



CBCS scheme of Instruction & Syllabi  
Of  
**Bachelor in Elementary Education**  
**(B.El.Ed.)**

(Effective from Session 2020- 2021)

**Department of Education**

**INVERTIS UNIVERSITY**

Invertis Village, Bareilly - Lucknow NH-24, Bareilly (U.P.)

## CHOICE BASED CREDIT SYSTEM (CBCS)

The CBCS provides an opportunity for the students to choose courses from the prescribed courses comprising core, elective/minor or skill based courses. The courses can be evaluated following the grading system, which is considered to be better than the conventional marks system. Therefore, it is necessary to introduce uniform grading system in the entire higher education in India. This will benefit the students to move across institutions within India to begin with and across countries. The uniform grading system will also enable potential employers in assessing the performance of the candidates. In order to bring uniformity in evaluation system and computation of the Cumulative Grade Point Average (CGPA) based on student's performance in examinations; the UGC has formulated the guidelines to be followed.

### **Outline of Choice Based Credit System:**

1) **Core Course:** A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course.

**2. Elective Course:** Generally a course which can be chosen from a pool of courses and which may be very specific or specialized or advanced or supportive to the discipline/ subject of study or which provides an extended scope or which enables an exposure to some other discipline/subject/domain or nurtures the candidate's proficiency/skill is called an Elective Course.

**2.1 Discipline Specific Elective (DSE) Course:** Elective courses may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective. The University/Institute may also offer discipline related Elective courses of interdisciplinary nature (to be offered by main discipline/subject of study).

**2.2 Dissertation/Project:** An elective course designed to acquire special/advanced knowledge, such as supplement study/support study to a project work, and a candidate studies such a course on his own with an advisory support by a teacher/faculty member is called dissertation/project.

**2.3 Generic Elective (GE) Course:** An elective course chosen generally from an unrelated discipline/subject, with an intention to seek exposure is called a Generic Elective. P.S.: A core course offered in a discipline/subject may be treated as an elective by other discipline/subject and vice versa and such electives may also be referred to as Generic Elective.

**3. Ability Enhancement Courses (AEC)/Competency Improvement Courses/Skill Development Courses/Foundation Course:** The Ability Enhancement (AE) Courses may be of two kinds: AE Compulsory Course (AECC) and AE Elective Course (AEEC). "AECC" courses are the courses

based upon the content that leads to Knowledge enhancement. They ((i) Environmental Science, (ii) English/MIL Communication) are mandatory for all disciplines. AEEC courses are value-based and/or skill-based and are aimed at providing hands-on-training, competencies, skills, etc.

**3.1 AE Compulsory Course (AECC):** Environmental Science, English Communication/MIL Communication.

**3.2 AE Elective Course (AEEC):** These courses may be chosen from a pool of courses designed to provide value-based and/or skill-based instruction.

**Project work/Dissertation** is considered as a special course involving application of knowledge in solving / analyzing /exploring a real life situation / difficult problem. A Project/Dissertation work would be of 6 credits. A Project/Dissertation work may be given in lieu of a discipline specific elective paper.

## Details of course under B.El.Ed

Course

**\*Credits**

Theory + Tutorial

---

### I. Core Course

(28Papers)

**22X4=88**

**6X2=12**

#### **2. Elective Courses**

(4Papers)

A.1. Discipline Specific Elective

**4X4=16**

(4Papers)

B.1. Generic Elective/

Interdisciplinary

**4X4=16**

### II. Ability Enhancement Courses

#### **1. Ability Enhancement Compulsory**

(5 Papers of 2 credits each)

(1 Paper of 10Credit)

**5 X 2=10**

Environmental Science

**1X10=10**

English/ MIL Communication

#### **2. Ability Enhancement Elective (Skill Based)**

**7X2=14**

(Minimum 2)

**Total credit**

**166**

**Institute Should Evolve A system/policy About ECA/ General  
Interest/Hobby/Sports/NCC/NSS related courses on its own.**

**\* Wherever theories a practical there will be no tutorial and vice-versa**

## LIST OF CORE COURSES

|    |      |                                    |
|----|------|------------------------------------|
| 1  | Core | Human Growth and Development       |
| 2  | Core | Elementary Education: Introduction |
| 3  | Core | Nature of Language                 |
| 4  | Core | Core Mathematics                   |
| 5  | Core | Cognition, Learning and Teaching   |
| 6  | Core | Contemporary India and Education   |
| 7  | Core | Core Social Science                |
| 8  | Core | Core Science                       |
| 9  | Core | Reading and Reflecting on text     |
| 10 | Core | Contemporary India                 |
| 11 | Core | School Planning and Management     |
| 12 | Core | Health Education and Yoga          |
| 13 | Core | Basic Concepts of Education        |
| 14 | Core | Human Value and Ethics             |
| 15 | Core | Language Acquisition               |
| 16 | Core | Pedagogy of Environmental Studies  |
| 17 | Core | Logico Mathematics Education       |
| 18 | Core | Language across the Curriculum     |
| 19 | Core | Pedagogy of Hindi –I A             |
|    |      | Pedagogy of English – IA           |
|    |      | Pedagogy of Sanskrit –I A          |
|    |      | Pedagogy of Physical Science – IA  |
| 20 | Core | Pedagogy of Social Studies–IB      |
|    |      | Pedagogy of Mathematics- IB        |
|    |      | Pedagogy of Biology –I B           |
| 21 | Core | Knowledge and Curriculum           |
| 22 | Core | Gender School and Society          |

|    |      |   |
|----|------|---|
| 23 | Core | Pedagogy of Hindi – II A                              |
|    |      | Pedagogy of English – IIA                             |
|    |      | Pedagogy of Sanskrit – IIA                            |
|    |      | Pedagogy of Physical Science – IIA                    |
| 24 | Core | Pedagogy of Social Studies – IIB                      |
|    |      | Pedagogy of Mathematics- IIB                          |
|    |      | Pedagogy of Biology – IIB                             |
| 25 | Core | Educational Measurement, Evaluation & Action Research |
| 26 | Core | Guidance and Counseling                               |
| 27 | Core | Inclusive Education                                   |
| 28 | Core | Special Education                                     |

| <b>List of Discipline Specific Electives</b> |         |   |
|--|---------|---|
| 1  | DSE-I   | Distance Education                        |
|  |         | Population Education                      |
|  |         | Classroom Management                      |
| 2  | DSE-II  | Educational Management and Administration |
|  |         | Human Rights and Education                |
|  |         | Education For Rural Development           |
| 3  | DSE-III | Statistics in Education                   |
|  |         | Fundamentals of Computers                 |
|  |         | Teacher Education                         |
| 4  | DSE-IV  | Value Education                           |
|  |         | Woman Education                           |
|  |         | Life Skill Education                      |

### LIST OF AECC

|   |          |  |
|---|----------|--|
| 1 | AECC-I   | English language and communication-I     |
| 2 | AECC-II  | Environmental Studies                    |
| 3 | AECC-III | School Internship (School Observation) I |
| 4 | AECC-IV  | School Internship II                     |
| 5 | AECC-V   | School Internship III (16 Weak)          |
| 6 | AECC-VI  | Presentation II                          |

### LIST OF SKILL ENHANCEMENT COURSE (SEC)

|   |         |  |
|---|---------|--|
| 1 | SEC I   | Fine art and craft Participatory work, Psychological Assessment and Academic Enrichment Activities (Practical) |
| 2 | SEC II  | (Practical)Scout &Guide Camp/Drama &Arts and Music Activities and Academic Enrichment Activities               |
| 3 | SEC III | Yoga and Meditation/Sports and Health Education/Self-development workshop Activities                           |
| 4 | SEC IV  | Educational Excursion/Academic Enrichment Activities   |
| 5 | SEC V   | Microteaching 10 Plan, Development of Teaching aid and Learning Material, Academic Enrichment activities       |
| 6 | SEC VI  | Simulation Teaching 10 Plans, Development and Use Teaching aid and Learning Material.                          |
| 7 | SEC VII | Educational Evaluation of Action Research ,Construction of Achievement/Diagnostic Test                         |

## LIST OF GENERIC ELECTIVE

|   |     |                              |
|---|-----|------------------------------|
| 1 | GE1 | <b><i>Science stream</i></b> |
|   |     | Physics I                    |
|   |     | Physics Lab I                |
|   |     | Chemistry I                  |
|   |     | Chemistry Lab I              |
|   |     | Mathematics I                |
|   |     | Mathematics Lab I            |
|   |     | Botany I                     |
|   |     | Botany Lab I                 |
|   |     | Zoology I                    |
|   |     | Zoology Lab I                |
|   |     | <b><i>Art Stream</i></b>     |
|   |     | Hindi I                      |
|   |     | English Literature I         |
|   |     | History I                    |
|   |     | Political Science I          |
|   |     | Economics I                  |
| 2 | GE2 | <b><i>Science stream</i></b> |
|   |     | Physics II                   |
|   |     | Physics Lab II               |
|   |     | Chemistry II                 |
|   |     | Chemistry Lab II             |
|   |     | Mathematics II               |
|   |     | Mathematics Lab II           |
|   |     | Botany II                    |
|   |     | Botany Lab II                |
|   |     | Zoology II                   |
|   |     | Zoology Lab II               |
|   |     | <b><i>Art Stream</i></b>     |
|   |     | Hindi II                     |
|   |     | English Literature II        |
|   |     | History II                   |

|   |     |                              |
|---|-----|------------------------------|
|   |     | Political Science II         |
|   |     | Economics II                 |
| 3 | GE3 | <b><i>Science stream</i></b> |
|   |     | Physics III                  |
|   |     | Physics Lab III              |
|   |     | Chemistry III                |
|   |     | Chemistry Lab III            |
|   |     | Mathematics III              |
|   |     | Mathematics Lab III          |
|   |     | Botany III                   |
|   |     | Botany Lab III               |
|   |     | Zoology III                  |
|   |     | Zoology Lab III              |
|   |     | <b><i>Art Stream</i></b>     |
|   |     | Hindi III                    |
|   |     | English Literature III       |
|   |     | History III                  |
|   |     | Political Science III        |
|   |     | Economics III                |
| 4 | GE4 | <b><i>Science stream</i></b> |
|   |     | Physics IV                   |
|   |     | Physics Lab IV               |
|   |     | Chemistry IV                 |
|   |     | Chemistry Lab IV             |
|   |     | Mathematics IV               |
|   |     | Mathematics Lab IV           |
|   |     | Botany IV                    |
|   |     | Botany Lab IV                |
|   |     | Zoology IV                   |
|   |     | Zoology Lab IV               |
|   |     | <b><i>Art Stream</i></b>     |
|   |     | Hindi IV                     |
|   |     | English Literature IV        |
|   |     | History IV                   |
|   |     | Political Science IV         |
|   |     | Economics IV                 |



## Structure of CBCS Course in B.El.Ed

| Year | Sem | Core Course Program(DSC) | Language Core Course(LCC) | Ability Enhancement Compulsory (AECC) | Skill enhancement Course Program(SEC) | Discipline Specific Elective Program (DSE) | Generic Elective (GE) |  |
|------|-----|--------------------------|---------------------------|---------------------------------------|---------------------------------------|--|-----------------------|--|
| 1    | 1   | DSC1                     |                           | AECC1                                 | SEC1                                  |  |                       |  |
|      |     | DSC2                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC3                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC4                     |                           |                                       |                                       |  |                       |  |
|      | 2   | DSC1                     |                           |                                       |                                       | SEC2                                       |                       |  |
|      |     | DSC2                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC3                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC4                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC5                     |                           |                                       |                                       |  |                       |  |
| 2    | 3   | DSC1                     |                           | AECC2                                 | SEC3                                  | DSE1                                       | GE1                   |  |
|      |     | DSC2                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC3                     |                           |                                       |                                       |  |                       |  |
|      | 4   | DSC1                     |                           | AECC3                                 | SEC4                                  |  | GE2                   |  |
|      |     | DSC2                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC3                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC4                     |                           |                                       |                                       |  |                       |  |
| 3    | 5   | DSC1                     |                           |                                       | SEC5                                  | DSE2                                       | GE3                   |  |
|      |     | DSC2                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC3                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC4                     |                           |                                       |                                       |  |                       |  |
|      | 6   | DSC1                     |                           | AECC4                                 | SEC6                                  | DSE3                                       | GE4                   |  |
|      |     | DSC2                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC3                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC4                     |                           |                                       |                                       |  |                       |  |
| 4    | 7   |                          |                           | AECC5                                 |                                       |  |                       |  |
|      |     |                          |                           | AECC6                                 |                                       |  |                       |  |
|      | 8   | DSC1                     |                           |                                       | SEC7                                  | DSE4                                       |                       |  |
|      |     | DSC2                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC3                     |                           |                                       |                                       |  |                       |  |
|      |     | DSC4                     |                           |                                       |                                       |  |                       |  |

## PROGRAMME OUTCOME FOR B.EL.ED.

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

**PO1. Teaching competency:** Teaching competency developed through microteaching, simulated teaching.

**PO2. Pedagogical skills:** Detailed knowledge of the subject, perfected teaching skill – marked by implementation of new methods and techniques into educational activities and also distinguished by the incorporation of essentially new, progressive theoretical ideas, principles and methods of training and education

**PO3. Teaching Through Nonconventional Modes:** Evolving a system of education which enhances the potential of every learners to acquire, retain and transform knowledge leading to wisdom society through creative, experiential and joyful modes of learning.

**PO4. Critical thinking:** developing critical thinking skills of the students through a number of activities like classroom discussions, debates, and presentations of seminar topics by students followed by question-answer session etc

**PO5. Effective communication:** facilitating the students to develop skills of reading, writing, listening and speaking to add to their communication ability in English and Hindi as well to connect them with the world around and for best teaching-learning purpose.

**PO6. Management of the classroom:** maximizing efficiency maintaining discipline and morale, promoting teamwork, planning, communicating, focusing on results, evaluating progress, and making constant adjustments. A range of strategies are employed to promote positive relationships, cooperation, and purposeful learning. Organizing, assigning, and managing time, space and activities ensure the active and equitable engagement of students in productive tasks.

**PO7. Sensitivity towards inclusion:** developing sensitivity towards language diversity and inclusion in the classroom and its role in teaching- learning process.

**PO8. Self-directed learning:** to provide the necessary practical exposure to self- directed learning and self-study methods so as to equip the learner with knowledge acquiring skills as in teaching, administration, ICT.

**PO9: Self Discipline and self-Control:** Promoting self-discipline and self-control leading to immense amount of awareness, concentration and higher level of consciousness.

**PO10: Knowledge of Growth and Development:** Develop the understanding of theories of growth and development.

**PO11: Knowledge of Indian Education System:** Develop the conceptual understanding about development of educational system in India and addressing issues of diversity, inequality and marginalization in Indian Education.

**PO12: Knowledge and Curriculum:** Address the theoretical foundations of school knowledge, policies and learning with reference to curriculum.

### Third Year

### Semester V

| Course Code  | PAPER | Course Title                   | Course Category | L         | T        | P        | CA         | EE         | Total      | Credit    |
|--------------|-------|--------------------------------|-----------------|-----------|----------|----------|------------|------------|------------|-----------|
| BELED501     | 27    | Logico Mathematics Education   | DSC             | 3         | 1        | 0        | 30         | 70         | 100        | 4         |
| BELED502     | 28    | Language across the curriculum | DSC             | 3         | 1        | 0        | 30         | 70         | 100        | 4         |
| BELED532/34  | 29    | Pedagogy of School Subject-1   | DSC             | 2         | 0        | 0        | 15         | 35         | 50         | 2         |
| BELED541/42  | 30    | Pedagogy of School Subject-2   | DSC             | 2         | 0        | 0        | 15         | 35         | 50         | 2         |
| BELED523/29  | 31    | GE-3                           | GE              | 3         | 1        | 0        | 30         | 70         | 100        | 4         |
| BELED503     | 32    | DSE-2                          | DSE             | 3         | 1        | 0        | 30         | 70         | 100        | 4         |
| BELED561     | 33    | SEC- V                         | SEC             | 0         | 0        | 2        | 15         | 35         | 50         | 2         |
| <b>Total</b> |       |                                |                 | <b>16</b> | <b>4</b> | <b>2</b> | <b>165</b> | <b>385</b> | <b>550</b> | <b>22</b> |

### Semester VI

| Course Code  | PAPER | Course Title                 | Course Category | L         | T        | P        | CA         | EE         | Total      | Credit    |
|--------------|-------|------------------------------|-----------------|-----------|----------|----------|------------|------------|------------|-----------|
| BELED601     | 34    | Knowledge and Curriculum     | DSC             | 3         | 1        | 0        | 30         | 70         | 100        | 4         |
| BELED602     | 35    | Gender School and Society    | DSC             | 3         | 1        | 0        | 30         | 70         | 100        | 4         |
| BELED632/34  | 36    | Pedagogy of School Subject-1 | DSC             | 2         | 0        | 0        | 15         | 35         | 50         | 2         |
| BEL4ED641/42 | 37    | Pedagogy of School Subject-2 | DSC             | 2         | 0        | 0        | 15         | 35         | 50         | 2         |
| BELED603     | 38    | DSE-3                        | DSE3            | 3         | 1        | 0        | 30         | 70         | 100        | 4         |
| BELED623/29  | 39    | GE-4                         | GE4             | 3         | 1        | 0        | 30         | 70         | 100        | 4         |
| BELED661     | 40    | SEC- VI                      | SEC             | 0         | 0        | 2        | 15         | 35         | 50         | 2         |
| BELED671     | 41    | AECC-IV                      | AECC            | 0         | 0        | 0        | 15         | 35         | 50         | 2         |
| <b>Total</b> |       |                              |                 | <b>16</b> | <b>4</b> | <b>2</b> | <b>180</b> | <b>420</b> | <b>600</b> | <b>24</b> |

# SEMESTER V

## Course Title: Logico Mathematics Education

Course Code – BELED 501

Contact Hours: 60

Credit: 04 (L-3, T-1, P-0)

MM: 100

### COURSE OBJECTIVES;

- Understand and appreciate the uses and significance of mathematics in daily life.
- Learn successfully various approaches of teaching mathematics and to use them judiciously.
- Know the methods of planning instruction for the classroom.
- Prepare curricular activities and organized the library and book in it as per the needs.
- Appreciate and organize activities to develop aesthetic of mathematics.
- Obtain feedback both about teaching as well as students learning.

### Course Content:

#### Unit: I

- Nature of children's logico-mathematics thinking
- Theories of Piaget, Bruner and Vygotsky; intuitivemathematics; mentalmathematics; cultural differences and specificities

#### Unit: II

- Language and mathematics: language of mathematics.

#### Unit: III

- Critical study of some pedagogic considerations with reference to learning theory and practice
- Readiness; consolidating mental arithmetic; circular reactions (ref. Piaget);
- Zone of proximal development (ref. Vygotsky); organizing and structuring learning tasks; group and individual activity; drill; memorization and algorithmization

#### Unit: IV

- Mathematics in the context of schools: text books, curricula and class-room practices; Nature of mathematics - conceptual and procedural area (space, measurement, operations etc)
- Research on children's learning in specific areas; errors; feedback; testing and evaluation; the hidden curriculum; mathematics phobia and failure

#### Unit: V

- Content specific pedagogy: number, place value, fractions, decimals, role of readymade kits.

### **Course Outcomes:**

- Based on this course, the Engineering graduate will understand / evaluate / develop technologies on the basis of ecological principles and environmental regulations which in turn helps in sustainable development

### **SUGGESTED READINGS:**

- 1. Clements, D.H. and M.T. Battista, Geometry and Spatial Reasoning, in P.A. Grouws (ed.), Handbook of Research on Mathematics Teaching and Learning, Reston: V.A. 1992.
- IGNOU, Learning Mathematics, LMT-01, IGNOU: New Delhi 2001.
- National Council of Teachers of Mathematics (NCTM), Curriculum and Evaluation Standards for School Mathematics, NCTM, Reston: V.A. 1989.
- National Council of Teachers of Mathematics (NCTM), Professional Standards for Teaching Mathematics, NCTM, Reston: V.A. 1989.
- National Council of Teachers of Mathematics (NCTM), Assessment Standards for School Mathematics, NCTM, Reston: V.A. 1989.
- NCTM Yearbook, Communications in Mathematics, K.-12 and Beyond, NCTM, Reston: 1986.

## **Course Title: Language across the Curriculum**

**Course Code: BELED502**

**Credit: 04 (L-3, T-1, P-0)**

**Contact Hours: 60**

**MM: 100**

### **Course Objectives:**

- To enable the student-teacher to-
- Develop sensitivity to the language diversity existing in the classroom
- Understand nature of classroom discourse and develop strategies for using oral language in the classroom.
- Develop listening and speaking ability
- Understand interplay of language and society
- Prepare background for sound reading
- Understand multilingualism in the class

### **Course Outline:**

#### **Unit I**

- Language and learning: language as a means of construction of reality
- Language and experience; concept-formation
- Language at school: distinction between language as a school subject and language as a means of learning and communication;
- The concept of register and style; different school-subjects as registers

#### **Unit II**

- Basic Language competencies required at school: orally, listening, reading and writing.
- Special study of reading: cognitive basis of reading, analysis of the tasks involved in reading,
- Motivation to read stages of learning to read, reading ability.

#### **Unit III**

- The child's language and the school: school language and home language;
- Language as an aspect of teacher-child relationship  
Language environment of school: language of textbooks in different subjects.

#### **Unit IV: Concept of Curriculum**

- Meaning and Nature of curriculum, its need in schools, competency based curriculum
- Difference in curriculum framework, curriculum and syllabus



- Significance of core curriculum in Indian context, meaning and concerns of hidden Curriculumlation of syllabus into textbooks
- Curriculum visualization at national, state, school and class level.

### **COURSE OUTCOMES:**

After going through the course the teacher trainee will be able:

- To develop the communication skills.
- To overcome from the barriers of communication by using different techniques.
- To enhance their vocabulary.
- To understand the writing skills in daily life by formal and informal letters.
- To improve their writing and self-development skills.
- Understand and analyse various approaches to curriculum development.

### **Suggested Projects**

- To elaborate their theoretical understanding students should undertake a project involving listening to children's reading, miscue analysis, developing a reading test and administering it.
- Analysis of text books and other materials used in different subjects from the point of view of registers and styles used in them.

## **Course Title: Educational Management and Administration**

**Course Code: BELED503**

**Credit: 04 (L-3, T-1, P-0)**

**Contact Hours: 60**

**MM: 100**

### **Course Objectives:**

Pupil-teachers would be able to:

- Acquaint the pupil teachers with the significance of educational administration.
- Develop an understanding of the concept, need, scope and functions of school management. 3. Develop an understanding of different components of human and material resources of the school.
- Recognize the various characteristics of a quality school.
- . Understand the concept, need and importance, types and principles of time-table construction, school-records and co-curricular activities.
- Understand the concept and principles of management and role of a teacher in classroom management.
- To develop understanding of the importance of communication and barriers of communication in educational administration.

### **Course Outline:**

#### **Unit – I**

- Concept of educational administration.
- Development of modern concept of educational administration
- Nature, objectives and scope of educational administration.
- Role and functions of headmaster basic functions of administration, planning, organizing Directing and controlling.
- Approaches to educational administration- human relation approach, system approach.

#### **Unit – II**

- Meaning of educational management
- Taylor's principle of scientific management
- Management of schools,
- Role of headmaster in planning of school activities,
- Approaches to management – manpower approach, cost benefits approach, social demand approach, social justice approach.
- Maintenance of discipline, control management.

## Unit – III

- Specific trends in educational administration
- Involvement of other functionaries and agencies in the preparation of a plan
- Delegation of authority and accountability
- Role of the headmaster in monitoring, supervision and evaluation
- Role of headmaster in motivating the staff, in resolution of interpersonal conflicts
- Role of the headmaster in creating resources and managing financial matters
- Optimum use of available resources for growth and development of the school
- Staff development programmes.
- Role of teachers in school management and administration.

## Unit – IV

- Educational administration in the state- the administration structure in the field of education Control of school education in the state – a critical analysis
- Leadership in educational administration
- Functions of the board of secondary education in controlling secondary schools
- Problems of primary school administration in government and private schools

### COURSE OUTCOMES:

After going through the course the teacher trainee will be able:

- To Appreciate and develop a conducive classroom environment.
- To appreciate the value of quality time management and realize it.
- To mobilize the classroom communication an effective one.
- To manage indiscipline / inappropriate behaviour in the classroom.

### Suggested Readings:

1. Naik, J.P (1965): *Educational Planning in India*. New Delhi: Allied.
2. Naik, J.P (1982): *The Educational Commission & After* New Delhi: Allied.
3. Ayyar, R.V. Vaidyanathan (1993): *Educational Planning and Administration on in India: Retrospect and Prospect* Journal of Educational Planning and Administration.VII (2). April.
4. Nanjundappa, D.M. (1995): *Concept, Approaches and Techniques of Decentralized. Planning in Readings in Decentralized planning*.B.N. Yudagndhar and Amitabh Mukherjee (ed.) New Delhi.
5. Mukhopadhyay, M. (2005): *Total quality management in education*. Sage Publications, New Delhi.

# Pedagogy of English Language: Part – I

**Course Code: BELED532**

**Credit: 02 (L-2, T-0, P-0)**

**Contact Hours: 30**

**MM: 50**

## **COURSE OBJECTIVES:**

To gain an overview of pedagogy of English language.

- To understand the nature and characteristics of language and use of English language.
- To describe important methodologies and techniques of teaching English.
- To understand the various learning resources and teaching aids in classroom teaching.

## **Course Outline:**

### **Unit I: Language Acquisition**

- Nature, concept, importance and functions of language, First, Second and Foreign language;
- Different forms of English, Linguistic diversity and its impact on English, Organization of sounds – vowels and consonant sounds,
- Understanding Phonetics, morphology and Syntax, the role and position of English in India (English as a colonial Language, second language, global language)
- Objectives of teaching English at secondary level, Taxonomy of objectives, writing objectives in behavioural terms. Problems of teaching English and their solutions.
- Psychological, linguistic and pedagogical principles of teaching English as a second language, Significance of English in the age of Globalization;

### **Unit II: Teaching Models, Strategies, Teaching-Learning Material and Aids**

- Meaning and definition of teaching models, fundamental elements of teaching models, types of teaching models; behaviour modification and constructivist.
- Microteaching, simulated teaching, team teaching, PLA technique, project based learning, cooperative learning,
- Print media, other reading materials, such as magazines, newspapers comic strips etc.
- ICT- audio-visual aids OHP, LCD Computer including CALL programmes, Radio, T.V, Films;
- Co - Curricular activities; Role play, simulation, speech, games, language laboratories and multimedia resources, Planning co-curricular activities, discussion, debates, workshops, seminars etc.)

### **Unit III: Language Assessment and Evaluation**

- Construction of test items (unit test) to assess simple factual knowledge, higher thinking and application abilities;
- Use of observation techniques, Student-Teacher Profile, recording and evaluating procedures to assess the performance of students' activities, projects;
- Group assessment; self and peer assessment; assessment of worksheets; students' journals;
- Use of rubrics in assessment. Portfolio assessment, Teacher's reflections in the process.

## **COURSE OUTCOMES:**

After going through the course the teacher trainee will be able:

- To evaluate basic language skills such as listening, speaking, reading and writing and integrate them for communicative purpose.
- To develop insight into the form and use of English and to give practice in lesson planning.
- To construct test items to assess and evaluate learning outcomes.
- To evaluate the different language assessment.

## **Suggested Reading:**

- D. Brown: Principles of Language and Teaching. Prentice Hall, London.
- M.L. Tickoo: Teaching and Learning English in India. Orient Longman
- Richards and Rodgers: Approaches and Methods in Language Teaching. CUP
- C.J. Brumfit and K. Johnson: The Communicative Approach to Language Teaching. OUP
- K. V.V.L. Narasimha Rao: Essentials of Second Language Teaching

# Course Title: Pedagogy of Physical Science -I

**Course Code: BELED534**

**Credit: 02 (L-2, T-0, P-0)**

**Contact Hours: 30**

**MM: 50**

## Course Objectives:

To enable the student-teacher to-

- Develop broad understanding of principles and knowledge used in physical science education.
- Develop their essential skills for practicing physical science education.
- To create interest and develop scientific attitude among the students.
- Know various approaches and methods of teaching physical science.
- Prepare lesson planning of physical science properly.
- Organize science exhibitions, science fair, and other activities.

## Course Outline:

### Unit-I

- Nature of science, Impact of science on modern communities
- Correlation of Science subjects with other subject
- Aims and objectives of teaching physical science .
- Blooms taxonomy of educational objectives
- Writing instructional objectives.

### Unit-II

- Method of science teaching-Lecture cum demonstration method, Project method, Heuristic method, Laboratory method. □
- Innovative instructional method: Tutorial, Seminar, Brain Storming Micro – Teaching, Programmed Learning, Team teaching and CAI (Computer Assistance Teaching).

### Unit-III

- Unit planning and Lesson planning: basic elements, characteristics, significance
- Use of RCEM approaches in developing lesson plan
- Designing Lesson plan for science teaching in school
- Teaching learning materials and improvised apparatus importance and construction.

### Unit IV

- Co-Curricular Activities: Science Club, Science Exhibitions and Fairs, Field Trips and Excursions
- Aids to Teaching Science: Audio, Visual, Audio-Visual Aids and Projected Aids.
- Learning Resources For Science: text books, workbook in Science, journals, Qualities of good science textbook.

## **Unit V**

- Concept of evaluation & measurement, Formative and summative evaluation
- Preparing various kinds of objectives tests.
- Diagnostic testing and remedial teaching
- Preparation of achievement test

### **Outcomes:**

- Based on this course, the Engineering graduate will understand / evaluate / develop technologies on the basis of ecological principles and environmental regulations which in turn helps in sustainable development

### **Suggestive Readings:**

- Heiss, Obourn and Hoff man, 'Modern Science teaching,' McMillan co, N.V. Kuhn David J; Science Education in a changing society'; Science Education 56 (3) 1972.
- Sharma, R.C. (1981): 'Modern Science teaching', DhanpatRai and sons, Delhi.
- Kulshrestha, S.P.; 'Teaching of science,' R.Lall Book Depot, Meerut

\* Latest editions of all the suggested books are recommended

## **Pedagogy of Social Studies: Part – I**

**Course Code: BELED541**

**Credit: 02 (L-2, T-0, P-0)**

**Contact Hours: 60**

**MM: 50**

### **COURSE OBJECTIVES:**

- To gain an overview of pedagogy of Social Studies.
- To understand Aims and objectives of teaching social studies.
- To develop an understanding of pedagogical processes and critical issues related to the teaching-learning of social studies.
- To understand the national and international perspective through comparative analysis of curricula.

### **Course outline:**

#### **Unit I: Aims and objectives of teaching social studies**

- Concept, nature and scope of social studies, Philosophical and Theoretical basis of Social studies.
- Distinguishing between natural sciences and social sciences, major social science disciplines in schools.
- Aims and objectives of teaching social studies at various level of education with special reference to Indian conditions.
- Need and significance of teaching social studies at secondary level of education. Place of social studies in school curriculum.
- Classification of learning objective; cognitive, affective and psychomotor. Writing objectives in behavioural terms in content areas of Social Science.

#### **Unit II: Teaching Models, Strategies and Teaching Aids**

- Meaning and definition of teaching models, fundamental elements of teaching models, types of teaching models; behaviour modification and constructivist.
- Microteaching, simulated teaching, team teaching, PLA technique, project based learning, cooperative learning.
- Importance of teaching aids, Different kinds of teaching aids: Traditional and modern teaching aids of teaching of social science.
- Preparation of teaching aids. Use of teaching aids in the class room situations.
- Application of ICT in the Social Science Classroom.

#### **Unit III: Assessment and Evaluation**

- Construction of test items (unit test) to assess simple factual knowledge, higher thinking and application abilities;
- Use of observation techniques, Student-Teacher Profile, recording and evaluating procedures to assess the performance of students' activities, projects, laboratory skills;
- Group assessment; self and peer assessment; assessment of worksheets; students' journals;
- Use of rubrics in assessment; Portfolio assessment; Teacher's reflections in the process.



## **COURSE OUTCOMES:**

After going through the course the teacher trainee will be able:

- To enable the student-teachers to become effective teachers of social studies.
- To prepare the student-teachers for leadership roles in schools and other educational institutions.
- To develop a critical understanding about the nature of social science and its interface with society
- To develop the ability to organize curricular activities for promoting social science learning.

## **Suggested Reading:**

- Bunning, A.C.: Teaching of Social Studies in Secondary Schools, McGraw Hill Book Company, Inc., NewYork.
- Chauhan, S.S.: Innovations in Teaching Learning Process, Vikash Publication House, NewDelhi.
- High, J.: Teaching Secondary School Social Studies, The Macmillan Company, NewYork.
- Kochhar, S.K.: Teaching of Social Science, Sterling Publication, NewDelhi.
- Siddiqui, M.H.: Excellence of Teaching, Ashish Publication House, NewDelhi.
- Tripathi, S.: Teaching Methods, Radha Publications, NewDelhi.

# Course Title: Pedagogy of Mathematics -I

**Course Code: BELED542**

**Credit: 02 (L-2, T-0, P-0)**

**Contact Hours: 30**

**MM: 50**

## **Course Objectives:**

- Understand and appreciate the uses and significance of mathematics in daily life.
- Learn successfully various approaches of teaching mathematics and to use them judiciously.
- Know the methods of planning instruction for the classroom.
- Prepare curricular activities and organized the library and book in it as per the needs.
- Appreciate and organize activities to develop aesthetic of mathematics.
- Obtain feedback both about teaching as well as students learning.

## **Course Outline:**

### **Unit I: Nature, Scope, Aims and Objectives of Mathematics:**

- Meaning and building blocks of mathematics, the nature of mathematical propositions, truth values, compound propositions; Truth tables; Truth sets; Venn diagram, logically valid conclusions;
- Use of quantifiers; A mathematical theorem and its variants-converse, inverse and contra positive; proof and types of proof; Deductive nature of mathematics; undefined terms in mathematics; quasi definitions and definitions in mathematics; the defining properties of a definition; Difference between proof and verification;
- Difference between pure and applied mathematics History of mathematics with special emphasis on teaching of mathematics, contribution of Indian mathematicians. Scope of mathematics
- Need for establishing general objectives for teaching mathematics. Study of the aims and general objectives of teaching mathematics vis-a-vis the objectives of school education,
- Writing specific objectives in various content areas in mathematics like Algebra, Geometry etc. in behavioral terms.

### **Unit II: Approaches, Strategies and Learning Resource:**

- Nature of concepts, concept formation and concept assimilation. Planning and implementation of strategies in teaching a concept.
- Problem posing and solving, discovering or exploring various options for solving the problems, formulation of generalizations through several illustrations,
- Difference between teaching of mathematics and teaching of science, use of PLA technique, cooperative learning, Simulation, micro-teaching skills and lesson planning.
- Meaning, Types and purposes of instructional materials in Mathematics. Plan for preparation and utilization of instructional materials.
- Preparation of instructional materials. Designing teaching aids in mathematics; psychological basis; Rationale and limitations.

### Unit III: Assessment and Evaluation of Learning in Mathematics

- Stating measurable objectives of teaching concepts and generalizations,
- Construction of appropriate test items,
- Diagnosing basic causes for difficulties in learning concepts and generalizations,
- Planning remedial instruction based on the diagnosis

#### Course Outcomes:

- Based on this course, the Engineering graduate will understand / evaluate / develop technologies on the basis of ecological principles and environmental regulations which in turn helps in sustainable development

#### Suggested Reading:

- Butler and Wren. *The Teaching of Secondary Mathematics*, London: McGraw Hill Book Company.
- Cooney, T.J. and Others. *Dynamics of Teaching Secondary School Mathematics*, Boston: Houghton Mifflin.
- Cooney, Thomas, J. *et al. Dynamics of teaching secondary school mathematics*. Boston: Houghton Mifflin
- Copeland, R.W. *How children learn mathematics*. New York: MacMillan
- Kapfer, Miriam B. *Behavioural objectives in Curriculum Development: Selected Readings and Bibliography*. Englewood Cliffs, NJ: Educational Technology.
- Kapur, J.N. *Suggested experiments in mathematics*, New Delhi: Arya Book Depot
- Mager, Robert. *Preparing instructional objectives*, Palo Alto, C A: Fearon.
- NCERT, *A textbook of Content-cum-Methodology of Teaching Mathematics*, New Delhi: NCERT.
- Polya, George. *How to solve it*, Garden City, New York: Doubleday.
- Rouse Ball, W.W. *Mathematical recreation and essay*. Macmillan & Co.
- Servas, w and T. Varga. *Teaching School Mathematics - UNESCO Source Book*.
- Sharma, C.S. and others. *Textbook of mathematics*. New Delhi: Arya Book Depot
- Siddiqui, M.H. *Teaching of mathematics*. New Delhi: APH Publishing Corporation
- Weil, J. and Weil, M. *Models of teaching*.

# Course Title: MATHEMATICS-III

**Course Code: BELED523**

**Credit: 4(L-3, T-1, P-0)**

**Contact Hours: 60**

**MM: 100**

## Course Objectives:

1. To provide knowledge to student about Complex functions.
2. To provide the concept of trigonometric and hyperbolic functions.
3. To make able to distinguish between Gregory's series & Summation of series.
4. To make them clear about the Symmetric and skew-symmetric matrices.

## Course Outline:

### TRIGONOMETRY:

#### Unit I

- Complex functions and separation into real and imaginary parts.

#### Unit II

- Exponential, Direct and inverse trigonometric and hyperbolic functions, logarithmic function, Gregory's series, Summation of series.

#### Unit III

### MATRIX THEORY:

- Symmetric and skew-symmetric matrices, Hermitian and skew-Hermitian matrices, Orthogonal and unitary matrices, Triangular and diagonal matrices, Rank of a matrix.

#### Unit IV

- Characteristic equation, Eigen values and Eigen vectors of a matrix, Cayley Hamilton's theorem and its use in finding inverse of a matrix.

## Course Outcomes:

After completing the course, students will be able to:

|   |
|---|
| 1. Understand various Laws of Complex functions.                          |
| 2. Analyze the system of Rank of a matrix.                                |
| 3. Identify the difference between Hermitian and skew-Hermitian matrices. |
| 4. Understand the Triangular and diagonal matrices.                       |
| 5. Evaluate the Summation of series.                                      |
| 6. Solve the separation into real and imaginary parts.                    |

**Text Books:**

- "Differential Geometry" by A. R. Vasistha and J. N. Sharma, Kedarnath Ramnath
- "Differential Geometry" by T. J. Willmore Oxford University Press, New Delhi
- "MATRIX THEORY" by Dr. GOYAL and Prof. gupta Student's Friends and company

**Suggested Readings:**

- "Differential Geometry" by A.B. Chandra Moule and J. B. Chauhan, Siksha Sahitya
- "Differential Geometry" by S. C. Mittal and D. C. Agarwal, Krishna Prakashan

## Course Title: Political Science III

Course Code: BELED529  
Contact Hours: 60

Credit: 04(L-3, T-1, P-0)  
MM: 100

### COURSE OBJECTIVES:

- To understand the concept of political thoughts
- To gain the knowledge of Natural Law and Natural Rights.
- To understand the moral values and argue on the ethical theory of Utilitarianism.
- To explain the political theories: Liberalism, Socialism and Marxism.

### Course Outline:

#### Unit I: Political Obligation.

- Meaning, Nature, Theories of Political Obligation: Divine Right Theory, Prescriptive Theory, Consent Theory, Idealistic Theory and Utilitarian Theory.
- Limits of Political Obligation
- Green's View and Laski's View

#### Unit II: Utilitarianism.

- Meaning and Basic Tenets of Utilitarianism
- Bentham's Contribution and J.S. Mill's Contribution

#### Unit III: Natural Law, Natural Right and Punishment

- Natural Law
- Natural Right
- Meaning and Different Forms of Punishment
- Different Theories of Punishment: Deterrent Theory, Retributive Theory, Preventive Theory, Reformative and Expiatory Theory,

#### Unit IV: Liberalism, Socialism and Marxism.

- Liberalism: Principles, Classical Liberalism, Modern Liberalism.
- Socialism: Meaning, Definition, Merits and Demerits,
- Types of Socialism.
- Marxism: Meaning, Sources and Basic Tenets.
- Dictatorship of the Proletariat and Role of Revolution

## **Unit V: Main Currents of Indian Political Thought:**

- Gandhiji's Concepts of Sarvodaya, Satyagraha, State
- Nehru's Contribution in modern Indian society
- Indian Socialism: Narendra Dev and Jayprakash Narayan

### **COURSE OUTCOMES:**

After going through the course the teacher trainee will be able –

- To apply their political obligation for the progress of society and state.
- To analyse the theory of punishment and differentiate between the different forms of punishment.
- To relate main current of Indian political thought with fundamental social and political problems of society for the solutions of these problems.

### **Suggested Readings:**

- Barker .Earnest.(1952):Principles of social and Political Theory: American Political Science Association.
- D.D. Raphael. (1976): Problems of Political Philosophy: Mac Millan Education LTD London.
- D.D. Raphael & T.H. Green on Political Obligation.
- Ernest Barker. (1951): Principles of social and Political Theory: Oxford University press Calcutta.
- Gauba. O.P (2009): An introduction to Political Theory: Mac Millan Publisher India LTD New Delhi.
- Gilbert, M. (2006): A Theory of Political obligation membership, commitment and the Bonds of society: Oxford university press.
- Horton, J. (2010): Political obligation: Palgrave Macmillan London.
- Johri. J. C. (1987): Contemporary Political Theory: Sterling Publisher Private Limited New Delhi,
- Kapur, A. C. (1950): Principal of Political Science: S. Chanda& Company PVT LTD New Delhi.
- Raymond G. Gettell. (1970): History of Political Thought: Allen &Unwin London.
- V.P. Verma. (1964): Modern Indian Political Thought: Lakshmi NarainAgarwal.

**PRACTICAL: Microteaching 10 plans, Development of Teaching and Learning Material**  
**Academic Enrichment activities**

**Course Code – BELED 561**

**Credit: 2 (L-0, T-0, P-2)**

**Contact Hours: 30**

**MM: 50**

**COURSE OBJECTIVES:**

- To gain an overview of Teaching Aids.
- To understand the concept of Micro Teaching.
- To understand the various tests.

**Course Outline:-**

1. Preparation of Teaching Aid.
2. Preparation and presentation of 10 micro teaching lesson plans (minimum 2 skills for each teaching subject).
3. Construction of achievement / diagnostic test.
4. Viva – voce.

**Note: For successful completion of the course participation in all activities of practicum is compulsory.**

**COURSE OUTCOMES:**

**After completion of this course the teacher trainee will able to:**

- Explain the concept of Micro Teaching.
- Understand different skills of teaching.
- To construct achievement and diagnostic test.



# SEMESTER – VI

# Course Title: Knowledge and Curriculum

**Course Code – BELED 601**

**Credit: 4(L-3, T-1, P-0)**

**Contact Hours: 60**

**MM: 100**

## **COURSE OBJECTIVES:**

- To understand briefly about curriculum development.
- To understand the theories of Curriculum development.
- To Understand the Curriculum Evaluation.
- To Define and identify different components of curriculum.
- To describe the principles, types, and areas of curriculum.

## **Course Outline:**

### **Unit I: Knowledge Generation and Child-centered Education:**

- Knowledge meaning and facts
- Process of knowing, Different ways of knowing
- Organization of knowledge in schools
- Forms of knowledge: Concrete and abstract, local and universal, theoretical and practical
- School and out of school
- Teacher autonomy and accountability
- Learner autonomy
- Concept of child centered education : Activity, discovery, dialogue with reference to Rousseau, Dewey, Tagore, Gandhi,

### **Unit II: Sociological Bases of Education**

- Social bases of education in the context of society, culture and modernity with reference to historical changes by industrialization and democracy
- Values in the emerging social context
- Education in relation to modern values like equity and equality, opportunity and social justice and dignity with reference to Ambedkar. Critical multiculturalism and democratic Education
- Interrelationship of nationalism, universalism and secularism with education with reference to Tagore and Krishnamurti.

### **Unit III: Curriculum Determinants and Curriculum Development:**

- Broad determinants of curriculum making (at the national and state level) : priorities, Socio-political-cultural-geographical-economic diversities, international contexts
- Considerations in curriculum development : (at the school level) – structure of Disciplines, socio cultural context of students (multicultural and multilingual) learner
- characteristics, relevance and teachers' experiences, specificity of educational objectives, Issues like gender differences and inclusiveness.
- Process of curriculum making, formulating aims and objectives, criteria for selecting Knowledge, organizing fundamental concepts and themes vertically across levels and Integrating themes within (and across) different subjects, selecting and organizing learning situations.

## **Unit IV: Curriculum and Textbooks Evaluation**

- Understanding the relationship between curriculum, syllabus and textbooks.
- Criteria of development of learning resources.
- Analysis of textbooks, children's literature, and teacher's handbooks etc.
- Criteria and process of curriculum evaluation.
- Salient features of NCF 2005 and NCFTE 2010, analysis of these documents w.r.t. aspects like foundations, concerns and changes made with important considerations.

### **COURSE OUTCOMES:**

After going through the course the teacher trainee will be able:

- To define Teacher autonomy and accountability
  - To explain Social bases of education.
  - To make a chart on NCF 2005 and NCFTE 2010.
  - To compare between curriculum, syllabus and textbooks.
  - To judge multicultural and multilingual learning
  - To

### **Suggested Readings :**

- Dewey, J. (2004). Democracy and Education, Courier/Dover Publications
- Freire, P. (1998). Pedagogy of Freedom : Ethics, democracy and civic courage, Rowman and littlefield
- Hirst, Paul H. Knowledge and curriculum, Routledge publication
- Kelly, A.V.(2009) : The curriculum : Theory and practice. Sage publications
- Letha, Ram Mohan(2009). Curriculum, instruction and evaluation, Agra : Agarwal Publication
- Schilvest, W.H. (2012) : Curriculum: Prospective paradigm and possibility, Macmillan

# Course Title: Gender, School and Society

**Course Code: BELED602**

**Credit: 4(L-3, T-1, P-0)**

**Contact Hours: 60**

**MM: 100**

## **COURSE OBJECTIVES**

- On completion of this course, the student-teacher
- Develop basic understanding and familiarity with key concepts – gender, gender bias, gender stereotype, empowerment, gender parity, equity and equality, patriarchy and feminism
- State the key concepts related to the gender issues.
- Identifies key gender issues in school, curriculum, textbooks and pedagogical process.
- Understands the ways to address gender issues in and out of school context
- Apply the conceptual tools learnt regarding gender and sexuality to understand issues related to sexual harassment at the workplace and child abuse

## **Course Outline:**

### **Unit I**

- Gender, Sex, Sexuality
- Patriarchy, Masculinity and Feminism
- Gender bias, Gender Stereotyping, and Empowerment
- Equity and Equality in Education w.r.t. relation with caste, class, religion, ethnicity, disability and region with respect to Gender: Present status in India and prospects
- Polyandrous, Matrilineal and Matriarchal Societies in India :Relevance and Status of Education

### **Unit II**

- Paradigm shift from Women's studies to Gender studies
- Historical backdrop: Some landmarks from social reform movements
- Theories on Gender and Education and their application in the Indian context
- Socialisation theory
- Gender difference
- Structural theory
- Deconstructive theory

### **Unit III**

- Power Control in Patriarchal, Patrilineal, Matriarchal and Matrilineal Societies: Assessing affect on Education of Boys and Girls
- Gender Identities and Socialisation Practices in: Family, other formal and informal organisation.
- Schooling of Girls: Inequalities and Resistances (issues of Access, Retention and Exclusion).
- Collection of folklores reflecting socialisation processes.

## Unit IV

- Changing Perspectives with Legal Provisions: Right to Inheritance etc
- Social Construction of Masculinity and Femininity
- Patriarchies in interaction with other social structures and identities

## Unit V

- Reproducing Gender in School: Curriculum, Text-books, Classroom Processes and Student-Teacher interactions
- Overcoming Gender Stereotypes
- Working towards gender equality in the classroom: Need and Strategies
- Empowerment of Women: Strategies and Issues

### COURSE OUTCOMES:

After going through the course the teacher trainee will be able to:

- Understand the gradual paradigm shift from women's studies to gender studies and some important landmarks in connection with gender and education in the historical and contemporary period
- Learn about gender issues in school, curriculum and textual materials across disciplines, pedagogical processes and its intersection with class, caste, religion and region
- Understand how gender, power and sexuality are related to education (in terms of access, curriculum and pedagogy)
- Construct critically the impact of policies, programmes and scheme for promotion of gender equality and empowerment
- Apply the conceptual tools learnt regarding gender and sexuality to understand issues related to sexual harassment at the workplace and child abuse

### Suggested Readings:

- Ambasht, et al (1971). Developmental Needs of Tribal People, NCERT
- Bhattacharjee, Nandini (1999). Through the looking-glass: Gender Socialisation in a Primary School in T. S. Saraswathi (ed.) Culture, Socialization and Human Development: Theory, Research and Applications in India. Sage: New Delhi.
- Frostig, M, and Maslow, P. (1973). Learning Problems in the Classroom: Prevention and Remediation. Grune & Stratton: New York.
- Geetha, V . (2007). Gender. Stree: Calcutta.
- Ghai, A. (2005). Inclusive education: A myth or reality In Rajni Kumar, Anil Sethi & Ghai, Anita (2008). Gender and Inclusive education at all levels In VedPrakash & K. Biswal (ed.) Perspectives on education and development: Revising Education commission and after, National University of Educational Planning and Administration: New Delhi
- Jeffery, P. and Jeffery, R. (1994). Killing My Heart's Desire: Education and Female Autonomy in Rural India. in Nita Kumar (ed.) Women as Subjects: South Asian Histori

# Course Title: Fundamentals of Computer

**Course Code: BELED603**

**Credit: 04(L-3, T-1,P-0)**

**Contact Hours: 60**

**MM: 100**

## Course Objectives:

- To understand the concept of ICT in Education.
- To develop an understanding of the importance and need of communication through ICT.
- To develop an understanding of the psychological bases of using various support media required for ICT.
- To provide much hands on experience with computers.
- To familiarize student-teachers with contemporary teaching- learning techniques.
- To enable student-teachers to recognise, understand and appreciate ICT as an effective learning tool for learners and an enormous functional support to teachers.

## Course Outline:

### Unit: I

- Computer fundamentals: Brief history of development of computers, Computer system concepts, Computer system characteristics,
- Types of computers, Generations of computers, Basic components of a computer system - Control unit, ALU, Input/output functions and characteristics, Input /Output devices, Primary and Secondary memories
- Basic Number System: Binary, octal, decimal, hexadecimal and conversion. ASCII and EBDIC codes

### Unit: II

- Computer software: Software and its Need, Types of Software - System software, Application software, System Software: Operating System, Principal of programming: algorithm, flowchart,
- Introduction to MS-Office: word document creation, formatting, handling, inserting table, handling document,
- Excel: basic functions of excel, sorting ,merging of table, shortcut keys, Power point: creation of slide show, using effect and animation.

### Unit: III

- Database system concept: query, reports, and forms handling, Data Communication and network:
- Introduction to internet: History of internet, WWW, browser, LAN, MAN, WAN, topologies (ring, star, bus, mesh), protocols.

**Suggested Reading:**

- Computer Fundamentals sixth edition By Pradeep K.Sinha& PritiSinha

**COURSE OUTCOMES:**

After going through the course the teacher trainee will be able:

- To acquire familiarity with different modes of computer-based learning.
- To Explain the different approaches of ICT integration in education
- To Plan and use various ICTs for project based/problem based, constructivist learning environment
- To Appreciate the scope of ICT for improving the personal productivity and professional competencies
- To Develop skills in using various web 2.0 and e-learning tools
- To Appreciate the use ICT in improving educational administration





# Pedagogy of English Language: Part – II

**Course Code: BELED632**

**Credit: 02 (L-2, T-0, P-0)**

**Contact Hours: 30**

**MM: 50**

## **Course Objectives:**

- To understand the issues relating to importance and place of English in school curriculum, acquisition of skills in English, realization of aims and objectives of learning English
- To explain important methodologies and techniques of teaching English.
- To develop insight into the form and use of English and to give practice in lesson planning. To aware the uses various approaches, methods and strategies for teaching-learning English
- To transacts various types of lesson plans covering all aspects of English language following different approaches

## **Course Outline:**

### **Unit I: Lesson Planning and Content Transaction:**

- Need and purpose of designing a lesson, aims and objectives of lesson design,
- Approaches of lesson planning in language, Constructivist learning situation in language,
- Writing lesson plans, Formats of lesson design in prose, poetry, story, grammar and composition, content analysis, development of TLMs.
- Teaching of Prose; Teaching of Poetry; Teaching of Grammar; Teaching of Composition; Teaching of story.

### **Unit II: Teaching Language Skills, Approaches and Methods:**

- Listening Skill; Speaking Skill- Reasons of faulty pronunciation and how to overcome them;
- Reading Skill (loud reading and silent reading, intensive and extensive reading, using thesauruses, scanning and skimming);
- Writing Skill (formal and informal writing, poems, short story, dialogue and advertisement);
- Study skills; Teaching Vocabulary; Reference Skill-dictionaries and encyclopaedia; Essentials of Effective Communication.
- Grammar translation method; Direct method; Bilingual and Multilingual approach; Inductive and deductive approach; Total physical response; Communicative language teaching; Eclectic approach; Audio-lingual method; Language laboratory; Structural – situational approach; Audio- visual method; Natural method.

### **Unit III: Development and Analysis of Syllabus and Textual Materials:**

- Understanding the relationship between curriculum, syllabus and textbook,
- development of activities and tasks for English teaching,
- moving away from rote learning to constructivism,
- Teacher as a researcher: develop meaningful strategies keeping in view the needs of the learners

## **COURSE OUTCOMES:**

After going through the course the teacher trainee will be able:

- To create a warm and accepting class room environment conducive to learning.
- To understand the nature and characteristics of language and use of English language.
- To evaluate basic language skills such as listening, speaking, reading and writing and integrate them for communicative purpose.
- To analyse syllabus and textual material.

## **Suggested Readings:**

- Balasubramaniam, T. (1981). A Textbook of English Phonetics for Indian Students. Mumbai: Macmillan India Ltd.
- Bhandari, C.S. and Other (1966). Teaching of English: A Handbook for Teachers. New Delhi: Orient Longmans.
- Bhatia, K.K. (2006). Teaching and Learning English as a Foreign Language. New Delhi: Kalyani Publishers.
- Bhatia, K.K. and Kaur, Navneet (2011). Teaching and Learning English as a Foreign Language. Ludhiana: Kalyani Publishers.
- Bindra, R. (2005). Teaching of English. Jammu: Radha Krishan Anand and Co.
- Bisht, Abha Rani. Teaching of English in India. Agra: Vinod Pustak Mand

## **Course Title – Pedagogy of Physical Science II**

**Course Code: BELED634**

**Credit: 02(L-2, T-0, P-0)**

**Contact Hours: 30**

**MM: 50**

### **Course Objectives:**

- To enable the student-teacher to-
- Develop broad understanding of principles and knowledge used in physical science education.
- Develop their essential skills for practicing physical science education.
- To create interest and develop scientific attitude among the students.
- Know various approaches and methods of teaching physical science.
- Prepare lesson planning of physical science properly.
- Organize science exhibitions, science fair, and other activities.

### **Course Outline:**

#### **Unit I: Nature and scope of Physical Science:**

- Meaning and concept of Science; Science and its importance in school curriculum;
- Aims and objectives of Science teaching-Educational objectives, Instructional objectives; Aims of teaching Physical Science in Schools. Taxonomy of educational objectives

#### **Unit II: Curriculum in Physical Science:**

- Curriculum development; Principles of curriculum organisation;
- Criteria of a good science teacher

#### **Unit III: Pedagogical Analysis:**

- Pedagogy meaning; steps in pedagogical analysis; Pedagogical Analysis of some Science topics-Energy, Transmission of Heat ,Atomic Structure; Friction, Water as a universal Solvent.

#### **Unit IV: Laboratory Method:**

- Introduction, Objectives of Laboratory work,
- Approaches to Laboratory Teaching- Expository instruction, Inquiry Instruction, Discovery instruction, Problem-based learning.
- Using Laboratory Method, Importance of Laboratory Work , Evaluation and merits and Demerits of Laboratory work.

### **Unit V: Improvisation of Apparatus:**

- Introduction, Characteristics, Process of Developing Improved Apparatus, Significance of Improvisation, Limitations of using Improved apparatus.

### **Unit VI: Modern Methods of Teaching Physical Science:**

- Heuristic, Discovery, Problem-Solving, project Demonstration, Lecture methods.  
Practical:

#### **Project Work:**

- Each student will prepare a project which is innovative and application oriented as approved by the teacher.
- Prepare an inventory of the possible hazards associated with Chemistry and physics laboratory.
- Teacher demonstrates few activities on the topic related to science student record the observation in their notebook and discuss the observation in the class.
- .Arrange a field trip to a chemical factory and discuss the work of scientists.
- Experiments on preparation of solution, Suspension, colloid.
- Construction of Some Improved Apparatus.

#### **Course Outcomes:**

- Based on this course, the Engineering graduate will understand / evaluate / develop technologies on the basis of ecological principles and environmental regulations which in turn helps in sustainable development

#### **Suggested Reading:**

- Bloom, Benjamin, S. et al. *Taxonomy of Educational Objectives Handbook*, DvidMckay Company Inc., New York, 1965
- *Integrated Science Curriculum For Middle Schools (Classes VI-VIII) –An introduction* ,NCERT, New Delhi, 1982.
- Olivia, P.F., *Developing the Curriculum*, Little, Brown & CO., Boston, 1982
- R.M. Kalra, Vandana Gupta “*Teaching of Science*” PHI Private Learning Private Limited. Delhi-2015

## **Pedagogy of Social Studies: Part – II**

**Course Code: BELED641**

**Credit: 02 (L-2, T-0, P-0)**

**Contact Hours: 30**

**MM: 50**

### **COURSE OBJECTIVES**

Objectives On completion of this course, the student- teacher;

- To develops an understanding of the nature of Social Sciences, both as individual discipline and as an integrated/ interdisciplinary area of study;
- To identifies, prepares, collects different teaching-learning resource materials and use effectively in the classroom;
- To reflects on the prevailing pedagogical practices in classrooms and uses constructivist perspectives while facilitating learning of social sciences;
- To acquires basic knowledge and skills to analyze and transact the Social Sciences curriculum effectively following wide-ranging teaching learning strategies in order to make it relevant for life;
- To Identify and use of various methods of teaching Social Science and explain various issues and challenges.

### **Course Outline:**

#### **Unit I- Approaches, Methods and Techniques of Teaching**

- Behaviourist approach, Constructivist approached, Interdisciplinary approach, integrated approach, child centered approach and environmental approach of teaching-learning of Social Science.
- Principles and maxims of class-room teaching of social science.
- Teaching methods: Meaning, definition. Modern and traditional Methods of teaching social science.
- Techniques of teaching: meaning, definition. Different techniques of teaching social science

#### **Unit II: Lesson Planning and content analysis**

- Meaning, needs, importance of lesson planning in social science.
- Different approaches of lesson planning in social science. Preparation of lesson plan in social science,
- Analysis of social science text book in the light of syllabus and from the perspective of Child.
- Understanding the relationship between curriculum, syllabus and textbook,
- Teacher as a researcher: develop meaningful strategies keeping in view the needs of the learners

### **Unit III: Issues and Challenges**

- Pre-conceptions and miss-conceptions in Social Science. Social Science as an integrated subject.
- Indigenous and Critical pedagogy in social science.
- Cross Cultural Perspectives and Issues in Social Science.
- Teaching Social Science to children with special needs

#### **COURSE OUTCOMES:**

After going through the course the teacher trainee will be able:

- To develop the understanding of the nature and scope of Social Science.
- To understand the various subjects included in Social Science.
- To understand aims and objectives of teaching Social Science.
- To appreciate the Role of Social Science in daily life.
- To identify and use of various methods of teaching Social Science.

#### **Suggested Reading:**

- Apple, Michael W & Beane James A (Ed.) (2006), Democratic schools – lessons from the chalk face Eklavya: Bhopal. Arora & Awasthy (2003), Political theory, New Delhi, Haranand Publication Pvt.Ltd.
- Bining, A.C. & Bining, D. H. (1952), Teaching of social studies in secondary schools, Bombay. Tata McGraw Hill Publishing Co.Ltd.
- Haydn, Terry, Arthur, James and Hunt, Martin (2002), Learning to Teach History in the secondary school, A companion to school experience London, Routledge, Falmer.
- Pathak, S. P. (2005), Teaching of History- The Paedo Centric Approach, New Delhi, Kanishka Publishers
- Teaching social sciences in middle schools - Eklavya's Social Science Teaching Programme, A Review, Eklavya Bhopal (2002)
- Webb, Keith (1995), An Introduction to problems in the Philosophy of Social Sciences, London,Pinter.,
- Winch, Peter (1958) The idea of a Social Science and its relation to Philosophy, New York, Routledge and KeganPaul.
- Zevin, J., (2000), Social studies for the twenty first century, London, Lawrence Erlbaum Associates Publishers

## **Course Title: Pedagogy of Mathematics –II**

**Course Code: BELED642**

**Credit: 02(L-2, T-0, P-0)**

**Contact Hours: 30**

**MM: 50**

### **Course Outline:**

#### **Unit I**

- Contribution of Indian Mathematician – Arya Bhatt, Brahma gupta, Bhaskarachrya and Ramanujam
- Contribution of Foreign Mathematician- Euclid, Pythagoras and Rene-Descartes
- Aims and objectives of teaching of Mathematics at secondary and higher secondary school stage Objectives of teaching mathematics in terms of behavioural outcomes.

#### **Unit II**

- Techniques: oral, written, drill, assignment, supervised study, programmed learning, Cooperative learning, Brain storming and concept mapping.
- Performa of lesson plan (Herbart , Bloom, RCEM and NCERT approaches) and its rationale for unit plan and year plan.

#### **Unit III**

- Skill in maintaining and using black board, models, charts, T.V. films, video tapes and VCR. Application of computer in teaching of Mathematics, CAI.
- Using Mathematics as a game for recreation; organizing quiz programmers, skill-development in answering puzzles riddles, magic squares, word search etc.

#### **Unit IV**

- Learning about the short cuts mentioned in Vedic mathematics Development of math's laboratory, Maths Club
- Need of Evaluation, Comprehensive and continuous evaluation (C.C.E.) in Mathematics Development of test item (short answer and objective type).

**Suggestive Readings:**

- Davis, D.R. 'The teaching of mathematics', Addison Wesley press, London
- Fexmont and Herbert; 'How to teach Mathematics in secondary school', w.b. saunders company, London
- Kulshrestha, A.K.; 'Teaching of Mathematics', R.Lall, Book Depot, Meerut
- Vishnoi, Unnati; 'Teaching of mathematics', Shri Vinod Pustak Mandir, Agra. Pratap ,Naresh, Teaching of mathematics, R. Lall book Depot, Meerut

**Course Outcomes:**

After going through the course the teacher trainee will be able:

- To understand meaning, nature and scope of mathematics
- To develop an insight into aims and objectives of teaching school mathematics
- To understand approaches and strategies in teaching and learning of mathematics.
- To understand the characteristics of Mathematics lab and clubs.
- To state specific objectives in behavioural terms.
- To diagnose basic causes for difficulties in learning mathematics.



## Course Title: Mathematics IV

**Course Code: BELED623**

**Contact Hours: 60**

**Credit: 04(L-3, T-1,P-0)**

**MM: 100**

### Course Objectives:

1. To provide knowledge to student about Statistical Quality control.
2. To provide the concept of sub-grouping and summary of out of control criteria.
3. To make able to distinguish between p chart & c chart.
4. To make them clear about the Demographic Methods.

### Course Outline:

#### Unit I

- Demographic Methods : Sources of demographic data-census, register, adhoc survey, hospital records, demographic profile of Indian census, Rates & ratios of vital events,
- Measurements of mortality and life tables-crude, death rates, Infant mortality rates, death rate by cause, standardized death rate.

#### Unit II

- complete life table-its main features, mortality rate and probability of dying, use of survival tables,
- Measurement fertility-crude birth rate, general fertility rate, total fertility rate, gross reproduction rate, net reproduction rate.

#### Unit III

- Index Number: Its definition, application of index numbers, price quantity and value relatives, link and chain relatives, problems involved in computation of index numbers,
- Use of averages, simple and weighted aggregative and average methods,
- Laspeyre's Passche's, Marshall Edgeworth and Fisher's index numbers, time and factor resersal tests of index numbers, Consumer price Index.

#### Unit IV

- Decision Theory: Different kind of decision theory, inventory control, CPM, PERT.

### Course Outcomes:

After completing the course, students will be able to:

|  |
|--|
| 1. Understand various Laws of Demographic Methods.               |
| 2. Analyze the system of Measurement fertility-crude birth rate. |
| 3. Identify the difference between CPM & PERT.                   |
| 4. Understand the Consumer price Index.                          |
| 5. Evaluate the inventory control.                               |
| 6. Solve the general fertility rate.                             |

**Text Books:**

- "Mathematical Statistics" by S.C. Gupta, S. Chand & co.
- "Operation Research" by D. S. Hira, S. Chand & co.

**Reference Books:**

- "Operation Research" by Winston, Cengage Learning
- "Operation Research" by H. A. Taha
- "Statistics" by J. N. Kapoor and H. C. Saxena, S.Chand & Company

## **Course Title: Political Science IV**

**Course Code: BELED629**

**Credit: 04(L-3, T-1, P-0)**

**Contact Hours: 60**

**MM: 100**

### **COURSE OBJECTIVES:**

- To understand the concept of political evolution of India.
- To gain an overview of political evolution of India.
- To describe the knowledge of Indian Constitution and institutional framework of Indian government.
- To develop their social reasoning ability and argue on the National Demand for Constitutional amendments.

To apply their political right to choose eligible political leader in electoral process

### **Course Outline:**

#### **UNIT I**

- Introduction of East India Company
- Initial Efforts to Establish in India during early 1600 -1900 th century
- The government of India Act, 1858.

#### **UNIT II**

- Beginning of Responsible Government:
- The Government of India Act 1919.
- Classification of Central and Provincial Subjects:
- Responsive Autocrat at the Centre, Introduction of Bi-Cameralism, Provincial Legislature.

#### **UNIT III**

- Round Table Conferences
- The Government of India Act 1935.
- The birth and growth of Nationalism in India.
- The Indian National Congress.
- The Moderates and the Extremists.

#### **UNIT IV**

- Landmarks of Indian National Movement :
- Non Cooperation,
- Civil Disobedience
- Quit India Movements;
- The Independence Act 1947.

#### **UNIT IV**

- The making of the Indian Constitution
- Salient Features of the Constitution
- Fundamental Rights and Duties
- Directive Principles of State Policy
- Election Commission: Electoral Process.
- Local Self Governance: Panchayat Raj System, Nagar Palika System

#### **COURSE OUTCOMES:**

After going through the course the teacher trainee will be able

- To analyse political system and the account of the making and working of constitutional institutions.
- To explain the birth and growth of nationalism in India.
- To evaluate the relevance of Federal System and Centre-State Relations

#### **Suggested Readings:-**

- BasuDurga Das (2013): – Constitutional Law of India: Lexis Nexis; Twenty-First edition.
- BasuDurga Das (2013): – Shorter Constitution of India : Lexis Nexis
- MaheswariShriram (1979): – Local Government in India: Sangam Books Ltd.
- Bhatnagar S. (1978) :- Rural Local Government in India: Light & Life Publishers New Delhi.
- Johri, J. C. (1987):- Contemporary Political Theory: Sterling Publisher Private Limited New Delhi.
- Verma, S. P. (2006):- Modern Political Theory: Vikas publishing House PVT LTD New Delhi.

## **Practical: Simulation Teaching 10 Plans Development and Use Teaching aid and Learning Material**

**Course Code: BELED661**

**Credit: 02(L-0, T-0, P-2)**

**Contact Hours: 30**

**MM: 50**

### **COURSE OBJECTIVES:**

- To understand the concept of workshops.
- To understand report writing.
- To understand lessons plans.

### **Course Outline:**

1. Participation in workshop on preparation for teaching.
2. Report writing.
3. Preparation and presentation of 10 Simulation teaching lesson plans (minimum 5 for each teaching subject).
4. Viva – voce.

**Note: For successful completion of the course participation in all activities of practicum is compulsory.**

### **COURSE OUTCOMES:**

- Able to co-ordinate and participate in workshops.
- Able to present lesson plans in schools.

## **Practical: School Internship II**

**Course Code: BELED671**

**Credit: 02(L-0, T-0,P-0)**

**Duration: 02 Week**

**MM: 50**

### **Course Objectives:**

After going through the course the teacher trainee will be able:

- To understand the importance of School observation.
- To understand the record maintenance of school internship.

### **Course Outline:**

1. Participation in Internship for Practice Teaching.
2. Preparation and presentation of minimum 20 practice teaching lesson plans (minimum 10 for each teaching subject).
3. Record Maintenance.
4. Viva – voce. (External)

**Note: For successful completion of the course, Participation in all activities of School Internship is compulsory.**

### **COURSE OUTCOMES:**

After the completion of this course students will able to –

- To Participate in School observation.
- To Record the class observation