIT–3  AIMS AND OBJECTIVES OF TEACHING MATHEMATICS  10 Hours
Level of Knowledge – Conceptual and Basic

Meaning and need of objective based teaching; General aims of teaching Mathematics at senior secondary level; Classification of educational objectives with reference to Bloom’s Taxonomy; Objectives of Teaching : Arithmetic, Algebra and Geometry; Writing specific objectives in behavioral terms

UNIT–4 EFFECTIVE PLANING FOR TEACHING MATHEMATICS  10 Hours
Level of Knowledge – Conceptual and Working Knowledge

Lesson Plan: Meaning and importance; Herbatian Steps in Lesson Plan; Evaluation Approach – Features, Procedure, Merits; Unit Plan: Meaning and importance, features, procedure and advantages; Observation: Criteria for evaluation of a lesson, Systematic observation of a lesson, recording of observation

UNIT- 5 METHODS/ APPROACHES/ MODELS OF TEACHING MATHEMATICS  18 Hours
Level of Knowledge – Conceptual and Working Knowledge

Meaning, salient feature, steps, relative merits and demerits and application in teaching Mathematics topics: Methods: Inducto-Deducto, Guided Discovery, Analytic, Synthetic, Project method; Approaches: Inductive, Deductive, Problem Solving approach; Models: Concept attainment model, Inductive thinking model, Advance Organizer model; Oral work; Written work; Drill Work in Teaching Mathematics

[Total 60 hours]

Skill Development

1. Peer Teaching of Content topics from VIII and IX standard State Syllabus Textbooks.
2. Power point presentations on any topic in Secondary School Mathematics
3. Report on Interaction with Secondary school and students on methods of Mathematics teaching
4. Presentations of Fun activities in mathematics
5. Preparation of Lesson plan in mathematics
6. Construction of drill work problems
Reference:


EXTERNAL EXPERTS

1 Prof. Roopmala Koneri
Principal
New Horizon college of Education
Indiranagar
Bangalore08

2. Prof G Vijaya Kumari
Vijaya Teachers college
Jayanagar
Bangalore-560011
This paper is offered as an elective in the first semester. The students opting for this elective should have specialized or studied English at the graduate or post graduate level. The students develop linguistic skills which are essential for language teaching and prepares them for the profession as ESL/EFL teachers.

**LEARNING OBJECTIVES**

- To understand the role of English in India and its importance as ESL and EFL.
- To familiarize the language skills to be developed and evaluated among students.
- To acquire knowledge about the recent trends in English language teaching and learning.
- To distinguish the different approaches and methods of teaching English and the use of appropriate ones for teaching various aspects of the language.
- To be acquainted with the importance and practical utility of teaching resources and activities.

**UNIT - 1  FUNDAMENTALS OF LANGUAGE**

**Level of Knowledge – Theoretical Knowledge**

Meaning and definition of language; its functions - Fundamental principles of language - Principles of language learning - Need and importance of learning English in India - Learning of mother-tongue vs. English language learning.

**UNIT- 2  DEVELOPMENT OF LANGUAGE SKILLS**

**Level of Knowledge – Theoretical and Practical Knowledge**

UNIT - 3  APPROACHES AND METHODS OF TEACHING ENGLISH  14 Hours
Level of Knowledge – Conceptual Knowledge

Structural Approach: Meaning - Principles - Criteria - Ways of teaching structures.
Communicative Approach: Meaning - Features - Principles – Procedures -
Direct/Bilingual Method: Meaning - Principles - Characteristics – Merits -Humanistic
Approach: Meaning – Principles - Characteristics – Implications -Community Language
Types - Merits.

UNIT - 4  APPROACHES TO VARIOUS METHODS OF LANGUAGE TEACHING
Level of Knowledge – Theoretical and Practical Knowledge  12 Hours

Teaching of Prose: Objectives - Steps - Format. Teaching of Poetry: Objectives – Steps -
grammar- Teaching of Vocabulary: Types – Techniques. Teaching of Spelling:
Techniques – Errors - Corrective measures. Teaching of Composition: Objectives - Types
– Steps (Essays, Letters/ Application, Comprehension).

UNIT - 5  TEACHING RESOURCES AND ACTIVITIES  07 Hours
Level of Knowledge – Practical Knowledge

Books - audio materials - visual aids - mass media. Language lab: Types - Set up -
Activities: visits – interviews – dramatization – seminars - literary clubs - language
games.

UNIT - 6  MASTERY OF CONTENT  05 Hours
Level of Knowledge – Conceptual Knowledge

Parts of Speech - Kinds of sentences - Transformation of sentences - Interchange of:

[Total 60 hours]

Skill Development

1. Development of Linguistic skills based on the secondary school texts
2. Planning and execution of English language games
3. Activities in an English classroom
4. Preparation of episodes for teaching vocabulary and structures
5. Practice of English pronunciation through usage of the language lab and
workshops
References:


EXTERNAL EXPERTS

1. Prof. Roopmala Koneri
   Principal
   New Horizon college of Education
   Indiranagar
   Bangalore 08

2. Prof. G Vijaya Kumari
   Vijaya Teachers college
   Jayanagar
   Bangalore-560011
PAPER: EDU135B: CONTENT CUM METHODOLOGY OF TEACHING CHEMISTRY

DESCRIPTION

This is an elective paper in First semester for students who have studied Chemistry as one of their optional subjects in their degree. It will help them familiarize with the content of chemistry at Secondary School level. Students will understand the various methods and approaches of Teaching Chemistry and the skill of developing lesson plans based on instructional objectives and the skill of stating the objectives in behavioral terms.

LEARNING OBJECTIVES

- Acquire the knowledge of nature & scope of Chemistry.
- Acquire the knowledge of basic branches of science & their interrelationships
- Understand the objectives of Teaching Chemistry
- Understand various methods and approaches of teaching of chemistry
- Skill of developing lesson plans based on instructional objectives skill of analyzing the content in terms of concepts and learning experiences.
- Developing skill in stating objectives in behavioral terms.

UNIT 1 - CONTENT IN CHEMISTRY  
15 Hours

Level of Knowledge - Basic


UNIT 2 - INTRODUCTION TO THE TEACHING OF CHEMISTRY  
12 Hours

Level of knowledge - Fundamental

Meaning, Nature of Science in a general and chemistry in particular - Contribution of Scientists / Research Organizations in the field of chemistry - Process and product aspects of science. Components of scientific knowledge facts, concepts - principles, theories, laws - Branches of science and their inter relationships. Importance of teaching chemistry with referents to agriculture, medicine, industry - Scientific Method: Meaning
& steps - Scientific attitude: meaning, characteristics, role of teacher in the development of scientific attitude among students.

**UNIT 3 - OBJECTIVES OF TEACHING CHEMISTRY**

**Level of Knowledge**: Fundamental and Working Knowledge

09 Hours

Difference between Aims & Objective - Instructional objectives – classification based on Bloom’s Taxonomy – writing Instructional objectives in terms of specific learning

**UNIT 4 - METHODOLOGY AND APPROACHES OF TEACHING CHEMISTRY**

**Level of Knowledge**: Working Knowledge

18 Hours


**UNIT 5 - PLANNING FOR TEACHING CHEMISTRY**

**Level of Knowledge**: Basic and Working Knowledge

06 Hours

Unit plan – Meaning, Importance, steps in unit plan - Lesson plan - Importance, Herbartian steps Of Lesson Plan - Format of lesson plan based on evaluation approach.

[Total 60 hours]

**SKILL DEVELOPMENT**

1. Preparation of Lesson Plan
2. Application of different methodologies of Teaching in Classroom teaching
3. Stating Objectives of teaching in behavioral terms

**REFERENCES**

5. Prof. Kamala Narasimha, *Content cum Method of Teaching Chemistry*, Bangalore: Sumukha Prakashana. 2005

**EXTERNAL EXPERTS**

1. Prof. Roopmala Koneri  
   Principal  
   New Horizon college of Education  
   Indiranagar  
   Bangalore08

2. Prof. G Vijaya Kumari  
   Vijaya Teachers college  
   Jayanagar  
   Bangalore-560011
DESCRIPTION

This paper is offered as an elective in the First and Second semester. This paper introduces students to the aims and objectives of teaching Physics at secondary school level. It introduces the essential elements of good Physics teaching, practice needed to teach Physics in an effective and inspirational manner.

LEARNING OBJECTIVES

- To acquire the knowledge of the content of Physics operating at the secondary school level (8th and 9th grades)
- To acquire the knowledge of nature of physics
- To appreciate the role of physics in daily life
- To develop scientific attitude among students
- To understand the Aims and Objectives of teaching Physics
- To state meaningful specific objectives in behavioral terms
- To develop the skill to prepare Unit plan and Lesson plan
- To achieve mastery over Methods, Approaches and Models of teaching Physics

UNIT-1 PHYSICS SYLLABUS AT SECONDARY SCHOOL LEVEL 14 Hours

Level of Knowledge – Working Knowledge

Magnetism and electricity: Properties of magnetic field, Magnetic effect of electric current, Electromagnetic induction, Resistance, Heating effect of electric current; Dynamics: Motion, Speed, Velocity, Acceleration, Universal law of gravitation, Centrifugal & Centripetal, momentum, movement; Heat: Propagation of heat, effects of heat, measurement of temperature, Specific heat, latent heat; Light: Refraction, Total internal reflection, Lens, Telescope, Microscope, Dispersion

UNIT-2 INTRODUCTION TO TEACHING PHYSICS 10 Hours

Level of Knowledge – Conceptual and Basic

Meaning & nature of Science, scope of Physics; Application and significance of Physics in daily life; Importance of Physics as a school subject – Practical, disciplinary and recreational functions of Physics; Scientific attitude – Meaning, characteristics, techniques of developing scientific attitude
UNIT-3 AIMS AND OBJECTIVES OF TEACHING PHYSICS 10 Hours
Level of Knowledge – Conceptual and Basic

Meaning and need of objective based teaching; General aims of teaching Physics at senior secondary level; Classification of educational objectives with reference to Bloom’s Taxonomy; Writing specific objectives in behavioral terms

UNIT-4 EFFECTIVE PLANNING FOR TEACHING PHYSICS 10 Hours
Level of Knowledge – Conceptual and Working Knowledge

Lesson Plan: Meaning and importance; Herbatian Steps in Lesson Plan; Evaluation Approach – Features, Procedure, Merits; Unit Plan: Meaning and importance, features, procedure and advantages; Observation: Criteria for evaluation of a lesson, Systematic observation of a lesson, recording of observation

UNIT-5 METHODS/APPROACHES/MODELS OF TEACHING PHYSICS 16 Hours
Level of Knowledge – Conceptual and Working Knowledge

Meaning, salient feature, steps, relative merits and demerits and application in teaching physics topics: Methods: Lecture cum demonstration, Heuristic, Laboratory, Problem solving, Project method; Approaches: Inductive, Deductive, critical enquiry approach; Models: Concept attainment model, Inductive thinking model, Inquiry training model

[Total 60 hours]

Skill Development

1. Peer Teaching of Content topics from VIII and IX standard State Syllabus Textbooks.
2. Power point presentations on any topic in Secondary School Physics
3. Report on Interaction with Secondary school and students on methods of Physics teaching
4. Presentations of Fun activities in Physics
5. Preparation of Lesson plan in Physics
6. Practical experiments in laboratory
Reference:
2. Chand, B. Teaching of Science, Ludhiana: Prakash Brothers, 1986

EXTERNAL EXPERTS

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   New Horizon college of Education
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   Vijaya Teachers college
   Jayanagar
   Bangalore-560011
SECOND SEMESTER
PAPER: EDU 231: EDUCATIONAL THOUGHT AND PRACTICE

DESCRIPTION

This paper is offered as a general paper in the second semester. Through the analysis of different school of thoughts of Philosophy it develops a formative effect on the mind and character of the student. It provides the information that education is the process by which society deliberately transmits its accumulated knowledge, skills and values from one generation to another. The paper also provide basis of Philosophical and sociological principles which are invariably applied in the field of education.

LEARNING OBJECTIVES

Enable the Student teacher to

- To familiarize the term Education
- To understand the role of Philosophy in Indian Educational context
- To acquire the skill of proficiency in teaching
- To acquaint with the various principles and forms of curriculum
- To understand the functions of Educational Sociology
- To analyse the sociological issues of a democratic society.

UNIT- 1  BASIC ASPECTS OF EDUCATION 05 Hours
Level of Knowledge - Conceptual

Etymological meaning of education -Newsome’s approach related to Education; Axiology, Epistemology and Metaphysics -Aims of education – Individual, Social and Vocational aims Nature of Education- Education as an art and science- A product and process -Four Pillars of Education- Changing aims of Education in the context of globalization

UNIT -2  PHILOSOPHICAL BASES OF EDUCATION 15 Hours
Level of Knowledge - Theoretical

Relationship between Education and Philosophy -Functions of philosophy of Education-Speculative, Normative and Critical -Philosophical theories of Discipline - Fundamental postulates -Idealism, Naturalism and Pragmatism -Contributions of great Indian and Foreign thinkers towards Education -. Frobel, John Dewe, Maria Montessori , Mahatma Gandhi, Rabindranath Tagore and Swami Vivekananda- J. Krishnamurthy.

UNIT- 3  PRINCIPLES OF TEACHING 15 Hours
Level of Knowledge - Conceptual and Working

General Principles of teaching -Maxims of Teaching -Mursells Principles of Teaching
Phases of teaching - Flander’s Interaction Analysis (FIAC) - Characteristics and Qualities of Good Teaching - Effective Teaching and Learning - Biddle’s Model of Teacher Effectiveness, An analysis of teacher roles and functions in the pre-active phase: visualizing; decision making - roles and functions in the interactive phase: facilitating and managing learning - roles and functions in the post-active phase: evaluation of pupil learning, evaluation and generating feedback on all three phases of teaching - Using learner achievement as a feedback for evaluating teacher/teaching effectiveness.

UNIT - 4  THE CURRICULUM  08 Hours

Level of Knowledge - Conceptual and Practical


UNIT- 5  SOCIОLOGICAL PERSPECTIVES OF EDUCATION  08 Hours

Level of Knowledge – Conceptual

Functions of Educational Sociology, Difference between Educational sociology and Sociology of Education -- Role of Education in Social Change and Social Mobility - Agencies of Educational and Social Change – Media, Family, School, Religion - Functions of Education towards cultural change and modernization.

UNIT - 6  EDUCATION IN A DEVELOPING SOCIETY  09 Hours

Level of Knowledge - Conceptual

Factors leading to and resisting from the socialization of a child - Wastage and Stagnation a threat to Universalisation of Education - Education for Vocationalisation - Women Empowerment through Education - Problems, issues and remedies regarding child labour - Role and Significance of UNICEF, Quality of life as an outcome of education, Education as an investment, Privatization, private initiative, and liberalization in education - Education and development of life skills: preparation of individuals for the 21st century.

Skill Development
1. Presentation on Social Problems, Remedial measures and Service to the Society
2. Effective way of teaching and observation criteria
3. Organization of teaching on the basis of different philosophical thoughts and disciplines.
4. Organization of Community Living camp and learning the art of living together.
REFERENCE


EXTERNAL EXPERTS

1 Prof. Roopmala Koneri
Principal
New Horizon college of Education
Indiranagar

2 Prof. G Vijaya Kumari
Vijaya Teachers college
Jayanagar
Bangalore-560011
DESCRIPTION

This is a general paper offered in the second semester. The students learn the fundamentals of Educational Technology and its application in the teaching-learning process. They prepare technology based lesson plans on the texts prescribed at the secondary level and present them effectively in the classroom. They also have hands-on experience on use of computers at school for academic and administrative purposes. Field trips are organized to schools to have an exposure and understanding of its working and prepare themselves according to the requisites and expectations of present day teaching.

LEARNING OBJECTIVES

- To understand the concept of Educational Technology and its approaches to teaching and learning.
- To acquire the knowledge and skill of Programmed Instruction and Instructional Design.
- To acquire the knowledge of the different Models of Teaching.
- To understand the concept and application of TQM in education.
- To develop awareness of the use of technology in teaching.
- To understand the basics of computers.
- To prepare and present content with multimedia using MSOffice.
- To understand the applications of technology in school administration.

UNIT - 1  **EDUCATIONAL TECHNOLOGY**  08 Hours

Level of Knowledge – Theoretical Knowledge

Meaning - Definition of Educational Technology - Difference between Information Technology and Instructional Technology - Aims and Objectives of Educational Technology Components - Hardware and Software - Role of a teacher in Educational Technology

UNIT - 2  **PROGRAMMED LEARNING**  10 Hours

Level of Knowledge – Theoretical and Practical Knowledge

Origin - Principles of Programmed Instruction - Types of Programmed Learning - Linear-Branching - Mathetics - CAI - Importance and application of Computer Assisted Learning
UNIT- 3 MODELS OF TEACHING 05 Hours
Level of Knowledge – Theoretical and Practical Knowledge

Models of Teaching - Definition - Meaning - Characteristics - Fundamental elements - Types of Models.

UNIT - 4 INSTRUCTIONAL DESIGN 06 Hours
Level of Knowledge – Theoretical Knowledge

Concept of Instructional Design - Levels of Instructional Design - Basic Teaching Model- Glacer System approach

UNIT - 5 MODERN CONCEPTS IN MANAGEMENT 10 Hours
Level of Knowledge – Conceptual Knowledge


UNIT - 6 COMPUTER TECHNOLOGY 15 Hours
Level of Knowledge – Theoretical and Practical Knowledge


UNIT - 7 ALTERNATIVE SCHOOLING AT SECONDARY STAGE 06 Hours
Level of Knowledge – Conceptual Knowledge

Concept and importance of alternative schooling - Curriculum in alternative schooling - problems encountered in alternative schooling - Role of Government and NGOs in alternative schooling - Strategies to improve quality of alternative schooling - Open schooling - National and State open school
Skill Development

1. Development of computer skills for preparing and presenting content from secondary school texts in their respective methods
2. Planning and execution of activities through technology
3. Presenting activities in a classroom/school for different occasions
4. Preparation of episodes marks cards using MS Office
5. School visits to enhance learning
6. Presentations on TQM in academics, Models of Teaching and Instructional Design

References:


EXTERNAL EXPERTS

1. Prof. Roopmala Koneri
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   Indiranagar

2. Prof. G Vijaya Kumari
   Vijaya Teachers college
   Jayanagar
   Bangalore-560011
PAPER: EDU 235: CONTEMPORARY CONCERNS AND ISSUES IN EDUCATION

DESCRIPTION

This paper is offered as a general paper in the second semester. It provides the students with an understanding of contemporary concerns and issues in education. It helps to acquire knowledge on national concerns like peace education, value education, multi-cultural education, environmental education, universalization of secondary education, population and aids education.

LEARNING OBJECTIVES

- To develop reasonable understanding about the role of Secondary Education in fostering the idea of quality life
- To develop a sense of responsibility towards conservation of environment, biodiversity and sustainable development
- To understand the essence of Peace
- To acquire knowledge about AIDS
- To acquire knowledge on environmental concerns and issues
- To safeguard Human Rights and to Maintain Peace in the Society
- To respect the Cultural Diversity of the Student from varied groups
- To understand the essence of Human Values
- To acquire knowledge about Population associated issues

UNIT-1 UNIVERSALIZATION OF SECONDARY EDUCATION 06 Hours
Level of Knowledge – Theoretical and Conceptual Knowledge

Constitutional Provisions, Impact of UEE on secondary Education-Access, Enrolment and Achievement- Issues and concerns

UNIT -2 HUMAN RIGHTS EDUCATION 07 Hours
Level of Knowledge – Theoretical and Conceptual Knowledge


UNIT –3 MULTICULTURAL EDUCATION 06 Hours
Level of Knowledge – Theoretical and Conceptual Knowledge

Meaning-significance and objectives of Multicultural Education-Activities helpful in Multicultural Education-Curriculum and instructional Strategies of Teaching
UNIT-4 POPULATION AND AIDS EDUCATION 07 Hours
Level of Knowledge – Theoretical and Conceptual Knowledge

Concept, need, importance and Objectives, Structure of Indian Population, Causes of Population explosion, Consequences of Population explosion, Population Control – Planning and remedies

UNIT – 5 VALUE EDUCATION 06 Hours
Level of Knowledge – Theoretical and Conceptual Knowledge

Meaning and classification of Values-Need for value education-Activities employed in Value Education-Inculcation of Values-Value Oriented Programmes-Contributions of Sri Ramakrishna to world culture

UNIT-7 PEACE EDUCATION 06 Hours
Level of Knowledge – Theoretical and Conceptual Knowledge

Relevance of peace – National and international context, Dangers to social security – terrorism, wars, natural calamities and impact on quality life, Promotion of Peace – UNESCO, Role of Education, Role of Teachers

UNIT-8 ENVIRONMENTAL EDUCATION 07 Hours
Level of Knowledge – Theoretical and Conceptual Knowledge

Life supporting resources and role of Bio-diversity, Urbanization and Associated problems, Clean Energy Technology, Environmental Laws and regulations, Striving for a better environment, education for sustainable development.

REFERENCES
http://www.belurmath.org/sriramakrishna.htm#Message
http://valueeducation.nic.in/programmes.htm
Dr.HasenTaj-Current Challenges in Education-Neelkamal publication 2005.

EXTERNAL EXPERTS
1 Prof. Roopmala Koneri
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New Horizon college of Education
Indiranagar

2. Prof. G Vijaya Kumari
Vijaya Teachers college
Jayanagar
Bangalore-560011
PAPER: EDU 233-CONTENT CUM METHODOLOGY OF TEACHING SOCIAL SCIENCE

DESCRIPTION

This paper is offered as an elective in the second semester. It gives the students information pertaining to different kinds of instructional media and material needed for an effective teaching of the subject. The paper enables them to administer better evaluation techniques and imparts in them the qualities needed for a competent Social Science Teacher.

LEARNING OBJECTIVES

- To enhance the knowledge of content
- To acquaint with instructional media of Social Science
- To understand the different kinds of instructional materials in Social Science
- To acquire the skill in collecting and maintaining the resources and equipments in Social Science teaching
- To appreciate the role of non-formal Social Science Education
- To acquire the knowledge about the professional competencies in Social Science Teaching
- To understand the relevance of Evaluation in Social Science

UNIT- 1 CONTENT OF SOCIAL SCIENCE

Level of Knowledge – Basic and Conceptual

08 Hours


UNIT – 2 INSTRUCTIONAL MEDIA IN SOCIAL SCIENCE

Level of Knowledge - Working Knowledge

05 Hours

One Dimensional - Maps, Charts, Graphs, (Chronology)-Timelines, Pictures – Types and Suggestion for use - Three Dimensional – Globe. Realia, Diorama, Bulletin Board, Models, Qualities and suggestion for use -Uses of Multimedia, Radio, Television, Power Point Presentation

UNIT - 3 - INSTRUCTIONAL MATERIALS IN SOCIAL SCIENCE

Level of Knowledge - Conceptual and working

07 Hours

Text Book, Qualities of Good Social Science Text Book, Critical appraisal of Social Science Text Book of 8th and 9th Standards -Supplementary Materials – Importance – Types- Biographies, Newspaper, Journals, Magazines, Plays, Fiction, Travel
Stories -Instructional Kits, Advanced Books and relevant Websites _ Importance and Uses

UNIT 4  RESOURCES AND EQUIPMENTS IN SOCIAL SCIENCE  05 Hours
Level of Knowledge - Conceptual and working

Community Resources, Importance, Utilization and Advantages -Social Science Room – Need , Importance and maintenance

UNIT 5  NON –FORMAL SOCIAL SCIENCE EDUATION  08 Hours
Level of Knowledge – Conceptual and working

Current Events- Nature and Scope, Criteria and Illustration, Methods of Teaching - Role of the teacher -Role of teacher with regard to Controversial Issues - Social Science Club - Model Parliament - Field Trip – Objectives, steps and organization

UNIT – 6  COMPETENCIES OF SOCIAL SCIENCE TEACHER  06Hours
Level of Knowledge – Theoretical

Qualities of Social Science Teacher -Importance of In-service Programmes for quality improvement -Methods of In- Service Instruction – Seminar, Workshop, Talent Search, Refresher Course, Teacher Exchange Programme, Extension Lectures

UNIT – 7  EVALUATION IN SOCIAL SCIENCE  06Hours
Level of Knowledge - Working
Concept of unit test; Steps in the construction of unit test ; designing three dimensional chart / blue print of question paper; Format of question paper -IOTAQB- Development & its use

(Total – 45 Hours)

Skill Development

1. Arrange Social Science Room and Field Trip
2. Conduct Model Parliament
3. Usage of various supplementary materials in teaching
5. Preparation of Question paper
6. Construction of Unit test and analysis
7. Preparation of Teaching aids
REFERENCE

7. Smith J.S., Creative Teaching of Social Studies in Elementary Schools, Allen & Bacon Inc. 1967
9. Thimmareddy K., Teaching of History and Civics, Gadag: Vidhyandhi Prakashan. 2006,

EXTERNAL EXPERTS

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PAPER : EDU 233 B: CONTENT CUM METHODOLOGY OF TEACHING BIOLOGY

DESCRIPTION

This paper is offered as elective in the second semester. It develops the content as well as practical knowledge of Teaching Biology at secondary school. It deals with evaluation procedure and its application in the educational context. It also deals with organizing Bio club activities and professional growth of teacher. It enhances the views of a teacher towards the pupils in a positive way viz., Content, Individual differences in achievements, Interest and Attitude arousal, etc. It helps to develop the depth of knowledge in Biological discipline.

OBJECTIVES

- To acquaint the fundamental concepts of Secondary school Biology.
- To construct the unit test paper of Biology at secondary school level.
- To acquaint the knowledge of resources in teaching Biology.
- To acquaint the meaning and professional competencies of a Biology teacher.
- To acquaint skill of conducting Science club activities.

UNIT - 1 CONTENT IN SECONDARY SCHOOL BIOLOGY 10 Hours
Level of Knowledge – Fundamental

Environmental Science – Ecology, the various Food chains - Constituents of Food - Production and Management of food - Evolution of life – basic concepts of organic evolution - Biotechnology – modern concepts, application of Biotechnology for human welfare.

UNIT 2- PROFESSIONAL GROWTH OF A BIOLOGY TEACHER 05 Hours
Level of Knowledge – comprehension

Biology teacher- Professional competencies - Programmes for quality improvement by various agencies through seminars, conferences, workshop, refresher courses, Programmes viz., seminars, conferences, workshops, experimentation, refresher courses science visit, science fair
UNIT-3  RESOURCES IN TEACHING BIOLOGY  
Level of Knowledge – Comprehension +Skill

School garden, Aquarium, Terrarium, Vivarium–set up and advantages –Biology Laboratory; design, equipments, lab- records -Biology text books, characteristics of good text book, criteria for evaluating it, limitations of the present day science books –Teaching aids – meaning and its classification -Instructional aids – meaning, types and advantages -Audio aids- meaning and advantages of radio& tape recorder -Visual aids – meaning and advantages of charts, models & specimens - Projected aids – meaning and advantages of films and OHP - Audio Visual aids – meaning and its advantages of T.V. & VCD -Supplementary Reading Materials – meaning, types and criteria for selecting SRM.

UNIT- 4  EVALUATION IN TEACHING BIOLOGY  
Level of Knowledge – Fundamental + Skill

Unit test – meaning and its importance - Meaning and importance of Unit analysis, Content analysis & Task analysis - Construction of unit test – steps - IOTAQB – meaning and advantages

UNIT- 5  CO-CURRICULAR ACTIVITIES IN TEACHING BIOLOGY  
Level of Knowledge – Comprehension + Skill

Meaning, Organization and Importance of the following activities -Science Club -Science Exhibition -Science Museum -Science visits

( Total – 45 Hours)

Skill Development

1. Effectively construct the question papers.
2. Effectively evaluate the expected learning behaviour of secondary school students.
3. Effectively organize the activities under science club.
4. Effectively identify and prepare teaching aids of various kinds to teach Biological lessons.
5. Imbibe the traits of Biology teacher.

References

14. Prof.Kamala Narasimha ,*Content cum Method of Teaching Chemistry*, Bangalore Sumukha Prakashana. 2005

**EXTERNAL EXPERTS**

1. **Prof. Roopmala Koneri**  
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Jayanagar  
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PAPER: EDU 233-C: CONTENT CUM METHODOLOGY OF TEACHING MATHEMATICS

DESCRIPTION

This paper is offered as an elective in the First and Second semester. This paper introduces students to the aims and objectives of teaching Mathematics at secondary school level. It introduces the essential elements of good mathematics teaching, practice needed to teach mathematics in an effective and inspirational manner.

LEARNING OBJECTIVES

To acquire the knowledge of the content of Mathematics operating at the secondary school level (10th grades)
To develop Teaching Aids and other learning material
To organize a Mathematics Club
To organize co-curricular activities in Mathematics
To acquire the knowledge of Professional competencies of a Mathematics teacher
To acquire the knowledge of Resource materials required for teaching Mathematics
To develop the skill in construction, administration and interpretation of a Unit test

UNIT-1 MATHEMATICS SYLLABUS AT SECONDARY SCHOOL LEVEL 10 Hours
Level of Knowledge – Working Knowledge

Arithmetic: Sets, Matrices, Statistics, Permutations & Combinations; Algebra: Factorization, Quadratic equations, Modular Arithmetic; Geometry: Theorems – Triangles & Circles, Mensuration, Polyhedra

UNIT-2 RESOURCES FOR TEACHING MATHEMATICS 15 Hours
Level of Knowledge – Conceptual and Working Knowledge

Printed Resources: Text book: Characteristics, uses, limitations and critical analysis; Work book, guides and reference material: Characteristics and uses; Non-Printed Resources: Laboratory: Organization, maintaining, uses and precautions needed; Teaching Aids: Projected, Non-projected and electronic aids – Types, features, merits and demerits; Edgar Dale’s Cone of Experience; Improvised Aids: Meaning, preparation, importance; Community Resources;

UNIT-3 EVALUATION IN TEACHING MATHEMATICS 05 Hours
Level of Knowledge – Working Knowledge

Construction of Objective based test items; Unit Test: Concept, Construction- Weight ages to components, Blue print, Uses; IOTAQB – Concept, Development and uses.
UNIT-4  CO-CURRICULAR ACTIVITIES IN MATHEMATICS  08 Hours
Level of Knowledge – Working Knowledge

Meaning, Objectives, Organization and importance of: Mathematics Club, Mathematics Olympiad, Mathematics Quiz and Field trips

UNIT-5  MATHEMATICS TEACHER AND PROFESSIONAL GROWTH  07 Hours
Level of Knowledge – Conceptual and Basic Knowledge

Competencies of a Mathematics Teacher; Programmes for Professional Growth: Seminars, workshops, Conferences; Projects, In-service training and Research & Literature – Meaning, Features and uses

[Total 45 hours]

Skill Development

1. Peer Teaching of Content topics from VIII and IX standard State Syllabus Textbooks.
2. Conducting a Mathematics Quiz
3. Visit to schools for a critical analysis of the Mathematics laboratory facilities in three schools – Government, Private Aided and Private unaided school
4. Preparation and presentation of Work book on any one topic in Mathematics
5. Visit to schools for a study of Annual Mathematics activities of any two schools in the community
6. Preparation and presentation of Teaching aids (Model) for teaching any topic in Mathematics

Reference:

12. Kulshrestha, Teaching of Mathematics, New Delhi, R.Lal & Sons
22. Yadawada S B. *Methods of Teaching Mathematics*, Gadag; Vidyanidhi, 2004

**EXTERNAL EXPERTS**

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PAPER: EDU 234A: CONTENT CUM METHODOLOGY OF TEACHING ENGLISH

DESCRIPTION

This paper is offered as an elective in the second semester. The students learn to prepare lesson plans based on the texts prescribed for first language as well as second/third language learners and present them effectively in the classroom at the secondary level.

LEARNING OBJECTIVES

- To familiarize the language skills to be developed and evaluated among students.
- To acquire knowledge about the recent trends in English language teaching and learning.
- To develop the ability to identify and write the objectives for teaching and learning.
- To develop the ability of planning and writing meaningful lessons and teaching them effectively.

UNIT - 1  AIMS AND OBJECTIVES OF TEACHING ENGLISH  10 Hours
Level of Knowledge – Theoretical Knowledge

Aims of teaching English - Educational objectives of teaching English – Meaning – Classification - Writing educational objectives for classroom teaching.

UNIT - 2  LESSON PLANNING  12 Hours
Level of Knowledge – Theoretical and Practical Knowledge

Meaning – Characteristics – Steps – Structure - Selection of teaching methods and strategies - Activities to develop language skills - Evaluation and Home Assignment - Lesson plan based on evaluation approach of teaching English - Unit plan – Characteristics - Format of a unit plan.

UNIT - 3  EVALUATION AND TESTING  10 Hours
Level of Knowledge – Theoretical and Practical Knowledge

Meaning of Unit test - Construction of Unit test - Designing a 3 D chart/ Blueprint - Preparation of a question paper - Administration and evaluation of unit test

UNIT - 4 USE OF EDUCATIONAL TECHNOLOGY IN ENGLISH  08 Hours
Level of Knowledge – Theoretical and Practical Knowledge

Language Laboratory: Use of software for teaching and learning English - Computer assisted learning in English - Use of multimedia in teaching English - Role of websites in learning English.

UNIT - 5  MASTERY OF CONTENT  05 Hours
Level of Knowledge – Conceptual Knowledge

Study of literary terms - Figures of speech with relevance to secondary school text - Enrichment in vocabulary, idioms and phrases

[Total 45 hours]
Skill Development

1. Development of resources for teaching and learning English, based on the secondary school texts
2. Planning and execution of English language exercises in prose and poetry
3. Activities in an English classroom to develop creativity
4. Preparation of episodes for teaching vocabulary and structures using educational technology
5. Presentations in groups to develop mastery of content

References:


EXTERNAL EXPERTS

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   New Horizon college of Education  
   Indiranagar

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   Vijaya Teachers college  
   Jayanagar  
   Bangalore-560011
PAPER: EDU234B: CONTENT CUM METHODOLOGY OF TEACHING CHEMISTRY

DESCRIPTION
This is an elective paper in the second semester offered to students who have studied Chemistry as one of their optional at degree level. It will help them familiarize with the content of chemistry at Secondary education level. They will understand the importance and use various resources for teaching of chemistry and develop skills in the construction and administration of Unit test in Chemistry.

LEARNING OBJECTIVES
- Acquire mastery in Content of Chemistry of Secondary Education
- Understand the importance, maintenance and uses of various resources for Teaching of Chemistry.
- Critically analyze the textbook of the secondary schools.
- Acquire the knowledge about various co-curricular activities in Chemistry.
- Develop Skill in construction & administration of unit test in Chemistry.
- Acquire the knowledge of quality improvement in Chemistry instruction.

UNIT 1 - CONTENT IN CHEMISTRY
Level of Knowledge: Basic
Chemical bonding – Ionic, Covalent, Hydrogen and Metallic Bonds, Properties of compounds having these bonds -Chemistry of carbon, classifications of organic compounds, isomerism of organic compounds, functional groups, saturated and unsaturated hydrocarbon-Petroleum; fractional distillation, Petrochemicals & its uses-Allotropic forms of carbon; crystalline & amorphous forms-Types of Chemical reactions -Preparation & properties of carbon dioxide & carbon monoxide -Rate of chemical reactions; factors affecting rate of chemical reactions -Sulfur & phosphorus; extraction, & properties - Soaps & detergents.

UNIT 2- RESOURCES IN TEACHING CHEMISTRY
Level of knowledge: Basic and Working knowledge
Science Library & its organization; Classification of books in Science Library -Laboratory & its organization; Design of multipurpose laboratory – Lab apparatus and equipments; Laboratory rules, discipline in lab, registers maintained in lab; Accidents in lab and first aid -Place of Text books in Teaching Chemistry; Criteria of good Text books; Teacher’s Hand book, Reference books & Resource books -Teaching aids – Types of Teaching aids – importance of Teaching aids in teaching of Chemistry ; Charts, Models ; Role of Radio and Television as resources for Learning Chemistry; Improvisation of Lab apparatus – Need & importance.

UNIT 3 - CO-CURRICULAR ACTIVITIES IN CHEMISTRY
Level of knowledge: Basic and Practical
Meaning, Organization & importance of the following activities -Science Club -Science Exhibition -Science museum -Science quiz -Science Centre -Field Trips

15 Hours
10 Hours
06 Hours
UNIT- 4  VALUATION IN TEACHING CHEMISTRY  07 Hours
Level of knowledge : Basic and working knowledge

Concept of unit test; Steps in the construction of unit test; weight age to the components of unit test, designing three dimensional chart / blue print of question paper; Format of question paper IOTAQB- Development & its uses

UNIT 5 -PROFESSIONAL GROWTH  OF CHEMISTRY TEACHER  07 Hours
Level of knowledge : Basic and working knowledge

Essential qualities of Chemistry Teacher - In service training for professional growth; Role of seminar, workshops etc in quality improvement.

[Total 45 hours]

SKILL DEVELOPMENT
1 Preparation and administration of Unit Test
2 Organise Co-Curricular activities in Science
3 Visit schools and familiarize with the working of Science Laboratory ,science Library etc.
4 Practical experiments in Chemistry Lab

References
7. Prof.Kamala Narasimha, Content cum Method of Teaching Chemistry, Bangalore:Sumukha Prakashana. 2005

EXTERNAL EXPERTS

1 Prof.Roopmala Koneri  
Principal  
New Horizon college of Education  
Indiranagar

2. Prof  G Vijaya Kumari  
Vijaya Teachers college  
Jayanagar  
Bangalore-560011
PAPER: EDU 234-C: CONTENT CUM METHODOLOGY OF TEACHING PHYSICS

DESCRIPTION

This paper is offered as an elective in the First and Second semester. This paper introduces students to the aims and objectives of teaching Physics at secondary school level. It introduces the essential elements of good Physics teaching, practice needed to teach Physics in an effective and inspirational manner.

LEARNING OBJECTIVES

- To acquire the knowledge of the content of Physics operating at the secondary school level (10\textsuperscript{th} grades)
- To develop Teaching Aids and other learning material
- To design and Organize a Physics Laboratory
- To organize Science Club and other co-curricular activities in Physics
- To acquire the knowledge of Professional competencies of a Physics teacher
- To acquire the knowledge of Resource materials required for teaching Physics
- To develop the skill in construction, administration and interpretation of a Unit test

UNIT-1 PHYSICS SYLLABUS AT SECONDARY SCHOOL LEVEL: 10 Hours

Level of Knowledge – Working Knowledge

Modern Physics: Structure of Atom, Isotopes, Nuclear force, Nuclear fission, Nuclear reactor, Nuclear fusion, Photoelectric effect; Energy: Sources of energy, forms of energy, conservation of energy, Electro magnetic radiation; Electronics: Concept, Transistors, Radio & television, microprocessors; Sound: Properties of sound waves, reflection of sound, echoes, Ultra Sonics, Doppler effect, Spectroscopy

UNIT-2 RESOURCES FOR TEACHING PHYSICS 15 Hours

Level of Knowledge – Conceptual and Working Knowledge

Printed Resources: Text book: Characteristics, uses, limitations and critical analysis; Work book, guides and reference material: Characteristics and uses; Non-Printed Resources: Laboratory: Organization, maintaining, uses and precautions needed; Teaching Aids: Projected, Non-projected and electronic aids – Types, features, merits and demerits; Edgar Dale’s Cone of experience; Improvised Aids: Meaning, preparation, importance; Community Resources;

UNIT-3 EVALUATION IN TEACHING PHYSICS 05 Hours

Level of Knowledge – Conceptual and Working Knowledge

Construction of Objective based test items; Unit Test: Concept, Construction- Weightages to components, Blue print, Uses; IOTAQB – Concept, Development and uses.
UNIT-4  CO-CURRICULAR ACTIVITIES IN PHYSICS                      08 Hours
Level of Knowledge – Conceptual and Working Knowledge

Meaning, Objectives, Organization and importance of: Science Club, Science Fair and Exhibition, Science Museums, Science Quiz and Field trips

UNIT-5  PHYSICS TEACHER AND PROFESSIONAL GROWTH                    07 Hours
Level of Knowledge – Conceptual and Basic Knowledge

Competencies of a Physics Teacher; Programmes for Professional Growth: Seminars, workshops, Conferences; Projects, In-service training and Research & Literature – Meaning, Features and uses

[Total 45 hours]

Skill Development

1. Peer Teaching of Content topics from VIII and IX standard State Syllabus Textbooks.
2. Conducting a Physics Quiz
3. Visit to schools for a critical analysis of the Physics laboratory facilities in three schools – Government, Private Aided and Private unaided school
4. Preparation and presentation of Work book on any one topic in Physics
5. Visit to schools for a study of Annual activities of any two schools in the community
6. Preparation and presentation of Teaching aids (Model) for teaching any topic in Physics
7. Presentation of Annual Science activities of any two schools in the community
8. Field trip to a factory/scientific institution – Report

Reference:

2. Chand, B. Teaching of Science, Ludhiana: Prakash Brothers, 1986

**EXTERNAL EXPERTS**

1. **Prof. Roopmala Koneri**  
   Principal  
   New Horizon college of Education  
   Indiranagar

2. **Prof. G Vijaya Kumari**  
   Vijaya Teachers college  
   Jayanagar  
   Bangalore-560011
EDU 281: ACTION RESEARCH

UNIT 1  **FUNDAMENTALS OF RESEARCH**  
Meaning and definition of Research-Purpose and Importance of Research-Types of Research

UNIT 2  **ACTION RESEARCH**  
Meaning of Action research-Steps involved in Action research-Importance of Action research

UNIT 3  **RESEARCH REPORT**  
Importance of Research report-Style and Format of report-Steps in drafting a research report.

EDU 284: SEMINAR

Each Student-teacher has to present a Seminar on a topic relevant to Education. Assessment will be done for the written work and for the presentation.

EDU 285 & 286: PRACTICE TEACHING

Practice Teaching will be held for a period of one month in selected schools. Every student shall execute not less than 10 Lessons in each subject of specialization during the Practice Teaching, of which one should be Criticism Lesson in each method. Out of the 10 lessons in each method, a minimum of 4 Lessons shall be supervised by the Teacher Educators.

Prior to Teaching Practice in schools, Simulated Practice Teaching will be held in the School of Education. Each student will execute 2 Lessons in each method in the Simulated Practice Teaching.

Student shall be exposed to a minimum of three demonstration lessons in each of the subjects of specialization before the Practice Teaching.

Each student shall observe a minimum of 30 Lessons during Practice Teaching. Students have to maintain proper record of lessons observed.

Each student shall submit the teaching aids including models prepared during Practice Teaching Session. (Assignment -1)
Each student shall prepare a unit test, administer the test to the students in the school, analyses and interpret the data obtained in each method. (Assignment 2).

**Method of Evaluation**

Students are evaluated for each paper on the basis of Written Examination and Continuous Internal Assessment. Each paper carries maximum 100 marks and the evaluated can follow:

- **End Semester exam (ESE):** 50%
- **Mid Semester exam:** 25%
- **Continuous Internal Assessment (CIA):** 25%

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<thead>
<tr>
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<tr>
<td><strong>Total</strong></td>
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**Written Examination**

- **Mid Semester Exam:** 50 marks (2 hrs)
- **End Semester Exam:** 100 marks (3hrs)

Mid Semester exam marks will be taken for Internal Assessment. End Semester exam will be reduced to 50 for deciding the promotion criteria.

**Continuous Internal Assessment**

- **CIA-I** for (25 marks)
- **CIA II** for (10 marks)
- **CIA III** for (10 marks)
- **CIA IV** for (5 marks)

CIA-I MSE marks will be reduced to 25 for this purpose.

CIA-II & CIA-III: Continuous Internal Assessment
(CIA III for CCM of Teaching Chemistry, Physics and Biology in II Semester includes practical experiments in the science lab.)

**Continuous Internal Assessment II**

CIA-II will be in two components
Written (reports) Group or Individual
Viva or Presentation may also be conducted

**CIA-III**
The following methods may be adopted

- Multiple choice based test.
- Practical Activity
- Viva
- Group Discussion

**Attendance**

The Marks distribution for attendance is as follows

- 95%-100% : 05 marks
- 90%-94% : 04 marks
- 85%-89% : 03 marks
- 80%-84% : 02 marks
- 76%-79% : 01 mark

Distribution of Marks for practice teaching related activities will be as follows (in each method)

<table>
<thead>
<tr>
<th>Method</th>
<th>Marks</th>
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<tbody>
<tr>
<td>Lesson</td>
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<tr>
<td>Observation of Lessons</td>
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<tr>
<td>Assignment 1</td>
<td></td>
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<tr>
<td>(Preparation of Teaching Aids &amp; Models)</td>
<td>20</td>
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<tr>
<td>Assignment 2</td>
<td>-</td>
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<tr>
<td>(Unit test and Analysis of Result of the test)</td>
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<tr>
<td>Supervised Lessons (including simulated Lessons)</td>
<td>20</td>
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<tr>
<td>Criticism Lesson</td>
<td>10</td>
</tr>
<tr>
<td>Practical Exam</td>
<td>20</td>
</tr>
<tr>
<td>Attendance</td>
<td>5</td>
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