ANNAMALAI UNIVERSITY
DEPARTMENT OF EDUCATION

(For students admitted from the academic year 2019-2020)

REGULATIONS FOR TWO YEAR B.Ed PROGRAMME

1. Duration of the Programme:
   The programme is for a period of 2 years (Non Semester).

2. Medium of Instruction:
   The medium of instruction will be in English. The Tamil medium will be offered only to the graduates who have opted Pedagogy Course-I as Tamil.

3. Eligibility Criteria:
   i. The candidates should have undergone 10+2+3 (15) or 11+1+3 (15) pattern of study and passed qualifying examinations conducted by the respective State Board or CBSE or any other recognized Board of Education /Examination and UG Degree Examination of the UGC Recognized Universities in any one of the school subjects offered by the Directorate of School Education at the Secondary/Higher Secondary Educational Level.
   ii. Engineering and Technology candidates should have undergone 10+2+4 (16) pattern of study and passed qualifying examinations conducted by the recognized universities.
   iii. Candidates who have passed the UG or PG Degree in Open University System without Qualifying in 11 years SSLC examination and 1 year of pre-university course (PUC) examination (or) 10+2 pattern of school Education examination shall not be considered for admission.
   iv. Candidates who have taken more than one main subject in Part-III/Part-IV under (Double/Triple major system) of the UG degree should have to choose only one of the main subjects and should have applied for that optional only. In such cases, mark obtained by the candidates in two/three major subjects shall be taken into account to arrive percentage of marks as stipulated in item (viii).
   v. Candidates who have passed under Additional Degree Programme with less than three years duration are not eligible for admission.
   vi. Candidates who have passed under Four year dual Degree Programme with two major subjects under Part-III are not eligible for admission.
   vii. Candidates who have qualified in PG Degree (Five year integrated Degree Programmes) under 10+2+5 or 11+1+5 pattern of study shall be considered for admission in such cases, the marks obtained by the candidates in the PG shall be taken into account for admission to the B.Ed Degree Programme.
   viii. a. Engineering and Technology candidates can apply for mathematics or physical science.
   b. Candidates who have done their UG degree in Applied Mathematics can apply for Mathematics.
   c. Candidates who have done their UG degree in Applied Physics, Geophysics, Biophysics and Electronics can apply for Physical Science.
   d. Candidates who have done their UG Degree in Biochemistry and Applied Chemistry can apply for Physical Science.
   e. Candidates who have done their UG Degree in Biotechnology and Plant Biology & Plant Biotechnology can apply for Natural Science.
   f. Candidates who have done their UG Degree in Environmental Science and Microbiology can apply for Natural Science.
   g. Post Graduates candidates in Economics and Commerce with 50% (irrespective of their UG marks) of marks in PG degree or inter disciplinary subjects which are being declared equivalent by the respective University can apply.
h. The candidates qualified in PG degree and secured 50% of marks with the same major subjects in UG Degree but not fulfilling the minimum percentage of marks required in UG degree as per community/category-wise will be eligible.

i. Candidates who have done their UG in the school subjects are eligible for admission to B.Ed for others they have to obtain an equivalence certificate for the respective subjects from the concerned Universities to consider their admission to B.Ed. degree programme. The decision of the University shall be final in this regard.

j. Candidates who have done their UG level without language Tamil or other Indian Languages under Part-I and are awarded degree with English and Main subjects concerned need to be considered for admission to B.Ed. subject to the condition that they have to qualify in Tamil Language Test conducted by the TNPSC for the purpose of employment.

ix. Candidates with the following marks in the Bachelor’s Degree are eligible for admission to the course other than subjects like Economics and Commerce for which PG qualification is mandatory.

<table>
<thead>
<tr>
<th>Community/Category</th>
<th>Minimum Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>OC</td>
<td>50%</td>
</tr>
<tr>
<td>BC</td>
<td>45%</td>
</tr>
<tr>
<td>MBC/DNC</td>
<td>43%</td>
</tr>
<tr>
<td>SC/SCA/ST</td>
<td>40%</td>
</tr>
<tr>
<td>Physically and Visually Challenged</td>
<td>40%</td>
</tr>
</tbody>
</table>

Note: Engineering and Technology students, candidates should have specialized in science and mathematics with 55% of marks or other qualification equivalent thereto. The candidates belonging to SC, ST categories candidates should have scored a minimum of 50% marks.

a. Marks obtained by the candidates in UG degree under Part-III/IV Major/Elective/Allied/Extra Disciplinary subjects including practical (other than subjects Economics and Commerce) alone shall be taken into account to arrive at the percentage of marks mentioned above. Marks obtained under Part-V subjects shall not be taken into account to arrive percentage of marks.

b. Marks obtained by the candidates in PG degree (other than Economics, Commerce) shall not be considered for admission.

c. Rounding of marks to the next higher integer shall not be permitted.

d. The candidates who have qualified in Bachelor’s Degree under Open University System after passing 10th Std. and +2 examinations shall alone be considered for admission to B.Ed. Degree Course.

e. The Candidates who have qualified in Bachelors degree under Open University System without passing 10th and +2 examination and subsequently passing 10th and +2 examinations are not eligible for admission to B.Ed degree Programme.

f. Candidates who have passed PG degree in Economics and Commerce without undergoing 10+2+3 or 11+1+3 pattern of education shall not be considered for admission.

i. In the case of Differently Abled, Physically and Visually Challenged Candidates, a minimum pass in the degree is enough.

However, the basis of selection shall be in accordance with the regulations of the University/ Government of Tamil Nadu Guidelines for admission to B.Ed. programme in force from time to time.
4. Programme Framework:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>WORKING DAYS</th>
<th>WORKING HOURS</th>
<th>MARKS</th>
<th>CREDITS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>THEORY</td>
<td>PRACTICAL</td>
<td>THEORY</td>
</tr>
<tr>
<td>FIRST YEAR</td>
<td>200</td>
<td>600</td>
<td>500</td>
<td>500</td>
<td>20</td>
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<tr>
<td>SECOND YEAR</td>
<td>200</td>
<td>600</td>
<td>400</td>
<td>600</td>
<td>16</td>
</tr>
</tbody>
</table>

5. Programme Objectives (POS)

- To enable student teacher to understand the terms and concepts in teacher education
- To provide opportunities to student teachers that enable learning experiences to make the subject matter meaningful.
- To make student teachers understand the different approaches to learning and create learning opportunities that benefit diverse learners
- To develop the skills among student teachers to plan learning experiences inside and outside the class room.
- To develop the capacity among student teachers to acquire knowledge of effective verbal, non-verbal and media communication techniques
- To enable the student teachers understand the assessment strategies to ensure all round development of learners
- To provide student teachers self-identity as a ‘teacher’ through school based learning experiences and reflective practices
- To modify the behaviour, attitude and values of student teachers to shape into responsible and accountable agents of change in the society
- To enable student teachers to use ICT in the Teaching Learning Process
- To provide a rich programme of curricular and extra-curricular activities for student teachers for all round development of their personalities

6. Programme Content:

The course of study, which shall last for two academic year, shall comprise of the following:

**STRUCTURE OF CURRICULUM FOR (BOTH YEARS)**

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>COURSES</th>
<th>MARKS</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>PART-A: THEORY COMPONENTS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>GROUP-A</td>
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<tr>
<td></td>
<td>Core Courses</td>
<td></td>
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<tr>
<td></td>
<td>BEDC101. Basics of Education</td>
<td>100</td>
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</tr>
<tr>
<td></td>
<td>BEDC102. Psychology of Learner and Learning</td>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BEDC103. Schooling, Socialisation and Identity</td>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BEDC201. Curriculum and School</td>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BEDC202. Vision of Education in India: Concerns and Issues</td>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td>II</td>
<td>GROUP-B</td>
<td></td>
<td></td>
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<tr>
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<td>Pedagogical Courses</td>
<td></td>
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<td>Pedagogical Course-I (Part-I)</td>
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<tr>
<td></td>
<td><strong>PART-B: PRACTICUM COMPONENTS</strong></td>
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</table>
### Teacher Enrichment Activities

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Marks</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEDP101</td>
<td>Work Education through Community</td>
<td>50</td>
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</tr>
<tr>
<td>BEDP102</td>
<td>Health and Physical Education (Part-I)</td>
<td>25</td>
<td>1</td>
</tr>
<tr>
<td>BEDP103</td>
<td>Arts &amp; Aesthetics (Part-I)</td>
<td>25</td>
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<tr>
<td>BEDP104</td>
<td>Exploring Learning Resources</td>
<td>50</td>
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<td>BEDP105</td>
<td>Yoga Education</td>
<td>50</td>
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<tr>
<td>BEDP106</td>
<td>Enriching Learning Through ICT</td>
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<tr>
<td>BEDP201</td>
<td>Community Camp/ Educational Tour</td>
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<td>2</td>
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<tr>
<td>BEDP202</td>
<td>Psychological Testing and Case study</td>
<td>50</td>
<td>2</td>
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<tr>
<td>BEDP203</td>
<td>Enhancing Teaching Skills</td>
<td>50</td>
<td>2</td>
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<tr>
<td>BEDP204</td>
<td>Preparation of Instructional Software</td>
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### Social and Environmental Sensitivity Activities

<table>
<thead>
<tr>
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<tr>
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<td>Assessment for Learning (Part-I)</td>
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<td>BEDP211</td>
<td>Assessment for Learning (Part-II)</td>
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<td>BEDP212</td>
<td>Gender Issues in Education</td>
<td>50</td>
<td>2</td>
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<tr>
<td>BEDP112</td>
<td>Education for Peace</td>
<td>50</td>
<td>2</td>
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<tr>
<td>BEDP113</td>
<td>Issues of Conservation and Environmental Regeneration</td>
<td>50</td>
<td>2</td>
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<tr>
<td>BEDP213</td>
<td>Addressing Special Needs in Classroom</td>
<td>50</td>
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</table>

**BEDP121 School Internship**

<table>
<thead>
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<th>COURSES</th>
<th>MARKS</th>
<th>CREDITS</th>
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### DISTRIBUTION OF COURSES FOR THE FIRST YEAR

#### PART-A: THEORY COMPONENTS

**GROUP - A**

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<td>I</td>
<td>BEDC102. Psychology of Learner and Learning</td>
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<td>I</td>
<td>BEDC103. Schooling, Socialisation and Identity</td>
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</tbody>
</table>

**PC-I: Pedagogical Course-I**

**Subject for Graduates:**

- BEDO111. Pedagogy of Tamil (Part-I)
- BEDO112. Pedagogy of English (Part-I)

**Subjects for Post Graduates:**

- BEDO113. Pedagogy of Mathematics (Part-I)
- BEDO114. Pedagogy of Physics (Part-I)
- BEDO115. Pedagogy of Chemistry (Part-I)
- BEDO116. Pedagogy of Zoology (Part-I)
- BEDO117. Pedagogy of Botany (Part-I)
- BEDO118. Pedagogy of Computer Science (Part-I)
- BEDO119. Pedagogy of History (Part-I)
- BEDO120. Pedagogy of Economics (Part-I)
- BEDO121. Pedagogy of Commerce (Part-I)

**GROUP - B**

<table>
<thead>
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<th>Sl.No</th>
<th>COURSES</th>
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<tr>
<td>II</td>
<td>BDPC01. Pedagogical Course-II (Part-I)</td>
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</table>

**Subjects for Graduates and Post Graduates:**

- BEDO131. Pedagogy of Tamil (Part-I)
- BEDO132. Pedagogy of English (Part-I)
- BEDO133. Pedagogy of Mathematics (Part-I)
- BEDO134. Pedagogy of Physical Science (Part-I)
- BEDO135. Pedagogy of Biological Science (Part-I)
- BEDO136. Pedagogy of Social Science (Part-I)
- BEDO137. Pedagogy of Computer Science (Part-I)
### DISTRIBUTION OF COURSES FOR THE SECOND YEAR

<table>
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<td>BEDO211. Pedagogy of Tamil (Part-II)</td>
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<td>BEDO212. Pedagogy of English (Part-II)</td>
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<td><strong>Subjects for Post Graduates:</strong></td>
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<td>BEDO213. Pedagogy of Mathematics (Part-II)</td>
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<td>BEDO214. Pedagogy of Physics (Part-II)</td>
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<td>BEDO215. Pedagogy of Chemistry (Part-II)</td>
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<td>BEDO218. Pedagogy of Computer Science (Part-II)</td>
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<td>BEDO219. Pedagogy of History (Part-II)</td>
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<td>BEDO220. Pedagogy of Economics (Part-II)</td>
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<td>BEDO221. Pedagogy of Commerce (Part-II)</td>
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<td>BEDO237. Pedagogy of Computer Science (Part-II)</td>
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<td>BEDO238. Pedagogy of Economics (Part-II)</td>
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<td>BEDO239. Pedagogy of Commerce (Part-II)</td>
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</tr>
</tbody>
</table>
### PRACTICUM COMPONENTS

| III. GROUP-C | Teacher Enrichment Activities | BEDP201. Enriching Learning Through ICT | 50 | 2 |
| | | BEDP202. Health and Physical Education (Part-II) | 25 | 1 |
| | | BEDP203. Arts & Aesthetics (Part-II) | 25 | 1 |
| | | BEDP204. Community Camp/Educational Tour | 50 | 2 |
| | | BEDP205. Psychological Testing and Case study | 50 | 2 |
| | | BEDP206. Preparation of Instructional Software | 50 | 2 |

| Social and Environmental Sensitivity Activities | BEDP211. Assessment for Learning (Part-II) | 50 | 2 |
| | BEDP212. Gender Issues in Education | 50 | 2 |
| | BEDP213. Addressing Special Needs in Classroom | 50 | 2 |

| School Internship | 200 | 8 |

**TOTAL** | **1000** | **40**

*Note: Each student would be offered two pedagogical course one from pedagogical course-I and one from pedagogical course-II in accordance with the major subject at graduate/post graduate level subject.*

7. **Scheme of Examination:**

**PART-A: WRITTEN EXAMINATION**

The marks to be obtained by the candidates in the University Examination in respective Courses for first year and second year are as follows:

#### FIRST YEAR

<table>
<thead>
<tr>
<th>COURSES</th>
<th>Duration Hours</th>
<th>Internal marks (Formative)</th>
<th>External marks (Summative)</th>
<th>Minimum Marks for a pass in External (45% out of 75)</th>
<th>Total marks</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Basics of Education</td>
<td>3</td>
<td>25</td>
<td>75</td>
<td>34</td>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td>II. Learner and Learning</td>
<td>3</td>
<td>25</td>
<td>75</td>
<td>34</td>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td>III. Schooling, Socialisation and Identity</td>
<td>3</td>
<td>25</td>
<td>75</td>
<td>34</td>
<td>100</td>
<td>4</td>
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<tr>
<td>IV. Pedagogical Course-I (Part-1)</td>
<td>3</td>
<td>25</td>
<td>75</td>
<td>34</td>
<td>100</td>
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</tr>
<tr>
<td>V. Pedagogical Course-II (Part-1))</td>
<td>3</td>
<td>25</td>
<td>75</td>
<td>34</td>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>125</strong></td>
<td><strong>375</strong></td>
<td>---</td>
<td><strong>500</strong></td>
<td><strong>20</strong></td>
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</table>

#### SECOND YEAR

<table>
<thead>
<tr>
<th>COURSES</th>
<th>Duration Hours</th>
<th>Internal marks (Formative)</th>
<th>External marks (Summative)</th>
<th>Minimum Marks for a pass in External (45% out of 75)</th>
<th>Total marks</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VI. Curriculum and School</td>
<td>3</td>
<td>25</td>
<td>75</td>
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<td>100</td>
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<tr>
<td>VII. Vision of Education in India: Concerns and Issues</td>
<td>3</td>
<td>25</td>
<td>75</td>
<td>34</td>
<td>100</td>
<td>4</td>
</tr>
</tbody>
</table>
Every candidate should appear for all the Courses together in the written examination at the first time. A candidate shall be declared to have passed the examination if he/she obtains not less than 50% marks in each Course (continuous internal assessment and external examinations marks put together) with a minimum of 45% marks in each Course of the external examinations. A candidate who fails to secure the passing minimum in any course/courses and he/she can appear for the failed course/courses alone.

Candidates who have succeeded in the first attempt and obtained not less than 60% of the total marks shall be placed in the first class.

**PART-B: PRACTICAL EXAMINATION**

Marks for various courses of practical training shall be awarded as follows:

**FIRST YEAR**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Items</th>
<th>Max. Marks</th>
<th>Min. Marks</th>
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<tr>
<td><strong>Unit-I</strong></td>
<td><strong>School Internship</strong></td>
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<tr>
<td>1</td>
<td>Assessment of Teaching Skills-Optional-I</td>
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<tr>
<td>2</td>
<td>Assessment of Teaching Skill- Optional-II</td>
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<td>3</td>
<td>Observation of Teaching and Learning</td>
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<td>4</td>
<td>Observation of Innovative Centres of Pedagogy and Learning</td>
<td>10</td>
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<td>5</td>
<td>Learning</td>
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<td>6</td>
<td>Observation of Educational Resource Centres</td>
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<td></td>
<td>Viva Voce</td>
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<td><strong>Unit-II</strong></td>
<td><strong>Teacher Enrichment Activities</strong></td>
<td>250</td>
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<td>3</td>
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<td>4</td>
<td>Health and Physical Education (Part-I)</td>
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<tr>
<td>5</td>
<td>Arts &amp; Aesthetics(Part-I)</td>
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<td>6</td>
<td>Exploring Learning Resources</td>
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<td>7</td>
<td>Yoga Education</td>
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<td>8</td>
<td>Enhancing Teaching Skills</td>
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<td><strong>Unit-III</strong></td>
<td><strong>Social and Environmental Sensitivity Activities</strong></td>
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<td>Assessment for Learning(Part-I)</td>
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<td>10</td>
<td>Education for Peace</td>
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<td>11</td>
<td>Issues of Conservation and Environmental Regeneration</td>
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**SECOND YEAR**

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<th>Min. Marks</th>
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<td><strong>School Internship</strong></td>
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<td>100</td>
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<td>Teaching Competency for Pedagogical Course-II</td>
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<td></td>
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<td>Lesson Plan</td>
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<td>4</td>
<td>Experiences with the Child</td>
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</tr>
<tr>
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<td>Experiences with the Community</td>
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<td>6</td>
<td>Experiences with the School</td>
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<tr>
<td>7</td>
<td>Viva-Voce</td>
<td>10</td>
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</table>
Assessment regarding PART–B (practicum) shall be done by the staff concerned of the Department of Education. In order to standardize the assessment done by the Department in PART–B, the University shall appoint a Board of supervising Examiners. It shall be the duty of the Board (a) to observe and evaluate the lessons (b) to examine the candidates recommended by the staff concerned and (c) to conduct viva-voce for all the candidates.

The marks for Unit–I shall be given by the teacher concerned on the basis of their own assessment and on that made by the selected teachers in approved participating school in the teaching practice programme. The trainees are required to maintain records of the practical work done by them.

For the other aspect of the practical work coming under Unit–II and Unit–III, each student shall work under the staff concerned and shall maintain a workbook under his/her supervision. Directions regarding the preparation of the workbook in each of the practicum components shall be given by the staff concerned. All records as well as teaching aids prepared by the candidate shall be scrutinized by the Board of Examiners. If necessary, the Board of Examiners shall report to the university, the marks awarded to each student, in the three units of practical Examination separately and the class awarded to each student in the whole examination.

“Submission of all the prescribed records related to both Theory and Practicum. (Continuous internal assessment Unit–I Unit-II and Unit–III) is a pre-requisite to appear for the practical and theory examinations conducted by the university”.

A candidate shall be declared to have passed the PART–B (Practical) examination, if he/she obtain not less than 50% in each item in units I, II, and III.

In the practical examination, those who have succeeded in the first attempt and obtained not less than 60% in respect of each of the units shall be placed in the first class.

Candidate shall be declared to have passed the practical examination if she/he obtains not less than 50% in respect of each item. All other candidates shall be deemed to have failed in the practical examinations.

A candidate who fails only in Unit–I of the practical examination may present himself or herself for this unit alone at a subsequent practical examination at which the Board of Examiners shall examine him or her in that unit alone for declaration of results. A candidate who fails only in Unit–II and Unit–III shall revise the concerned records alone and submit them to the Board of Examiners at the subsequent practical examination for evaluation. A candidate shall not be permitted to appear for the practical examination on more than two occasions, though the syndicate may in special cases permit candidate to appear on third occasion.

Successful candidates shall be classified separately for (a) written examination and (b) the practical examination. In the case of (a) written examination, candidates who have succeeded in the first attempt and obtained not less than 60% of the total marks shall be placed in First class. In the case of (b) practical examination candidates who have succeeded in the first attempt and obtained not less than 60% of the total marks in each of Unit–I, Unit–II and Unit–III shall placed in the First class. All other Successful candidates shall be placed in the second Class.
8. Question Paper Pattern:

The Syllabus for each course is divided into ten units, and at least one question shall be set in each unit and the question paper should cover the entire syllabus.

Further, the questions set on the content in the case of pedagogical courses should have a bearing on its teaching aspect.

The question paper, in each paper should have three sections Section–A, Section–B and Section–C.

Section–A shall contain very short answer type questions. Without choice.
Section–B shall contain short answer type question. With internal choice.
Section–C shall contain Essay type question. With internal choice (Either or Type). The format is given below:

**FORMAT OF QUESTION PAPER**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Type</th>
<th>Length of Answer</th>
<th>No. of Question to be Attempted</th>
<th>Type of Choice</th>
<th>Marks per Question</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Very Short Answer</td>
<td>Each in about 70 Words</td>
<td>10</td>
<td>No Choice</td>
<td>02</td>
<td>20</td>
</tr>
<tr>
<td>B</td>
<td>Short Answer</td>
<td>Each in about 250 Words</td>
<td>5</td>
<td>Out of 7</td>
<td>05</td>
<td>25</td>
</tr>
<tr>
<td>C</td>
<td>Essay Type</td>
<td>Each in about 750 Words</td>
<td>2</td>
<td>Internal Choice 2</td>
<td>15</td>
<td>30</td>
</tr>
</tbody>
</table>

The questions to each paper in general shall cover all the units in the syllabus.

Questions testing knowledge, understanding and application shall be given due weightage.

9. Classification of Grade and percentage of Marks:

<table>
<thead>
<tr>
<th>Letter grade</th>
<th>Qualitative level</th>
<th>Point grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>5</td>
<td>80% &amp; above</td>
</tr>
<tr>
<td>B</td>
<td>Very Good</td>
<td>4</td>
<td>60%-79.9%</td>
</tr>
<tr>
<td>C</td>
<td>Good</td>
<td>3</td>
<td>50%-59.9%</td>
</tr>
<tr>
<td>D</td>
<td>Satisfactory</td>
<td>2</td>
<td>40%-49.9%</td>
</tr>
<tr>
<td>E</td>
<td>Unsatisfactory</td>
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<td>Below 40%</td>
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10. Internal Assessment:

The marks obtained by candidate in the internal and external valuations shall be shown separately in the mark list.

There will be no supplementary test for internal Assessment.

Internal assessment marks shall be divided as follows.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Criteria for Internal Assessment</th>
<th>Duration</th>
<th>No. of Tests/ Task/ Assignment</th>
<th>Distribution of Marks per Paper</th>
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<tbody>
<tr>
<td>I</td>
<td>Test</td>
<td>60 minutes</td>
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<td>10</td>
</tr>
<tr>
<td>II</td>
<td>Practicum work (Task and Assignments) Listed Under Course Outline</td>
<td>Two weeks</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>III</td>
<td>Marks for Attendance percentage. (Attendance from the date of commencement of class is compulsory)</td>
<td>60 – 69 (2 marks)</td>
<td>5</td>
<td>5</td>
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<tr>
<td></td>
<td></td>
<td>70 – 79 (3 marks)</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>80 – 89 (4 marks)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>90 and above (5 marks)</td>
<td></td>
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<tr>
<td></td>
<td>Total</td>
<td>–</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

The internal marks should be sent to the university before the written examination.

The valued answer papers shall be returned to the students for perusal and then collected back from them, after perusal in the classroom itself. The marks shall be displayed.
in the department Notice Board. The teachers shall also discuss the answer to question in the class and supply the correct answers. The papers shall be available for review by the University, if necessary.

If a student is not satisfied with the valuation of the paper, he/she may appeal to the Head of the Department within 3 days of the announcement of the marks for consideration. Such appeals shall be referred to the review cell consisting of the Dean of Faculty, the Head of the Department (Nominated by the Head of the Department other than the teachers involved). If the Head of the Department himself/herself is the course teacher, another senior member of the Department in lieu of the Head of the Department will be nominated to be member of review cell. The marks awarded by the cell will be the final marks.

The candidates desirous of improving the internal assessment marks should undergo the course of study once again after obtaining the prior permission of the university, also at the end of the year, after cancelling the previous appearance of Paper/Papers in the University Examination.

11. School Internship:

During the first year, student teacher shall spend 4 weeks of internship programme in schools. This will include one week of school engagement by the student teacher making observation in the school and 3 weeks for visit to innovative centers of pedagogy and learning, educational resource centers and community resources. Within the institution the observation will focus on understanding the institution in totality, with reference to features such as its philosophy and aims, organization, teachers’ role, student needs with respect to their development, curriculum, its transaction and assessment. This period can also be spent for working on projects and tasks based on the course papers in school or out of the school.

During the second year, student teacher shall spend 16 weeks of internship programme in schools, out of 16 weeks one week for observation of regular classes by regular teachers and peer student teachers (at least 5 lesson in each pedagogical subject) and 15 weeks of classroom teaching may be in two spells. The internship for graduates must be both at upper primary (classes VI- VIII) and secondary (classes IX and X) and for post graduates should be at secondary (classes IX and X) and higher secondary (XI and XII). These two spells of training in the level one and level two may be in one school or in two schools.

i. All the working days are compulsory during the teaching practice period for the students of B.Ed., Relaxation of attendance in the teaching practice period, not exceeding 10 percent is applicable to only exceptional cases and not a general rule with prior permission from Head of the Department.

ii. The teaching practice shall be preceded by demonstration classes. All Demonstration and all criticism classes are compulsory for the students to attend the internship programme.

iii. For the purpose of teaching practice, each student teacher shall work as an apprentice under a selected teacher of an approved school and under the general supervision of the staff of the Department of Education. He/she shall also maintain the prescribed workbook for internship in each pedagogical course. The total 60 lessons of classroom teaching in 15 weeks may be divided as 30 at level one (15 lessons for Pedagogical Course I and 15 lessons for Pedagogical Course II) and 30 at level two (15 lessons for Pedagogical Subject I and 15 lessons for Pedagogical Course II).

iv. During this period, (i) classroom teaching (ii) evaluation at the end of 15 lessons and (iii) diagnosis based feedback to the students should be completed by every student teacher.

v. The internship should be in government recognized schools under Government or private managements, situated within the radius of 50 km of the University campus.
12. Programme Outcomes (POS)

After completion of the B.Ed programme the student teachers will
- Acquire knowledge in the concerned content and pedagogy.
- develop an understanding of the contemporary Indian Society with education.
- be able to use learner centered teaching methods as such and with application in future.
- develop an understanding of paradigm shift in conceptualizing disciplinary knowledge in school curriculum
- create sensitivity about language diversity in classroom and its role in teaching-learning process
- develop the capacity among student teachers to use knowledge of effective verbal, non-verbal and media communication techniques to foster active enquiry, collaboration and supportive interaction in the classroom.
- identify the challenging and overcoming gender inequalities in school, classroom, curricula, textbook and social institutions
- enable student-teachers to acquire necessary competencies for organizing learning experiences
- enable student-teachers to integrate ICT in facilitating teaching-learning process and in school management
- strengthen the professional competencies of student teachers
- provide first-hand experience of all the school activities
- develop competencies among student-teachers in evaluation strategies

<table>
<thead>
<tr>
<th>Mapping POs with PO</th>
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</thead>
<tbody>
<tr>
<td>Pos</td>
</tr>
<tr>
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</tr>
<tr>
<td>Po1</td>
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<tr>
<td>Po2</td>
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<td>Po3</td>
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<tr>
<td>Po4</td>
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<td>Po5</td>
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<td>Po6</td>
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<td>Po7</td>
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<td>Po8</td>
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<td>Po10</td>
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<tr>
<td>Po11</td>
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<tr>
<td>Po12</td>
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Programme Specific Outcomes

At the end of the programme, the student will be able to

<p>| PSO1: understand the basic concepts and ideas of educational theory |
| PSO2: develop understanding and perspective on the nature of the learner, diversity and learning |
| PSO3: comprehend the role of the systems of governance and structural functional provisions that support school education |
| PSO4: develop understanding about teaching pedagogy, school management and community involvement |
| PSO5: Develop skills and abilities of communication, reflection, art, aesthetics, self expression and ICT |</p>
<table>
<thead>
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<th>Course Code</th>
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<td><strong>For Post Graduates:</strong></td>
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* L- Lecture  *P- Practical  *C-Credit  *CIA- Continuous Internal Assessment  
* ESE- External Summative Evaluation
Learning Objectives (LO): The student teachers
- acquire knowledge of the educational concepts, their premises and contexts that are unique to education.
- understand the nature of education and their practical ramifications in the school context.
- acquire knowledge of the aims of education and their classification.
- understand the meaning, types and classification of values.
- comprehend the Educational provisions in the Indian constitution.
- acquire knowledge of the meaning, characteristics of culture, cultural lag and relationship with education.

Unit - 1: Meaning, Nature and scope of Education

Unit - 2: Aims of Education - Need and classification

Unit - 3: Philosophy and Education
Meaning and definition of philosophy - Relationship between philosophy of life and education - Contribution of philosophy to education - Indian and western philosophies of education - Indian schools: Vedanta Bhagavad Gita, Jainism and Buddhism.

Unit - 4: Western Schools of Philosophy
Idealism, Naturalism Pragmatism Realism Humanism and Existentialism

Unit - 5: Educational thoughts of Great philosophers
Gandhi, Vivekananda, Tagore, Sri Aurobindo, Rousseau, Froebel, Montessori and Dewey

Unit - 6: Forms of knowledge in School Education
Basis to categorise Knowledge; Forms of knowledge included in school education; Basis of selection of knowledge categories; organization of knowledge in schools; knowledge in the form of curriculum, syllabus and textbooks.

Unit - 7: Autonomy of Teacher and Learner
Meaning of autonomy - Autonomy and freedom. Teacher's autonomy and enriching learning situations; Autonomy and accountability; Factors affecting teacher’s autonomy. Autonomy of Learner - Meaning; Restraints on learners in schools; Learner and freedom; Individual autonomy and collective responsibility for teacher and learner.

Unit - 8: Formal, Non-formal and Informal types of Education
Meaning, definition and need for different types of agencies of Education; comparison between formal, Non-formal and Informal types. Home, community and mass media as agencies of Education; continuing education and concept of Open University system.

Unit - 9: Education for changing Indian Society
Concept of Culture - Nature of Culture - Types of Culture - Characteristics of Culture - Salient features of Indian culture - Transmission and Transformation of culture - Cultural lag.
Unit - 10: Modernization
Role of Education in the process of modernization - Explosion of knowledge - rapid social change - Need for rapid advance. Modernization and Educational Progress; Modernization of Indian Society, its significance for education - Instrumental factors like universalization and democratization of education.

For Fast Track Learners
Analysing Satiability of online Education—Analysis of causes of unemployment and underemployment- Value gaps in educational system – suggestion to improve.

Practical Work
- Prepare a report on the organization of knowledge in text books at school level.
- How does teacher autonomy help in enriching learning situations.
- How will you inculcate social, moral and spiritual values.
- Bring out the special provisions in the constitutions relating to Education.
- How worthwhile is education.

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: explain the Indian and western concept of Education
CO2: classify the individual and social aims of education
CO3: apply the principles of Philosophy in education
CO4: differentiate among formal, non formal and informal types of education
CO5: explain the role of education in the process of modernization

Outcome Mapping

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Learning Objectives (LO): The student teacher

- acquires the knowledge of the basic concepts of educational psychology and individual development.
- acquires the knowledge of different aspects of human behavior.
- understands the innate, environmental cognitive and affective processes influencing the development of the learner.
- understands the theoretical and social constructivist perspectives on learning in different learning situations.
- develops an understanding of processes in human cognition for designing learning environments and experiences at school.
- applies the knowledge and principles of psychology to teaching learning situation.
- develops skill in performing experiments and collection of data.

Unit-1: Educational Psychology and Methods

Unit-2: Learner as a Developing Individual

Unit –3: Growth and Developmental Stages:
Growth and development – Meaning, characteristics and principles of development – Stages of development – Infancy – Childhood – Later childhood – Adolescence - Characteristics of each stage and educational implications.

Needs and problems of adolescence - Educational planning for adolescence - Developmental tasks at various stages – Significance about the knowledge of the growth and development process to the teacher.

Unit –4: Human Development and Learning
Relationship between development and learning – Dimensions of individual development – physical, cognitive, language, emotional, social and moral development – Interrelationships and educational implications – Cognition meaning - Role in learning – Intellectual development by Jean Piaget.

Unit –5: Theoretical perspectives on learning

Unit –6: Learning in Constructivist perspective
Distinctions between learning as construction of knowledge and transmission and reception of knowledge - Constructivist theories of Piaget – Vygotsky’s theory of social constructivism - Bruner’s theory of cognitive learning – Ausubel’s theory of learning - Metacognition.

Unit –7: Motivation and Learning

Unit –8: Individual Differences among Learners

Unit –9: Psychological Attribute – Personality

Unit-10: Learning Difficulties and Guidance and Counselling
Learning difficulties – Slow learners– Intellectual deficiency – Intellectual giftedness - Implications for catering to individual variation - Delinquency – Characteristics – causes and preventive measures- Role of Guidance and Counselling for different types of children.

For Fast Track Learners
Conduct of action research applying suitable Educational psychology- finding remedies for day today psychological problems of students- Identification and executing of innovative activities of increasing mental health of adolescent.

Practical Work
To be conducted to children / adolescents
- Span of Attention
- Concept Formation
- Memory for meaningful and Meaningless stimulation
- Transfer of Learning
- Attitude (any one scale)
- Personality test (any one)
- Interest Inventory
- Motivation
- Aptitude tests
- Intelligence Tests.

Text Books

Supplementary Reading

**Course Outcomes**

The student teacher should be able to

- **CO1:** comprehend the educational psychology and its methods
- **CO2:** differentiate between heredity and environment as well as growth and developmental stages of an individual
- **CO3:** explain the theoretical perspectives on learning
- **CO4:** differentiate the cognitive abilities among learners
- **CO5:** provide guidance and counseling for different types of children

**Outcome Mapping**

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Learning Objectives (LO): The student teachers

- acquire knowledge of the process of socialization at home and school that act as shaping factors in identity formation.
- understands the factors that shape identity formation and influence a sense of self.
- understands the processes that have shaped one’s own sense of identity as ‘student’.
- become aware of ‘self’ and ‘identity’ and free oneself through self understanding.
- understands one’s aspirations and possibilities in order to develop a growing sense of agency as a teacher, a professional and a human being.

Unit-1: Socialisation and Education

Meaning of Socialisation- Importance and Objective of Socialisation- Characteristics of the process of Socialisation.

Unit-2: Social Institutions

Family as a social institution- Parenting Styles and their impact; parental expectations and values. Community and socialization – Neighbourhood, extended family, Religious group and their socialization functions. School as a social institution; value formation.

Unit-3: Development of Self

Various dimensions of self – Self concept, Self – esteem, Self-efficacy, Self Control and Self – Confidence.

Unit-4: Development of Identity

Impact of socialization on developing self-interface between home, community and school. Interlinkages within wider socio-cultural contexts.

Unit-5: Identity formation

Emergence of multiple identities in the formation of a person – Social and institutional contexts; Need for inner coherence; Managing conflicting identities.

Unit-6: Identity formation in individuals and groups

Determinants – Social categories – Caste, class, Gender, Religion, Language and Age. Technology and Globalisation on identity formation.

Unit-7: Establishing Identity in a Real World

Peer group influence to media messages; Peer relations – Competitions, Cooperation and Peer pressure; Role of teacher in establishing identity with respect to media and peer relations.

Unit-8: Schooling and Identity formation

Process of identity formation – ascribed, acquired and evolving; school as a site – Teacher and students, school culture and ethos; Teaching- Learning practices; Teacher discourse in the classroom; Evaluation practices, value system and hidden curriculum; Role of school in developing national, secular and humanistic identities.

Unit-9: Assertion of Identities

Oppression, Conflict and Violence; Peace through education; Role of education for peaceful living.

Unit-10: Evolving an Identity as a Teacher
Impact of socialization process; shifting identities as ‘Student’ ‘adult’ and ‘student teacher’. Influences acting on oneself; one’s own aspiration and efforts to become a teacher. Evolving an identity for reconstruction. Professional identity.

For Fast Track Learners
Parent-Teachers Association: Importance and Role – Religion Integrity-Tolerance - Students’ community services- Identity.

Practical Work:
- Write a report on your parental expectation and parental styles.
- Give a report on the determinants of identity formation of an individual.
- Role of School in developing secular and humanistic identities.
- Peer group influence to media messages.
- Role of education for peaceful living.

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: explain the process of socialization
CO2: analyze the influence of various social institutions
CO3: differentiate the dimensions of the self
CO4: identify the impact of socialization
CO5: evolve an identity for a teacher

Outcome Mapping

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BEDO111 - PEADAGOGY OF TAMIL (PART-I)

Credits: 4
Hours: 4

1. பாடத்தியல் கட்டமைப்புகள் விளக்கமாகவிழுப்பும், கட்டமைப்பு அகழலில் பாடத்தியல் கட்டத்தியல் அறிக்கை.
2. பாடத்தியல் கோட்டங்கள், ஏ. ஓவையன் பல்லகவியம் புரிய ஊடகங்கள்.
3. பாடத்தியல் விளக்கத்தியல் செந்திய திசை (அகரஸ்தான் அளவு மாஸ்டமிக் அறிக்கை ஊடகம்)
4. பாடத்தியல் மாற்றுவட்டம் அறிக்கை, எழுத்துக்கொள்ள நிறுவனம் பயிர்பாடு விளக்கத்தியல் ஒலிய எடுக்கும் குழுப்பாடு.

நேடு 1

1. குழுப்பாடு அறிக்கையில் விளக்கப்பட்டதான முன்னாள் குழுத்து நிறுவன நிறுவன குழு - நேட்டிக்கான நிரை, கூறு, குறிப்பிட்டத்தையும் அடிக்கடி அறிக்கை அறிக்கையாகவிழுப்பும் என்பதாகும் நேட்டிக்கான அறிக்கை குழு - அணுப்பாக மாற்றுப் புரியவேண்டாய் தொடர்வாக்கத்தியலுடன்.

நேடு 2


நேடு 3

1. குழுத்து விளக்கத்தியல் - விளக்கத்தியல் - குழுத்து விளக்கத்தியல் - நேட்டிக்கான நிறுவன குழு - விளக்கத்தியல் விளக்கத்தியலில் நேட்டிக்கான நிறுவன குழு - விளக்கத்தியல் விளக்கத்தியல் விளக்கத்தியலுடன்.

நேடு 4

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Hours : 4
I. Learning Objectives (LO): The student teachers

- acquire the knowledge of the concepts, terms and procedures in the pedagogy of English.
- understand the concepts, terms and procedure in the content and methodology of teaching English.
- use the knowledge in actual classroom situations.
- develop interest in various activities pertaining to teaching and learning of English.
- develop interest in knowing recent developments in content and methodology of teaching English.
- develop positive attitude towards teaching and learning of English.
- appreciate the contribution of English language to the process of teaching and learning.

Unit-1 : Teaching of Content

Subject matter of VI to X Standard English textbooks prescribed by Tamilnadu government from time to time.

Unit-2: Nature and Scope of Language

Language - Concept - Meaning - Nature - Scope - Functions - Principles.

Unit-3 : Language Skills

Four basic skills - Listening - Speaking - Reading - Writing - classification of skills - interdependence of skills.

Unit-4 : Aims of Teaching English

Aims of teaching English in India at Secondary Level - General Abilities to be developed.

Unit-5 : Objectives of Teaching English

Specific Instructional objectives - Four Fold Objectives - application of Bloom's Taxonomy - and specific learning outcomes at Secondary Level.

Unit-6: Place of English in India

Role and Importance of English language - English in Indian education - Pre-Independence period - Post Independence Period - Problems of teaching English in India.

Unit-7 : Language Curriculum

Concept - Principles - steps - advantages - limitations - place of English in Indian school curriculum - language textbook - qualities.

Unit-8: Methods of Teaching English


Unit-9 : Approaches of Teaching English


Unit-10 : Microteaching Technique and Teaching Skills

Meaning - Definition - Principles - Procedure - Microteaching Cycle - Microteaching Skills - Skill of Questioning - Reinforcement - stimulus Variation.

For Fast Track Learners

Practical Work
- Write a critical analysis of a language textbook.
- Prepare a scrap book focusing on ELT.
- Prepare a match stick album for teaching various grammar items.
- Prepare a picture album to teach vocabulary.
- Write a summary of one your favorite works of A.P.J.Kalam

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: acquire the knowledge of the concepts, terms and procedures in pedagogy of English.
CO2: understand the aims and objectives of teaching English in India at various levels
CO3: comprehend the role and importance of English language
CO4: develop interest in language curriculum
CO5: design, implement and evaluate unit plans and lesson plans.
CO6: demonstrate skills, abilities and proficiencies in English language
## Outcome Mapping

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### Year-I (2019-2020)  
19 BEDO113: Pedagogy of Mathematics-[Part-1]  
Credits: 4  
Hours: 4
Learning objectives (LO): The student teacher

- acquires Knowledge of the aims and objectives of Mathematics
- understands the Nature and Scope of Mathematics, the principles of curriculum construction and Organization of subject matter, psychology of learning mathematics
- understands the special qualities of a good mathematics teacher,
- applies the knowledge in interaction of analysis in actual class room situation and teaching strategies
- develops skill in effective communication
- develops interest in knowing dynamic methods of teaching mathematics.
- develops positive attitude towards the teaching and learning.
- appreciates the contribution of the subjects to the teaching and learning.

Unit -1:
Mathematics Subject Matter Specified in Standard XI to XII in Mathematics Syllabus by Tamilnadu Government from time to time respectively.

Unit- 2: Nature And Scope

Unit -3: Aims And Values Of Teaching Mathematics
Important Aims Of Teaching Mathematics at Higher Secondary Level – Values Of Mathematics-Intellectual, Practical, Disciplinary, Moral, Cultural, social And Aesthetic.

Unit- 4: Objectives Of Teaching Mathematics
General and Specific Objectives of Teaching Mathematics- Bloom’s Taxonomy of Educational Objectives (Cognitive, Affective and Psychomotor Domains).- Objectives of Teaching Mathematics at Different Levels-Primary, Secondary, Higher Secondary.

Unit- 5: Curriculum
Learning theory foundation for instructional design- Task analysis- Content analysis- Recent Trends in Curriculum Development –Student –Subject and Environment Oriented Approaches-Curriculum Development and Improvement Practices in India

Unit- 6: Psychological Basis Of Teaching Mathematics

Unit -7: Mathematics Text Book

Unit- 8: Classroom Climate

Unit -9: Effective Communication
Principles of communication-Modes of communication- classroom communication- Communication And Interaction–FIAS – Coding And Analysis – Effects Of Analysis – Teaching Strategies-Guided Discovery, Exposition, Discovery Learning, Investigation- Think Aloud.

Unit -10: Dynamic Methods of Teaching

For Fast Track Learners
Technology based tools-Mobile learning- Preparation of Video lessons- Digital Classroom- Innovative Digital teaching

Practical Works
- Organisation and Participation of Class Room Seminars by the student teachers.
- Practicing FIAS, Coding, Analysising and preparing report on the Effects Of Analysis in the classroom
- Observing Class Room Climate during teaching practice programme and preparing a report.
- Arranging Group Discussions for identifying and removing the problems in teaching and learning process.
- Analysing Text Books of the class allotted during teaching practice

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: acquire the basic knowledge about the aims and objective
CO2: of teaching Mathematics at higher secondary level.
CO3: understand the values, curriculum construction and psychological basic of Mathematics teaching
CO4: apply the scientific knowledge to identify the suitability of various teaching methods.
CO5: develop skills in effective communication in Mathematics
CO6: develop interest in knowing more about the dynamic methods of teaching and learning Mathematics

Outcome Mapping

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Learning Objectives (LO): The student teacher
- acquires knowledge of the aims and objectives of teaching Physics
- understands the nature and scope of Physics, the principles of curriculum construction and organization of subject matter, psychology of learning Physics and the qualities of good Physics teacher
- applies the scientific knowledge to analyse the class room situation and teaching strategies
- develops skill in effective communication in Physics
- develops interest in knowing dynamic methods of teaching Physics
- develops scientific attitude towards the teaching and learning of Physics
- appreciates the contribution of the Physics subject to his/her daily life

Unit- 1
Physics subject matter specified in higher secondary syllabus prescribed by Tamilnadu Government from time to time respectively.

Unit- 2: Nature and Scope
Nature of Physics – History of Physics – Contribution of Indian scientists to Physics – Scope of Physics – Correlation of Physics with different subjects.

Unit- 3: Aims and Values of Teaching Physics
Important Aims of Teaching Physics at higher secondary level – Values of teaching Physics.

Unit -4: Objectives of Teaching Physics
General and specific objectives of teaching physics – Bloom’s taxonomy of instructional objectives (cognitive, affective and psychomotor domains) – Objectives of teaching Physics at higher secondary level.

Unit -5: Curriculum
Recent trends in physics curriculum development – Student, Subject and Environment oriented approaches – Curriculum development and improvement practices in India

Unit -6: Psychological Basis of Physics Teaching
Psychology of learning physics – Gagne’s models of sequential learning – Piaget’s intellectual development and Bruner’s models of concept attainment and its educational importance

Unit -7: Physics Text Book

Unit -8: Classroom Climate
Concept of class room climate – Need for creating suitable class room climate for learning physics – Authoritarian, Laize Faire and Democratic type of class room climates – Borich’s three types of classroom climate competitive, cooperative and individualistic class room climate.

Unit -9: Effective Communication
Class room communication – Modes of communication – Types of Communication – Barriers affecting communication and Interaction Analysis – FIAS

Unit -10: Dynamic Methods of Teaching and Learning
Seminar, Symposium, Discussion, Panel Discussion, Workshop–Brain –storming – Debates on current issues by Students from class – Merits and Demerits – Cooperative
Learning, Mastery Learning and Experiential Learning – Environmental based learning of physics.

For Fast Track Learners
Analyze the recent Nobel winners’ achievement in Physics- Physics Research centers in India-Correlate Physics with day to -today events-prepare e-lesson for Physics Teaching.

Practical Works
- Organisation and Participation of Class Room Seminars.
- Practicing FIAS, Coding, Analysing and preparing report on the effects of analysis in the classroom
- Observing Class Room Climate during teaching practice programme and preparing a report.
- Arranging Group Discussions for identifying and removing the problems in teaching and learning process.
- Analysing Text Books of the standard allotted during teaching practice programme.
- Any five experiments in Physics.

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: acquire the basic knowledge about the aims and objectives of teaching physics at
higher secondary level.

CO2: understand the values, curriculum construction and psychological basic of physics teaching

CO3: apply the scientific knowledge to identify the suitability of various teaching methods.

CO4: develop skills in effective communication in physics

CO5: develop interest in knowing more about the dynamic methods of teaching and learning physics

CO6: develop scientific attitude to realize the importance of physics in their daily life.

Outcome Mapping

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Learning Objectives (LO): The student teacher
- acquires knowledge of the aims and objectives of teaching Chemistry
- understands the nature and scope of Chemistry, the principles of curriculum construction and organization of subject matter, psychology of learning Chemistry and the qualities of good Chemistry Teacher
- applies the scientific knowledge to analysis the class room situation and teaching strategies
- develops skill in effective communication
- develops interest in knowing dynamic methods of teaching Chemistry
- develops positive attitude towards the teaching and learning Chemistry
- appreciates the contribution of the Chemistry subject to his/her daily life

Unit -1
Chemistry subject matter specified in higher secondary syllabus prescribed by Tamilnadu Government from time to time respectively.

Unit -2: Nature and Scope
Nature of Chemistry – History of Chemistry – Contribution of Indian scientists to Chemistry – Scope of Chemistry – Correlation of Chemistry with different subjects.

Unit -3: Aims and Values of Teaching Chemistry
Important Aims of Teaching Chemistry at higher secondary level – Values of teaching Chemistry.

Unit -4: Objectives of Teaching Chemistry
General and specific objectives of teaching chemistry – Bloom’s taxonomy of instructional objectives (cognitive, affective and psychomotor domains) – Objectives of teaching chemistry at higher secondary level.

Unit -5: Curriculum
Recent trends in chemistry curriculum development – Student, Subject and Environment oriented approaches – Curriculum development and improvement practices in India.

Unit -6: Psychological Basis of Chemistry Teaching
Psychology of learning chemistry – Gagne’s models of sequential learning – Piaget’s intellectual development and Bruner’s models of concept attainment and its educational importance

Unit -7: Chemistry Text Book

Unit -8: Classroom Climate
Concept of class room climate – Need for creating suitable class room climate for learning chemistry – Authoritarian, Laize Faire and Democratic type of class room climates – Borich’s three types of classroom climate competitive, cooperative and individualistic class room climate.

Unit -9: Effective Communication
Class room communication – Modes of communication – Types of Communication – Barriers affecting communication and Interaction Analysis – FIAS.

Unit -10: Dynamic Methods of Teaching and Learning
Seminar, Symposium, Discussion, Panel Discussion, Workshop – Brain-storming – Debates on current issues by Students from class – Merits and Demerits – Cooperative
Learning, Mastery Learning and Experiential Learning – Environmental based learning of chemistry.

**For Fast Track Learners**


**Practical Works**

- Organisation and Participation of Class Room Seminars.
- Practicing FIAS, Coding, Analysing and preparing report on the effects of analysis in the classroom.
- Observing Class Room Climate during teaching practice programme and preparing a report.
- Arranging Group Discussions for identifying and removing the problems in teaching and learning process.
- Analysing Text Books of the standard allotted during teaching practice programme.

**Text Books**


**Supplementary Reading**


**Course Outcomes**

The student teacher should be able to
CO1: acquire the basic knowledge about the aims and objectives of teaching Chemistry at higher secondary level.
CO2: understand the values, curriculum construction and psychological basic of Chemistry teaching
CO3: apply the scientific knowledge to identify the suitability of various teaching methods.
CO4: develop skills in effective communication in Chemistry
CO5: develop interest in knowing more about the dynamic methods of teaching and learning Chemistry
CO6: develop scientific attitude to realize the importance of Chemistry in their daily life.

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Learning Objectives (LO): The student teacher
- acquires thorough knowledge of topics in Zoology taught in higher secondary schools and the latest development.
- understands the importance of zoology in the modern age and the need for the teaching of zoology in schools.
- understands the aims and values of teaching zoology
- understands the objectives of teaching zoology at various levels and especially at higher secondary level need and importance of zoology curriculum and its approaches.
- applies psychological basis of teaching zoology at higher secondary level.
- applies the principles of curriculum in the organization of content in zoology
- understands modern trends in the instructional methodology and dynamic methods of teaching zoology.
- develops skills in
  - teaching zoology at higher secondary level
  - preparing, and using the appropriate instructional materials in teaching zoology.
  - preparing zoology curriculum

Unit-1: Zoology Content
Zoology subject matter of higher secondary syllabus prescribed by Tamilnadu Government from time to time.

Unit-2: Nature and Scope of Teaching Zoology
Definition and meaning of Zoology – Historical overview- The great Zoologists-The significant discoveries and inventions- Serendipity.

Unit- 3: Aims and Values of Teaching Zoology
Aims of teaching Zoology at higher secondary level- Values of teaching Zoology.

Unit-4: Objectives of Teaching Zoology
Objectives of teaching Zoology at higher secondary level- Objectives of teaching biology with special reference to Bloom’s taxonomy- Instructional objectives and specifications of teaching Zoology- Objective based instruction.

Unit-5: Zoology Curriculum
Recent trends in Zoology curriculum development- Various approaches such as, student, subject and environmental oriented approaches- Curriculum development and improvement practices in India.

Unit-6: Psychological Bases of Teaching Zoology
Contributions of Piaget- Stages of intellectual growth-Gagne’s models of sequential learning- Bruner’s model of concept learning- their Implications in teaching of Zoology.

Unit-7: Zoology Text Book
Importance of text books for learning zoology- Functions and characteristics of zoology text book-Content analysis of zoology text book at higher secondary level – Organisation of subject matter- Principles of content analysis.

Unit-8: Class Room Climate
Concept of class room climate-Need for creating suitable class room climate for learning zoology-Different class room climate such as Authoritarian class room climate, Laizee fair class room climate and democratic class room climate.
Unit-9: Effective Communication
Theories communication- Types of communication-Class room communication-
Barriers affecting communication-Interaction analysis- FIACS.

Unit-10: Dynamic Methods of Teaching and Learning Zoology
Team teaching- Group discussion- Seminar- Symposium-Panel discussion-Brain storming- their implications on teaching zoology. Experimental leaning- mastery learning-
Environmental based zoology learning.

For Fast Track Learners
Enhancement the Teaching and Learning Methods of Some Zoological Courses
Invertebrate, Parasitology, Anatomy and Animal Physiology- Visual Representation of Lesson Content Structure

Practical works
- Prepare a document on life and contributions of eminent Zoologists.
- Read and reflect on higher secondary text book of zoology and find out to what extent they satisfy the national and global requirements.
- Prepare an e-assignment on the relevance of Learner Centered approach in zoology curriculum development.
- Conduct a seminar on any one topic in zoology subject at higher secondary level and prepare an report.
- Observe the teaching and learning process at higher secondary level and prepare a report regarding the class room climate maintained by the zoology teacher.

Text Books

Supplementary Reading


Course Outcomes

The student teacher should be able to

CO1: acquire the basic knowledge about the aims and objectives of teaching Zoology at higher secondary level.
CO2: understand the values, curriculum construction and psychological basic of Zoology teaching
CO3: apply the scientific knowledge to identify the suitability of various teaching methods.
CO4: develop skills in effective communication in Zoology
CO5: develop interest in knowing more about the dynamic methods of teaching and learning Zoology
CO6: develop scientific attitude to realize the importance of Zoology in their daily life.

Outcome Mapping

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**Learning Objectives (LO):** the student teacher

- acquires knowledge of the concepts, terms and procedures in the innovations, trends and approaches of teaching Botany.
- understands the
  - concepts, terms and procedures in the innovations, trends and approaches of teaching Botany.
  - maintaining suitable class room climate and effective communication for teaching Botany.
- applies the knowledge in actual classroom situations.
  - various activities pertaining to teaching and learning.
  - teaching Botany at higher secondary level.
  - preparing, and using the appropriate instructional materials in teaching Botany.
  - preparing Botany curriculum
- develops interest in knowing recent development in the innovations, trends and approaches of teaching Botany.
- develops scientific attitude towards teaching and learning.
  - appreciates the contribution of the subject to the teaching and learning.

**Unit –1: Botany Content**
Botany subject matter of higher secondary syllabus prescribed by Tamilnadu Government from time to time.

**Unit –2: Nature and Scope of Teaching Botany**
Definition and meaning of Botany –Historical overview- The great Botanical scientists- The significant discoveries and inventions –Serendipity.

**Unit –3: Aim and Values of Teaching Botany**
Aim of teaching Botany at higher secondary level –Values of teaching Botany.

**Unit –4: Objectives of Teaching Botany**
Objectives of teaching Botany –Instructional objectives for teaching Botany at higher secondary level – Instruction objectives and specifications of teaching Botany.

**Unit –5: Botany Curriculum**
Recent trends in Botany curriculum development –Various approaches such as, student, subject and environmental oriented approaches –Curriculum development and improvement practices in India.

**Unit –6: Psychological Bases of Teaching Botany**
Contributions of piaget –Stages of intellectual growth –Gagne’s models of sequential learning –Bruner’s model of concept learning –their Implications in teaching of Botany.

**Unit –7: Botany Text Book**

**Unit –8: Class Room Climate**
Concept of class room climate – Need for creating suitable class room climate for learning Botany – Different class room climate such as Authoritarian class room climate, Laizee fair class room climate and democratic class room climate.
Unit –9: Effective Communication

Theories of communication – Types of communication –class room communication – Barriers affecting communication – Interaction analysis – FIACS.

Unit-10: Dynamic Methods of teaching and Learning Botany


For Fast Track Learners

Preparation of botany curriculum – preparing a assignment on the contributions made by eminent Botanists.

Practical Works

- Prepare and submit a brief sketch of contribution of five botanical scientists.
- To conduct any five Experiments at higher secondary level.
- Submit a report about field visit to a Botanical garden.
- Prepare and submit five Herbarium specimens.
- Collect and submit any five medicinal plants and their uses.

Text Books

5. Ameeta, P. (2005), Methods of Teaching Biological Science, New Delhi.

Supplementary Reading

3. Rajammal, K. (2009), Methods of Teaching Biological Science, Santha Publication.

Course Outcomes

The student teacher should be able to

CO1: acquire the basic knowledge about the aims and objectives of teaching Botany at higher secondary level.
CO2: understand the values, curriculum construction and psychological basic of Botany teaching.
CO3: apply the scientific knowledge to identify the suitability of various teaching methods.
CO4: develop skills in effective communication in Botany.
CO5: develop interest in knowing more about the dynamic methods of teaching and learning Botany.
CO6: develop scientific attitude to realize the importance of Botany in their daily life.
## Outcome Mapping

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</table>
Learning Objectives (LO): The student teacher
- acquires Knowledge of the aims and objectives of computer science
- understands the nature and scope of computer science, the principles of curriculum construction and organization of subject matter, psychology of learning computer science
- understands the special qualities of a good computer science teacher, acquire those qualities and to evaluate himself or herself
- applies the knowledge in interaction of analysis in actual class room situation and teaching strategies
- develops skill in effective communication
- develops interest in knowing dynamic methods of teaching computer science.
- developsscientific attitude towards the teaching and learning.

Unit-1:
Computer science Subject Matter Specified in Standard XI to XII in Computer science Syllabus By Tamilnadu Government from time to time respectively.

Unit-2: Nature And Scope
Nature of Computer science – History of Computer science – Contribution of Indian Scientists Computer science, Scope of Computer science.

Unit-3: Aims And Values Of Teaching Computer Science
Important Aims Of Teaching Computer science at Higher Secondary Level –Values Of Computer science-Intellectual, Practical, Disciplinary, Moral, Cultural, social And Aesthetic

Unit-4: Objectives Of Teaching Computer Science
A. General and Specific Objectives of Teaching Computer science
B. Bloom’s Taxonomy of Educational Objectives (Cognitive, Affective and Psychomotor Domains)
C. Objectives of Teaching Computer science at Different Levels-Primary, Secondary, Higher Secondary.

Unit-5: Curriculum
Learning theory foundation for instructional design- Task analysis- Content analysis- Recent Trends in Curriculum Development –Student –Subject and Environment Oriented Approaches-Curriculum Development and Improvement Practices in India.

Unit-6: Psychological Basis Of Teaching Computer Science

Unit-7: Computer Science Text Book

Unit-8: Classroom Climate
Class Room Climate-Authoritarian – Laize Faire and Democratic Climates- Borich three types of classroom climate competitive, cooperative and individualistic types –
Components of classroom management, 1. Management of the Physical Environment  

**Unit-9: Effective Communication**

Principles of communication- Modes of communication- Classroom communication- Communication And Interaction- Teaching Strategies- Guided Discovery, Exposition, Discovery Learning, Investigation- Think Aloud.

**Unit-10: Dynamic Methods Of Teaching**


**For Fast Track Learners**

Create an e-content for Teaching of Computer Science- Prosperous usage of Social Media – Establishing Video-conference for Distance Education- Crate Glossary for new words related to Computer Science.

**Practical Works**

- Organisation and Participation of Class Room Seminars by the student teachers.
- Practising FIAS, Coding, Analysing and preparing report on the effects of analysis in the classroom
- Observing Class Room Climate during teaching practice programme and preparing a report.
- Arranging Group Discussions for identifying and removing the problems in teaching and learning process.
- Analysing Text Books of the class allotted during teaching practice

**Text Books**

3. Shied, Introduction to Computer Science, SCAVM.

**Supplementary Reading**


**Course Outcome**

The student teacher should be able to

- **CO1:** acquire the basic knowledge about the aims and objectives
- **CO2:** of teaching Computer Science at higher secondary level.
- **CO3:** understand the values, curriculum construction and psychological basis of Computer Science teaching
- **CO4:** apply the scientific knowledge to identify the suitability of various teaching methods.
- **CO5:** develop skills in effective communication in Computer Science
- **CO6:** develop interest in knowing more about the dynamic methods of teaching and learning Computer Science
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Learning Objectives (LO): The student teacher
- acquires the knowledge of “history of history” and its theories.
- acquires the knowledge of the concepts, terms and current trends in history education.
- understands the authenticity of history and historiography.
- understands the philosophical and sociological basis of teaching history.
- understands the curricular approaches, curriculum change and innovative methods of teaching history.
- applies the knowledge of history in actual life situation.
- develops skill by using of various types of teaching aids.

Unit-1: Content
Subject matter specified in the history syllabus for standard XI – XII prescribed by the Tamilnadu Government from time to time.

Unit-2: Nature and development of history
The meaning and scope of history – Different conceptions of history – Development of history as a field of study – Indian historians and their contributions to history – Implications of various conceptions of history to teachers – Is history an art or science.

Unit-3: Philosophical basis of history
1. History as an imaginative reconstruction of the past.
   History as a branch of social science – correlated with literature, geography, political and economics.
   Sociological basis of history – Education reports on history education (various commissions report)

Unit-4: History – Its features and dimensions
Dimensions of history – Continuity development – Time and place – Geographical foundations of history – Chronological divisions of history.

Unit-5: Goals of Teaching history
The need and importance of teaching history – Aims and objectives – General and specific – Values – Practical, intellectual, social, moral and cultural.

Unit-6: Taxonomy of educational objectives
Instructional objectives and specifications of teaching history – Bloom’s taxonomy of educational objectives – Meaning and limitations.

Unit-7: Recent trends in curriculum:
1. Curriculum development in history
2. Curriculum construction (Selection, graduation and organization) – Content, principles of selection: Individual, social and national needs.
3. The claims of local history, National history and world history.
4. Chronology in history – Sequence in history, Location, Distance – Duration of historical events in the perspective of time.
5. Theories influencing selections of materials – Doctrine of natural taste and interest – Cultural epoch theory.
Unit-8: History text book

Unit-9: Effective communication:
Meaning and forms of communication – communication cycle – Types of communication – Effective classroom communication – Flander’s system of Interaction analysis.

Unit-10: Dynamic methods for teaching and learning:

For Fast Track Learners
Social Media - Meaning - Nature - Application of Social Media in Teaching history - Advantages and Disadvantages of Social Media - Open Educational Resources (OER) - Application of OER in Teaching history.

Practical Works
- Critically evaluate the history textbook for standard XI, prescribed by the Tamilnadu Government.
- A project report about to visit any one of the place of historical importance.
- Write any three Indian historians and their contribution to the nation.
- Collection of antique materials.
- Prepare a chart showing different states and its capitals in India.

Text Books
6. Terry Haydn et.al Learning to teach history in the secondary school,

Supplementary Reading
Course Outcomes

The student teacher should be able to:

CO1: explain the subject matter specified in the history syllabus for standard XI-XII of the state board
CO2: analyse the different concepts of history
CO3: correlate history with literature, geography, political science and economic
CO4: Communicate effectively
CO5: analyse the History text book

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Learning Objectives (LO): The student teacher
- acquires the knowledge of methods of teaching economics
- understands the principles, types, procedures and planning of teaching economics at the higher secondary level.
- applies the method of teaching to various aspects of economics
- develops the skill of:
  a) Teaching economics, organizing economic experiences
  b) Testing through various techniques
  c) Using various graphic, other types of teaching aids for the classroom
  d) Develops favourable attitude towards the changes in the teaching of economics.

Unit –1: Nature and Scope of Economics

Unit –2: Modern Trends in Economics Education

Unit –3: Aims and Values of teaching Economics
Aims of teaching Economics – classification of aims - At different stages inculcating values of teaching Economics, Methods of inculcating values through the study of Economics – classification of values.

Unit –4: Constructive Approaches of Teaching Economics

Unit –5: Curriculum in Economics of Teaching

Unit –6: Curriculum in Teaching Materials different Boards
XI and XII Economics syllabus prescribed by Government of Tamilnadu from time to time with reference books materials – Comparison of CBSE and State board syllabus.

Unit –7: Issues in Economics teaching

Unit –8: Legislation and Policies

Unit –9: Development of Teaching skill
Micro teaching – Meaning – Definition – concepts – Skill development teaching – Significance of teacher training.
Unit –10: Methods of Teaching Economics

For Fast Track Learners
Taxation VAT-GST- Social responsibilities of Taxation –Tax ethics

Practical Works
- Prepare a classified schemata of fields of Economics.
- List own the values of teaching Economics.
- Prepare a blue – print of the economics text book at the higher secondary stage.
- Design the taxonomical structure of teaching economics.
- Arrange the Instructional objectives of any two lessons in Economics.

Text Books

Supplementary Reading

Course Outcome
The student teacher should be able to

CO1: explain the modern trends in economics education
CO2: classify the schemata of the field of economics
CO3: list down the values of teaching economics
CO4: prepare a blue print for the economics subject
CO5: analyse the issues related to economics

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Learning Objectives (LO): The Student teacher
- acquires knowledge of the principles of content and conceptual analysis.
- understands the various aspects of content analysis.
- applies the knowledge in analyzing the commerce and accountancy content in pedagogical terms.
- develops skill in construction and preparation of lesson plans, question papers and teaching aids.
- develops interest in analyzing the various commerce course contents in pedagogical terms.
- develops a desirable positive attitude towards teaching commerce.

Unit -1: Nature of Scope
Commerce - Introduction – nature, meaning and scope – commerce education - meaning and importance - commerce and Economics - their mutual relationships.

Unit -2: Trends in Commerce Education

Unit- 3: Aims and Objectives
Aims and objectives of teaching commerce - values of teaching commerce - theoretical, practical, social, cultural, historical, economical and vocational.

Unit -4: Taxonomical Approach
Bloom’s Taxonomy - approach to teaching of commerce - instructional objectives - specifications - learning experience - Objective based instruction (OBI) - Principle and approach.

Unit -5: Commerce Curriculum
Meaning of Curriculum - importance of curriculum - principles involved in curriculum construction - higher secondary commerce and accountancy syllabi - academic and vocational stream of commerce - Tamil Nadu higher secondary level - suggestion for the improvement of curriculum.

Unit -6: Curriculum and Teaching Materials-Different Levels
Selection and gradation subject material for commerce curriculum at schools and college levels - comparison of commerce and accountancy - curriculum of state and central boards of education - academic and vocational streams.

Unit -7: Issues in Commerce Teaching
Contemporary commercial issues and economic issues related to the teaching of commerce and accountancy – WTO - economic crimes - security scam - FERA and FEMA. Commerce and cyber rules - violation - GST and its impact upon commerce.

Unit -8: Legislation and Policies
Unit -9: Development of Teaching Skills
   Micro teaching- definition- concept- meaning- micro teaching cycle-different skills in teaching commerce- significance -uses in teacher training.

Unit -10: Methods of Teaching

For Fast Track Learners
   Technology in Teaching of Physical science-Blended learning - Hybrid learning-IMPACT

Practical Works
   Prepare advertisement for Commerce
   - Prepare a case study of an organization
   - Contact market survey
   - Visit to various insurance company
   - Prepare share market colander for three months

Text Books
   5. Dececee John, P. and et al., The psychology of Learning and Instruction, prentice Hall of India, New Delhi.

Supplementary Reading

Course Outcomes
   The student teacher should be able to
   
   CO1: explain the modern trends in commerce education
   CO2: make use of Blooms taxonomy in the teaching of commerce
   CO3: select the subject material for commerce curriculum at different levels
   CO4: analyze the issues relating to commerce
   CO5: distinguish between liberalization, privatization and globalization
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BEDO131: PEDAGOGY OF TAMIL-[PART-1]

Total Marks: 100  Credits : 4
Internal Assessment: 25  Contact Hours: 4
External Assessment: 75

1. Design an essay plan, presenting the title - Tamil Pedagogy. Describe the approach towards the subject.

2. Why is the following approach more suitable for Tamil pedagogy? Discuss a few examples to support your viewpoint.

3. Give an account of the Tamil pedagogy approach towards the study of the subject. Explain its significance.

4. Discuss the Tamil pedagogy approach towards the study of the subject. Support your viewpoint with examples.


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References:
1. Name, Year. Title. Journal, Volume, Issue, Pages.
Learning Objectives (LO): The student teacher
- acquires the knowledge of the concepts, terms and procedures in the pedagogy of English
- understands the concepts, terms and procedure in the innovations, trends, and approaches of teaching English
- uses the knowledge in actual classroom situations
- develops interest in various activities pertaining to teaching and learning of English
- develops interest in knowing recent developments in the innovations, trends, and approaches of teaching English
- develops positive attitude towards teaching and learning of English
- appreciates the contribution of English language to the process of teaching and learning

Unit-1 : Teaching of Content
Subject matter of VI to X Standard English textbooks prescribed by Tamilnadu government from time to time – Advanced Grammar – types of sentences – basic sentence patterns – active and passive voice – direct and indirect speech – question forms – tag questions.

Unit-2 : Aims of Teaching English
Aims of teaching English – at Higher Secondary Level – Fundamental Aims – Four Basic Skills.

Unit-3 : Objectives of Teaching English
Four Fold Objectives – Bloom’s Taxonomy – Objective Based Instruction at higher secondary level – Instructional objectives and specific learning outcomes.

Unit-4 : Theories of Language Learning

Unit-5 : Principles of Language Teaching
Principles - speech before writing – habit formation - proper order and proportion – passive and active vocabulary.

Unit-6 : Factors Affecting Language Learning

Unit-7: Policies and Problems in Language Education
Three language formula – implementation – controversies – problems of teaching English in India.

Unit-8 : Methods of Teaching English

Unit-9 : Approaches of Teaching English
Structural approach - Situational approach - Communicative approach - Meaning – Principles – Merits and Demerits.

Unit-10 : Types of Courses

For Fast Track Learners

Practical Work
- Prepare a chart with prefixes and suffixes.
- Highlight different ways of word formation.
- Enlist different types of errors committed by Indian students.
- Write a critical analysis of a language textbook.
- Narrate of a story with a good social message.

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: acquire the knowledge of the concepts, terms and procedures in pedagogy of English.
CO2: understand the theories and principles of language learning
CO3: comprehend the factors affecting language learning
CO4: equip with the latest methods and approaches of teaching English
CO5: design, implement and evaluate unit plans and lesson plans.
CO6: create opportunities to learn and teach English in National and International spheres.
## Outcome Mapping

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Learning Objectives (LO): The student teachers

- acquires knowledge of the aims and objectives of mathematics
- understands the nature and scope of mathematics, the principles of curriculum construction and organization of subject matter, the technological method of teaching mathematics
- applies knowledge in the technological methods of teaching
- develops the skills in solving mathematics problem
- develops interest in planning their lessons to learn mathematics
- develops a positive attitude towards mathematics teaching

Unit-1:
Mathematics Subject matter Specified in Standard VI to IX of Mathematics Syllabus prescribed by Tamilnadu Government from time to time respectively.

Unit-2: Nature and Scope

Unit-3: Aims and Values of Teaching Mathematics
Important Aims of Teaching Mathematics at Secondary Level-Values of Mathematics- Intellectual, Practical, Disciplinary, Moral, Cultural, Social and Aesthetic

Unit-4: Objectives of Teaching Mathematics
General and Specific Objectives of Teaching Mathematics-Bloom’s Taxonomy of Instructional Objectives (Cognitive, Affective and Psychomotor Domains)

Unit-5: Curriculum

Unit-6: Problem-Solving Method and Mathematical Attitude
Problem—solving method—characteristics of a good problem in mathematics-steps-Merits-De Merits-Mathematical Attitude.

Unit-7: Approaches of Learning Mathematics
Cooperative Learning and Collaborating Learning-Self Access Learning-Investigatory Approach, Concept Mapping

Unit-8: Teaching Methods

Unit-9: Technological Method Of Teaching-Individualisation Of Education

Unit-10: Developing Teaching Skills
For Fast Track Learners
Technology based tools-Mobile learning- Preparation of Video lessons- Digital Classroom- Innovative Digital teaching

Practical Works
- Preparation of scrap book on the development of mathematics.
- Preparation of essays on the contribution of Mathematicians
- Evaluating syllabus of any one of the standard at secondary level and preparing report.
- Presentation of Computer Assisted Instruction on any topic.
- Preparation of Linear Programme & Branching Programme frames on the topics in Mathematics

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: acquire the basic knowledge about the aim and objective of teaching Mathematics
CO2: understand the various principles of curriculum consideration and technological methods of teaching Mathematics
CO3: apply the scientific knowledge to identify the suitable methods of teaching Mathematics
CO4: develop the skills in practicing micro-teaching technique to improve their teaching skills.
CO5: improve the interest to know more about the planning of lesson to teach.
CO6: develop the scientific attitude to realize the importance of Mathematics in their day-to-day life.

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Learning Objectives (LO): The Student teacher

- acquires Knowledge of the aims and objectives of teaching Physical science
- understands the nature and scope of Physical science, The principles of curriculum construction and organization of subject matter, and the technological method of teaching Physical science
- applies the knowledge in the technological methods of teaching
- develops the skills in the approaches of learning and teaching of Physical science
- develops interest in planning their lessons in different approaches of learning Physical science
- develops scientific attitude towards various teaching skills and the importance of teaching skills

Unit-1:

Physics and Chemistry subject matter specified in standard VI to IX in Science syllabus by Tamil Nadu Government from time to time respectively.

Unit -2: Nature and Scope

Nature of Physical science – History of Physical science – Contribution of Indian Scientists to Science, Scope of Physical science. Correlation of Physical science with different subjects

Unit -3: Aims and Values of Teaching Physical Science

Important Aims of Teaching Physical science at Secondary Level-Values of Teaching Physical science

Unit -4 Objectives of Teaching Physical Science

General and Specific Objectives of Teaching Physical sciences-Bloom’s Taxonomy of Instructional Objectives (Cognitive, Affective and Psychomotor Domains)

Unit -5 : Curriculum in Physical Science


Unit -6: Scientific Method and Scientific Attitude

Scientific Method-Meaning, procedure and Steps, Scientific Attitude-Meaning, concept and ways of developing scientific attitude.

Unit -7: Approaches of Learning Physical Science

Pedagogical shift from science as fixed body of Knowledge to process of constructing knowledge, Problem Solving, Investigatory Approach, Concept Mapping, Collaborating Learning and Experimental Learning in Physical science.

Unit -8: Teaching Methods


Unit -9: Technology based Instruction

Unit -10: Developing Teaching Skills


For Fast Track Learners

Technology in Teaching of Physical science-Blended learning - Hybrid learning-

IMPACT

Practical Works

• Preparation of scrap book on the development of physical science.
• Preparation of List on the contribution of scientists.
• Evaluating syllabus of any one of the standard at secondary level and preparing report.
• Presentation of Computer Assisted Instruction on any topic.
• Preparation of Linear Programme & Branching Programme frames on the topics in Physical science
• Experiments in Physics and Chemistry subjects at secondary level.

Text Books


Supplementary Reading

Course Outcomes

The student teacher should be able to

CO1: acquire the basic knowledge about the aim and objective of teaching Physical Science
CO2: understand the various principles of curriculum consideration and technological methods of teaching physical Science
CO3: apply the scientific knowledge to identify the suitable methods of teaching physical science
CO4: develop the skills in practicing micro-teaching technique to improve their teaching skills.
CO5: improve the interest to know more about the planning of lesson to teach.
CO6: develop the scientific attitude to realize the importance of physical science in their day-to-day life.

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Learning Objectives (LO): The student teacher
1. acquires thorough knowledge of topics in natural science taught in secondary schools and the latest developments.
2. understands the
   - importance of biological science of the modern age and the need for the teaching of biological science in schools.
   - aims and values of teaching biological science
   - objectives of teaching biological science at various levels and especially in the secondary schools.
   - different steps involved in the scientific methods and ways of developing scientific attitude.
   - various approaches and methods of teaching biological science
   - organization of content in biology and principles of developing biological science syllabus.
   - teaching skills for teaching biological science.
3. develops skills in
   - teaching biological science at secondary level
   - preparing, and using the appropriate instructional materials in biological science.
   - preparing biological science curriculum

Unit-1 Biological Science Content
Biological science subject matter of VI, VII, VIII, and IX syllabus prescribed by Tamilnadu Government from time to time.

Unit –2: Nature and Scope of Teaching Biological Science

Unit –3: Aims and Values of Teaching Biological Science
Aims of teaching biological science at secondary level –Values of teaching biological science.

Unit –4: Objectives of Teaching Biological Science
Objectives of teaching biological science at secondary level – Objectives of teaching biology with special reference to Bloom’s taxonomy – Instructional objectives and specifications of teaching biological science – Objective based instruction.

Unit –5: Biological Science Curriculum

Unit –6: Scientific Method and Scientific Attitude
Meaning, procedure and steps in scientific method – Elements of scientific method – Meaning and concept of scientific attitude – Ways of developing scientific attitude.

Unit –7: Approaches of Learning Biological Science
Problem solving, investigatory approach, concept mapping, collaborative learning and experimental learning in biological science.

Unit –8: Methods of Teaching Biological Science

Unit –9: Technology Based Methods
Concept, types and advantages of programmed instruction- Computer Assisted Instruction – Teaching Module – Mass media for learning biological science - MOOCs; SWAYAM.

Unit-10: Developing Teaching Skills
Concept of Teaching Skill –Importance and techniques of developing teaching Skills – Micro teaching technique – Types of teaching skills – set induction, skills of motivation, use of black board, probing questioning, reinforcement, promoting students participation, using examples and closure.

For Fast Track Learners
Scientific concepts and fundamentals- scientific skills-scientific interest and temperament.

Practical Work
1) Prepare an e-document on life and contributions of eminent Biologists.
2) Prepare an e-learning material based on any topic in biological science at secondary school level.
3) Read and reflect on any one secondary school biological science textbook and find out to what extent they satisfy the national and global requirements.
4) Prepare a concept map/mind map on any topic in biological science.
5) Prepare a programmed instruction material for any one of the concept in biological science.
6) Prepare a Power point; for any one of the concept in biological science.

Text Books

Supplementary Reading


Course Outcomes
The student teacher should be able to

CO1: acquire the basic knowledge about the aim and objective of teaching Biological Science
CO2: understand the various principles of curriculum consideration and technological methods of teaching Biological Science
CO3: apply the scientific knowledge to identify the suitable methods of teaching Biological Science
CO4: develop the skills in realizing micro-teaching technique to improve their teaching skills.
CO5: improve the interest to know more about the planning of lesson to teach.
CO6: develop the scientific attitude to realize the importance of Biological Science in their day-to-day life.

Outcome Mapping

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</table>
Learning Objectives (LO): The student teacher
- acquires the knowledge of the concepts, terms and procedures in social science of various stages.
- understands the aims, objectives and values of teaching social science.
- understands the curricular, approaches, curriculum change and appropriate methods of teaching social science.
- understands the innovative social science teaching learning strategies in social science.
- applies the knowledge of social science in classroom situations.
- develops interest in knowing the current trends in socio-economic and political spheres.

Unit–1: Content
Subject matter specified in the syllabus of social science for VI to X Std prescribed by the Tamilnadu Government from time to time.

Unit-2: Nature and Scope

Unit–3: Aims, Objectives and Values of Teaching Social science at secondary Level.

Unit–4: Instructional Objectives
Instructional objectives and specifications of teaching social science – Bloom’s taxonomy of educational objectives – Meaning and importance – Limitations of bloom’s taxonomy.

Unit–5: Curriculum
Social science curriculum – Curriculum based on national and state policies – Organizing social science curriculum at the school level –Correlation – Integration – Concentric – Chronological – Periodical and spiral approach – Detailed study of the secondary school social syllabus – Curriculum content graded social science – A critical study of the secondary school social science syllabus.

Unit–6: Scientific Methods – Activity and Playway Devices
Importance of activities in social science – Types of activities – Research – Construction and processes – Creative playway devices - Mock parliament – Mock election.

Unit–7: Scientific Approach
Important features of social science – Continuity – Variety – Unity – Teaching of cultural heritage of India.

Unit–8: Methods of Teaching
Unit-9: Methods of Teaching

Unit–10: Micro Teaching and Teaching Skills.

For Fast Track Learners

Practical Works
- A creative write up of Pandya kings and their contribution to the nation.
- Make a report on the important current events after 2000.
- Collect the pictures of important national leaders after independence and arrange it chronologically.
- Prepare a report about the different monsoons of India and it results.
- Critically analyse the important teaching methods and give a report about the merits and demerits of the methods.

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: explain the subject matter specified in the social science syllabus from standard VI – X of the state board.
CO2: correlate social science with history, geography, civics and economics
CO3: develop different values by learning social science
CO4: make use of Bloom’s taxonomy in the teaching of social science
CO5: organize social science curriculum at the school level

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</table>
**Learning Objectives (LO):** The Student Teachers
- acquires knowledge of the aims and objectives of computer science
- understands the nature and scope of computer science, the principles of curriculum construction and organization of subject matter, the technological method of teaching computer science
- applies knowledge in the technological methods of teaching
- develops the skills in the approaches of learning computer science teaching of computer science and to develop the skills in them through classroom teaching
- develops interest in planning their lessons in different approaches of learning computer science
- develops a positive attitude towards various teaching skills and the importance of teaching skills

**Unit-1: Introduction**
Computer science Subject matter Specified in Standard VI to IX of Computer science Syllabus prescribed by Tamilnadu Government from time to time respectively.

**Unit-2: Nature And Scope.**
Nature of Computer science – History of Computer science – Contribution of Indian in the field of Computer science, Scope of Computer science.

**Unit-3: Aims And Values Of Teaching Computer Science**
Important Aims of Teaching Computer science at Secondary Level-Values of Computer science- Intellectual, Practical, Disciplinary, Moral, Cultural, Social and Aesthetic

**Unit-4: Objectives Of Teaching Computer Science**
A. General And Specific Objectives of Teaching Computer science
B. Bloom’s Taxonomy of Educational Objectives (Cognitive, Affective and Psychomotor Domains)
C. Objectives of Teaching Computer science at Secondary Level

**Unit-5: Curriculum**

**Unit-6: Problem – Solving Method And Mathematical Attitude**

**Unit-7: Approaches Of Learning Computer Science**

**Unit-8: Teaching Methods**
Unit-9: Technological Method of Teaching-Individualisation Of Education

Unit-10: Developing Teaching Skills

For Fast Track Learners
  LMS- Learning Management System-Establishing usage of LMS with 50 students-Downloading and uploading of content for You tube.

Practical Works
  • Preparation of scrap book on the development of Computer science.
  • Preparation of essays on the contribution of Indians
  • Evaluating syllabus of any one of the standard at secondary level and preparing report.
  • Presentation of Computer Assisted Instruction on any topic.
  • Preparation of Linear Programme & Branching Programme frames on the topics in Computer science

Text Books
  2. Roger Humt Hon Shelley, Computers and Common Sense, Prentic Hall (India) Delhi.
  3. Shied, Introduction to Computer Science, SCHAVM.

Supplementary Reading

Course Outcomes
  The student teacher should be able to

   CO1: acquire the basic knowledge about the aim and objective of teaching Computer Science
   CO2: understand the various principles of curriculum consideration and technological methods of teaching Computer Science
   CO3: apply the scientific knowledge to identify the suitable methods of teaching Computer Science
   CO4: develop the skills in practicing micro-teaching technique to improve their teaching skills.
   CO5: improve the interest to know more about the planning of lesson to teach.
   CO6: develop the scientific attitude to realize the importance of Computer Science in their day-to-day life.

Outcome Mapping

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</table>
Learning Objectives (LO): The student teacher

- acquires knowledge of the innovations, trends and approaches of teaching economics
- understands the concepts, terms and procedures in the innovations, trends and approaches of teaching economics at higher secondary level.
- applies the knowledge of the innovations, trends and approaches in actual classroom teaching situations.
- develops skill in various activities pertaining to teaching and learning economics.
- develops interest in knowing the recent developments in the economics curriculum at higher secondary level.
- develops positive attitude towards concepts, terms and procedures of teaching economics.
- appreciates the values of teaching economics at the higher secondary stage.

Unit – 1: Introduction to Economics Education

Unit – 2: Correlation in Economics Education

Unit – 3: Instructional Materials

Unit – 4: Instruction for teaching economics
Introduction – Individualized Instruction(II) - Computer Assisted Instruction (CAI) – Programmed Instruction (PI)- Procedure and steps.

Unit – 5: Curriculum construction
Curriculum organization – Meaning – Need and Importance – Blue print – Higher Secondary and CBSE syllabus – Suggestions for important of Curriculum.

Unit – 6: Psychological basis of Economics Teaching
Psychological basis – introducing different topics – Motivating students – for different lesson in Economics – Development of different motivating skills.

Unit – 7: Data Resources
Data Resources – Meaning - Need and importance – Data collection – Primary and Secondary data resources and Economics – Classification of data.

Unit – 8: Economics and Mother tongue
Economics in Mother tongue – Need and Importance - Prospects and Problems of teaching through Mother tongue – Practical suggestion teaching Economics through Mother tongue in electronic media.
Unit –9: Education Technology in Economics

Education Technology in Education – Programmed Instruction – Types – Advantages and Disadvantages.
Introduction – Objective – Importance of teaching skills – Types of teaching skills – Class based teaching skill – Field based Teaching skills.

Unit –10: ICT in Economics


For Fast Track Learners

Current challenges facing the Indian Economy

Practical Works

- List down the characteristics of the subject matter Economics.
- Give examples for the instructional materials required to teach Economics.
- Prepare a programmed instruction for teaching any one lesson in Economics.
- Arrange the steps to collect the population census in an area.
- Classify the sources of economic data required to study economic development.

Text Books


Supplementary Reading

1. Amita Yadav, The Teaching of Economics.
2. Vakil, Teaching of Economics.

Course Outcomes

CO1: describe the present status of economics
CO2: correlate economics with geography, civics, politics, mathematics and statistics
CO3: make use of different types of instructional materials
CO4: motivate students for different lessons in economics
CO5: explain the prospects and problems of teaching economics through mother tongue.

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Learning Objectives (LO): The student teacher

- acquires knowledge of the terms and concepts regarding the various methods and techniques of teaching,
- understands the different types of curriculum, methods of teaching and technology of teaching.
- applies the knowledge in analyzing, selecting and adopting the suitable methods, techniques and for the purpose of teaching,
- develops skills in preparing curriculum, and using the suitable techniques in test construction.
- develops interest in knowing the recent development in the teaching methodology, and technological developments, and
- develops a desirable positive attitude towards the teaching of commerce.

Unit-1: Introduction to Commerce Education
   Introduction of commerce education- historical perspective- commerce education in olden days- pre independent period- independent India- presents status of teaching Commerce and Accountancy.

Unit-2: Correlation in Commerce Education
   Integration of Commerce with other school subject Politics, Geography, Civics, Mathematics, Sciences-consumer education- electronic accounting- VAT management education

Unit-3: Instructional Materials in Commerce
   Audio-visual aids-classification, importanctance- use of graphic materials- Pictures ,Diagrams, Charts-Clipping from the news papers, original documents, office and commercial forms- Selection of appropriate aids for effective teaching of commerce.

Unit-4: Self Instruction Modules
   Individualized self instructional modules- programmed instruction- personalized system of instruction- computer assisted instruction- procedure and steps.

Unit-5: Curriculum Construction
   Commerce and accountancy curriculum principles to be borne in mind of curriculum construction – organization of subject matters – principles, types – concentric topical, psychological patterns.

Unit-6: Psychological Basis of Commerce Teaching
   Ways of introducing different topics- developing interest and attitude towards commerce education- motivating students for a commerce lesson – skill of introducing different topics in commerce and accountancy.

Unit-7: Data- Resources
   Data collection and commerce – primary and secondary data resources and commerce – role of transport and communication commerce and trade – migration of people – inter dependence and interaction effects.
Unit-8: Commerce and Mother Tongue

Commerce and accountancy teaching through mother tongue – need and importance – prospects and problems of teaching through mother tongue – practical suggestion teaching commerce and accountancy through mother tongue in electronic media.

Unit-9: Technology in Commerce

Educational technology in learning commerce –Use of latest technology on commercial activities – commercial and educational broad casting – interactive video, tele-lecturing – commerce – software development in other countries available in India.

Unit-10: ICT in Commerce


For Fast Track Learners

Data Processing cycle -Tally

Practical Works

- Conducting commercial survey
- Visit to auditors office.
- Visit to consumer club
- Analyze – educational telecast and broadcasting
- Prepare a budget analysis for a given period

Text Books


Supplementary Reading


Course Outcomes

The student teacher should be able to

CO1: explain the historical perspective of commerce education
CO2: correlate commerce with politics, geography, civics and mathematics
CO3: make use of appropriate audio visual aids for effective teaching of commerce
CO4: apply the latest technology on commercial activities.

Outcome Mapping

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Learning Objectives (LO): The student teacher

- acquires knowledge of work education
- understands the views, practices, theories and models related to work education
- applies knowledge in the sustainable improvement in quality of life and empowerment of community concerned
- develops skills and expertise in a collaborative manner between school family and community
- develops a sustainable community academic partnership that addressed social issues.

Unit 1: Work Education

Unit-2: Thinkers-Theories and Models of work Education

Unit-3 : Rural Community Engagement
Changing profile of Rural India – Socio-Economic-Political and cultural community goal setting – Participatory learning methods Rural Resilience: Vulnerabilities, Risk Reduction, Rehabilitation – Village Development, Disaster Management and Waste management

Unit-4 :Community Engagement through Teacher Education
Community Engagement - School, Family and Community partnership-Relationship between School and Community – Rationale and Methods of Community Engagement – School Management Committees – Role of Teachers and Headmasters for Community Engagement - Parents Participation levels in school- Establishing Rural Education interest groups and communities, Self Help groups.

Unit-5: Field Engagement and Experiences
Community Services and its impact-Documentation of the engagement activities – Involving in local practices related to art, craft, agriculture, indigenous occupations, waste management and disaster management planning and implementation of projects.

Text Books
3. MGNCRE, (2018). Experiential Learning , MHRD, Govt. of India

Supplementary Reading
2. MGNCRE, RCE manual and curriculum framework, Rural Immersion Manuals, MHRD, Govt. of India

**Course Outcomes**
The student teacher should be able to

- **CO1**: Cultivate service learning
- **CO2**: Collaborate with community
- **CO3**: Develop co-curricular device projects
- **CO4**: Encourage civic leadership
- **CO5**: Foster social responsibility
- **CO6**: Promote personal growth

**Outcome Mapping**

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73
Learning Objectives (LO): The student teachers
- know the concept & holistic healthy its various dimensions and determinants
- understand the importance health and sports for development of holistic-health.
- develop positive attitude towards health and healthy habits.
- develop skill of maintaining health status, identify health problems and taking remedial measures.
- encourage the right habits of exercise, games, sports, sleep, rest and relaxation.
- sensitize physical fitness, correct postural habits and its development.

Unit-1: Determinants of Health Problems and Diseases
- Concept of health, importance, dimensions and determinants of health; Health needs of children and adolescents, including differently-abled children
- Understanding of the body system—skeleton, muscular, respiratory, circulatory and digestive in relation to health fitness, bones, muscles and joints, their functions, common injuries of bones, common health problems and diseases—its causes, prevention and cure, immunisation and first aid

Unit-2: Practices related to food hygiene:
- Food and nutrition, food habits, timing of food, nutrients and their functions, diversity of Indian food, seasonal foods and festivals, economics of food, preservation of food value during cooking, indigenous and modern ways to preserve food, shift in food practices and its globalisation, practices related to food hygiene, malnutrition, including obesity, food and waterborne and deficiency diseases and prevention.

Unit-3: Physical fitness, Games and sports:
- Physical fitness, strength, endurance and flexibility, its components, sports skills, indigenous and self-defence activities Games and sports - athletics (general physical fitness exercises), games (lead-up games, relays and major games) rhythmic activities, gymnastics and their impact on health.

Text Books

Supplementary Reading
### Course Outcomes

The student teacher should be able to

- **CO1:** explain about the Body systems, Health Problems and Diseases
- **CO2:** attain insight about malnutrition
- **CO3:** cognize about Food, nutrition and Hygiene
- **CO4:** gain awareness about Physical fitness, Games and sports

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Learning Objectives (LO): The student teacher
- acquires the knowledge of the fundamental or “formal properties” of art: line, positive/negative space, shade/tone, texture, color, etc.
- develops aesthetic awareness in the visual arts and in music,
- develops the awareness of, sensitivity to and enjoyment of visual, aural, tactile and spatial qualities in the environment

Unit-1

Unit-2
Knowledge of Indian traditions and its relevance in education – integrate art forms in class room activities.

Unit-3

Unit-4
Principles of art (balance, proportion, emphasis, variety, movement, rhythm and harmony).

Unit-5
Variety of art forms (performing arts- Dance, Music, visual arts – Drawing and Painting ,literary arts- Poetry and Drama)

Text Books
1. Louis V Newkirk, Crafts for everyone, Van Nostrand company Canada
2. Elements of art – virtual instructor.com
4. Sharma T R, An introduction to craft education In India, Indian publications Ambola
5. A.Pakthavachalam Tamil Vedha Thirattu Part -2, Nallarpettag 2000
6. Dr.K.A.Pakkirisamy Bharathi, Isai Karuoolam, Madha Idhazh, Chennai
7. Elliot W. Eisner, 2004 The Arts and the Creation of Mind by Yale University Press

Supplementary Reading
1. http://www.art-rageous.net/
3. Middle School Painting & Drawing Activities http://www.education.com/

Course Outcomes
The student teacher should be able to

CO1: use the various elements of art in their preparation of charts
CO2: express their ideas through various art forms
CO3: have aesthetic sense in their presentations
CO4: give stage performance
CO5: bring innovation in singing
## Outcome Mapping

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*PSO5: PO1, PO2, PO3, PO4, PO5, PO6*
Learning Objectives (LO): The student teacher
- acquires information about library and different kinds of libraries
- acquires knowledge about the various types of e-resources
- understands the function of the various sections of the library
- develop skills to locate the required information
- develop interests in locating websites used for teaching and learning
- analyse about the various types of information/learning sources

Unit 1: Exploring library
Role of library in promoting education – educational functions and research functions - various sections of library – kinds of libraries- academic- research and public libraries, e libraries – virtual library – digital library

Unit 2: Library Procedures
Classification – basis of classification - catalogue – accession No. – call No. - OPAC

Unit 3: Sources of Information
Types of learning resources- Documentary – primary, Secondary and tertiary Non documentary - e resources – E books – e journals – e magazines

Unit 4: Services provided by the library
Selective dissemination of Information (SDI) – Current awareness service – abstracting and indexing – reference service – reprography service –bibliographic services

Unit -5: World Wide Web – storehouse of information
Information resources – personal – institutional – commercial and educational Useful websites for teaching and learning

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to
- CO1: differentiate the various kinds of libraries
- CO2: use the various electronic resources
- CO3: know the various functions of the different sections of the library
- CO4: locate the various websites useful for teaching and learning
- CO5: locate the various sources of information
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Learning Objectives (LO): The student teacher
- acquires the knowledge of the concepts, terms and procedures in the teaching skills of Yoga.
- understands the techniques of yogic practices
- applies the knowledge to practice different yoga skills
- develops interest in using different yogic practices
- develops a positive attitude towards teaching various methods of yoga

Unit – 1


Unit – 2


Unit – 3


Unit – 4


Unit – 5


Text Books
Supplementary Reading

2. Yoga, Asana, Pranayama, Mudras, Bandha: Yoga Publications Trust, Munger, Bihar, India

Course Outcomes
The student teacher should be able to

- CO1: understand the Principles of Yoga
- CO2: be able to perform preparatory practices
- CO3: perform Suryanamaskar and various yoga asanas
- CO4: acquire the techniques of Pranayama practices
- CO5: perform various classification of mudras
- CO6: familiar with practices of Relaxation techniques of IRT, QRT and DRT

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Learning Objectives (LO): The student teacher
- acquires the knowledge of the concepts, terms and procedures in the teaching skills and Micro teaching
- understands the technique of using different teaching skills
- applies the knowledge to practice different teaching skills
- develops skills of using different teaching skills
- develops interest in using different teaching skills
- develops a Positive Attitude Towards teaching Various Teaching Skills

Unit-1: Meaning and Scope of Teaching Skills
Meaning and Definition- Need and importance – Nature of teaching skills- Features of teaching skills-Characteristics-General classification of teaching skills-Special classification of teaching skills.

Unit-3: Description and Components of Teaching Skills

Unit-3: Techniques for Developing Teaching Skills

Unit-4: Planning Micro lesson
Steps and procedures in preparation of micro lesson- Preparation of Micro lesson plan for various teaching skills.

Unit-5: Organization of Microteaching
Selection of skills-Collection/preparation of instructional materials-Arrangements of facilities- Role allocation- Training in observation- Scheduling and time tabling – Implementation- Evaluation-Continuous search for improvement.

Text Books
3. A.Ram Babu, Micro teaching, Volume 1, Neelkamal Publications PVT limited , Hyderabad.

Supplementary Reading

Course Outcome
The student teacher should be able to
- CO1: acquire the knowledge about the various teaching skills and microteaching techniques
- CO2: understand the components of the various teaching skills such as skill of explaining, skill of reinforcement and skill of stimulus variation
- CO3: apply the scientific knowledge to identify the most essential teaching skills
- CO4: develop skill in practicing the various teaching skills one by one through micro teaching techniques
- CO5: develop curiosity to know more about micro lesson plan
- CO6: develop scientific attitude by realizing the importance of practicing teaching skills for
effective teaching

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I. COURSE OBJECTIVES:

The student teacher
1. acquires knowledge of work education
2. understands the views, practices, theories and models related to work education
3. applies knowledge in the sustainable improvement in quality of life and empowerment of community concerned
4. develops skills and expertise in a collaborative manner between school family and community
5. develops a sustainable community academic partnership that addressed social issues.

II. COURSE OUTLINE:

Unit 1: Work Education

Unit-2: Thinkers-Theories and Models of work Education

Unit-3 : Rural Community Engagement
Changing profile of Rural India – Socio-Economic-Political and cultural community goal setting – Participatory learning methods Rural Resilience: Vulnerabilities, Risk Reduction, Rehabilitation – Village Development, Disaster Management and Waste management

Unit-4 : Community Engagement through Teacher Education
Community Engagement - School, Family and Community partnership-Relationship between School and Community – Rationale and Methods of Community Engagement – School Management Committees – Role of Teachers and Headmasters for Community Engagement - Parents Participation levels in school- Establishing Rural Education interest groups and communities, Self Help groups.

Unit-5: Field Engagement and Experiences
Community Services and its impact-Documentation of the engagement activities – Involving in local practices related to art, craft, agriculture, indigenous occupations, waste management and disaster management planning and implementation of projects.

III. LEARNING OUTCOMES
1. Cultivate service learning
2. Collaborate with community
3. Develop co-curricular device projects
4. Encourage civic leadership
5. Foster social responsibility
6. Promote personal growth
Text Book
3. MGNCRE, (2018). Experiential Learning, MHRD, Govt. of India

Supplementary Reading
2. MGNCRE, RCE manual and curriculum framework, Rural Immersion Manuals, MHRD, Govt. of India

Course Outcomes

The student teacher should be able to

- CO1: enumerate the knowledge about the assessment and evaluation
- CO2: synthesis issues in assessment and evaluation
- CO3: analyze the key concepts such as formative and summative assessment, evaluation and measurement, tests, examination
- CO4: differentiate kinds and forms of assessment that aid student learning
- CO5: evaluate the use of wide range of assessment tools, select and construct these appropriately
- CO6: utilize skill to evolve and adapt realistic, comprehensive and dynamic assessment procedures.

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Learning Objectives (LO): The student teachers
- acquire knowledge of the concept and principles of Education for peace
- develop understanding of the concepts and its implications in Education for peace
- apply the knowledge of Education for peace in the analysis of present day educational system.
- develop interest in reading Education for peace issues.

Unit – 1: Peace as a Dynamic Social Reality

Unit – 2: Non-violence for Peace and Conflict Resolution

Unit –3: Global issues and Peace Movements

Unit –4: Integrating Peace Education in the present curriculum
1. Six Major Media of Integration
  i) Subject content ii) Teaching methods iii) Co-curricular activities
  iv) Staff development v) Classroom management vi) School management
2. Practical steps to build peace culture in schools.

Unit –5: Education for a culture of Peace
Critical reflection on the curricular processes.
  i) Healthy discipline practices in and outside classroom.
  ii) Symbols, activities and other structures in the school that reflect a multi-cultural ambiance
  iii) Experiences of different cultural identities, issues, challenges conflicts in the neighbourhood.
Critical Pedagogy of peace education – Ecological Thinking and respects of life (age 8 – 12) – Tolerance and respects for Human Rights (age between 11 – 16) – Social justice and civic responsibility (age 14 +) – Leadership and Global citizenship (age 16 +) – Knowledge, Attitude and skills to be learnt in each of them.

Text Books
Supplementary Reading

Course Outcome

The student teacher should be able to

- **CO1**: understand the concept and principles of education for peace
- **CO2**: understand concept of Non-violence
- **CO3**: able to handle various types of conflict
- **CO4**: familiar with the various global issues related to peace movements
- **CO5**: to integrate peace education in the curriculum
- **CO6**: develop healthy discipline practices towards maintaining peace

Outcome Mapping

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I. Learning Objectives (LO): The student teachers
- acquire the knowledge on natural resources and the problems associated;
- know the different types of resources;
- understand the environmental hazards and pollutions;
- understand the major environmental problems in India;
- know the importance of environmental education in the school curriculum

Unit – 1: Natural Resources and Associated Problems
Forest resources: Use and over-exploitation, deforestation. Timber extraction, mining, dams and their efforts on forests and tribal people.-Water resources: Use and over-utilization of surface and ground water, floods, droughts, water disputes.-Mineral resources: Use and exploitation-environmental efforts and extracting and using mineral resources.-Food resources: world food problems, charges caused by agriculture and overgrazing, effects of modern agriculture, fertilizer, pesticide problems, water logging, salinity, - Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources.-Land resources: Land as a resources, land degradation, man induced landslides, soil erosion, conversion of wet land into dry land.-Equitable use of resources for sustainable lifestyles.

Unit – 2: Environmental Hazards and Pollution
Pollution: Meaning-Definition, Causes, effects and control measures of air, water, soil, marine, noise, thermal pollution and nuclear hazards-Solid waste management-causes, effects and control measures-Disaster management: Floods, earthquake-cyclone and tsunami-causes, effects and control measures.

Unit-3: Environmental Uses and Policies
Major environmental problems in India-Environmental protection and policies in India-Threats to bio-diversity: habitat loss, poaching of wildlife, endangered and endemic species of India-measures taken in India-Role of Green Tribunals in environment issues – state solar policy-Rain water harvesting.

Unit-4: Conversation of Environment

Unit-5: Environmental Education in the School Curriculum
Environmental education at primary, secondary and higher education level-Programmes field trips-workshops-exhibitions, video shows, nature clubs, nature walk and celebration of environmental day, saving energy, hygiene and sanitation programmes, eco friendly behaviour, organic farming-clean and green campus programmes-Role of teachers in conservation of environment-Swachch Bharat.

Text Books
Supplementary Reading


Course Outcomes

The student teacher should be able to

CO1: acquire the knowledge on natural resources
CO2: understands the environmental problems
CO3: utilize skills and undertake activities for the society against environmental pollutions

Outcome Mapping

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Learning Objectives (LO): The student teacher
- acquires the knowledge of the terms and concepts used in curriculum development,
- understands the principles, designs, development and evaluation of curriculum,
- applies the knowledge in analyzing the different types of curriculum and their evaluation.
- develops skill in preparing curriculum design.
- develops interest in studying books journals and articles on curriculum development.
- develops a desirable positive attitude towards curriculum development.

Unit-1: Nature and Scope of Curriculum
Curriculum – Meaning - Definition – Scope – Curriculum as a plan, as experience, a subject matter or content – Nature, Scope and Types of Curriculum – Understanding curriculum reforms and its impact on school structure, system, and school culture.

Unit-2 Foundations of Curriculum
Foundations of curriculum development – Philosophical, Sociological and Psychological. Creating a supportive school environment for curriculum change, Determinants of curriculum.

Unit-3: Aims and Objectives

Unit-4: Curriculum Process
Curriculum Process – Formulation of objectives, selection of learning experience and content organisation. Designing Integrated and Interdisciplinary learning experience, Integration of learning experience relating to work experience and sensitivity to gender disparity.

Unit-5: Curriculum Design

Unit-6: Types of Curriculum Designs
Representative Curriculum Design – Subject centered design, Learners centered design, Experience centered designs, Life centered design.

Unit-7: Curriculum Transaction

Unit-8: Curriculum Evaluation

Unit-9: Agencies of Curriculum
Agencies of Curriculum Development – Schools, Teachers, Principals, Educationists, NCERT, SCERT, NCTE, UNESCO, DTERT.

Unit-10: Future directions and Approaches

For Fast Track Learners
Developing curriculum suitable to the present day context – suggesting a new model for curriculum evaluation.

Practical Works
- Describe various stages of curriculum development. Discuss how these stages are interlinked?
- Discuss different models of curriculum planning. Which model you consider the best and why? Justify your answer with the help of suitable examples?
- As school management, you will be challenged to manage the shift in curriculum from Foundation phase to Intermediate Phase to Senior Phase. What are the important considerations for learners, teachers, and curriculum planning? How will you manage change in each of the above?
- Monitoring is an important management function. It serves a purpose at all three management levels, and has a role in ensuring quality teaching and learning practice. Discuss in your groups monitoring processes and practices, and how it can support your management function?
- Describe in brief different models of curriculum planning. Which model you consider the best and why? Give suitable example in justification of your answer?

Text Books
5. J. Lee (1984): Evaluation for Course Improvement in New Curricula, New York:

Supplementary Reading
5. NCERT (1975), The Curriculum for the Ten-year School – A Framework
Course Outcomes
The student teacher should be able to

CO1: explain the scope of curriculum
CO2: analyse the taxonomical objectives of education
CO3: design different types of curriculum
CO4: apply the various modes of ICT in curriculum transaction
CO5: make use of different models in curriculum evaluation

Outcome Mapping

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</table>
Learning Objectives (LO): The student teacher

- acquires knowledge of the importance of universalization of school education and the constitutional provisions for realizing it
- understands examine the issues and concerns related to universalization of school education
- understand the importance of indicators, standards and strategies for enhancement of quality in school education
- understand the action/measures taken for environmental conservation and its sustainability at the international level
- understand the strategies for development of values and life skills and the role of the teacher in developing values and life skills.
- understand the need and importance of education for peace and human rights and the national and international efforts towards it
- applies the strategies for realization of UEE and the outcomes of their implementation

Unit-1: Universalization of School Education

Constitutional Provisions of universalization of school education Rights to Education and Universal access, enrolment, retention, participation and achievement Issues in UEE: Equality and equity; meaning, need and importance, constitutional provision for ensuring equity

Unit-2: Inequity and Educational Provisions

Nature and forms of inequity with reference to Gender, Socio-economic status, socio-cultural status, Minority(Linguistic & Religions), locality(Rural-Urban-Tribal) public-private schools, children with special needs(CWSN), Inclusive Education for addressing inequality - Causes of Inequity and Educational Provisions - SSA, RTE and RMSA: provision for addressing inequality

Unit-3: Quality in Education

Concept of quality in Education; Indicators of quality Education –Academic and Organisational, student outcomes- Quality improvement in Education –setting up standards for performance, supporting inputs to improve achievement, adopting flexible strategies for the acquisition and use of inputs, and monitoring performance

Unit-4: Organisational Strategies Of Quality In Education


Unit-5: Human Rights

Human Rights: Concept; Constitutional and Institutional safeguards -Domains of Human Rights: RTI, Poverty, Child Labor, Child Rights, Rights of women empowerment; Role of Education in safeguarding Human Rights.

Unit-6: Peace Education

Peace Education: concept and relevance in National and International (UN & UNESCO) contexts; Danger to Social Security; terrorism, war, natural calamities (Disaster management), their impact on quality of life, Threat to peace in regional, national and global contexts and their impact on quality of life- Role of teacher education in promoting peace: implication for pedagogy.
Unit-7: Education For Conservation Of Environment

Unit-8: Environmental Education Curriculum
Environmental Education : Integration of environmental concerns in school curriculum- Strategies for sensitizing learners towards protection of environment and its conservation, Role of the teacher in promoting conservation.

Unit-9: Value Education
Values: concept, classification, Indian philosophical thought and values(Purushartha and PanchaKosha), Reverence for life, unity of all life and being); tolerance: values in modern Indian context –preamble of the Indian Constitution, Rights and Duties of a citizen, Personal, Social, Spiritual and universal values Value Education and Role of the teacher.

Unit-10: Life-Skill Education
Life-skill education –meaning, concept and importance- Ten core life-skills recommended by WHO- Strategies for developing individual life-skills at different levels(elementary and secondary)- Role of the teacher and community for facilitating and promoting learner’s life skill.

For Fast Track Learners

Practical Works
- Presentation on the reports and policies on USE (Universalization of school education)
- Conduct of survey of government and private schools to identify various forms of inequality
- Assessment of quality education in any School as per the organizational/academic indicators
- Analysis of any one text book with regard to incorporation of values/Human rights education
- Observation and reporting on violation of child rights in any locality

Text Books
2. GOI (1986), National Policy on Education.MHRD, New Delhi
3. GOI (1992), Programme of Action (NPE), MHRD.
9. Ministry of Law and Justice (2009), Right to Education Act 2009, New Delhi, Govt. of India.
18. UNDPA, Human Development Report, New Delhi, Oxford University Press.

Supplementary Reading


Course Outcomes

CO1: explain the universalization of education and the constitutional provisions
CO2: identify the indicators of quality education
CO3: safeguard human rights through education
CO4: promote peace through education
CO5: develop strategies for learners towards environmental protection and its conservation

Outcome Mapping

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1. Foundation of the Pedagogy of Tamil: Understanding the theoretical framework, development of the field and its historical context.
2. Innovative teaching methodologies: Exploring the latest techniques and strategies.
3. Curriculum development: Understanding the importance and process.
4. Assessment in Tamil education: Techniques and methodologies.
5. Professional development of teachers: Strategies for continuous improvement.

**Subject Details:**
- **Code:** 19BEDO211
- **Title:** Pedagogy of Tamil [Part-2]
- **Credits:** 4
- **Hours:** 4
Mapping with Programme outcomes

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Learning Objectives (LO): The student teacher
- acquires the knowledge of the concepts, terms and procedures in the pedagogy of English
- understands the concepts, terms and procedure in the content and methodology of teaching English
- uses the knowledge in actual classroom situations
- develops interest in various activities pertaining to teaching and learning of English
- develops interest in knowing recent developments in content and methodology of teaching English
- develops positive attitude towards teaching and learning of English
- appreciates the contribution of English language to the process of teaching and learning

Unit-1: Lesson Planning
Advantages - Features of Lesson Planning - unit plan - Lesson Plan format for teaching of Prose, Poetry, Grammar and Composition - model lesson plan. 76

Unit-2: Instructional Procedure

Unit-3: Materials and Media
Need and importance of audio visual aids - advantages - classification - selection - preparation and use of instructional materials and Media for effective teaching of English - language laboratory.

Unit-4: Learning Resources
Reference material - print media - textbook - Dictionary - Thesaurus - Encyclopedia - web based learning - Internet and its applications - e-learning - m-learning - teleconferencing - EDUSAT.

Unit-5: Effective Communication
Need and importance - elements of communication - communication cycle - barriers for effective communication - types of communication - strategies for improving communication skills.

Unit-6: Innovative Trends In ELT

Unit-7 : Testing and Evaluation
Characteristics of good test - construction and administration of an achievement test in English - weightage - types of test items - test design and blue print - scoring key - Question Bank.

Unit VIII Diagnostic Testing and Remedial Teaching
Common errors in English usage - causes for errors - types of errors - oral - written - lexical - measures for correcting errors - organizing remedial programmes.

Unit-9 : Professional Growth of Teachers
Professional competencies of English teacher - Maxims of teaching - In service and Pre - Service Training to language teachers - quality improvement programmes in ELT.
Unit-10 : Recent Research in Language Education

Research in ELT - improving professional competency in ELT - role of EFLU - NCERT - RIE and The British Council - recent trends - current issues in ELT.

For Fast Track Learners

Meaning – Definition – Sources – Principles – Advantages – Main Components – organization of Subject matter – Task analysis

Practical Work

1) Prepare innovative teaching aids for teaching of grammar.
2) Write a review of a book that you have recently read.
3) Discuss the greatness of Dr. Kalam by forming into groups.
4) Narrate of a story with a good social message.
5) Conduct a seminar on topics of prescribed curriculum for ELT.

Text Books


Supplementary Reading


Course Outcomes

CO1: acquire the instructional procedures for teaching of prose, poetry grammar & composition
CO2: develop the skill of effective communication in English
CO3: understand the innovative trends and approaches in ELT
CO4: comprehend the role and importance of various learning resources
CO5: develop interest in professional growth of teachers
CO6: design, implement and evaluate diagnostic testing and remedial teaching
CO7: equip with the skill of testing and evaluation.
### Outcome Mapping

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Learning Objectives (LO): The student teacher

- acquires knowledge of the Planning For Instruction in the teaching Mathematics.
- understands the factors behind Media Selection of teaching Mathematics. The purpose of Review, assignments
- applies the knowledge in ICT Based Learning &Teaching in actual class room situation
- develops skill in preparing multimedia lessons to teaching and learning Mathematics
- develops interest in knowing recent Research in Mathematics Education
- develops scientific attitude towards the teaching and learning.

Unit -1: Planning For Instruction

Unit-2: Media Selection
Factors in Media Selection 1.Physical attributes of media (Visuals, Printed materials, Sound, Motion, Colour, Real objects) 2. Learner characteristics Instructional setting and Categories of learning outcome, events of Instruction, task characteristics 3.Practical factors-Factors affecting media selection- Use of media in Education-Instructional multimedia technology-Benefits of multimedia technology(Learner, Instructor, Administrative) – Issues concerning multimedia technology.

Unit -3: ICT Based Learning &Teaching

Unit- 4: Evaluation Of Teaching
Purpose of evaluating teaching – Sources for teacher evaluation-Self-evaluation, Social, Political context-Teacher Accountability- Modes of Accountability, Legal/contractual, Moral, Social, Intellectual, professional.-Suggestions for enhancing Teacher Accountability-Obstacles to Quality teacher evaluation.

Unit-5: Diagnostic Difficulties In Teaching

Unit -6: Creativity In Learning
Creative Thinking in Mathematics.Imagination- Significance-Sensation And Imagery-Types Of Imagination-Nature-Characteristics-Nurturing and Stimulation of Creativity-Conditions that enhances Mathematical Creativity

Unit- 7: Review

Unit- 8: Assignment
Aims-Types of assignments in Mathematics (Preparatory, revision, study, remedial, Project, experience, problem, practice)— Individual assignments – Group assignments –
Home assignments – Criteria of assignments-Procedure –significance-Teacher’s role- Difficulties in the preparation-Advantages and Disadvantages

Unit -9: Action Research

Unit- 10: Research In Mathematics Education

For Fast Track Learners
   Technology in Teaching of mathematics -Flipped Classroom- IMPACT

Practical Works
   - Preparation of Multimedia instructional materials on mathematics
   - Creating Blogs by the student and arranging Blog Discussion Group in the classroom.
   - Drafting recent reports on the research findings of the Mathematics Education
   - Identifying any one of the problem during teaching practice and preparing Action Research.
   - Preparing assignments about the significance and limitations of various Social Networks

Text Books
   4.

Supplementary Reading

Course Outcomes
   The student teachers should be able to

   CO1: acquire the basic knowledge about planning lesson and ICT based teaching of Mathematics at higher secondary level.
   CO2: understand the media selection and creativity in Mathematics
   CO3: apply the scientific knowledge to identify the teachers accountability and students difficulties in learning Mathematics
   CO4: develop skills in reviewing lessons in Mathematics
   CO5: develop interest in knowing more about the assignments in Mathematics
   CO6: develop scientific attitude by 102realizing the importance of research in Mathematics education

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</table>
Learning Objectives (LO): The student teacher
- acquires knowledge of the Planning for Instruction in the teaching Physics
- understands the factors behind Media Selection in teaching Physics and the purpose of Review and Assignments
- applies the knowledge in ICT Based Learning and Teaching in actual class room situation
- develops skill in preparing multimedia lessons to teaching and learning Physics
- develops interest in knowing recent Research in Physics Education
- develops positive attitude towards the teaching and learning Physics
- appreciates the contribution of the Physics subject in day to day life

Unit -1: Planning For Instruction
Long-term plan, Mid-term plan, short-term plan- Identifying the need for instruction in Physics – Preparation of Lesson Plan for teaching Physics at higher secondary level.

Unit- 2: Media Selection
Media and its uses – Procedure for media selection - Factors in Media Selection - Instructional multimedia technology-Benefits of multimedia technology

Unit -3: ICT Based Teaching and Learning
Internet and its application in teaching and learning Physics - Teaching and Learning by Online Forum, Online Video Conference, Virtual Class – teleconferencing and EDUSAT in teaching Physics.

Unit -4: Evaluation of Teaching
Purpose of evaluating teaching – Sources for teacher evaluation-Self-evaluation, Evaluation of science teacher by peers, by students and by experts - Teacher Accountability - Suggestions for enhancing Teacher Accountability

Unit- 5: Diagnosing Difficulties in Learning Physics

Unit- 6: Creativity in Physics

Unit- 7: Review
Meaning – Types - Need and Importance - Characteristics of a good Review in Physics Lessons

Unit- 8: Assignment
Aims of Assignments in Physics – Individual Assignments – Group Assignments – Home Assignments – Advantages and Disadvantages -Characteristics of a good Assignment - Teacher’s role

Unit -9: Action Research

Unit -10: Research in Physics Education

For Fast Track Learners
Using Mobile Phone for Teaching of Physics-creating virtual class room for Physics- Identification of Physics related concepts in day to day life encounters.

Practical Works
- Preparation of Multimedia Instructional Materials on Physics Lessons.
- Creating Blogs and arranging Blog Discussion Group in the class room.
- Drafting recent reports on the research findings of the Physics Education
- Identifying any one of the problem during teaching practice and preparing Action Research report.
- Preparing assignments on the significance and limitations of various Social Networks
- Any five experiments in Physics.

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: acquire the basic knowledge about planning lesson and ICT based teaching of physics at higher secondary level.
CO2: understand the media selection and creativity in physics
CO3: apply the scientific knowledge to identify the teachers accountability and students difficulties in learning physics
CO4: develop skills in reviewing lessons in physics
CO5: develop interest in knowing more about the assignments in physics
CO6: develop scientific attitude by realising the importance of research in physics education

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Learning Objectives (LO): The student-teacher
- acquires knowledge of the Planning for Instruction in the teaching Chemistry
- understands the factors behind Media Selection in teaching Chemistry and the purpose of Review and Assignments
- applies the knowledge in ICT Based Learning & Teaching in actual class room situation
- develops skill in preparing multimedia lessons to teaching and learning Chemistry
- develops interest in knowing recent Research in Chemistry Education
- develops /positive attitude towards the teaching and learning Chemistry
- appreciates the contribution of the Chemistry subject in day to day life

Unit -1: Planning For Instruction
Long-term plan, Mid-term plan, short-term plan- Identifying the need for instruction in Chemistry – Preparation of Lesson Plan for teaching Chemistry at higher secondary level

Unit -2: Media Selection

Unit -3: ICT Based Teaching and Learning
Internet and its application in teaching and learning Chemistry – Teaching and Learning by Online Forum, Online Video Conference, Virtual Class – teleconferencing and EDUSAT in teaching Chemistry.

Unit -4: Evaluation of Teaching
Purpose of evaluating teaching – Sources for teacher evaluation-Self-evaluation, Evaluation of science teacher by peers, by students and by experts – Teacher Accountability – Suggestions for enhancing Teacher Accountability.

Unit -5: Diagnosing Difficulties in Learning Chemistry

Unit -6: Creativity in Chemistry

Unit -7: Review

Unit -8: Assignment
Aims of Assignments in Chemistry – Individual Assignments – Group Assignments – Home Assignments – Advantages and Disadvantages –Characteristics of a good Assignment – Teacher’s role

Unit -9: Action Research
Unit -10: Research in Chemistry Education


For Fast Track Learners
Correlation approach of teaching chemistry with day today life-Health-Based chemistry education-Chemistry on balanced diet-Awareness on various diseases caused by malnutrition-Chemistry education for sustainable physical health-Medicinal values of chemistry-Chemistry of natural resources and its safety measures

Practical Works
- Preparation of Multimedia Instructional Materials on Chemistry Lessons.
- Creating Blogs and arranging Blog Discussion Group in the classroom.
- Drafting recent reports on the research findings of the Chemistry Education
- Identifying any one of the problem during teaching practice and preparing Action Research report.
- Preparing assignments on the significance and limitations of various Social Networks
- Any five experiments in Chemistry.

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: acquire the basic knowledge about planning lesson and ICT based teaching of Chemistry at higher secondary level.
CO2: understand the media selection and creativity in Chemistry
CO3: apply the scientific knowledge to identify the teachers accountability and students difficulties in learning Chemistry
CO4: develop skills in reviewing lessons in Chemistry
CO5: develop interest in knowing more about the assignments in Chemistry
CO6: develop scientific attitude by realizing the importance of research in Chemistry education

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Learning Objectives (LO): The student teacher
- acquires thorough knowledge of topics in zoology taught in higher secondary schools and the latest development.
- understands the importance of zoology in the modern age and the need for the teaching of zoology in schools.
- understands the aims and values of teaching zoology
- understands the objectives of teaching zoology at various levels and especially at higher secondary level need and importance of zoology curriculum and its approaches.
- applies psychological basis of teaching zoology at higher secondary level.
- applies the principles of curriculum in the organization of content in zoology
- understands modern trends in the instructional methodology and dynamic methods of teaching zoology.
- develops skills in
  - teaching zoology at higher secondary level
  - preparing, and using the appropriate instructional materials in teaching zoology.
  - preparing zoology curriculum

Unit-1: Planning for Instruction
Identification and organisation of concepts for teaching Zoology- Instructional materials required for planning teaching Zoology-Preparation of Lesson plan for teaching Zoology at higher secondary level.

Unit-2: Media Selection
Media and its uses- Procedure for media selection-Factors in media selection

Unit-3: ICT Based Teaching and Learning
Internet and its applications in teaching and learning of zoology- Application of e-learning, teleconferencing and EDUSAT in teaching of zoology.

Unit-4: Evaluation of Teaching
Evaluation of science teacher by peers- Evaluation by students-Evaluation by experts.

Unit-5: Diagnosing Difficulties in Learning Zoology
Importance, purpose and process of diagnosing the difficulties of learning zoology-Ways of providing suitable measures.

Unit-6: Creativity in Learning Zoology
Meaning and definitions of creativity- Need of creativity for learning zoology-Qualities of highly creative children- How to foster creativity in children.

Unit-7: Review of Units in Zoology
Need and importance reviewing lesson in zoology- Characteristics of a good review-Different techniques of reviewing lesson.

Unit-8: Assignment
Type of assignment to be given- Importance of assignment in learning zoology-Characteristics of good assignment.
Unit-9: Action Research in Teaching Zoology
Meaning and definitions of action research-Importance of action research for the quality improvement in teaching-Objectives of action research-Steps in action research.

Unit-10: Research in Science Education
Need for research in science education- Recent trends in research in science education

For Fast Track Learners
Enhancement the Teaching and Learning Methods of Some Zoological Courses Invertebrate, Parasitology , Anatomy and Animal Physiology- Visual Representation of Lesson Content Structure

Practical works:
- Prepare a detailed report regarding the materials and media prepared and used by you for your teaching and learning process.
- Conduct a debate on a life science based issue and prepare a self evaluation report.
- Prepare a report on field trip organized by you for your students.
- Prepare a report on action research conducted by you to improve the quality of teaching and learning process.
- Prepare an e –Work book on any one of the unit in zoology at higher secondary level.

Text Books

Supplementary Reading

**Course Outcomes**

The student teacher should be able to

- **CO1:** acquire the basic knowledge about planning lesson and ICT based teaching of Zoology at higher secondary level.
- **CO2:** understand the media selection and creativity in Zoology
- **CO3:** apply the scientific knowledge to identify the teachers accountability and students difficulties in learning Zoology
- **CO4:** develop skills in reviewing lessons in Zoology
- **CO5:** develop interest in knowing more about the assignments in Zoology
- **CO6:** develop scientific attitude by realizing the importance of research in Zoology education

**Outcome Mapping**

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Learning Objectives (LO): The student teacher
1. acquires thorough knowledge of concepts, terms, and procedures in Botany taught in higher secondary schools and the latest development.
2. understands the
   • planning for instruction.
   • various aids to teaching Botany and application of ICT in teaching of Botany at various levels in higher secondary schools.
   • identification and diagnoses of difficulties in learning Botany.
3. develops skills in
   • preparing, and using the appropriate instructional materials in teaching Botany.
   • preparing and using different techniques of evaluation of pupils; progress.
   • identifying learning difficulties in learning Botany.
   • various activities pertaining to teaching and learning.
   • appreciates the contribution of the subjects to the teaching and learning.

Unit-1: Planning for Instruction
Identification and organisation of concepts for teaching Botany- Instructional materials required for planning teaching Botany-Preparation of Lesson plan for teaching Botany at higher secondary level.

Unit-2: Media Selection
Media and its uses- Procedure for media selection-Factors in media selection.

Unit-3: ICT Based Teaching and Learning
Internet and its applications in teaching and learning of Botany- Application of e-learning, teleconferencing and EDUSAT in teaching of Botany.

Unit-4: Evaluation of Teaching
Evaluation of science teacher by peers- Evaluation by students-Evaluation by experts.

Unit-5: Diagnosing Difficulties in Learning Botany
Importance and purpose of diagnosis the difficulties of learning Botany-Ways providing suitable measures- Educational implications of improvisation of media.

Unit-6: Creativity in Learning Botany
Meaning and Definitions of Creativity- Need of creativity for learning Botany-Qualities of highly creative children- How to faster creativity in children.

Unit-7: Review of Units in Botany
Need and importance reviewing lesson in Botany- Characteristics of a good review- Different techniques of reviewing lesson.

Unit-8: Assignment
Type of assignment to be given- Importance of assignment in learning Botany- Characteristics of good assignment.

Unit-9: Action Research in Teaching Botany
Meaning and definitions of action research-Importance of action research for the quality improvement in teaching-Objectives of action research-Steps in action research.
Unit-10 Research in Science Education

Need for research in science education- Recent trends in research in science education.

For Fast Track Learners

Fostering creativity among students – conducting action research in teaching Botany – Reviewing recent researches in science Education.

Practical works:
- Submit a report about the uses of internet in the field of Botany.
- Select any one topic from Higher secondary Botany syllabus – identify the learning difficulties and suggest suitable remediable measures.
- Prepare an instructional material for teaching botany.
- Submit an assignment on the different techniques of reviewing a lesson.
- Prepare and submit a lesson plan using power point presentation on any one topic at the higher secondary level.

Text Books
5. Ameeta, P. (2005), Methods of Teaching Biological Science, New Delhi.

Supplementary Reading
3. Rajammal, K. (2009), Methods of Teaching Biological Science, Santha Publication.

Course Outcomes

The student teacher should be able to

CO1: acquire the basic knowledge about planning lesson and ICT based teaching of Botany at higher secondary level.
CO2: understand the media selection and creativity in Botany
CO3: apply the scientific knowledge to identify the teachers accountability and students difficulties in learning Botany
CO4: develop skills in reviewing lessons in Botany
CO5: develop interest in knowing more about the assignments in Botany
CO6: develop scientific attitude by realising the importance of research in Botany education

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### Learning Objectives (LO):

The student teacher

- acquires Knowledge of the aims and objectives of computer science
- understands the nature and scope of computer science, the principles of curriculum construction and organization of subject matter, psychology of learning computer science
- understands the special qualities of a good computer science teacher, acquire those qualities and to evaluate himself or herself
- applies the knowledge in interaction of analysis in actual class room situation and teaching strategies
- develops skill in effective communication
- develops interest in knowing dynamic methods of teaching computer science.
- develops scientific attitude towards the teaching and learning.

#### Unit-1: Planning For Instruction


#### Unit-2: Media Selection

Factors in Media Selection 1. Physical attributes of media (Visuals, Printed materials, Sound, Motion, Colour, Real objects) 2. Learner characteristics Instructional setting and Categories of learning outcome, events of Instruction, task characteristics 3. Practical factors- Factors affecting media selection- Use of media in Education-Instructional multimedia technology-Benefits of multimedia technology(Learner, Instructor, Administrative) – Issues concerning multimedia technology

#### Unit-3: ICT Based Learning & Teaching


#### Unit-4: Evaluation Of Teaching

Purpose of evaluating teaching – Sources for teacher evaluation-Self-evaluation, Social, Political context-Teacher Accountability- Modes of Accountability, Legal/contractual, Moral, Social, Intellectual, professional.-Suggestions for enhancing Teacher Accountability- Obstacles to Quality teacher evaluation.

#### Unit-5: Diagnostic Difficulties In Teaching


#### Unit-6: Creativity In Learning

Creative Thinking in Computer science. Imagination- Significance-Sensation And Imagery-Types Of Imagination-Nature-Characteristics-Nurturing and Stimulation of Creativity-Conditions that enhances Creativity

#### Unit-7: Review

Unit-8: Assignment
Aims-Types of assignments in Computer science (Preparatory, revision, study, remedial, Project, experience, problem, practice)– Individual assignments – Group assignments –Home assignments – Criteria of assignments-Procedure –significance-Teacher’s role-Difficulties in the preparation-Advantages and Disadvantages.

Unit-9: Action Research

Unit-10: Research In Computer Science Education

For Fast Track Learners
Improvising Social Media for Teaching and Learning- Developing simple Mobile Applications-proper usage of digital support system for Teaching and Learning.

Practical works:
- Preparation of Multimedia instructional materials on Computer science
- Creating Blogs by the student and arranging Blog Discussion Group in the class room.
- Drafting recent reports on the research findings of the Computer science Education
- Identifying any one of the problem during teaching practice and Preparing Action Research.
- Preparing assignments about the significance and limitations of various Social Networks

Text Books
2. Roger Humt Hon Shelley,1975 Computers and Common Sense, Prentic Hall (India) Delhi.
3. Shied, Introduction to Computer Science, SCHAVM.

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: acquire the basic knowledge about planning lesson and ICT based teaching of Computer Science at higher secondary level.
CO2: understand the media selection and creativity in Computer Science
CO3: apply the scientific knowledge to identify the teachers accountability and students difficulties in learning Computer Science
CO4: develop skills in reviewing lessons in Computer Science
CO5: develop interest in knowing more about the assignments in Computer Science
CO6: develop scientific attitude by realizing the importance of research in Computer Science education

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Learning Objectives (LO): The student teacher

- acquires the knowledge of the concepts, terms and curricular approaches related to teaching history.
- understands the various innovative methods and techniques in teaching of history.
- understands the significance of relevant media and ICT in teaching history.
- understands the needs of different learner group and foster historical ideas and current events.
- develops interest to know the achievement in history.
- develops healthy social attitude in practising the spirit of noble ideas.

Unit-1: Planning for instruction at Higher Secondary level

Unit-2: Media Selection
Meaning and significance – Radio’s school broadcast – Educational Television – Role of the teacher in T.V.

Unit-3: ICT based Teaching and Learning

Unit-4: Evaluation of History Teaching

Unit-5: Diagnosing Learning difficulties in History
Identifying learning difficult learners – Factors hindrance to learning – Motivating the learner.

Unit-6: Creativity in Learning History
Identification – Need for identifying creative children – Educational programmes to foster creativity.

Unit-7: Utilizing current events and Contemporary Affairs
Importance of current affairs in history – Objectives of teaching current events – How to select current affairs for teaching of history – Techniques of teaching current affairs – Role of history teacher in imparting knowledge of current affairs.

Unit-8 Action Research

Unit-9: Research in history
Need for research in history education – Recent trends.

Unit-10: Feature History Curriculum
Students expectations – Teacher expectations-Parents expectations-Society expectations-correlation between past and present.

For Fast Track Learners


Practical works:
- Creative write up of two pages on a current historical problem.
- A project report about to visit any one of the place of historical importance.
- Prepare a chart showing the important battles in the Mughal Period.
- Compare any two civilizations flourished in Northern India.
- Write the important contributions of first five president in India.

Text Books

Supplementary Reading

Course Outcome
The student teacher should be able to

CO1: prepare a lesson plan by choosing a topic in history
CO2: apply the latest technologies in history teaching
CO3: follow the principles of evaluation in history
CO4: diagnose the learning difficulties in history
CO5: identify the creative children in learning history

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Learning Objectives (LO): The student teacher

- acquires the knowledge of Lesson plan, evaluation and learning experiences.
- develops understanding of the construction of achievement test in Economics.
- applies the principles in teaching Economics.
- develops the skill in preparing good lesson plan

Unit – 1: Lesson Plan

The nature of Lesson plan – Meaning – Important – Functions - Four types of Planning – Advantages – Preparation of good Lesson Plan – Unit Plan.

Unit – 2: Organizing Learning Experiences

Learning experience – Types – Levels, Procedures – Topics in Economics – Developing suitable learning experiences for different topics of Economics – Organizing suitable learning for different topics.

Unit – 3: Evaluation in Economics


Unit – 4: Construction of Tests

Meaning – Concept - Different types of questions – Objective type, Short answer, Essay type – Its significance- Merits and Demerits.
Characteristics of good test – Different types of test – Diagnostic, Prognostic and achievement test – Construction and Standardization of achievement test – Significance of test.

Unit – 5: Specific Approaches of Economics

Learning centered approach – Problem solving approach – Team teaching approach – Instructional approaches- Experimental approach – Integral approaches- Significance of specific approaches.

Unit – 6: Reviewing in Economics


Unit – 7: Assignment in Economics


Unit – 8: Content and Pedagogical analysis


Unit – 9: Teaching and Learning resources

Unit –10: Text Book analysis

For Fast Track Learners
Economic development- Demonetization- Impact of Demonetization- Developed countries and Developing Countries

Practical Works:
• Preparation of unit plans in economics
• Visit different types of banks, super market, warehouse and industries
• Collection of year book, newspapers, magazines and articles related to economics.
• Preparation of 5 min power point presentation not less than 10 slides, with photocopy of the slides.
• Present a paper on any unit solely with the use of internet, with details of the websites & URL’s visited.

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: prepare lesson plan for Economics subjects
CO2: Construct different types of questions
CO3: explain different approaches of Economics
CO4: analyse the teaching learning resources of economics
CO5: analyse the text book prescribed for XI\textsuperscript{th} and XII\textsuperscript{th} of the CBSE and

Outcome Mapping

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Learning Objectives (LO): The Student teacher

- acquires knowledge of the principles of content and conceptual analysis.
- understands the various aspects of content analysis.
- applies the knowledge in analyzing the commerce and accountancy content in pedagogical terms.
- develops skill in construction and preparation of lesson plans, question papers and teaching aids.
- develops interest in analyzing the various commerce course contents in pedagogical terms.
- develops a desirable positive attitude towards teaching commerce.

Unit -1: Lesson Planning

Importance of planning- year plan, unit plan, preparation of lesson plan- principles involved- need and importance- significance of lesson plan for commerce and accountancy at higher secondary level- demonstration and criticism classes.

Unit -2: Organizing - Learning Experience

Learning experiences- definition – concept- types of learning experiences to different branches of commerce- learning experience in commerce and accountancy- a model of experience in teaching one unit in commerce.Cone of experiences- different strata- use of each layer to the commerce teaching with illustration- significance.

Unit -3: Evaluation in Commerce


Unit -4: Construction of Test

Characteristics of a good test- meaning- concept - construction and standardization of an achievement test- test items- importance and its significance. Blue print format preparation construction of different types of question – objective type, short answer type, essay type- its significance merits and demerits.

Unit -5: Specific Approaches of Book- Keeping


Unit -6: Review in Commerce
Review of units in commerce- need and importance of reviewing lesson-characteristics of good review- different techniques of reviewing a lesson – different types review in commerce.

Unit -7: Assignment in Commerce
Assignment – types – importance- characteristics of a good assignment – types of assignment with illustrations in commerce.

Unit -8: Content and Pedagogical Analysis
Aspects of pedagogical analysis- utility of pedagogical analysis for commerce teachers- content analysis of higher secondary commerce syllabus.

Unit -9: Teaching- Learning Resources
Utilizing community resources- meaning, types and their uses in the teaching of commerce establishing link between school and community field trip- work experience- guest speakers- commerce club- developing commerce interest and attitude- related activities.

Unit -10: Text- Book Analysis
Characteristics of good commerce and accountancy text book- detailed analysis of Tamil Nadu higher secondary commerce and accountancy text book of regular and vocational stream- CBSE commerce text books.

For Fast Track Learners
Currency- Economic development and currency – Demonetization - Impact of Demonetization - Recent Demonetization in India

Practical Works:
- Export – Import procedure manuals
- Tax Procedure documents
- Company documents
- Visit to small scale industries and co-operative institutions
- Organize and celebrate consumer week activities in your locality

Text Books
1. Teaching of commerce- JC.Aggarwal.
5. Sharma, R.A., technology of teaching, international publishing house ,

Supplementary Reading
8. NCERT, New Delhi, 1982.

Course Outcomes
The student teacher should be able to

- CO1: prepare lesson plan for Commerce subjects
- CO2: Construct different types of questions
- CO3: explain different approaches of Commerce
- CO4: analyse the teaching learning resources of Commerce
- CO5: analyse the text book prescribed for XIth and XIIth of the CBSE and
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**Year-II (2019-2020)**

**19BEDO231: Pedagogy of Tamil -[Part-2]**

**Credits : 4**

**Hours : 4**

1. The pedagogy of Tamil in Year-II (2019-2020) focuses on the following areas:
2. Pedagogical approaches to teaching Tamil literature and culture.
3. Comparative study of Tamil and other Dravidian languages.
4. Development of Tamil language curricula and evaluation methods.
5. Integration of technology in Tamil pedagogy.

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அட்செண்டு-10

கால்மோழிகளும் வருடாக் - வலையின் கொன்று துருக்கு மூலம் வழியாகாகவும், கொன்று அந்தக் கால்மோழிகளும் வருடாக்கான் - விளக்கம் - வலையின் விளக்கம் - வலையின் விளக்கம் - வலையின் விளக்கம் - பிரபலமான பஞ்சாயன் மூலமாக வழியாகாகவும்.

புதிய வருடாக்கான் வலையின் அலகு அடர்த்தியான், குழு ஒன்றியக் குழுவின் வலையின் விளக்கம் வழியாகாகவும் பஞ்சாயன் மூலமாக வழியாகாகவும்.

சிறப்புத் தமிழ்குறியை பல்கலைக் கல்லறு போக்குப் புரட்சி

1. குண்டுசலையை வலையின் விளக்கங்கள்.
2. ஆளாட்சியை வலையின் விளக்கங்கள்.

சிறப்புத் தொலைக்கைகள்

- வலையின் விளக்கம் நேர்க் கால்மோழிகளும் வருடாக்கான் ஆளாட்சியை எடுத்துக்கொள்ளும் பஞ்சாயன் வழியாகாகவும்.
- கழுத்து வலையின் விளக்கம் நேர்க் கால்மோழிகளும் வருடாக்கான் ஆளாட்சியை எடுத்துக்கொள்ளும் பஞ்சாயன் வழியாகாகவும்.
- மூலமாக, கால்மோழிகளின் வலையின் விளக்கங்கள் எடுத்துக்கொள்ளும் பஞ்சாயன் வழியாகாகவும் ஆளாட்சியை எடுத்துக்கொள்ளும் பஞ்சாயன் வழியாகாகவும்.

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சிறப்புத் தமிழ்குறியை வழியாகாகவும்:

1. முதல்மோழிகள், 2008, கால்மோழிகள் விளக்கங்கள் - விளக்கம், வழியாகாக, பஞ்சாயன்.
2. கால்மோழி, இல. 2005, குழு விளக்கம் விளக்கங்கள் பல்கலைக் கல்லறு வழியாக, பஞ்சாயன்.
4. விளக்கங்களின் வழியாக வலையின் விளக்கம், இல. 1962, கால்மோழிகள் வழியாக வலையின் விளக்கம், பஞ்சாயன், பஞ்சாயன்.
Learning Objectives (LO): The student teacher
- acquires the knowledge of the concepts, terms and procedures in the pedagogy of English
- understands the concepts, terms and procedure in the innovations, trends, and approaches of teaching English
- uses the knowledge in actual classroom situations
- develops interest in various activities pertaining to teaching and learning of English
- develops interest in knowing recent developments in the innovations, trends, and approaches of teaching English
- develops positive attitude towards teaching and learning of English
- appreciates the contribution of English language to the process of teaching and learning

Unit-1: Development of Receptive Skills
- Listening skill - types of listening - strategies to improve listening skills
- Reading skill - types - methods of reading - strategies to improve reading skill.

Unit-2: Development of Productive Skills
- Speaking skill - types of drills - strategies to improve speaking skill
- Writing skill - mechanics - factors - causes for bad handwriting - qualities of good handwriting’s

Unit-3: Phonetics

Unit-4: Fluency
- Use of conventional formulae - greeting - apology - invitation - refusal - thanking - Various concepts and ways in which they are expressed - suggestion - prohibition - permission - probability - concession.

Unit-5: Lexis

Unit-6: Reference and Study Skills

Unit-7: Co-Curricular Activities
- Language games - organization of debates - extempore speech - elocutions - dramatization - forms of dramatic representation - class - school magazine.

Unit-8: Review and Translation
- Need and importance of reviewing - steps involved - advantages of reviewing - translation - principles - procedure - advantages.
Unit-9 : ICT in ELT
Use of internet - web based learning - Internet and its applications - blog - podcasts - e-mail - e-learning - m-learning - teleconferencing - EDUSAT - CAI - CAELL - CALL.

Unit-10 : Recent Research in Language Education
Research in ELT - improving professional competency in ELT - role of EFLU - NCERT - RIE and The British Council - recent trends - current issues in ELT.

For Fast Track Learners

Practical Work
1) Prepare a labeled diagram of speech organs.
2) Prepare a vowels and consonants charts.
3) Prepare a diphthongs chart with illustrations
4) Prepare of an album for stress and intonation
5) Transcribe any four paragraphs into phonetic script.

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

| CO1: | acquire the knowledge related to development of receptive and productive skills. |
| CO2: | understand the various aspects related to phonetics & fluency |
| CO3: | comprehend the use of ICT in ELT |
| CO4: | equip with the recent research in language education |
| CO5: | develop the skill of writing a review and translation |
CO6: create opportunities to learn and teach English through co curricular activities

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Learning Objectives (LO): The Student teacher
- acquires knowledge about the gifted students and programmes for backward learners in mathematics
- understands the technology of teaching mathematics and the use of audio-visual aids, the special qualities and professional growth of mathematics teacher
- applies knowledge and understanding in organizing different co-curricular activities in mathematics
- develops the skills in construction of an achievement test
- develops interest in planning lessons and presenting them effectively
- develops a positive attitude towards recent developments in mathematics education

Unit-1 Planning for Instruction
Stating Instructional Objectives, Identifying Learning Experiences, Teaching Aids; Lesson Plans-Preparation of Lesson Plans

Unit -2: Instructional Materials and Media
Need and importance-Classification of audio-visual aids (Projected and Non-Projected) -and their uses. Radio: Educational Broadcasts and Television: telecast and video lessons – Power Point – Use of internet in teaching

Unit -3: Learning Resources

Unit -4: Activities of Mathematics
Objectives, Organization and activities of Mathematics Club, Mathematics Exhibitions and Fairs, Fieldtrips and Excursions, Mathematics Quiz, Recreational Activities—Games, Puzzles and Riddles in Mathematics.

Unit -5: Mathematics Laboratory and Organization
Importance of Mathematics Laboratory- Planning of Mathematics Laboratory – Components of Mathematics Laboratory-Individual Work and Group Work.

Unit -6: Evaluation of Mathematics

Unit -7: Diagnostic Testing & Remedial Teaching

Unit -8: Professional Development of Mathematics Teachers
Characteristics of Mathematics Teacher-Teacher Evaluation – Students, Peer and Authority. Types of In-service Programme for Mathematics Teachers; Role of Mathematics
Unit -9: Teaching Gifted and Backward Learners in Mathematics


Unit -10: Recent Developments in Mathematics Education

Flipped Learning-Spaced Learning in Mathematics, Gamification-Team-Based Learning – Jigsaw technique - Blended learning

For Fast Track Learners


Practical Works:

- Organizations of Mathematics Quiz in the classroom
- Observing Mathematics Laboratory in the schools and drafting a plan for Mathematics Laboratory
- Preparation of Slides, Transparencies and A-v aids for some of the topics in mathematics
- Practicing Recreational Activities like Games, Puzzles and Riddles in Mathematics.
- Preparing a report on the places having significance in mathematics for Field trip.

Text Books


Supplementary Reading


Course Outcomes

The student teacher should be able to

- CO1: acquire the basic knowledge about the learning resources in Mathematics
- CO2: understand the preparation of lesson plan and the classification of audio visual aids
- CO3: apply the scientific knowledge to identify the students difficulties in learning Mathematics
- CO4: develop skills in constructing an achievement test and analyzing the marks obtained by the students
- CO5: develop the curiosity in knowing about the in service programme for teachers.
- CO6: develop the scientific attitude by realizing the essentials of teaching for gifted and backward children

Outcome Mapping

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</table>
Learning Objective (LO): The Student teacher

- acquires knowledge of the instructional materials and media, Enrichment program for
  gifted and Programs for backward learners in Physical science
- understands the technology of teaching Physical science and the use of audio-visual aids, the special qualities and professional growth of Physical science teacher
- applies knowledge and understanding in organizing different co-curricular activities in
  Physical science
- develops the skills in skills in construction of an achievement test
- develops interest in planning lessons and presenting them effectively
- develops positive attitude in the recent developments in Physical science education

Unit -1: Planning For Instruction
Stating Instructional Objectives, Identifying Learning Experiences, Appropriate
Strategies, Teaching Aids; Lesson Plan-Preparation of Lesson Plan

Unit -2: Instructional Materials and Media
Need and importance-Classification of audio-visual aids (Projected and Non-Projected)-and their uses. Radio: Educational Broadcasts and Television: telecast and video
lessons – Power Point – Use of internet in teaching

Unit -3: Learning Resources
Physical science textbook – Characteristics of a good Physical science textbook –
Using community resources for Physical science learning-Use of ICT experience in learning
Physical science.

Unit -4: Co-curricular Activities in Physical Science
Objectives, organization and activities of science club – Science Exhibitions and
Science Fairs – Fieldtrips and Excursions. Conducting Physical science Olympiads, Physical
science Quiz-Recreational Activities—Games, Puzzles and Riddles in Physical science.

Unit -5: Physical Science Laboratory and Organization
Planning of Science Laboratory – Structure and Design – Location and
Accommodation Amenities – Ventilation, Lighting, Water Supply, Fuel Etc. – Preparation of
in the laboratory – Rules for pupils and teacher – Supervision and Guidance. D) Accidents in
the laboratory – First Aids.

Unit-6: Evaluation in Physical Science
Test and its types – Achievement Test – Characteristics of a good Achievement Test-
steps in the construction of an achievement test – Question paper setting – Scoring key and
marking scheme – Question wise analysis – Elementary Statistics – Measures of central
tendency: Mean, Median and Mode–Measures of Variability-Mean, Standard and Quartile
Deviation, Correlation Co-Efficient, Rank Order and Product Moment Correlation-Graphical
Representation of Data: Bar And Pie Diagrams, Histogram, Frequency Polygon –
Cumulative Frequency Curve, Ogive, Percentile Ranks, Normal Probability Curve, Kurtosis,
Skewness.
Unit -7: Diagnostic Testing & Remedial Teaching

Unit -8: Professional Development of Physical Science Teacher
Characteristics of Science Teacher – Competency and Commitment of Science Teacher – Teacher Evaluation by Students, Peer and Authority
Need and importance of In-service programme for Physical science Teachers-
Physical Science Teachers Association-Professional Growth: Participation in Conferences/Seminars/Workshops.

Unit -9: Teaching Gifted and Backward Learners in Physical Science
Individual differences in physical science – Causes for slow learning in Physical science and Remedial Measures for the Backward – Identification of the Gifted and Enrichment Programmes for the Gifted.

Unit -10: Recent Developments in Physical Science Education
Flipped Learning and Spaced Learning in Physical Science, Team-Based Learning, Block teaching, Jigsaw technique, Virtual Classroom, Blended learning and Hybrid Learning in physical science.

For Fast Track Learners
Technology in Teaching of Physical science-Flipped Classroom- IMPACT

Practical Works
- Organizations of Physical Science Quiz in the classroom
- Observing Physical Science Laboratory in the schools and drafting a plan for Physical science Laboratory
- Preparation of Slides, Transparencies and A-V aids for some of the topics in physical science
- Practicing Recreational Activities like Games, Puzzles and Riddles in Physical science.
- Preparing a report on the places having significance in physical science for Field trip.
- Experiments in Physics and Chemistry at secondary level

Text Books
3. of Science in Our School,Chand & Co. P. Ltd., New Delhi.

Supplementary Reading

Course Outcomes

The student teacher should be able to

- CO1: acquire the basic knowledge about the learning resources in physical science
- CO2: understand the preparation of lesson plan and the classification of audio visual aids
- CO3: apply the scientific knowledge to identify the students difficulties in learning physical sciences
- CO4: develop skills in constructing an achievement test and analyzing the marks obtained by the students
- CO5: develop the curiosity in knowing about the in service programme for teachers.
- CO6: develop the scientific attitude by realizing the essentials of teaching for gifted and backward children

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</table>
Learning Objectives (LO): The student teacher
1. acquires knowledge about the teaching and learning of biological science.
2. understands the planning for instruction. Instructional materials and learning resources of biological science at secondary level.
   • organisation and maintenance of biological science laboratory.
   • co-curricular activities in biological science.
   • concept and techniques of construction of achievement test.
   • professional development of science teacher.
   • recent developments in biological science
3. applies knowledge and understanding in organizing different co-curricular activities in biological science
4. develops skills in
   • preparation of lesson plan for teaching biological science.
   • preparing/selecting and using appropriate instructional materials in teaching biological science.
   • preparing and using different techniques of evaluation of pupils progress.
   • organisation of biological science laboratory.
   • identifying and treating backward and gifted learner in learning biological science.

Unit-1: Planning for Instruction
Identification and organisation of concepts for teaching biological science- Instructional materials required for planning teaching biological science- Preparation of lesson plan for teaching biological science at secondary level.

Unit-2: Instructional Materials
Need and importance of instructional materials – Classification of teaching aids and its uses – Preparation of various teaching aids.

Unit-3: Learning Resources in Biological Science

Unit-4: Co-curricular Activities in Biological Science
Objectives, organization and activities of Science Club – Organization and purpose of Science Fair- Organization of Science Exhibition and Field Trip- Organization and maintenance of School Garden and Nature Calendar- Collection, preservation and display of Museum Specimen – Maintenance of Aquarium, and Terrarium.

Unit-5: Science Laboratory and its Organisation
Organization, maintenance and safety measures of biological science laboratory.
Unit-6: Evaluation in Biological Science
   Concept and techniques of achievement test – Construction, administration, and characteristics of achievement test – Scoring various kinds of achievement tests – Objects based evaluation.

Unit-7: Diagnostic Testing and Remedial Teaching
   Meaning and purpose of diagnostic testing – Distinguishing diagnostic tests from the achievement test- Construction and administration of diagnostic testing- Meaning, purpose and importance of remedial teaching in biological science.

Unit-8: Professional Development of Science Teacher
   Characteristics of biology teacher- Professional equipment training of teacher’s – Role of NCERT and allied agencies for the professional development of science teachers.

Unit-9: Teaching Gifted and Backward Learners
   Identification, diagnosis and educational measures of gifted learner and backward learner in learning biological Science.

Unit-10: Recent Developments in Biological Sciences

For Fast Track Learners
   Blood Group- Identification- Counting RBC- WBC

Practical Works:
   • Collecting shells, feathers, nests, eggs etc.
   • Collecting and preserving museum specimens and insects.
   • Prepare an e-question bank on any one unit at secondary school level.
   • Identify the gifted and backward learner of your class room and prepare a report regarding educational measures taken by you.
   • Prepare a report of recent developments in biological science.

Text Books

Supplementary Reading


Course Outcomes

The student teacher should be able to

CO1: acquire the basic knowledge about the learning resources in Biological Science
CO2: understand the preparation of lesson plan and the classification of audio visual aids
CO3: apply the scientific knowledge to identify the students’ difficulties in learning Biological Science
CO4: develop skills in constructing an achievement test and analyzing the marks obtained by the students
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</table>
Learning Objectives (LO): The student teacher
- acquires the knowledge of the concepts, terms and teaching methods in social studies.
- understands the planning for instruction and materials in social studies.
- understands the learning sources and activities to the study of social studies.
- develops skill by using various types of teaching aids relevant to social studies.
- develops interest to know the achievements in social studies.
- develops positive attitude towards the cultural heritage of India through teaching of social studies.

Unit-1: Planning for Instruction

Unit–2: Materials and Media for Teaching

Unit–3: Learning Resources

Unit–4: Co-Curricular Activities

Unit-5: Laboratory
Social studies laboratory - Equipments – Maintenance – Functions – Improvising good learning environment.

Unit–6: Evaluation
Concept and process of evaluation – Evaluation and testing – Achievement test – Characteristics of a good test – Construction of achievement test – Interpretation of test scores.

Unit–7: Diagnostic Test and Remedial Teaching
Diagnostic test – Aptitude test – Remedial teaching – Need and importance.

Unit–8: Professional Development of Teacher:
The social studies teacher – Role - Essential qualities – Inservice programme.
Unit–9: Gifted and Backward Learner
Teaching gifted and backward learner – Identification – Educational programme for their enrichment.

Unit–10: Recent Developments in Teaching social Studies
Teaching controversial issues – Teaching current affairs.

For Fast Track Learners

Practical Works
- A write up on current national problems
- A project report about the significance of any one of the temple in Tamilnadu.
- Write a report on the controversial issues in South India.
- Prepare a report on the researches recently conducted in Social Studies.
- Collect the primary and secondary sources in the Chola period.

Text Books

Supplementary Reading

Course Outcomes

The student teacher should be able to

CO1: prepare a lesson plan in Social Science
CO2: make use of audio –Visual aids
CO3: maintain Social Science Laboratory
CO4: conduct an achievement test and interpret test scores
CO5: identify the gifted and backward learners in Social Science

Outcome Mapping

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136
Learning Objectives (LO): The Student Teacher
- acquires knowledge of the instructional materials and media, enrichment program for gifted and programs for backward learners in computer science
- understands the technology of teaching computer science and the use of audio visual aids, the special qualities professional growth of computer science teacher
- applies knowledge and understanding in organizing different co-curricular activities in computer science
- develops the skills of preparing a good lesson plan in computer science
- develops interest in planning their lessons and presenting them effectively
- develops a positive attitude recent developments in computer science education

Unit-1: Learning Resources
Stating Instructional Objectives, Identifying Learning Experiences, Appropriate Strategies, Teaching Aids; Lesson Plans—Preparation of Lesson Plans—Unit plans

Unit-2: Instructional Materials And Media
Classification of Audio Visual Aids (Projected and Non-Projected)—Their Importance—Principles and Use of Hardware: Film Strip cum Slide Projector, Overhead Projector, and Motion. Radio, TV, CCTV, Tape Recorder, Principles and Use of Software: Objects, Slides, Transparencies, CD, Audio and Video Tapes—Educational Broadcasts: Radio and T.V. Power Point—Use of Internet in Teaching.

Unit-3: Learning Resources
Maths online learning—Online worksheets—Graphic organizes—Library of videos on a variety of maths—Infographics—Work Books, library: Classification of Books Based on Themes, Role of Magazine, Journals, Periodicals, Encyclopedia, Newspaper And Websites.

Unit-4: Activities of Computer Sciences
Co-Curricular Activities: Organization of Computer science Club, Computer science Exhibitions and Fairs, Fieldtrips and Excursions. Conducting Computer science Olympiads, Computer science Quiz—Importance, Organising Computer science Museum, Summer Programmes, Correspondence Course, Recreational Activities—Games, Puzzles And Riddles In Computer science.

Unit-5: Computer Science Laboratory And Organization
Importance of Computer science Laboratory—Planning Of Computer science Laboratory—Components of Computer science Laboratory—Structure and Design—Organization of Laboratory Work, Individual Work and Group Work.

Unit-6: Evaluation Of Computer Science

Unit-7: Diagnostic Testing & Remedial Teaching
Diagnosis –Principle of Diagnosis-Steps – Importance - Identification of Students’ Difficulties in Learning Computer science. Planning- Development-Remedial Instruction

Unit-8: Professional Development Of Computer Science Teachers
Characteristics of Computer science Teacher- Competency, Commitment and Performance Areas of Teacher- Professional Development of Computer science Teacher-Teacher Evaluation – Students, Peer and Authority
Types of In-service Programme for Computer science Teachers; Role of Computer science Teachers Association; Journals And Other Resource Materials In Computer science Education; Professional Growth—Participation In Conferences/Seminars/Workshops.

Unit-9: Teaching Gifted And Backward Learners In Computer Science

Unit-10: Recent Developments In Computer Science Education
Flipped Learning-Spaced Learning- Spaced Repetition In computer science, Gamification- Simulations, Team-Based Learning, Block teaching, Jigsaw technique, Virtual Classroom, Blended learning, Hybrid Learning

For Fast Track Learners
Identification of Latest available E-content of Computer Science Teaching- Useful Mobile applications for Learning –Editing Video content using Mobile Applications,

Practical Works:
- Organizations of Computer science Quiz in the classroom
- Observing Computer science Laboratory in the schools and drafting a plan for Computer science Laboratory
- Preparation of Slides, Transparencies and A-v aids for some of the topics in Computer science
- Practicing Recreational Activities like Games, Puzzles and Riddles in Computer science.
- Preparing a report on the places having significance in Computer science for Field trip.

Text Books
2. Roger Humt Hon Shelley,1975 Computers and Common Sense, Prentic Hall (India) Delhi.
3. Shied, Introduction to Computer Science, SChAVM.

Supplementary Reading
2. Jared Keengve, Grace Onchwari,James.N.Oigara,(2014) , Promoting Active learning through Flipped Classroom model, US of America

Course Outcomes
The student teacher should be able to
CO1: acquire the basic knowledge about the learning resources in Computer Science
CO2: understand the preparation of lesson plan and the classification of audio visual aids
CO3: apply the scientific knowledge to identify the students difficulties in learning Computer Science
CO4: develop skills in constructing an achievement test and analyzing the marks obtained by the students
CO5: develop the curiosity in knowing about the in service programme for teachers.
CO6: develop the scientific attitude by realizing the essentials of teaching for gifted and backward children

### Outcome Mapping

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Learning Objectives (LO): The student teacher
- acquires the knowledge of modern approaches in teaching and its support system.
- develops understanding of the professional development for a teacher of Economics.
- applies the principles of learning through curricular and co-curricular activities.
- develops the skill of using suitable instructional materials.

Unit –1: Modern Approaches in Economics

Unit –2: System Approaches in Economics
Economics teaching – Classroom management – System approach to Economics teaching – Significance – Merits and Demerits.

Unit –3: Interaction Analysis
Interaction analysis – Flander’s system of interaction analysis – Recording classroom events – ground rules of observation – Construction of interaction matrix – Advantages and Limitations.

Unit –4: Teacher Support Systems

Unit –5: Co-Curricular activities in Economics Teaching

Unit –6: Instructional materials

Unit –7: Computerization in Economics

Unit –8: Professional Development

Micro teaching – Meaning – Definition – Concepts – Skill development in teaching – Significance of Teacher training.

**Unit –9: Research in Economics**
Research in Economics Education – Identifying problems in teaching of economics – Techniques of conducting and evaluating research in Economics education.

**Unit –10: Guidance Services for Economics Students**

**For Fast Track Learners**
Indian Economy during Reforms- an Assessments

**Practical Works**
- Preparation of programmed learning materials in XI standard economics subjects.
- Visit to Rural Development Department.
- Group discussion on marketing.
- Preparing a report of different activities of Economics club.
- Visit to Agricultural Economic Department.

**Text Books**

**Supplementary Reading**
1. Amita Yadav, The Teaching of Economics.
2. Vakil, Teaching of Economics.

**Course Outcomes**
The student teacher should be able to

| CO1: | make use of modern methods of teaching Economics |
| CO2: | construct the interaction matrix |
| CO3: | maintain the records and register of school materials and equipments |
| CO4: | fill up bank documents and use ATM |
| CO5: | make use of Internet Banking |

**Outcome Mapping**

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141
Learning Objectives (LO): The student teacher
- acquires knowledge of the terms and concepts regarding the various methods and techniques of teaching,
- understands the different types of curriculum, methods of teaching and technology of teaching,
- applies the knowledge in analyzing, selecting and adopting the suitable methods, techniques and for the purpose of teaching,
- develops skills in preparing curriculum, and using the suitable techniques in test construction.
- develops interest in knowing the recent development in the teaching methodology, and technological developments, and
- develops a desirable positive attitude towards the teaching of commerce.

Unit-1: Modern Approach in Commerce
Modern approach- socialized recitation methods (Discussion methods) informal-seminar, symposium, workshop technique, panel discussion, individualized instruction methods- role playing, individual assignment- team teaching.

Unit-2: Systems- Approach
Commerce teaching and classroom management- systems approach to the commerce teaching- significance, merits and demerits.

Unit-3: Interaction Analysis
Class room interaction analysis- classroom climate types of teacher based on leadership styles- autocratic, Demonstration and laissez faire- significance.

Unit-4: Teacher Support System
Commerce department in school system- commerce lab- teacher dairy- Maintenance- record and registers to be maintained equipments- essentials and desirable.

Unit-5: Co-Curriculum Activities
How to handling ATM, Form filling-Objectives, principles, need and importance role in organization of some co-curricular activities in teaching of commerce- commerce club, debate, field trip, Banking activities.

Unit-6: Instructional Materials
Unit-7: Computerization in Commerce
Tally system in commerce- E-trade, E-commerce, E-resources in commerce and accountancy.

Unit-8: Professional Development
Commerce teacher traits of a good commerce teacher- qualities of a commerce teacher- professional qualities problem faced by the commerce teacher in the digital era. Role of commerce teacher in school society.

Unit-9: Guidance Services For Commerce Student
Guidance programme for objectives- function- educational and vocational guidance services in school- individual inventory service, information service, counseling service, placement service, follow up service- role of commerce teacher in guidance.

Unit-10: Research in Commerce Education
Research on commerce and accountancy education- computer in commerce and accountancy- Use of ICT and modern technology in commerce Research.Practical role of commerce teacher in school society- duties and responsibilities.

For Fast Track Learners
Business Transactions and source documents – concept of computerised Accounting System

Practical works:
- Visit to Co-operative Bank
- Visit to Credit societies
- Trip to nationalized banks
- Visit to share trading centre
- Prepare a list of online trading activities in your area

Text Books
6. Dececee John, P. and et al., The psychology of Learning and Instruction, prentice Hall of India, New Delhi.

Supplementary Reading

Course Outcomes
The student teacher should be able to
CO1: make use of modern methods of teaching Commerce
CO2: construct the interaction matrix
CO3: maintain the records and register of school materials and equipments
CO4: fill up bank documents and use ATM
CO5: to make use of Internet Banking

Outcome Mapping

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Learning Objectives (LO): The student teacher
- acquires the knowledge of ICT in the context of learning
- develops familiarity with the basic usage of computer in learning
- applies the tools and techniques of learning through ICT
- develops the skills of hands on experience with computer for learning

Unit – 1: Importance of ICT in Education
Information and communication Technology-concept-Nature Scope in –Construction of knowledge – Sources of audio-visual media and computer.

Unit – 2: Learning through Audio-Visual Media
Use of audio-Media-Patterns-Use of TV/Recordings – Use of other Media-Printed – Types – Sources.

Unit – 3: Learning through Computers
Utilizing Computers in schools-Presentation – Power Point-Excel-use of Browsing resources-Downloading relevant materials.

Unit – 4: Learning through Technology – based resources

Unit – 5: ICT integrated Learning
Innovative usage of ICT – Case studies-environment for Learning issues in interest usage-reliability of information – Social net working – downsides-Plagiarism. SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds)- MOOCs(massive open online course)

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to
- CO1: realize the importance of ICT in Education
- CO2: practice teaching through audio visual media
- CO3: utilize computer for teaching through power point presentation
CO4: ascertain different technology based resources
CO5: perceive about innovative usage of ICT

Outcome Mapping

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Learning Objective (LO): The studentteacher
- knows the needs and interests, physical, emotional and mental changes during
- understands the communicable and non-communicable diseases and its sources.
- develops positive attitude towards nutritional needs of human body and its imparts.
- develops the skill of games, sports, sports ethics, motivation, regulations.
- develops the skill of following rules and regulations of sports and fitness.

Unit-1: Human body:
Human body; Growth and development of children at different ages, their needs and interests, psycho-social development; Physical, emotional and mental changes during adolescence; Concept of body image; Parent-peer-adolescent relationship; Sexual abuse; Myths and misconceptions regarding growing-up; Management of stress and strain and life skills

Unit-2: Dietary requirements of human body:
Dietary requirements of human body with special emphasis on the nutritional needs according to age, sex, occupation, pregnancy and also with reference to sports-personship; Need for diet planning; Food and water; Safety and laws.

Unit-3: Occupational Health:
Occupational health hazards and its prevention; Commonly-abused substance and drugs and ways of prevention and inhabitation; Fundamentals skills of games and sports; Sports for recreation and competition; Rules and regulations of sports; sports ethics; sports awards and scholarships, sports-personship Games and Sports—athletics, games, rhythmic activities and gymnastics Development of physical fitness; Postures; Importance of relaxation; Fitness tests; Resources and services for games and sports.

Text Books
Supplementary Reading
Supplementary Reading


Outcome Mapping

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Learning Objectives (LO): The student teacher will be able to
- enrich their aesthetics and arts experience;
- strengthen their abilities to appreciate and create various forms of visual arts work aesthetically and critically;
- solve problems creatively through imaginative thinking and so encourage individuality and enterprise
- value the confidence and self-esteem through valuing self expression
- foster a sense of excellence in and appreciation of the arts in local, regional, national and global contexts, both past and present

Unit-1:
Knowledge of Indian traditions – festivals – traditional arts and crafts – hindu temples - setting stage for performance – developing aesthetic sensibility in costumes and decoration

Unit-2:
Cultural heritage of India and its relevance in education - integrate arts forms in education

Unit-3:

Unit -4:
Indian lifestyle and beliefs -Family system – marriages – rituals – care for environment

Unit -5 :
Indian values -Ahimsa – Vasudeva kudambakam (Unity in diversity) – athithi deva bhava – spiritual path

Text Books
1. Cultural heritage of India – SCERT
2. Centre for Global education, Indian society and ways for living.
3. https://asiasociety.org
4. Shymala Gupta (1931) Art Beauty and creativity, DK printword private limited, New Delhi

Supplementary Reading
1. Dr. P. Swaminathan thiruthalathirumurai thiratu, thiruvaduthurai athinam 2013
2. K. Somasundaram Ulakelam, Thiruvaduthurai aatheenam 2012
4. Indian Culture and Heritage published by national Institute of open schooling

Course Outcomes

The student teacher should be able to

CO1: exhibit their work in an aesthetic way
CO2: appreciate nature and create art works using various materials
CO3: gain knowledge about the various Indian traditions & values
CO4: identify the different types of musical instruments
CO5: integrate arts into education

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I. Learning Objectives (LO): The Student Teacher
   • acquires Knowledge about the planning, organizing, financing, executing and evaluating the tour
   • understands the importance of direct experience gained through Educational tour
   • applies the Knowledge gained in the Educational tour in the relevant situations
   • develops Skills In organizing and executing Educational tours

Unit-1: Camp
   Camp-History of camp-Need for the camp-Developmental benefits to students-Types of Camp-Preparing for a Camp – Community Resources for Camp

Unit-2: Camp Activities
   Camp activities-Self-awareness activities- Self-esteem activities- Social activities-Peace activities- Team building- Nature games- Environmental activities- Internet activities-Recreational activities

Unit-3: Educational Tour
   Objectivities-Need and Importance of Educational tour-Learning experiences-Need for observing and recording

Unit-4: Planning For Educational Tour
   Planning for Educational tour- Preliminary enquiry , Permission to be sought, Budgeting , Mapping of the places visited, Blue print of the places of Visit, Observation manual, Tour report -Execution of educational tour - Organising for Educational tour - Availing community resources- - Recreational activities for Educational tour

Unit-5: Precautions In Educational Tour
   Health and safety measures-Role of Teacher-Preventive measures that has to be followed - evaluating the tour -Educational implications

Text Books


Supplementary Reading

Course Outcomes

The student teacher should be able to

CO1: acquire the knowledge about community camp and educational tour
CO2: understand the importance of community camp and educational tour
CO3: conduct the community camp and educational tour

Outcome Mapping

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Learning Objectives (LO): The Student teacher

- acquires knowledge of the concepts and terms of educational psychology.
- understands the different aspects of learners and learning.
- understands the procedures in psychological testing.
- familiarizes in performing experiments in various aspects of educational psychology.
- develops interest in collecting data and interpretation of scores.

Unit-1: Psychological Testing
Psychological laboratory- Its necessary and management in teacher training institutions- Psychological Testing- Meaning- Need importance- Uses.

Unit-2: Attention, Concept Formation, Memory, Attitude
Attention- Meaning- Significance- Chief characteristics- Types of attention-Determinants- Securing students attraction- Distraction.
Concept Formation- Meaning- Types of concepts – Kinds of concept- Important characteristics- Stages involved in formation of concepts- Concept of children and adults- Teaching of concepts- Measurement.
Memory- Meaning- Characteristics- Processes of memory- Learning storage, retention, retrieval, recognition- Short term and long term memory- Good methods of memorization- Measurement of memory.
Attitude- Meaning- Positive and negative attitude- Attitude scales.

Unit-3: Aptitude, Interest, Learning, Motivation.
Aptitude- Meaning- Characteristics of aptitude- Aptitude tests.
Interest- Meaning- Factors affecting interests- Types of interest- Social, recreational, personal and vocational- Interest inventories.
Learning- Meaning- Characteristics of learning- Transfer of training or learning.
Meaning- Forms of transfer- The experimental paradigm.

Unit-4: Intelligence, Personality
Intelligence- Definitions- Nature- Types- Characteristics- Types of Intelligence-Measurement of intelligence- Classification of intelligent tests- Verbal, Non-Verbal and performance tests- Uses of intelligence tests.
Personality- Meaning- Characteristics- Factors influencing personality development-
Physique, social, psychological- Classification- Assessment of personality.

Unit-5: Case Study
Case Study- Meaning- Need Identification of Pupil- Diagnosis of the case- Statement of the Problem- Interview with the pupil- Collection of data- General Data- Family Environment- Health- Scholastic- Co-curricular activities- Personality traits- Educational and Vocational Interest- Social and emotional adjustment- Analysis and recommendations.

Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: to make use of psychological test
CO2: follow scientific method as it is used by psychologists
CO3: apply the knowledge of attitude, interest, aptitude testing procedure in classroom situations
CO4: adopt motivation techniques and concept of intelligent personality in teaching and testing situations
CO5: prepare case study and maintain a case study record for individuals and institutions
CO6: apply the principles of psychology to practical problems
CO7: analyze the issues relating to behavior problem of the students

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Learning Objectives (LO): The Student Teacher
- acquires knowledge of the concepts forms principles and uses of instructional software.
- develops understanding of the principles and procedures involved in the preparation of instructional software.
- develops skills in using and manipulating the apparatus used as instructional software.
- develops interests on various functions and uses of instructional software.

Unit-1: Instructional Software
Definition of Instructional Software- Need and importance of Instructional Software.

Unit-2: Classification of Non Projected aids and Projected aids

Unit-3: Operation of Different Projected aids
Projected Aids: Projected Materials and Projectors: Power source for operation of projector: The illuminating System in the Projector; Epidiascope; Slide Projector; Filmstrips; The overhead projector; methods of preparing transparencies.

Unit-4: Educational Application of AV aids
Educational Broadcasts: The radio as aid to teaching; Radio Scriptwriting; Record player, Tape Recorder, Slide- Tape Presentation- 16mm projector uses- Educational television (ITV) Computer- Working- L.C.D Projector CCTV (Theoretical aspects: Loop cassette film projector).

Unit-5: Technical Presentation
Preparation of chart, album, Scrapbook, photography slide OHP Transparency- PowerPoint slides- Digital Flip Albums.

Text Books
1. Bose, C. R. and Ramachandran Educational Technology, New Delhi, NCERT.

Supplementary Reading
Course Outcomes

The student teacher should be able to

- **CO1**: attain cognition about Instructional Software
- **CO2**: differentiates between Non-Projected aids and Projected aids
- **CO3**: handle different Projected aids
- **CO4**: explain about the Educational Application of A-V aids
- **CO5**: practice in preparation of different technical presentation

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Learning Objectives (LO): The student teachers

- acquires knowledge about the assessment and evaluation
- understands the
data analysis for assessment and evaluation.
- the need and importance of feedback and reporting.
- the examination reforms in India and the future directions of examination reforms.
- applies knowledge to use wide range of assessment tools, and select and construct these appropriately.
- develops skill to evolve and adapt realistic, comprehensive and dynamic assessment procedures.

Unit -1: Data Analysis
Statistical tools—Percentage, graphical representation, frequency distribution, central tendency, variation, normal distribution, percentile rank, correlation and their interpretation.

Unit -2: Feedback and Reporting
Feedback as an essential component of formative assessment- Use of assessment for feedback; For taking pedagogic decisions- Types of teacher feedback (written comments, oral) - Peer feedback- Place of marks, grades and qualitative descriptions- Purposes of reporting: To communicate Progress and profile of learner- Basis for further pedagogic decisions- Reporting a consolidated learner profile.

Unit-3: Examination System: A Sociological and Psychological Analysis of the Related Issues
Examination for gradation- Examination for social selection and placement-Impact of the prevailing examination system on student learning and stakeholders- Entrance tests and their influence on students and school system.

Unit -4: Examination Reform Efforts in India

Unit -5: Directions for Examination Reform
Introducing flexibility in examination-taking requirements- Improving quality and range of questions in exam papers including school-based credits- Alternative modes of certification-Examination management- Role of ICT in examination

Text Books
2. Ebel and L.Robert. (1965), Measuring Educational Achievement, prentice hall international. Inc, USA.

Supplementary Reading
1. *Best John, W. Research in Education*, Prentice Hall of India. New Delhi, 1989,

Course Outcome
The student teacher should be able to

CO1: to explain the interpretation of various statistics
CO2: identify the importance of assessment
CO3: analyse about different examination systems
CO4: comprehends examination reforms

Outcome Mapping

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Learning Objectives (LO): The student teacher
- acquires knowledge of the key concepts – gender, gender bias, gender stereotypes, empowerment, gender parity, equity, patriarchy and feminism.
- understands the paradigm shift from women's studies to gender studies.
- examines the gender issues in school, curriculum, and textual materials across disciplines.
- develops the skill of preparing a report on portrayal of women in media.

Unit – 1: Gender Issues: Key Concepts:
Gender, Sex, Sexuality, Patriarchy, Masculinity, and Feminism, Gender bias, Gender stereotypes, empowerment, gender parity, equity, patriarchy, and feminism. Equity and in equalities on gender-related issues.

Unit – 2: Gender Studies: Paradigm Shifts:
Paradigm shift from women's studies to gender studies. Historical backup - Social reform towards gender equity - policies and committers on gender education.

Unit – 3: Gender, Power and Education:
Gender difference, Gender identities, and Socialization - family - School. Gender, Culture, and Institution: Class, Caste, Religion, and Region.

Unit – 4: Curriculum on Gender Power
Gender equity - in curriculum since Independence - Teacher as an agent and change - Life skills - Sexuality - Schooling of girls.

Unit – 5: Gender - Sexual Harassment and Abuse
Linkages and differences between reproductive rights and sexual rights - Development and sexuality - Gender conflicts - Social and emotional - importance of addressing - Sexual abuse - Sexual harassment - School, family, work place, media, and others.

Practical Works
- Prepare a report on portrayal of women in media.
- Submit a report on role models of women in various fields of achievement.
- Prepare list of activities/ Programmes to address gender issues.
- Classify life skills to develop the secured sexuality.
- Analysis activities in schools to solve gender-based problems.
Text Books

Supplementary Reading

Course Outcomes
The student teacher should be able to

CO1: to explain the key concepts of gender, gender bias, patriarchy and feminism
CO2: analyse the paradigm shift from women’s studies to gender studies
CO3: a review of the gender issues in school curriculum and textual materials across disciplines
CO4: enrich the skill of removing gender based issues in schools and related pedagogical areas

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Learning Objectives (LO): The student teacher
- acquires knowledge of education of children with disabilities.
- understands the strategies related to innovative practices of education for children with special needs
- applies the knowledge and understanding in handling children with different abilities
- develops positive attitude towards children with special needs
- develops skill of planning programmes for children with different abilities.

Unit -1: Perspectives in Education of Children with special need
History of Education for children with special needs-Trends and approaches -Models-Functional Model – Human rights model-Concept of special Education.

Unit -2: Planning perspectives on inclusive education

Unit-3: Identifying special needs
Classification of students with special needs-Concepts characteristics-Specific learning difficulties-Locomotors Neuromuscular Disaster, mental retardation, Autism, Mental Illness.

Unit-4: Classroom practices for solving learning difficulties
Preparing for readiness to address special needs-Understanding advancements, devices, equipments for different disabilities-Class room management – Lesson – Planning – TLM.

Unit-5: Pedagogical Strategies
Developing strategies for students with special needs-Co-operative learning – peer tutoring – Social Learning reflective teaching-Support Services-Addressing Social Climate of the class room.

Text Books

Supplementary Reading

1. International Human Resource Development Centre for the Disabled, Sri Ramakrishna Mission Vidyalaya.

Course Outcomes

The student teacher should be able to

CO1: to acquire knowledge of children with special needs
CO2: understand the educational provisions in the UN convention on the rights of the children with special needs.
CO3: apply scientific knowledge to identify the students with special needs
CO4: develop classroom practices for solving learning difficulties
CO5: develop interest in knowing more about the learning difficulties of the students with disabilities

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