

## **UNIVERSITY OF CALICUT**

### **(Abstract)**

B.Ed Programme – Revised Curriculum – approved - implemented with effect from 2012 admission - orders issued.

### ***GENERAL & ACADEMIC BRANCH-IV 'J' SECTION***

No. GA IV/J2/4396/10 Vol II

Dated, Calicut University PO, 22.08.2012

Read: 1. U.O. No.GAI/J2/2328/06 dated 04.12.2006.

2. Item No.1 of the minutes of the meeting of Board of Studies in Education UG held on 31.07.2012.

3. Orders of the Vice-Chancellor on 14.08.2012 in file of even no.

### **ORDER**

As per paper read as (1) above, Modified course structure, scheme and mode of examination and the Regulations of B.Ed course has been implemented with effect from 2006 admissions.

The meeting of Board of Studies in Education (UG) held on 31.07.2012 resolved to approve the Revised Curriculum for B.Ed programme with effect from 2012 admissions as per paper read as (2) above.

The Vice-Chancellor, considering the exigency, exercising the powers of the Academic Council, has approved the minutes, subject to the ratification of the Academic Council as per paper read as (3) above.

Sanction has, therefore, been accorded to implement the Revised Curriculum for B.Ed programme, with effect from 2012 admissions.

Orders are issued accordingly. The Revised Curriculum for B.Ed programme is available in the University website – [www.universityofcalicut.info](http://www.universityofcalicut.info)

**Sd/-**

**ASSISTANT REGISTRAR(G&A IV)  
For REGISTRAR**

To

The Principals of all affiliated Training Colleges  
and CUTECS

Copy to:

The Chairman, Board of Studies in Education (UG),  
The Controller of Examinations/JCE-I,JCE-7 B.Ed sn/  
Tabulation B.Ed/Digital Wing  
(with a request to upload the curriculum)

Forwarded/By Order

**SECTION OFFICER**

# **UNIVERSITY OF CALICUT**



## **Re structuring of Curriculum Credit Based Semester and Grading System**

**Programme: Bachelor of Education (B Ed)  
With effect from 2012-2013 Academic Year**

**BOARD OF STUDIES IN EDUCATION (UG)**

## P R E F A C E

‘Towards Preparing Professional and Humane Teacher’ is the title theme of National Curriculum Framework for teacher education 2009. Teacher education is at the base of all educational system. Teaching is a profession and teacher education is a process of professional preparation of teachers. Teacher education needs to build capacities in the teacher to construct knowledge, to deal with different contexts and to develop the abilities to discern and judge in moments of uncertainty and fluidity, characteristics teaching learning environment. The teacher education has to function under a global canvas created by the concepts of ‘learning society’, ‘learning to learn’, and ‘inclusive education’. With a view to developing reflective teachers with positive attitudes, values and perspective, along with skill for the craft of teaching, the University of Calicut revises its seven year old existing teacher education curriculum. It is hoped that this revised B. Ed curriculum will help to prepare teachers to care for children, enjoy to be with them, seek knowledge, own responsibility towards society and work to build a new world and to have finer human sensibilities

In the process of revising the B. Ed curriculum the Board of Studies in Education (UG) received valuable inputs from teacher educators of long standing and experience. We also had the benefit of reviewing similar exercises of revamping teacher education in other Universities. An approach paper and a framework were formulated in a workshop held on 17<sup>th</sup> March 2012. The initial draft curriculum was developed based on the ideas generated in series of intensive deliberation by the members of the Board of Studies, eminent scholars and teacher educators of Farook Training College, NSS Training College and GCET Calicut. The draft curriculum was subsequently scrutinized by an expert committee.

It is with profound respect and gratitude we retrospect the inspiring guidance and patronage extended by the Honorable Vice Chancellor Dr. Abdul Salam in this venture. The Board of Studies specially places on record its deep gratitude to Prof. K. Raveendranath, the Pro Vice Chancellor for guiding us in the workshop.

We sincerely acknowledge the valuable contributions made by the faculty members of Farook Training College, Calicut, NSS training College, Ottapalam and Government College of Teacher Education, Calicut and all the principals of 74 Teacher Education institutions under the University of Calicut.

The Board of studies dedicates this revised curriculum to the teacher education community.  
Best Wishes.

Prof. A. Faziluddin  
Chairman Board of Studies (UG) & Dean  
Faculty of Education, University of Calicut

## **The Board of Studies in Education (UG)**

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# **RULES AND REGULATIONS OF THE PROGRAMME**

**UNIVERSITY OF CALICUT**  
**BACHELOR OF EDUCATION (B.Ed) DEGREE COURSE**  
**(REVISED CURRICULUM-2012)**

**INTRODUCTION**

It is well known that the quality of school education is determined primarily by teacher competence, sensitivity and teacher motivation. It is common knowledge too that the academic and professional standards of teachers are achieved only by a systematically conceived teacher education programme. NCFTE emphasizes a symbiotic relationship between teacher education and school education. Hence teacher education should be in consonance with school education. As envisioned by NCFTE 2009 the University of Calicut revises its teacher education programme for preparing professionally empowered teachers. The programme focuses on process orientedness and ICT integrated pedagogy so as to achieve global standards. The Board of Studies hopes that this revised Teacher Education Curriculum has tremendous potential to imbue the prospective teachers with the aspirations, knowledge base, repertoire of pedagogic capacities and human attitudes.

The B.Ed programme is revised by implementing credit semester system with indirect grading. It shall be introduced with effect from academic year 2012-13.

**Definitions**

**Programme:** Programme means a patterned combination and sequences of courses in the discipline education spreading over two semesters, the successful completion of which would lead to the award of a degree in education.

**Credit:** Credit is a notional representation of a fixed amount of student's study hours devoted to various aspects of study such as attending lectures, working with assignments, projects etc gathering information from library and internet resources, going through practical work and appearing tests. One credit for B.Ed programme is deemed equivalent to 15 study hours.

**Course:** Course is a complete integrated series of lessons / instructional content which are identified by a common title.

**Semester System:** An academic system with programme designed to be completed progressively within a period covering multiples of half an academic year.

**Indirect Grading:** A mode of evaluation in which the students are assessed using conventional numerical marking mode and subsequently marks so awarded are converted into letter grade.

**Duration of the Programme:** The B.Ed Programme is of two semesters spread over one year duration. The first semester shall be 90 working days and second semester shall be 110 working days. In the second semester there shall be a minimum of 30 working days for practice teaching cum school internship.

**Eligibility for Admission:** Eligibility for Admission and norms for admission to B.Ed Degree programme shall be according to the rules framed by the Government/ University of Calicut from time to time.

**Medium of Instruction:** The medium of instruction shall be English for all courses. However, in case of languages instruction may be given partly in the language concerned. Medium of examination shall be English/Malayalam.

**Attendance:** A student shall be considered to have satisfactory attendance to appear the examination if he/she attends not less than 80% of the total working days for theory classes and attends fully for 30 practice teaching days. No condonation will be there for lack of attendance of practice teaching days. Condonation for lack of attendance of theory classes will be as per university rules.

#### STRUCTURE OF THE B.Ed. PROGRAMME

A.THEORY COURSES	B. PRACTICAL COURSES
i) Core Courses	i) College Based Practicals
ii) Optional Courses	ii) Community Based Practicals
	iii) School Based Practicals

PATTERN OF COURSES FOR SEMESTER I		
<b>A.THEORY COURSE</b>		
Core Course I	5 Credit (Theory)+ 1 Credit (Process)	
Core Course II	5 Credit (Theory)+ 1 Credit (Process)	
Core Course III	5 Credit (Theory)+ 1 Credit (Process)	
Optional Course I	5 Credit (Theory)+ 1 Credit (Process)	
Optional Course II	5 Credit (Theory)+ 1 Credit (Process)	
<b>B.PRACTICAL COURSE</b>		
College Based Practicals & Community Based Practicals		6 Credits

PATTERN OF COURSES FOR II SEMESTER	
<b>A.THEORY COURSE</b>	
Core Course IV	5 Credit (Theory)+ 1 Credit (Process)
Core Course V	5 Credit (Theory)+ 1 Credit (Process)
Core Course VI	5 Credit (Theory)+ 1 Credit (Process)
Optional Course III	5 Credit (Theory)+ 1 Credit (Process)
Optional Course IV	5 Credit (Theory)+ 1 Credit (Process)
<b>B.PRACTICAL COURSE</b>	
School Based Practicals	10 credits

### THEORY COURSES (Details)

#### 1. Semester I:

CORE COURSES			
Code	Title	Instructional hours	Process
EDU 101	Perspectives on Education	75 hrs	15hrs
EDU 102	Psychology of the Learner	75 hrs	15hrs
EDU 103	Technology and Informatics in Education	75 hrs	15hrs

OPTIONAL COURSES-I			
Code	Title	Instructional hours	Process
EDU 111	Methodology of Teaching Arabic	75 hrs	15hrs
EDU 112	Methodology of Teaching English	75 hrs	15hrs
EDU 113	Methodology of Teaching Hindi	75 hrs	15hrs
EDU 114	Methodology of Teaching Malayalam	75 hrs	15hrs
EDU 115	Methodology of Teaching Sanskrit	75 hrs	15hrs
EDU 116	Methodology of Teaching Tamil	75 hrs	15hrs
EDU 117	Methodology of Teaching Urdu	75 hrs	15hrs
EDU 118	Methodology of Teaching Commerce	75 hrs	15hrs
EDU 119	Methodology of Teaching Computer Science	75 hrs	15hrs
EDU 120	Methodology of Teaching Mathematics	75 hrs	15hrs
EDU 121	Methodology of Teaching Natural Science	75 hrs	15hrs
EDU 122	Methodology of Teaching Physical Science	75 hrs	15hrs
EDU 123	Methodology of Teaching Social Science	75 hrs	15hrs

OPTIONAL COURSES-II			
EDU 131	Pedagogic Practices in Arabic	75 hrs	15hrs
EDU 132	Pedagogic Practices in English	75 hrs	15hrs
EDU 133	Pedagogic Practices in Hindi	75 hrs	15hrs
EDU 134	Pedagogic Practices in Malayalam	75 hrs	15hrs
EDU 135	Pedagogic Practices in Sanskrit	75 hrs	15hrs



EDU 136	Pedagogic Practices in Tamil	75 hrs	15hrs
EDU 137	Pedagogic Practices in Urdu	75 hrs	15hrs
EDU 138	Pedagogic Practices in Commerce	75 hrs	15hrs
EDU 139	Pedagogic Practices in Computer Science	75 hrs	15hrs
EDU 140	Pedagogic Practices in Mathematics	75 hrs	15hrs
EDU 141	Pedagogic Practices in Natural Science	75 hrs	15hrs
EDU 142	Pedagogic Practices in Physical Science	75 hrs	15hrs
EDU 143	Pedagogic Practices in Social Science	75 hrs	15hrs

## 2. Semester II:

CORE COURSES			
Code	Title	Instructional hours	Process
EDU 104.	Education in the Socio-Cultural Context	75 hrs	15hrs
EDU 105.	Psychology of Learning	75 hrs	15hrs
EDU 106.	Educational Management	75 hrs	15hrs

OPTIONAL COURSES-III			
Code	Title	Instructional hours	Process
EDU151	Curriculum and Resources of Arabic	75 hrs	15hrs
EDU152	Curriculum and Resources of English	75 hrs	15hrs
EDU153	Curriculum and Resources of Hindi	75 hrs	15hrs
EDU154	Curriculum and Resources of Malayalam	75 hrs	15hrs
EDU155	Curriculum and Resources of Sanskrit	75 hrs	15hrs
EDU156	Curriculum and Resources of Tamil	75 hrs	15hrs
EDU157	Curriculum and Resources of Urdu	75 hrs	15hrs
EDU158	Curriculum and Resources of Commerce	75 hrs	15hrs
EDU159	Curriculum and Resources of Computer Science	75 hrs	15hrs
EDU160	Curriculum and Resources of Mathematics	75 hrs	15hrs
EDU161	Curriculum and Resources of Natural Science	75 hrs	15hrs
EDU162	Curriculum and Resources of Physical Science	75 hrs	15hrs
EDU163	Curriculum and Resources of Social Science	75 hrs	15hrs

OPTIONAL COURSES-IV			
Code	Title	Instructional hours	Process
EDU171	Professionalizing Arabic Education	75 hrs	15hrs
EDU172	Professionalizing English Education	75 hrs	15hrs
EDU173	Professionalizing Hindi Education	75 hrs	15hrs

EDU174	Professionalizing Malayalam Education	75 hrs	15hrs
EDU175	Professionalizing Sanskrit Education	75 hrs	15hrs
EDU176	Professionalizing Tamil Education	75 hrs	15hrs
EDU177	Professionalizing Urdu Education	75 hrs	15hrs
EDU178	Professionalizing Commerce Education	75 hrs	15hrs
EDU179	Professionalizing Computer Science Education	75 hrs	15hrs
EDU180	Professionalizing Mathematics Education	75 hrs	15hrs
EDU181	Professionalizing Natural Science Education	75 hrs	15hrs
EDU182	Professionalizing Physical Science Education	75 hrs	15hrs
EDU183	Professionalizing Social Science Education	75 hrs	15hrs

#### **PRACTICAL COURSE (DETAILS)**

1. EDU 201 Teaching practice cum School Internship (200 marks)
2. EDU 202 College Based, Community Based and  
Other School Based Practicals (200 marks)

#### **MARK DISTRIBUTION OF PRACTICALS**

##### **(EDU 201 and EDU 202)**

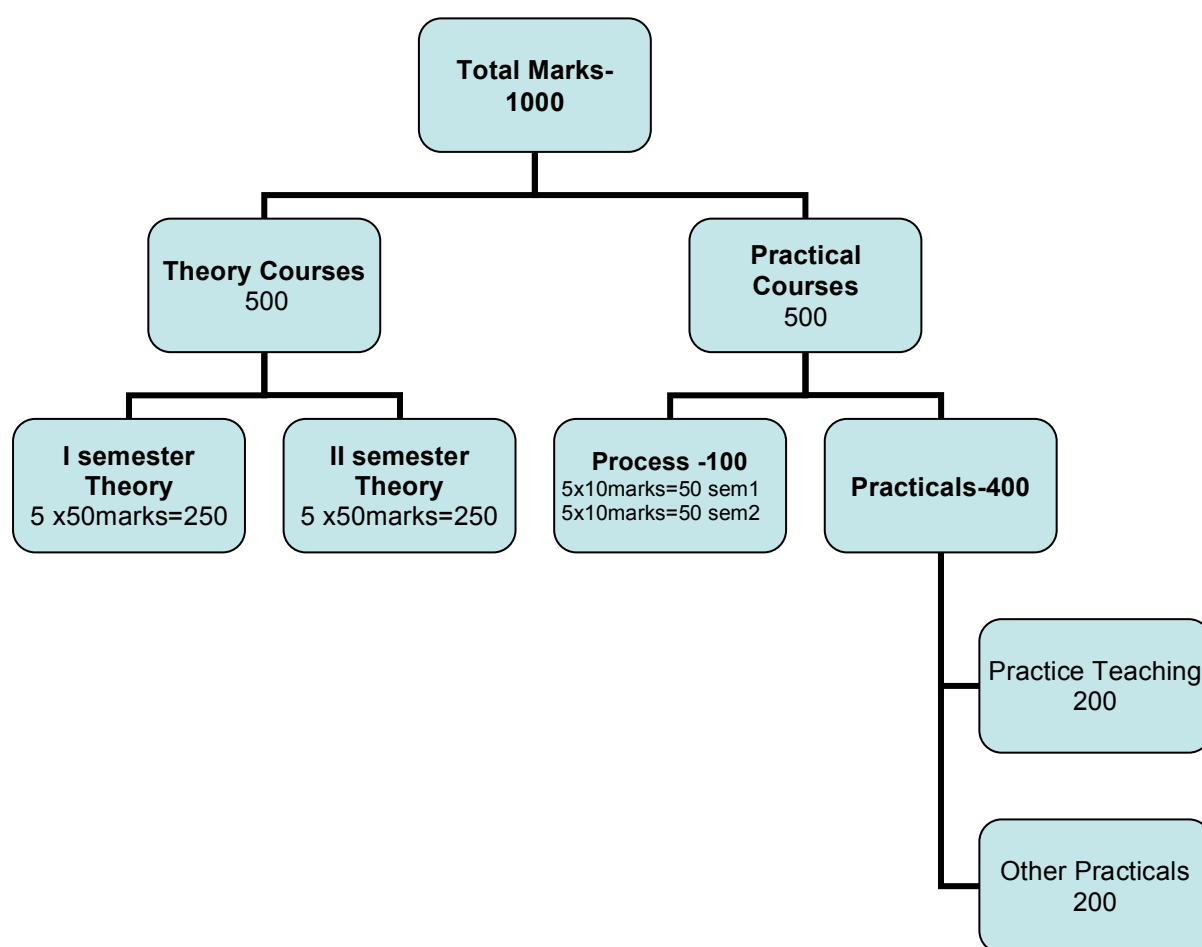
1. Practice teaching cum School internship (200 Marks)
2. Micro Teaching (25 Marks)
3. Discussion Lessons (20 Marks)
4. Demonstration Lessons (10 Marks)
5. Criticism lessons (40 Marks)
6. Preparation of Teaching Aids (20 Marks)
7. Field Trip / Study tour (15 Marks)
8. Field work with Community Based Programmes & SUPW (25 Marks)
9. Community Living Camp (10 Marks)
10. Preparation of Achievement Tests (20 Marks)
11. Physical Education (15 Marks)

## 200 WORKING DAYS DISTRIBUTION

<b>1 Semester</b> <b>90 Days</b> <b>(75+15)</b>	<b>II Semester</b> <b>110 Days</b> <b>(75+30+5)</b>
Theory Course + Practicals $75 \times 6 \text{ Hours} = 450 \text{ Hours}$ $(75 \text{ Hrs} \times 5 = 375 \text{ Hrs for theory Courses}$ $\& 75 \text{ Hrs for Processes of theory courses})$ $15 \times 6 \text{ Hours} = 90 \text{ Hours for Practicals}$	Theory Course + School Internship $75 \times 6 \text{ Hours} = 450 \text{ Hours}$ $(75 \text{ Hrs} \times 5 = 375 \text{ Hrs for theory Courses}$ $\& 75 \text{ Hrs for Processes of theory courses})$ $5 \times 6 \text{ Hours} = 30 \text{ for co-curricular activities}$ $30 \times 5 \text{ Hours} = 150 \text{ Hrs for practice teaching}$ cum internship.

**Evaluation:** For the theory courses the academic growth of students is evaluated through the continuous evaluation of the prescribed processes and end semester examination. To make continuous evaluation transparent, students should be made aware of the modus operandi of evaluation process and the evaluation criteria by the concerned teacher well in advance. The score indicating their level of performance in prescribed processes is to be published periodically. All products/ documents brought for evaluation should be kept in the institution, for one more semester and shall be made available for verification by the University. The mark sheets of CE on the prescribed processes of theory courses shall be submitted to the University immediately after the closure of each semester. Students may seek redress of grievances of continuous evaluation at the teacher level or at the College Evaluation Committee level.

## MARK DISTRIBUTION



## SCHEME OF ASSESSMENT

### SEMESTER-I

A.CORE PAPERS		End Semester Examination (Theory)		Process (Internal)	Total
		Duration of Exam	Marks		
1	EDU 101 Perspectives on Education	2 Hours	50	10	60
2	EDU 102 Psychology of the Learner	2 Hours	50	10	60
3	EDU 103 Technology and Informatics in Education	2 Hours	50	10	60

#### B.OPTIONAL PAPERS

4	Methodology of Teaching * (EDU 111-123)	2 Hours	50	10	60
5	Pedagogic Practices in * (EDU 131-143)	2 Hours	50	10	60
	<b>TOTAL</b>	-----	250	50	300

\*Arabic/English/Hindi/Malayalam/Sanskrit/Tamil/Urdu/Commerce/Computer

Science/Mathematics/Natural Science/Physical Science/Social Studies

### SEMESTER-II

A.CORE PAPERS		End Semester Examination (Theory)		Process (Internal)	Total
		Duration of Exam	Marks		
1	EDU 104 Education in the Socio-cultural Context	2 Hours	50	10	60
2	EDU 105 Psychology of Learning	2 Hours	50	10	60
3	EDU 106 Educational Management	2 Hours	50	10	60

#### B.OPTIONAL PAPERS

4	Curriculum & resources of * (EDU 151-163)	2 Hours	50	10	60
5	Professionalizing * Education (EDU 171-183)	2 Hours	50	10	60
	<b>TOTAL</b>	-----	250	50	300

\*Arabic/English/Hindi/Malayalam/Sanskrit/Tamil/Urdu/Commerce/Computer

Science/Mathematics/Natural Science/Physical Science/Social Science

**Pattern of Questions:**

Type of Question	Number of Questions	Marks
Very Short Answer Type	8	8
Short Answer Type	8	16
Short Essay/Problem Solving Type	4/6	16
Essay Type	1/2	10
<b>Total</b>	<b>21</b>	<b>50</b>

**GRADING**

Indirect Grading will be the mode of evaluation in which the students are assessed using conventional numerical marking mode and subsequently marks so awarded are converted into letter grade.

Each theory course and practical course will be assessed in **nine point grading system** whereas the overall performance of the students will be assessed in terms of **five point grading**. A separate minimum of D+ grade is required for a pass in each course and an overall grade of D and above is required for a pass in the B Ed programme.

**THE NINE POINT GRADING SYSTEM FOR EACH THEORY COURSE AND  
PRACTICAL COURSE**

Score Interval in %	Grade	Grade Point
80 and above	A+	9
75-79	A	8
70-74	B+	7
65-69	B	6
60-64	C+	5
55-59	C	4
50-54	D+	3
45-49	D	2
Below 45	E	1

**FIVE POINT GRADE FOR OVERALL GRADING**

Grade Point Range	Grade
7.20 to 9	A
5.40 to 7.19	B
3.60 to 5.39	C
1.80 to 3.59	D
1 to 1.79	E

**Credit Completion or Credit Acquisition** may be considered to take place after the learner has successfully cleared all the evaluation criteria with respect to a single course. Thus a learner who successfully completes a 6 CP (Credit Point) course may be considered to have collected or acquired 6 credits. His level of performance above the minimum prescribed level (viz, grades /marks obtained) has no bearing on the number of credits collected or acquired. A learner keeps on adding more and more credits as he completes successfully more and more courses. Thus the learner ‘accumulates’ course wise credits.

**Practical Examination:** Practical examination will be conducted by an External Examination Board constituted by the University. The present practice of zonal boards is to be continued. The number of Practical Examination Boards may be increased to 20 so as to carry out the whole procedure in short duration. The duration of examination of a centre will be two days except for those with 250 intake.

One examiner will conduct the practical examination for one optional. If the number of candidates is more than 20, an additional examiner will be appointed. All the records /products of item 1 to 11 of practicals will be verified by the board. However the marks awarded internally for microteaching, discussion lessons, demonstration lessons, criticism lessons, teaching aids and achievement tests only will be standardized.

The Board shall observe and evaluate the teaching competency of all candidates and other practical works. The board will evaluate their teaching competency for a maximum of 100 marks. The maximum marks for internal assessment of student teachers for practice teaching by the concerned institution shall also be 100, so that the maximum marks for practice teaching is 200.

All candidates should appear for a viva voce. The viva voce is confined to **i.** Teaching done for practical exam **ii.** The methodology used in the lesson **iii.** The learning resources used for teaching that lesson and **iv.** The evaluation procedure.

**PRACTICALS**  
**(EDU 201 and EDU 202)**

**College Based + Community Based Practicals-**  
**6 Credit (90 hours)**

**A) College Based Practicals**

**2. Micro Teaching (25 Marks)**

<b>Objectives:</b>	<b>Activity &amp; Outputs</b>
i) To develop specific teaching skills ii) To build up confidence in teaching iii) To practice and refine teaching skills iv) To provide feedback for modification of teaching behavior	i) Student teachers shall practice and refine at least 3 teaching skills through micro practices and their Integration in Link practice. ii) They have to prepare micro lessons, and receive feed back from peers and teacher educators. iii) Keep a record of micro lessons on the skills practiced and improved upon.

**3. Discussion Lessons (20 Marks)**

<b>Objectives:</b>	<b>Activity&amp; Outputs</b>
i) To understand the concept and importance of Lesson Planning in classroom teaching ii) To strengthen the conceptions of lesson planning iii) To provide guidelines to you during teaching practice iv) To maintain the sequence of content presentation v) To provide you a forum to discuss various facts of Lesson Planning vi) To develop attitude towards teaching vii) To prepare lesson plans on the basis of various approaches/methods of teaching viii) To discuss lesson plans with peers and teacher educators ix) To improve the competency of lesson planning	i) Student teachers shall prepare at least 5 discussion lesson plans in constructivist format (VIII, IX & X) in groups and keep a record of them.



#### 4. Demonstration Lessons (10 Marks)

Objectives:	Activity & Outputs
<ul style="list-style-type: none"><li>i) To observe teaching skills, and the participation of students in the lessons</li><li>ii) To observe teacher/teaching behavior in various teaching learning situations</li></ul>	<ul style="list-style-type: none"><li>i) 1 Video lesson.</li><li>ii) 4 Demonstration lessons in constructivist format by teacher educators and school mentors.</li><li>iii) Observe demonstration classes with observation schedules.</li><li>iv) Keep a report of the observations made during demonstration lessons.</li></ul>

#### 5. Criticism lessons (40 Marks)

Objectives:	Activity & Outputs
<ul style="list-style-type: none"><li>i) To provide opportunity for a macro lesson in practice</li><li>ii) To develop the skill of structured observation of classroom teaching</li><li>iii) To get experience of preparing lesson plans for classroom teaching</li><li>iv) To provide opportunity for debating on teaching performance.</li><li>v) To pool feedback of all observers of a specific lessons.</li></ul>	<ul style="list-style-type: none"><li>i) Criticism classes should be arranged optional wise.</li><li>ii) All student teachers shall have dual role in this activity.</li><li>iii) They have to conduct a macro lesson for duration of 40 minutes in VIII or IX (X1 for commerce and Computer Science) and also observe the classes of their peers.</li><li>iv) A student teacher should observe and record criticisms of at least ten lessons (10) of his/her peers in the subject. For this purpose criticism class schedule and topics for them shall be published well in advance.</li><li>v) Each student teacher shall prepare ten (10) lesson plans of the schedule and attend those criticism classes.</li><li>vi) Observers will be permitted for criticism sessions only with self prepared lesson plans.</li><li>vii) If the number of students in any optional falls below eleven (11) repeat lessons should be conducted so as to enable them observe and record criticisms of ten lessons.</li></ul>

## 6. Preparation of Teaching Aids (20 Marks)

Objectives:	Activity & Outputs
i) To nurture ideas of preparing relevant teaching aids for identified content areas ii) To develop creative instincts iii) To give chance for expression of ideas iv) To develop feeling of conservation of thrown out materials,	i) Preparation of hand made teaching aids/ learning aids from locally available resources. (Improvisation) (10 Marks). Student teachers shall visualize relevant aids in their subject areas and bring necessary materials to the college and prepare two models/teaching aids in a workshop. ii) Charts and other graphic aids (10 Marks) Student teachers shall prepare charts, sketches, Symbols etc in a workshop conducted for the purpose. 5 Charts- (Tabular Charts, Flow/Process charts. Tree charts. Flip charts etc)

## B) Community Based Practicals.

## 7. Field Trip / Study tour (15 Marks)

Objectives:	Activity & Outputs
i) To acquire the experience of planning and organization of a field trip/Study tour. ii) To understand the environment around.	i) Student teachers shall conduct a field trip/Study tour related to their optional subjects. ii) (If the number of students in any optional is too short to organize an independent field trip/Study tour of their own, they can join with allied optional.) iii) Identify a spot iv) Specify the objectives of the field trip/Study tour v) Formulate a detailed plan vi) Carry out the plan accordingly vii) Ascertain the impact of the Trip by undergoing an interview with the Teacher educator viii) Find out the problems faced ix) Propose suggestions for organizing a meaningful field trip. x) Output: A report incorporating all these

### 8. Field work with Community Based Programme & SUPW (25 Marks)

Objectives:	Activity & Outputs
i) To acquire the requisite competencies in planning and executing socially useful Programmes ii) To develop social sensitivity and consciousness and their human sensibilities iii) To seek co-operation and support from local people iv) To develop dignity of labour v) To produce products which are useful to society. vi) Student teachers shall select one activity from field work components and two from SUPW components	<b>A) Field work component:</b> <ul style="list-style-type: none"> <li>• Survey of social importance</li> <li>• Organization of campaign on one of themes such as nutrition, sanitation, drug, consumer education, blood donation, AIDS, environment, gender issues, population education, etc.</li> <li>• Cleaning public places/Beautification of campus</li> <li>• Pain and palliative service.</li> </ul> <b>B) SUPW</b> Book binding, craft/art work, soap making, paper bag making, candle making, File making, pot making, stitching and embroidery, glass painting etc, <b>Output</b> A brief report including the objectives and methodology adopted.

### 9. Three days Community Living Camp (10 Marks)

Objectives:	Activity & Outputs
i) To realize the aim of 'learning to live together' ii) To equip the students to live cooperatively in a society iii) To impart social values and skills (adjustment, sharing, tolerance, empathy etc) iv) To impart personal values and skills (leadership, initiative, self confidence, positive attitude, creativity etc v) To provide chances for democratic living, managing events, division of labour and dignity of labour.	<ul style="list-style-type: none"> <li>• Programmes for personal development</li> <li>• Programmes for personal development</li> <li>• Chances to live together by sharing duties and responsibilities</li> <li>• Practices enhancing social values and skills</li> <li>• Manage events of various dimensions</li> </ul> <b>Output</b> A report including the objectives and activities. The report may also contain some photographs related to activity.

### C) School Based Practicals 10 Credit (150 hours)

#### 1. School internship (Practice teaching)

(200 Marks – 100 internally evaluated and 100 externally evaluated)

**Practice Teaching shall be scheduled after 50 working days of the second semester so that the student teachers could complete 80% of the theory courses before school internship.**

Objectives:	Activity & Outputs
i) To learn to set realistic goals in terms of learning, curricular content and pedagogic practice. ii) To choose, design, organize and conduct meaningful classroom activities. iii) To participate in school activities. iv) To develop and maintain teaching learning resources. v) To analyze and reflect on teaching. vi) To observe and reflect on classroom practices.	<ul style="list-style-type: none"> <li>• Student teachers should undergo school internship at secondary schools (senior secondary schools for Commerce and Computer Science) following Kerala State Syllabus.</li> <li>• The duration of the Internship Programme is (30) thirty working days for the development of teaching competence.</li> <li>• They will plan and deliver at least (30) thirty lessons under the supervision of teacher educators and/ or school mentors.</li> <li>• They should develop appropriate teaching and learning materials (aids) to present the lessons effectively.</li> <li>• It is desirable that they shall develop at least two lessons (i.e., IT enabled) using ICT.</li> <li>• During practice teaching student teachers should get feedback from their mentors and teacher educators to improve teaching competency.</li> <li>• It is desirable that the trainees shall observe some lessons of their peers or school mentors at the internship schools. During school internship the student teachers should support the school authorities in organizing curricular, co-curricular and extracurricular activities.</li> <li>• Internship needs to be worked as a partnership model with the school.</li> <li>• Student teachers are expected to keep a 'Reflective Journal' that would help him revisit his experiences in the classroom over the period of internship (at least one lesson every week).</li> </ul>

<p>vii) To maintain reflective journals.</p> <p>viii) To develop positive attitude towards teaching as a profession.</p>	<ul style="list-style-type: none"> <li>• Reflective Journal would include a brief description of how the class was conducted, how learners responded, reflective statements about his preparedness for the class, responses to learners' questions, capacity to include learners sharing of their experiences, responses towards their errors, difficulties in comprehending new ideas and concepts, issues of discipline, organization and management of group, individual and group activities etc.</li> </ul> <p><b>Output</b></p> <ol style="list-style-type: none"> <li>1. 30 lesson plans</li> <li>2. Teaching learning materials prepared and used</li> <li>3. Reflective Journal</li> </ol>
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#### 10. Preparation of Achievement Tests (Learner Assessment)

(20 Marks)

Objectives	Activity & Outputs
<p>i) To provide hands on experiences on the preparation of achievement tests.</p> <p>ii) To improve the competency of construction of various types of test items</p> <p>iii) To master the techniques of term end evaluation</p>	<ul style="list-style-type: none"> <li>• Student teachers shall prepare two achievement tests according to prepared blue prints and administer them in their classes at the closure of their practice teaching.</li> <li>• These tests should be in tune with the evaluation pattern prevalent in our schools.</li> </ul> <p><b>Output</b></p> <ul style="list-style-type: none"> <li>• Two achievement tests with design, blue print, Question paper, Scoring key/Marking scheme and Question wise analysis</li> </ul>

### 11. Physical Education (15 Marks)

Objectives	Activity & Outputs
i) To develop awareness about health and physical fitness ii) To develop skill in handling physical and health education classes	<ul style="list-style-type: none"><li>• Conduct two physical education classes and one health education class with prepared lesson plans.</li><li>• Preparations for lesson planning should be made in the first semester.</li></ul> <b>Output</b> <ul style="list-style-type: none"><li>• Prepared lesson plans</li></ul>

# **OBJECTIVES OF THE B. Ed PROGRAMME**

## **OBJECTIVES OF THE B. Ed PROGRAMME**

### **The prospective teacher:**

1. Understands the meaning, need and significance of education
2. Understand the various prospective on education
3. Understands education in the socio-cultural context
4. Understands the current issues and challenges of Indian Education.
5. Understands the developmental processes and needs of children and adolescents and role of teachers in facilitating developments.
6. Understands the various theories of personality, factors affecting individual differences and the special problems of exceptional children.
7. Acquaints with the prominent theories of learning, retention, and transfer of training and the strategies to facilitate each one of these.
8. Familiarizes with the psychological principles underlying 'curriculum transactions, psychological testing, management and guidance and counseling.
9. Understands the essentials of evaluation, technology of education, democratic education, child rights education, school management, value education and physical & health education.
10. Understands basic assumptions of ICT its scope in the area of teaching and learning.
11. Imbibes knowledge and develops an understanding of methods and strategies of teaching in High schools and Higher Secondary schools, and evaluating its outcome.
12. Acquires adequate knowledge of the content of the school subjects concerned, of secondary and higher secondary classes.
13. Develops positive attitude to teaching profession and to the coming generation
14. Acquires the democratic and social values of an ideal teacher thereby to inspire his/her students.
15. Develops interest in facilitating learning and development and enjoys teaching and organizing curricular and co-curricular activities.
16. Readiness to accept the progressive changes in the field of education
17. Develops an environment and eco friendly attitude.
18. Acquires skills in developing and administering psychology tests and experiments and to interpret the results.
19. Develops skills in dealing with the problems of maladjustment, indiscipline and learning disability.



20. Becomes capable in rendering counseling and guidance for the needy students.
21. Develops skills in planning, transacting and evaluating curricular contents of secondary and higher secondary classes.
22. Develops various sub skills and competencies in teaching and classroom management through microteaching.
23. Acquires skills in developing and using audiovisual devices and ICT for classroom teaching.
24. Acquires skills in discharging the duties of a competent teacher in the prevailing socio cultural and political system and to meet the challenges of the transforming society.
25. To acquaint with professionalisation of teacher education
26. To be a professional and humane teacher

## **CORE PAPERS**

<b>EDU. 101. PERSPECTIVES ON EDUCATION</b> <b>Contact Hours: 75 (Instruction) &amp; 15 (Process)</b> <b>Marks: 50 (End Semester Examination) &amp; 10 (CE)</b>		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To define education. 2. To develop understanding of education as a discipline. 3. To describe the factors influencing education.	<b>MODULE I (10 Hours)</b> <b>Education—preliminary considerations</b> - Defining Education – Meaning – Definitions – Functions. Nature of education as a discipline - Theory and Practice - Interdisciplinary nature - Scope of Education as a discipline Considerations in education – Philosophical - Socio-cultural - Psychological	1. Collect at least 10 definitions of education (Minimum 5 from east and 5 from west) 2. Conduct a Discussion to analyze the collected definitions for perspectives and scope 3. Prepare a flow chart/diagrammatic representation showing the different levels and forms of education
4. To analyze the aims of education	<b>MODULE II (15 Hours)</b> <b>Aims of education</b> - Individual Aims - Social Aims Goals of Education in India – Purusharthas - Constitutional Goals – Democracy – Socialism – Secularism - Equality of Opportunity - Preparing for the duties and rights of Indian Citizen - Articles of Indian Constitution - Pertaining to Education - National Integration and International – Understanding - Education for a knowledge society	4. Identification of Aims/Goals of Education in Secondary Education Commission, Kothari Commission, NPE 1986, NCF 2005 and Delor's Report. 5. Prepare a Collage/ Cartoon/ Poster/ Presentation on the different aspects of National Integration in India (a group work of 5 students)
5. To develop an understanding of the evolution of educational policy in India 6. To acquaint with existing educational policy in India	<b>MODULE III (20 Hours)</b> <b>Landmarks in Modern Indian Education</b> - Mecauley's Minutes - Woods Despatch - Primary education as a constitutional obligation - Kothari Commission report - Education in the concurrent list - New Education Policy (1986) - National Curricular Framework-2005 - Right to Education Act -2009	6. Prepare a brief content overview of Kothari commission report/NCF 2005/Right to education act

Objectives	Content	Process
7. Analyse the views of different thinkers and thoughts on education	<p><b>MODULE IV (30 Hours)</b></p> <p><b>Philosophical perspectives on education - Relationship between Philosophy and Education</b></p> <p>Thinkers on Education – Plato – Rousseau – Dewey – Freire – Tagore – Gandhi – Vivekananda.</p> <p>Thoughts on Education - Idealism - Pragmatism and Realism - Basic Principles and their influences on various aspects of education.</p> <p>Alternative thoughts - A Brief note on Illich, Reimer, Rishi valley School, Folk School, Kanav.</p>	<p>7. Review and reflect on the educational thoughts in any one book of Freire/ Dewey/ Gandhi/ Tagore/ Plato</p> <p>8. Conduct a discussion on alternate thoughts of education</p>

## REFERENCES

- Brubacher John. S (1962). Modern Philosophies of Education. New Delhi: Tata McGraw, Hill Publishing Co. Pvt. Ltd.
- Butter J. Donald (1951). Four Philosophies and Their Practice in Education and Religion New York: Harper and Brothers Publishers.
- Butter, J. Donald (1968). Four Philosophies and their Practice in Education and Religion. New York: Harper and Row.
- Chinara. B. (1997) Education and Democracy, New Delhi APH
- Dash, B.N. (2002). Teacher and Education in the Emerging Indian Society. 2 Vols. Hyderabad: Neelkamal Publication.
- Dewey John (1916). Democracy and Education, New York: MacMillan.
- Dewey John (1938). Experience and Education. New York: Macmillan.
- Freire, P. (1972). Pedagogy of the Oppressed. Harmondsworth: Penguin
- George Thomas (2004) Introduction to Philosophy, Delhi, Surjeet Publication
- Humayun Kabir (1951). Education in New India. London: George Allen and Unwin Ltd.
- Jagannath Mohanty (1998). Modern Trends in Indian Education. New Delhi: Deep and Deep publications.
- Kohli, V.K. (1987). Indian Education and Its Problems. Haryana: Vivek Publishers.

Lal & Palod (2008) Educational thoughts and Practices, Meerat: Vinay Rakheja

Monroe, P. (1960). A Textbook of History of Education. London: Macmillan

Moonband Mayes. A.S. (1995). Teaching and Learning in the Secondary School. London: Routledge.

Naik, J.P. (1998). The Education Commission and After. New Delhi: Publishing Corporation.

National Curriculum Framework for School Education (2005). NCERT

NCTE (1998). Gandhi on Education. New Delhi.

Rai B.C. (2001). History of Indian Education. Lucknow; Prakashan Kendra.

Randall Curren (2007) Philosophy of Education an anthology, USA : Black well Publishing

Report of Secondary Education Commission. Kothari D.S. (1965). New Delhi: Ministry of Education.

Saiyidain, K.G. (1966). The Humanistic Tradition in the Indian Educational Thought. Bombay: Asia Publishing House.

Sharma R.A. (1993). Teacher Education: Theory, Practice and Research. Meerut : International Publishing House.

Taylor, P. (1993). The texts of Paulo Freire, Buckingham: Open University Press.

**EDU. 102. PSYCHOLOGY OF THE LEARNER****Contact Hours: 75 (Instruction) & 15 (Process)****Marks: 50 (End Semester Examination) & 10 (CE)**

<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To develop an understanding of the nature, scope and methods of Educational psychology. 2. To understand various approaches to study Psychology.	<b>MODULE I (8 Hours)</b>  <b>Introduction to Educational psychology</b> Defining psychology - Definition, meaning and nature  Approaches to psychology - Behaviourism, psycho analysis, constructivism, Humanism.  Educational psychology as an applied branch of psychology - Scope of educational psychology  Methods of psychology –case study, experimental and Survey methods	1. Conduct a peer case study.
3. To develop an understanding of the concept, principles and theories of Growth and development. 4. To understand the developmental characteristics of Childhood and Adolescence. 5. To create awareness of the problems and issues of adolescence and to suggest remedies.	<b>MODULE II (20 Hours)</b>  <b>Learners' development.</b> Concept and Principles of Growth and Development - Approaches to study development – longitudinal and cross sectional  Developmental Characteristics of childhood and 'Adolescence' - Physical, Cognitive, Emotional and Social aspects  Theories of Development and their Educational Implications - Piaget's & Bruner's theory of Cognitive Development - Kohlberg's theory of Moral development - Erikson's theory of Psychosocial Development.  Recent Issues related to development of Adolescence - Loneliness and Peer pressure - Changing Family structures - Information overload - Sexual Abuse - Substance abuse - Impact of media/ Internet/ mobile - Depression and suicide	2. Conduct a discussion to identify the characteristics of childhood and adolescence  3. Collect news paper cuttings related to the issues of adolescence development; interpret and suggest remedies

Objectives	Content	Process
<p>6. To develop an understanding of the concept, nature and various theories of intelligence</p> <p>7. To understand the meaning, nature, process of creativity development and the strategies for fostering creativity.</p>	<p><b>MODULE III (15 Hours)</b></p> <p><b>Learner's Intelligence &amp; Creativity</b> Concept of intelligence</p> <p>Theories of Intelligence - Spearman's two factor theory - Guilford's structure of intellect model - Multiple intelligence - Emotional intelligence</p> <p>Creativity- meaning and nature - Identification of Creative Learner - Process of Creativity - Teacher's role in fostering Creativity</p>	<p>4. Administer any one intelligence test and familiarize the procedure.</p> <p>5. Prepare sample items for verbal creativity tests (minimum 4 items)</p> <p>6. Develop an activity to foster creativity in the classroom</p>
<p>8. To develop an understanding of the concept and areas of Individual difference.</p> <p>9. To familiarize the specific contributions of heredity and environmental factors to individual difference.</p> <p>10. To develop an understanding of the concept and types of 'exceptional children'.</p> <p>11. To develop an understanding of the concept and types of Learning Disability</p> <p>12. To develop skills to handle students with special needs.</p>	<p><b>MODULE IV (12 Hours)</b></p> <p><b>Understanding learner diversities</b> Concept of Individual Differences</p> <p>Areas of individual Differences – Interest, Attitude and Aptitude.</p> <p>Role of heredity and Environment.</p> <p>Understanding Exceptional learners - Gifted and Slow Learners.</p> <p>Learning Disability (LD) - Dyslexia, Dysgraphia, Dyscalculia and Attention Deficit Hyper activity Disorder( ADHD)</p> <p>Educational provisions for learner diversities.</p>	<p>7. Conduct a debate on the role of heredity and environment on Learner diversity</p> <p>8. Suggest any one learning activity for exceptional learner category</p>

Objectives	Content	Process
<p>13. To develop an understanding of the concept and theories of Personality.</p> <p>14. To understand the concept of Mental health, Adjustment, Mal-adjustment and the causes of mal-adjustment.</p> <p>15. To develop an understanding of the meaning, need, scope and methods of Guidance and Counseling.</p>	<p><b>MODULE V (20 Hours)</b></p> <p><b>Learners Personality and adjustment</b></p> <p>Concept of Personality</p> <p>Approaches to study personality - Psycho analytic(Freud) - Trait(Allport and Cattell) - Humanistic(Maslow and Rogers).</p> <p>Characteristics of matured personality.</p> <p>Adjustment and maladjustment.</p> <p>Mental Health: Concept and Importance.</p> <p>Guidance and counseling – Meaning - Need and scope</p>	<p>9. Administer any one personality measure and familiarize the procedure</p> <p>10. Conduct a discussion on teacher's role in identifying and managing maladjusted learner</p> <p>11. Set up a career corner in your classroom.</p>

## REFERENCES

- A Teachers Hand Book on IED Helping Children with Special Needs Sharma P.L (1988) NCERT, New Delhi.
- Adolescent Development Hurlock, E.B (1955) MC Graw – Hill Co Inc, Nw York.
- Advanced Educational Psychology Chauhan, S.S (2006) New Delhi : Vikas Publishing House.
- Advanced Educational Psychology Kakkar S.B (1992), New Delhi : Oxford & IBH Publishing Co.
- Advanced Educational Psychology Mangal, S.K (1997) New Delhi Prentice Hall of India
- An Introduction to theories of Personality Ewen, R.B (1980) New York : Academic Press.
- Child Development and Personality Musser, P.H, Conger, S and Kagar, P (1964), New York : Harper Row
- Counselling Psychology Rao S.N (1981) Tata Mc Graw Hills, New Delhi
- Development Psychology Hurlock E.B (1995) A Life Span Approach. New Delhi : Tata Mc Grow Hill Publishing Co.



Developmental Psychology Suhail, S. and Bapat, A (1996) Bombay Himalaya Publishing House.

Developmental Psychology, A life span Approach, Witting A F,(2001) Mc. Graw Hill New Delhi

Educating Exceptional Children Krick, S.A (1962) Oxford and ISH Publishing, New York.

Educational and Vocational Guidance in Secondary Schools. Kochroa, S.K (1993), New York : Sterling Publishers.

Educational Psychology

Educational Psychology A Developmental Approach Mc Graw Hill Publishing Company, New York, Spinhall, C, Richard and Spinfall A. Nariman

Educational Psychology Gates, A.S and Jersold, A.T (1970), New York : Macmillan.

Elements of Educational Psychology Bhatia, H.R (1968) Calcutta : Orient Sangman

Essentials of Educational Psychology Aggarwal, J.C (1994) New Delhi :Vikas Publishing House

Exceptional Children Ker. C (1998), New Delhi, Sterling Publishers.

Gifted and Talented Education, Rao KS, Rao DB (2005) Sonali, New Delhi.

Guidance and Counselling Bengale, M.D (1984) Sheth Publishers, Bombay

Guidance and Counselling in India Parichy. P (1977) NCERT, New Delhi

Guidance Services Humphry & Trazxlor, A.E (1954) Science Research Associates Inc, Chicago.

Hand Book of Developmental Psychology Wolman, P.B (Ed) (1982) Prentia Hall : Engle Wood Cliffs, New Jercey

Human Development Craig J Grace (1983) Prentice Hall, INC, Eagle Wood Cliffe, New Jercey.

Human Intelligenceand its Nature and Assessment Bulchu, H.J (1968) : London Methuan and Co.

Intelligence and Attitude Tests Vernor, P.E (1964) University of Indian Press, London

Intelligence Procedures in Psychology Barochisky, G.B Poeytes Book, Philadelphia (1984)

Introduction to Psychology, Morgan TC, King RA, (1995), Mc. Graw. Hill, New Delhi

Introduction to Psychology, Fernald LD (2004), AITBS, New Delhi

Modern Child Psychology Chand, T (1993), New Delhi : Anmol Publications.

Personality : A Psychological Interpretation Allport, G.W (1937) Hentry Holt & Co. New York.

Personality and Motivation : Structure and Measurement Cattle, R.B, M.B. Graw Book Company, New York (1959)  
 Personality Strategies and Issues Spingler, D. Michael and Lieben M. Robert (1989) : Books / Cole Publishing Company, Pacific Grove, California.  
 Personality, Guilford JP (2007), Surjeet, New Delhi  
 Personality: Classic Theories and Modern Research Friedman HS & Schentack MW(2006) Dorling Kindersley, India  
 Principles of Guidance Jones, Steffre / Steward,. 6<sup>th</sup> Edition, Tata Mc Graw Hall Publishing Co. Ltd., Bombay  
 Psychology of Adolescence Ewen, R.B (1984) New York : Prentice Hall Inc.  
 Skinner, C.E. (Ed) (1995) New Delhi : Prentica Hall of India Psychology of Adolescence Strategies for Teaching Retarded and Special Needs Learner Pollyway, E.A et.al (1985) Toronto, Charles. E Merril Publishing Co. House Pvt. Ltd. New Delhi (1989)  
 Techniques of Guidance Traxlor (1957) Harpen & RCW, New York.  
 The fundamentals of Psychology, New Delhi Pillibury, W.B (1990) Deep and Deep Publications.  
 The Origin of Intelligence in Children Peaget, J, International University Press, New York  
 The Psychology of Human Growth and Development Spingler, D. Michael and Lieber M. Robert (1989) : Books / Cole Publishing Company Pacific Grove, California.  
 The Scientific Study of Personality Eysenc, H.J Routledge and Hegan Paul Ltd., London

**EDU. 103. TECHNOLOGY AND INFORMATICS IN EDUCATION****Contact Hours: 75 (Instruction) & 15 (Process)****Marks: 50 (End Semester Examination) & 10 (CE)**

<b>Objectives</b>	<b>Content</b>	<b>Process</b>
<p>1. To develop understanding about the concept of teaching, its meaning and function</p> <p>2. To understand the communication processes in the classroom and to apply them in real classroom situations</p>	<p><b>MODULE I (15 Hours)</b></p> <p><b>Teaching &amp; Communication</b> Meaning of teaching - Functions of Teaching - Difference among Teaching – instruction &amp; training.</p> <p>Communication – Meaning - Types: Verbal- oral &amp; written, Non- verbal.</p> <p>Communication Cycle - Barriers of communication - Effective Classroom Communication.</p> <p>Supporting aids for Teaching and communication - Projected (OHP, LCD Projector), Non – projected and Activity aids</p>	<p>1. Present a concept of your choice from this module using projected or non projected aids prepared by you ( Group work)</p> <p>2. Group wise presentation of a theme using non verbal communication strategies</p>
<p>3. Understand the nature scope and approaches of educational technology and also about the Various forms of technology,</p> <p>4. Know the multimedia approach and relevance of multi sensory approach.</p>	<p><b>MODULE II (10 Hours)</b></p> <p><b>Educational Technology</b> Meaning, Definition &amp; Scope</p> <p>Approaches of Educational technology – Hardware - Software - System approach</p> <p>Relevance of Multimedia - Concept &amp; Scope - Multisensory approach</p>	<p>3. Prepare a list of Examples for software and hardware approach in educational technology</p> <p>4. Prepare a list of Learning/Teaching aids in your subject which facilitates Multimedia approach</p>

<p>5. Understand the scope of ICT and its applications in teaching learning.</p> <p>6. Know the instructional applications of Internet and web resources.</p> <p>7. Understand the means of ICT integration in teaching learning</p>	<p><b>MODULE III (15 Hours)</b></p> <p><b>Information Communication Technology</b> Meaning, Concept, Characteristics, scope, advantages and limitation of ICT in Education.</p> <p>Educational Informatics - Concept</p> <p>Networking of computers- LAN, WAN, Internet - World Wide Web</p> <p>Web sites and concept of web designing- HTML- KompoZer</p> <p>Using free web resources - Search engines- Google, yahoo etc - Public utility websites and uses</p>	<p>1. Create a web page and upload personal profile.(HTML or Google Sites)</p> <p>2.Visit any public utility website and download a material related to any two areas</p> <p>3. Download &amp; Upload educational resources</p> <p>4. Hands own experience on web browsing and use of search engines</p>
<p>8. Develop various skills to use computer technology for sharing of information and ideas through the Blogs and Chatting groups.</p> <p>9. Understand the process of locating the resources available in the Internet and use of on-line journals and books.</p> <p>10. understand the utility of professional forums, Professional associations in use of computer technology.</p> <p>11. Understand the concept of e-learning, elements of e-learning.</p>	<p><b>MODULE IV (20 Hours)</b></p> <p><b>Technology mediated learning</b> Meaning of Technology mediated Learning.</p> <p>E-Learning: -Meaning &amp; Characteristics - moodle</p> <p>Types of E-Learning: Off-line Learning (Meaning, Importance), On-line Learning- (Synchronous and Asynchronous),</p> <p>Use and Importance of Chat, E-mail, Discussion Forum, e- journals, e-reading and blogs in E – Learning.</p> <p>Computer Managed Instruction (CMI) and Computer Assisted instruction(CAI) Eg. Sun Clock / K- Star</p> <p>Teleconferencing- Audio, Video and Computer mediated- Skype</p> <p>Role of the Teacher in Technology Mediated Learning</p>	<p>5. Prepare and Submit an E-assignment.</p> <p>6. Conduct a debate on the topic “ can e- media replace the teacher”</p> <p>7. Create a group in a social network of your class.</p> <p>8. Create a blog of your own.</p> <p>9. Provide hands on experience to the students on practical oriented topics</p>

<p>12. Understand the process of using the application software for creating documents, database, presentation and other media applications.</p> <p>13. Develop awareness about uses of computer technology in teaching learning training and Research.</p> <p>14. Understand the patterns of e-content design and its validation.</p> <p>15. Understand the technical aspects of e-content</p>	<p><b>MODULE V (15 Hours)</b></p> <p><b>Media skills in teaching and learning</b> Presentation software in teaching - Impress &amp; Power Point</p> <p>Basics of Graphics, Audio and video editing - Gimp/ Audacity/Kdenlive</p> <p>Simple animation techniques - Tupi</p> <p>E content authoring - Concept and scope of E content authoring - Familiarizing the facilities available - CEC, EMMRC.</p> <p>Role of Edusat - Gyan Darsan - ViCTERS</p>	<p>10. Provide hands on experience on Audio, video and graphics editing.</p> <p>11. Prepare a report on an educational programme observed through Gyan Darsan or ViCTERS.</p>
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## REFERENCES

Aggarwal J.C (1995) Essentials of Education Technology Teaching Learning – Innovations in Education, Vikas Publishing House.

Alexey Semenov, UNESCO, (2005): Information and Communication Technologies in Schools: A Handbook for Teachers.

Atkins N.J and Atkins J.N, Practical Guide to Audio Visual Technique in Education, Battacharjee Shymali, (2007). Media and Mass communication. An introduction. New Delhi: Kanishka Publishers.

Chandra Ramesh, (2005). Teaching and Technology for human development. New Delhi; Kalpaka Publishers.

Computers in Education by Merrill, Paul F.; Reynolds, Peter L.; Christensen, Larry B.; ISBN: 0205185177 EAN: 9780205185177 Edition: 3 Publisher: Allyn & Bacon (Published: 9/1995) Media: Paperback.

Das, R.C. (1993): Educational Technology – A Basic Text, Sterling Publishers Pvt. Ltd.

Evaut, M. The International Encyclopaedia of Educational Technology.

Harasim, L. (1990) Online Education: Perspectives on a New Environment. New York: Prasser.

Harasim, L. (1993) Global Networks Computers and International Communication. Cambridge; NIT Press 5.

Hoole H.S. Ratnajeevan & Hoole Dushyanthi. (2005). Information and communication technology. New Delhi: Foundation Books PVT. LTD.

Information and Communication Technologies: Visions and Realities by William H. Dutton, Malcolm Peltu; Oxford University Press, 1996.

Keith Hudson: Introducing CAL – Practical guide to writing CAL Programmes, Chapman and Hall, London.

Khan, BoH (1977) Web-based Instruction. Englewood Cliffs: Educational Technology Publications.

Kulkarni.S.S, Introduction to Education Technology, Oxford and IBH Publishing (1986)

Kumar, K.L, (1997). Educational Technology. New Delhi: New Age International Publishers.

Madhukumar Indira. (2005). Internet based distance learning . New Delhi: Global Network.

Mayer Richard E(2001); Multimedia Learning, Cambridge University Press, UK.

McDonald & Evans Ltd. 1975

Mclain, T.N. (1970). Internet homework helper. New Jersey: Prentice Hall.

Mohanthi Laxman & Vohra Nehrika, (2006) ICT Strategies for school. A guide for school Administrators. New Delhi: State Publishers.

Morison, R. Gary & Lowlher, L. Deborah & DeMeulle Lisa. (1995). Integrating computer technology in the class room. New Jersey: Prentice Hall.

Prasad Janardan, (2007). Audio Visual education. Teaching innovative technique. New Delhi: Kanishka Publishers..

Rejeseakaran S. (2007) Computer Education and Educational Computing, New Delhi: Neel Kamal Publishing Pvt. Ltd.

Roblyer, M.D. (2008). Integrating educational technology into teaching. New Delhi: Pearson.

Sagar Krishna, (2005). ICT Teacher training. New Delhi : Global Network

Sampath K, etal, Introduction to Educational Technology , 4<sup>th</sup> Edition Sterling Publishers, New Delhi

Sharma, B.M. (1994): Media and Education, New Delhi: Commonwealth Publishers.

Sing, U.K & Sudharshan , K.N., (2006). Media education. New Delhi: Discovery Publication.

Stephen, M.A. and Stanely, R. (1985) Computer Based Instruction: Methods and Development, NS: Prentice Hall.

Taloesra Hemlata, (2005). Open and distance learning- Global Challenge. New Delhi:

Walter A Written and Charles F Schuller: Instructional Technology - its nature and use of A.V. Materials (5th Ed), Harper and Row Publishers, New York.

### **Web-addresses:**

<http://www.libraries.psu.edu/>  
<http://www.searchenginewatch.com>, (ALTA VISTA, EXCITE, HOTBOT, INFOSEEK).  
<http://www.teacher.ne>  
[www.moodle.org](http://www.moodle.org)  
<http://teamwork.sg/teamwork/schoolportal.aspx>  
<http://www.enhancelearning.co.in/SitePages/Index.aspx>  
<http://www.e-learningforkids.org/courses.html>  
<http://en.wikipedia.org/wiki/Wiki>  
<http://www.webopedia.com/welcomead/>  
<http://www.filehippo.com/>  
<http://www.padtube.com/Windows-Software/90-01.html>  
<http://www.top10bestwebsitehosting.com>  
<http://blog.efrontlearning.net>  
<http://www.digitalartists handbook.org/node/35>  
<http://video-editing.findthebest.com>  
<http://savedelete.com/best-free-windows-video-editing-software.html>  
<http://www.cec-ugc.org/>  
<http://www.emmrcamd.org/>  
<http://www.ddindia.gov.in/About+DD/Gyandarshan/>  
[http://www.isro.org/scripts/sat\\_edusat.aspx](http://www.isro.org/scripts/sat_edusat.aspx)  
<http://www.kerala.gov.in/>  
<http://india.gov.in/>  
<http://keralapsc.org/>  
<http://www.keralatourism.org/>  
 UGC  
<http://www.ugc.ac.in>  
 NCERT  
<http://www.ncert.nic.in>  
 CIET  
<http://www.ciet.nic.in/>  
 MHRDE  
<http://www.education.nic.in>  
 SSA  
<http://www.ssa.nic.in>  
 NCTE

<http://www.ncte-india.org>  
NUEPA  
<http://www.nuepa.org>  
CCRT  
<http://www.certindia.gov.in>  
General Education Kerala  
<http://www.education.kerala.gov.in>  
IT @ School  
<http://www.itschool.gov.in>  
SIET  
<http://www.sietkerala.org>  
SCERT  
<http://www.scert.kerala.gov.in>  
CDIT  
<http://www.cdit.org>  
Calicut University  
<http://www.universityofcalicut.info>  
MG University  
<http://www.mgu.ac.in>  
Kannur University  
<http://www.kannuruniversity.ac.in>  
Kerala University  
<http://www.keralauniversity.edu>  
Cochin University  
<http://www.cusat.ac.in>  
CTE - Thiruvananthapuram  
<http://www.gctetvm.com>  
CTE - Calicut  
<http://www.gctecalicut.in>  
CTE - Thalassery  
<http://www.gctetly.com>  
For other useful links See Library  
<http://www.iasethrissur.edu.in/library.html>  
Dept. of Collegiate Education Kerala  
<http://www.collegiateedu.kerala.gov.in/>  
Online Questionnaire on ICT  
<http://www.kuttiyankavupooram.com/online/onlineexmination/login.php>



**EDU. 104. EDUCATION IN THE SOCIO CULTURAL CONTEXT****Contact Hours: 75 (Instruction) & 15 (Process)****Marks: 50 (End Semester Examination) & 10 (CE)**

<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To put education in the perspective of social order.  2. To identify the relationship between education and society.	<b>MODULE I (15 Hours)</b>  <b>Sociological perspectives on education</b> Social Structure and Function - Social System and Education.  Education as a social sub system - Education and Socialization.  Education and Culture - Acculturation and Enculturation - Education as cultural capital.  Education in a Democracy.	1. Prepare a poster on the social issues of current Kerala society with special reference to family norms and cultural change.
3. To develop awareness about the characteristics of Indian society.  4. To acquaint with the nature of social change in India.	<b>MODULE II (15 Hours)</b>  <b>Education and Society -</b> Characteristics of Indian Society - Aspirations of Indian Society - Societal Agencies of Education.  Education and Social Change - Social Change in India - Education and Modernization - Cultural Lag Social Control.	2. Prepare a write up/presentation on social changes in the last two decades in the locality of students and present in the class (presentation by random selection of students).
5. To identify the relationship between education and economy and national development	<b>MODULE III (15 Hours)</b>  <b>Economics of Education</b> Education and Economic Development - Education as an Investment - Share of GDP to Education - Education in Five Year plans  Education and National Development - Social Indices of Development  Role of Education in Kerala Development Experience	3. Prepare a Table of allocation to different levels of (Elementary/Secondary/Higher/Technical) education in last three five Year Plans.  4. Conduct a debate on role of Education in Kerala Development Experience

<p>6. To analyze the issues faced by Indian Education</p>	<p><b>MODULE IV (30 Hours)</b></p> <p><b>Current Issues in Education (A Brief Introduction to the following Issues)</b></p> <p>Quality – Quantity Paradox</p> <p>Equalization of Educational Opportunities</p> <p>Universalization of Elementary and Secondary Education</p> <p>Adult and Continuing Education</p> <p>Gender Issues in Education</p> <p>Inclusive Education – Meaning, Relevance and Practices</p> <p>Population Education – Need, Trends in Demography, Adolescence education</p> <p>Value Education – value crisis, classification of values, Strategies for value education</p> <p>Education for Peace</p> <p>Environmental Education – Meaning and scope, Sustainable development, Environmental Problems, Strategies of EE,</p> <p>Child rights Education</p> <p>Impacts of Liberalization, Privatization and Globalization on Education</p>	<p>5. Collect data and prepare graph depicting the GER in Elementary/Secondary/in India with special reference to States/Castes/Regions.</p> <p>6. Identify a topic of student choice and suggest suitable learning activities for Environmental Education</p> <p>7. Prepare a lesson plan for developing essential values in children</p>
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## REFERENCES

- Brown, Francis. J. (1947). Educational Sociology. New York: Prentice Hall.
- Cook LA, Cook EF (1960) A sociological approach to Education, Newyork: Mc Graw Hill
- Dash BN (2004), Education and society, Delhi: Dominant publishers

Dewey John (1900). *The School and Society* Chicago: The University of Chicago Press.

Dewey John (1902). *The Child and Curriculum*. Chicago: The University of Chicago Press.

Francis Abraham (2006) *Contemporary sociology, an introduction to concept and theories*, New Delhi: oxford

Farrant JS(1964) *Principles and practice of Education*, London: Longmans,Green and Co. Ltd

Gore M.S. (1994). *Indian Education – Structure and Process*. New Delhi: Rawat Pub.

Kilpatrick WH, (1959) *Source book in the philosophy of education*, Newyork: MacMillan Company

Mathur S.S. (1988). *Sociological approach to Indian Education*. Agra: Vinod Pushtak Manir.

Pandey,VC (2001) *Education and Globalisation*, Delhi: Kalpaz publication

Passi,B.K. & Singh (1988). *Value Education*. Agra: National Psychological Corporation.

Payne E. George (1928). *Principles of Educational Sociology and Outline*. New York: New York U.P.

Russell, B (1932) *Education and the social order*, London: Unwin Books

Ruhela, S.P. (1968). *Human Values and Education*. New Delhi: Sterling Publishers.

Sharma R.N. & Sharma R.K. (1985). *Sociology of Education*. Bombay: M.P.P.

Taneja. V.R. (2003). *Educational Thoughts and Practice*. New Delhi: Sterling Publishers.

Young, K & Mack RW, *Priciples of Sociology*, New Delhi: Eurasia

**EDU. 105. PSYCHOLOGY OF LEARNING****Contact Hours: 75 (Instruction) & 15 (Process)****Marks: 50 (End Semester Examination) & 10 (CE)**

<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To understand the concept, nature and factors influencing learning.	<b>MODULE I (15 Hours)</b>  <b>Concept of Learning</b> Meaning, Definition & Characteristics  Factors affecting learning - learner, method and task variables.  Maturation - Concept & Educational Implications.  Attention - Concept & Educational Implications.  Motivation - Concept Types & Educational Implications  Transfer of Learning - Types of transfer - positive, negative, zero, vertical, horizontal, specific, general - Educational Implications of transfer of learning	1. List examples through brainstorming for transfer of learning in life situation and classroom situation  2. Prepare a plan for enhancing achievement motivation (A group work of five students)
2. To develop an understanding of the process of learning through various theoretical perspectives.	<b>MODULE II (25 Hours)</b>  <b>Different Views on learning</b> Behaviourist views on learning - Skinnerian Operant Conditioning and their implications  Gagne's Hierarchy of learning.  Constructivist views on learning and its educational implication - Piaget, Bruner, Ausubal & Vygotsky.  Constructivist Learning Strategies - Cooperative and Collaborative Learning - Peer tutoring - Concept mapping - Brain based learning - Cognitive apprenticeship - Engaged learning.  Humanistic views on learning and its educational implication - Experiential Learning- Carl Rogers	3. Construct a concept map of a concept of your choice  4. Use peer tutoring technique in the class to transact a topic of your choice (from psychology)  5. List suitable learning activities based on Brain based learning/ Cognitive apprenticeship/Engaged learning

Objectives	Content	Process
3. To gain an insight into the mental processes involved in learning.	<p><b>MODULE III (15 Hours)</b></p> <p><b>Mental Processes in learning</b>  Memory - Concept; Types &amp; Strategies to develop Memory.</p> <p>Forgetting - Nature, Causes.</p> <p>Thinking - Divergent, Convergent, Reflective thinking.</p> <p>Reasoning - Inductive and deductive</p> <p>Concept Formation</p> <p>Problem solving - Steps and strategies</p>	6. Prepare test items (Minimum 5 Items) to assess any one mental process (Memory, Reasoning and Problem solving)
4. To acquaint the learner with the concept, process and importance of Group Dynamics.	<p><b>MODULE IV (10 Hours)</b></p> <p><b>Learning in Groups</b>  Meaning &amp; Characteristics of a Social Group</p> <p>Sociometry: - Use and Importance.</p> <p>Group Dynamics - Process and its Importance in Learning.</p> <p>Importance of developing Group Cohesion.</p> <p>Interpersonal Relationship-Transactional analysis</p>	<p>7. Construct a Sociogram</p> <p>8. Prepare an imaginary communication script and identify the elements of child, adult and parent ego state</p>
5. To develop the ability to perceive 'learning from the learners' perspective'.	<p><b>MODULE V (10 Hours)</b></p> <p><b>Learning from learner's perspective</b>  Learning styles - Approaches to studying - Orientations in learning - Reflective practices -Meta cognition</p>	<p>9. Identify learning style preferences/approaches to studying of students in your class</p> <p>10. Suggest any one meta-cognitive strategy/ reflective practice through discussion for teaching a topic of your choice</p>

## REFERENCES

- A Text book of educational Psychology, Bhatia.H.S(1977) New Delhi, Mc Millan India Ltd
- Advanced Educational Psychology, Chauhan .S.S(2006) New Delhi Vikas Publishing house Pvt.Ltd.
- Biggs,J.B.(1987). Student approaches to learning and studying. Melbourne,Vic; Australian Council for Educational Research.
- Child Development, Dinkmeyer.C.D(1967). New Delhi, Prentice Hall of India Pvt.Ltd.
- Child Language Elliott, A.J (1981) Cambridge University Press
- Dunn,R.,&Dunn,K.(1978).Teaching students through their individual learning styles. Reston,V.A.: Reston Publishing Company,Inc.
- Educational Psychology Crow, L.A and Cros A (1973) New Delhi : Eurasia Publishing House.
- Educational Psychology Duric, L (1990) New Delhi : Sterling Publishers.
- Educational Psychology Reilly, P.R & Levis, E (1983) New York : Macmillan Publishing Co Ltd.
- Educational Psychology, Mathur.S.S(2007) Agra-2, Vinod Pustak Mandir
- Educational Psychology, Skinner .E.C(2003) New Delhi, Prentice Hall of India Pvt.Ltd.
- Educational Psychology.woolfolk Anita(2004) Singapore:Pearson Education
- Entwistle,N.J.(1981). Styles of learning and teaching.New York:John Wiley.
- Entwistle,N.J.(1987). Understanding classroom learning. London:Hodder&Straughton.
- Entwistle,N.J.(1990). Handbook of educational ideas and practices.London:Routledge
- Marton.,D.J.Hounsell&N.J.Entwistle.(Ed.). The experience of learning.(2nd ed.). Edinburg: Scottish Academic Press.
- Pask,G.(1976).Styles and strategies of learning. British Journal of Educational psychology,46,pp.128-148.
- Essentials of Educational Psychology, Mangal.S.K(2007) New Delhi, PHI Learning Pvt.Ltd.
- Historical Introduction to Modern Psychology,Murphy.G&Kovanch.J.K(1997) New Delhi, Neeraj Publications
- Human Development and Learning, Crow.L.D &Crow Alice(2008) New Delhi, Surjeet Publications
- Introduction to psychology, Witting.A.F(2001) America. Key word Publishing services Ltd
- Learning and Teaching ,Hughes, A.G & Hughes, E.H(2005)New Delhi, Sonali Publications

Learning Theories an Educational Perspective, Schunk, D.H(2011) New Delhi, Pearson Education.

Mental Hygeine Carroll, H.A (1984) New York, Prentica Hall Publishing Co.

Personality Classic Theories & Modern Research.New Delhi, Pearson Education.

Personality, Guilford.J.P(2007) New Delhi, Surjeet Publications

Psychology of Learning and Teaching Bernard, H.W (1954) New York : MC Grow – Hill Book Co.

Social Context of Education Shah, A.B (Ed) (1978) Essays in honour of Prof. J.P. Naik, Allied Publishers, Bombay.

Teacher and Learners Santhanam, S (1985) Madras, Santha Publishers

The Conditions of Learning Gagne, R.M, Holt, Rineharf & Winston, (1965) New York

The growth of logical thinking from childhood to adolescence Piaget, J (1958), Basic Books, New York

The Psychology of Learning and Instruction De Cecco, J .J (1970) New Delhi, Prentice Hall India Pvt. Ltd.

The Psychology of Learning Gari. R. The centre for Applied Research in Education, Washington

Theories of Learning (1956) Hilgard. R Appleton Century Crafts Inc, New York

Transactional Analysis in Psycho Therapy Berne, E (1961) Paris : Grove Press.

**EDU. 106. EDUCATIONAL MANAGEMENT****Contact Hours: 75 (Instruction) & 15 (Process)****Marks: 50 (End Semester Examination) & 10 (CE)**

<b>Objectives</b>	<b>Content</b>	<b>Process</b>
<p>1. To develop understanding about the concept and scope of educational management</p> <p>2. To familiarize the school organization</p>	<p><b>MODULE I (20 Hours)</b></p> <p><b>Educational management</b> Concept - Need, scope and functions - Characteristics of democratic institutional climate</p> <p>Organisational process in school - HM/Principal as a leader - Duties and responsibilities of HM</p> <p>Performance Appraisal - meaning and importance - performance appraisal of Teachers.</p> <p>Importance of essential records - Admission Register - Attendance Register for Staff &amp; students - Stock Registers - Acquittance .</p> <p>Teaching Manual – Student Profile - Cumulative Record - Service Book</p>	<p>1. Conduct a group discussion on “the impact of organizational climate on the effective performance of teachers”</p> <p>2. Prepare a questionnaire for HMs for collecting data regarding his/her difficulties in performing duties and responsibilities.</p> <p>3. Prepare a hypothetical admission register of 5 students</p>
<p>3. To develop skills in preparing time table</p> <p>4. To acquaint with the concept of institutional planning</p> <p>5. To understand the structure and functions of SMC</p> <p>6.To understand and appreciate TQM</p>	<p><b>MODULE II (10 Hours)</b></p> <p><b>Institutional management</b> Institutional Planning - Meaning and Importance</p> <p>School Management Committee (SMC) – School Development Plan.</p> <p>Functions of staff council and student council.</p> <p>Timetable - Types and Principles of timetable construction.</p> <p>Total Quality Management (TQM) – Concept and Scope.</p>	<p>4. Prepare agenda for a staff council/ students council Create a class time table/ framework for school time table</p> <p>5.Prepare an action plan of the co-curricular activities for an academic year of school.</p> <p>6. Prepare a poster on ‘Structure and functions of SMC.</p>



<p>7. Understand the meaning and significance of evaluation in education.</p> <p>8. Understand the different types of tools and techniques of evaluation</p> <p>9. Understand the essentials of basic statistics in education and apply statistics in the classroom.</p>	<p><b>MODULE III (25 Hours)</b></p> <p><b>Managing evaluation in school</b> Measurement and Evaluation- meaning, functions - Formative &amp; Summative Evaluation</p> <p>Tools and techniques of Evaluation - Qualities of good evaluation tool.</p> <p>CCE Concept and relevance - Grading system, merits and limitations - Semester system of examination - Open book examination.</p> <p>Basic statistics in Evaluation - Measures of central tendency &amp; dispersion - Graphical representation of data.</p> <p>Using spread sheets in computer for data entry &amp; basic statistics</p>	<p>7. Compute the measures of central tendency, measures of dispersion and draw appropriate graphical representation using hypothetical data</p> <p>8. Make data entry in a spreadsheet using hypothetical data and workout basic statistics.</p> <p>9. Undergo an open book examination in the class on relevant unit.</p>
<p>10. Develop theoretical assumptions behind the practices of physical education.</p> <p>11. Develop awareness about health and physical fitness</p> <p>12. Develop attitude towards preventing hypo kinesthetic diseases</p>	<p><b>MODULE IV (20 Hours)</b></p> <p><b>Managing physical and health education practices in school</b> Introduction, Definition, aims and objectives of Physical Education.</p> <p>Introduction and Definition of Health, fitness and Wellness.</p> <p>Types of Physical Fitness - Health related physical fitness - Performance related physical fitness - Cosmetic fitness.</p> <p>Physical fitness components - Fitness Balance.</p> <p>Hypo-kinetic Diseases and its Management – Obesity – Diabetes – Dyslipidemia – Hypertension – Osteoporosis - Coronary heart disease - Back pain.</p> <p>Posture and Postural deformities. Principles of first aid. Food and nutrition.</p>	<p>10. Practice of Yogasanas and relaxation techniques</p> <p>11. Practice of warm up and warm down exercises.</p> <p>12. Practice Walking, jogging, stretching and resistance training</p>

## REFERENCES

- Adrianne Hardman and David J Stenesel, Physical activity and Health (2004)
- Adrianne, CR, Your Guide to Health, Oriental Watchman Publishing House (1967)
- Aggarwal J.C (1997) School Organization and Administration Management. New Delhi: Doaba House, Book sellers and Publishers
- Ajmer Singh et al. Modern text of Physical Education, Health and Sports, Kalyani
- Alka Kalra (1997) Efficient School Management and Role of Principals, APH
- Best, J W & Khan, J.V (1992). Research in Education, New Delhi: Prentice Hall of India.
- Bhatnagar, RP and Agarwal, V (1986) Educational Administration and Management,
- Bhatnagar, S.S. , & Gupta , P.K. (2006). Educational Management. Meerut: Lall Book Dept.
- Buch, M.B, Institutional Planning for Educational Improvement and Development,
- Chaube A Chaube. (2003). School Organization, New Delhi: Vikas
- Chaudhary, N.R. (2001). Managements in education. New Delhi: APH.
- Daniels C J. (1949) Teachers' handbook of test construction. Marking and Records. London: Crosby Lock wood & sons limited
- Dowine, N.M. (1958). Fundamentals of measurement. New York: oxford.
- Ebel, Robert et al (1991) Essentials of Educational Measurement, New Delhi: Prentice Hall of India.
- Greene, H.A., Jorgensen, A.N & Gerbrich , J.r. (2008). Measurement and evaluation in the secondary school. New Delhi: Surjeet.
- Hardayal Singh, Science of Sports training, DVS Publications (1995)
- Indian Edition National Council of Educational Research and Training; Educational Testing Service . 1960
- James Brown & Longmans. (1996). Objective Tests their construction and analysis. A Practical handbook for teachers. London: Spot tiswoode, Ballantyne and Co. LTD.
- Lal, J.p. (2007). Educational measurement and evaluation. New Delhi: Anmol. Loyal Depot, Meerut.
- Macnee, E.A. (2004). School Management and methods of teaching. New Delhi: Sonali.
- Mohanty, J. (1990). Educational Administration, supervision and school management. New Delhi: Sonali
- Muller JP (2000) Health Exercise and fitness, New Delhi, Khel Sahitya Kendra.

- Nair TKD. (2004). School Planning and Managements. A Democratic Approach. Delhi: Choudhari offset Process.
- Noll Victor H, (1957). Introduction to educational measurement. USA: Cambridge Mesachusetts.
- Patel, R.N. (1989). Educational Evaluation: Theory and evaluation. New Delhi: Himalaya. Publishers , New Delhi.
- Sidhu, K.S. (2007). School organization and administration. New Delhi: Sterling.
- Sindhu, I.S. , & Gupta,S. (2005). School Managements and pedagogies of education. Meerut. International.
- Srivastava, A.B.L and Sharma K.K (1989) Elementary Statistics in Psychology and education, New Delhi: Sterling Publications.
- Thomas, J.P, Organisation of Physical Education, Gnanodya Press, Chennai (1964)
- Thorndike . R.L and Elizabeth (1977) Measurement and Evaluation in Psychology and Education, New York : John Wiley.
- Wert Churchman. C. & Philbarn Ratoosh (Ed.). (1995). Measurement; Definition and theories. USA: John Willey and sons, Inc.
- World Health Organisation (1991) Comprehensive School Health Curriculum, New Delhi Region Office for South East Asia.

# **OPTIONAL PAPERS**

## **ARABIC**

<b>EDU. 111. METHODOLOGY OF TEACHING ARABIC</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks: 50 (End semester Examination) & 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To acquaint with the nature and scope of Arabic	<b>MODULE I</b>  <b>Arabic language</b> , its significance, need and significance of Arabic language teaching, - problems of learning foreign language	
2.To understand the theory of skill acquisition	<b>MODULE II</b>  <b>Language and language acquisition</b> a. Language skills-acquisition of skills- listening and reading skills, techniques to attain these skills, different kinds of reading, methods of teaching to read- importance of pronunciation sounds-organization of speech- Training for correct pronunciation etc b. Productive skills- speaking and writing skills, their importance, peculiarities-causes of bad spelling-editing process reference and study skills	1. Making at least five criticism lesson plans with the help of computer instruction.
3.To understand Approaches & Methods of Teaching Arabic	<b>MODULE III</b>  <b>General principles and methods</b> of language learning with special reference to Arabic. -Principles and maxims of language learning –learning environment-its qualities Methods of teaching Arabic- traditional and modern: translation method-direct method -structural approach- communicative approach- bilingual approach-discussion method role play-play way-dramatization project method-learning by doing	2. Preparation of power point presentation- 3. Internet browsing

4. To understand the theoretical bases of major approaches viz constructivism, behaviourism Social constructivism etc.	<b>MODULE IV</b>  <b>Language and language learning – approaches:–</b> Behaviorism - cognitivism-, constructivism-social constructivism –neuro-linguistic theories.	4. Making multiple lesson plans on a single topic based on different approaches to experience the difference in outlooks.
5. To understand the techniques of teaching vocabulary, functions and different language forms.	<b>MODULE V</b>  a. <b>Teaching of prose</b> -aims of teaching prose, methods of reading prose-different types of prose lessons. b. Teaching of poetry- aims of teaching poetry, methods of teaching poetry- c. Grammar- place of grammar-approaches and methods; functional-formal, inductive-deductive. d. Composition and creative works-its types, methods, strategies e. Vocabulary strengthening teaching of literature	5. Suggest a way to strengthen vocabulary and prepare a short learning material suitable to realize your idea.
6. To update on the present practices of learning and instruction practiced in the state schools of Kerala	<b>MODULE VI</b>  <b>Critical pedagogy</b> -issue based learning-discourse oriented and narrative strategies Group learning-co operative learning-collaborative learning-multiple level learning	6. Prepare a list of any five social issues that can be addressed in Arabic class

<b>EDU 131 PEDAGOGIC PRACTICES IN ARABIC</b> Contact Hours: 75 Hours (Instruction) &15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the Aims and Objectives of Teaching Arabic	<b>MODULE I</b> <b>The objective based instruction</b> model with reference to Blooms Taxonomy. 1.1preparation of the lesson plans as per the model. 1.2 Constructivist and social constructivist models -preparation of lesson plans -selection of activities 1.3 Issue based curriculum –Highlighting the Issues,	1. Prepare a pictorial representation of Instructional Objectives relevant to Arabic Education.

2.To develop skills for effective teaching (by micro teaching)	<b>MODULE II</b> a. <b>Teaching skills</b> for classroom extension-Micro teaching, skill based practice-3 different skills and Link practice	Prescribed in Practicals
3. To understand and do the pedagogic analysis of Arabic of 8 <sup>th</sup> standard to 11 <sup>th</sup> standard.	<b>MODULE III</b> <b>Pedagogic Analysis of Lessons-</b> Meaning and principles of content analysis- purpose of pedagogic analysis- subject matter and language-Learning experiences-Evaluation	2. Perform content analysis, found out specifications, objectives in behaviorist system 3. Find out issues, sub issues-modular approach-activities etc in constructivist pattern
4.To acquaint with Planning of instruction	<b>MODULE IV</b> <b>Lesson Planning-</b> Ways of introducing various topics, Developing the skills, types of learning experiences required for different methods of teaching-Unit plan, year plan, importance of planning in education	4. Write discussion lessons in various strategies- demonstration, criticism lessons according to constructivist pattern
5.To understand the Evaluation techniques and prepare objective based test items as per the existing state syllabus pattern in Arabic	<b>MODULE V</b> Evaluation of student achievements- tools of evaluation-formative and summative methods- continuous and comprehensive evaluation-tools used for CCE –Grading system-The evaluation system existing in Kerala	5. Make sample question paper for objective based test and new type tests with blue print, value points and question wise analysis OR 6. Make mark list or grade list of students using spread sheet and analyze it (2 marks)

<b>EDU. 151. CURRICULUM AND RESOURCES OF ARABIC</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks: 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the principles of Organizing Curriculum	<b>MODULE I</b>  Curriculum-meaning-curriculum construction - principles of curriculum construction, approaches to curriculum construction- modern trends in curriculum construction- A critical study of Arabic curriculum for all classes from V to XII	1. A comparison of Arabic text books in Kerala with that of English
2.To provide familiarization with Resources for teaching/learning Arabic	<b>MODULE II</b>  Learning aids –its importance- Psychological bases--Teaching-learning material:TB its qualities, HB, local text, magazines, reading corner etc. -AV aids :ICT. language lab, improvised leaning aids, mass media, digital learning resourses etc. Activity aids: club activities, field trips etc.	2. Prepare a manuscript magazine (group work)
3. To have a hands on approach in organizing and maintaining library, and other resources in Arabic	<b>MODULE III</b>  a. Library - importance of library –school library-class library- digital library,online library etc.	3. Making a book review
4. To understand the meaning, scope and importance of models of teaching	<b>MODULE IV</b>  Models of teaching- Concept Attainment, Advance Organizer, Inductive-Deductive models	4. Prepare a lesson plan on any topic USING Models of Teaching.

<b>EDU. 171. PROFESSIONALIZING ARABIC EDUCATION</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks: 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To appreciate the role of Arabic in the Society	<b>MODULE. I</b>  Arabic language-its significance-historical background-world language-modern and classical language-link with other languages and literature- contribution to other subjects Arabic language and India Arabic language and Kerala Place of Arabic in the state schools of Kerala	1. Preparation a list of 4 classic books in Arabic and prepare short notes on how they reflect social life in them.



2. To acquaint with the co-curricular activities in Arabic	<b>MODULE. II</b> Co-curricular activities of Arabic:-, programmes included in Arabic kalolsavam- their rules and regulations- Club and literary activities,associations-school language broadcasting-magazines	2. Prepare a year plan for an Arabic language club in the school.
3. To understand the importance of nurturing talented children	<b>MODULE. III</b> Characteristics of talented children. Identification & techniques of nurturing talented children in Arabic.	3. Prepare an enrichment material in Arabic grammar of Standard 8
4. To familiarize the I T related professional inputs of teaching.	<b>MODULE. IV</b> New aids for Arabic teaching- computer assisted Instruction, CDs, VCD's Internet etc	4. Arrange a seminar with power point presentation.
5.To be a Professional Arabic teacher	<b>MODULE. V</b> Definition of profession, Teaching as a profession. Professional ethics. Traits of professionalism- competencies listed by NCTE Soft Skills for a teacher. The Arabic teacher, qualities of a good Arabic teacher, nature of work and duties-qualifications	5. Prepare a report on qualities of a good Arabic teacher.

## REFERENCES

1. Teaching and Learning English, a source book for Teaching and Teacher Training : Orient Longman, Hyderabad.
2. A training course for TEFL : Peter Habbard, Hywel Jones.
3. An Introduction to language and communication : Publisher Prentice hall
4. Active listening building skills : Marc Helgesen and Steven Brown Cambridge
5. Linguistics: An introduction to language and communication : Advian Adkmajian and others. New Delhi.
6. The Oxford Guide to Writing and : John Seley

- Reading
7. Grammar builders : Am in Eravelly, E.J.Ibrahim.
  8. Improve your communication skills : Alan Barker.
  9. Spoken English : M.C. Sreevalsam
  10. The Skills of Communication : Billscott, Mumbai
  11. The teaching of language a practical approach : B.N. Safaya
  12. The Principle and Methods of Teaching : Bhatia and Bhatia
  13. Technology of Teaching : R.A. Sharma
  14. Models of Teaching : Bruce Joyce – Mersha Wein
  15. Introduction of educational technology : K.Sampath, a. Paneer Selvam, S. Santhanam
  16. Essentials of Educational Technology – Teaching Learning Innovations in Education : J.C. Agarwal
  17. Modern trends in teaching technology : Romesh Varma, Suresh Sarma
  18. Atharbiyathu wa Thuruqu athedrees Part I : Prof. Salih Abdul Azeez, Dr.Abdul Azeez, Abdul Majeed,
  19. Atharbiyathu wa Thuruqu athedrees Part II : Prof. Salih Abdul Azeez, Dr.Abdul Azeez, Abdul Majeed,
  20. Thuruq thadrees Allugathil arabiyya : Dr. Jawdath Alrikabi published Darul Fikir
  21. Al Muwajjahul Ameli li Muderrisi Luga Al Arabiyya : Abid Thoufeege Al hasmi, Al Risala Publishing House Bairoot Lebanon
  22. Al Muwajjahul Ameli li Mudarrisi Luga Al Arabiyya : Abdul Haleem Ibrahim. Daru Maarif Egypt.
  23. An easy way to commercial and journalistic Arabic : Mohammed Ismail Mujaddidi. Sahara Publications, Markaz complex, Calicut.
  24. Kaifa thalki darsak : Kitabuhllmiyyum. Yabhasu fee usool altharbiyathi wathadrees.
  25. Althaeleema wa nabriyathuhu : Darul Ilmu LilMallayeen Beirut.
  26. Thaeleenul Allugath All Arabiyya Baina, Al Nalriyathi Wa thath beek : Dr. Hassen Shahatha
  27. Mohmood Al Sayed Salthan : Maseerath Al-Fekri Al-tharba wiyyi Abara Althareek, K.S.A. Dar Al Shurook.
  28. Fannu Al thadrusi Li tharbayathi Allugawiyathi Kulliyathu tharbiyathi : Jaiathu al Azhari
  29. Dr. Hussain Sulaiman Fourath Thaeleemul Allugathul. : Arabiyya Waldheenul Islamiyyi Egypt, Darul Marif.
  30. Writing Arabic: A Practical Introduction to Ruqah Script : T.F. Mitchell, London, Oxford, University Press, New York, Tyoronto.

# ENGLISH

<b>EDU. 112.METHODOLOGY OF TEACHING ENGLISH</b> Contact Hours:75 (Instruction)&15 Process Marks:50 (End Semester Examination)&10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To acquaint with the nature of language 2. To acquaint with the nature and scope of English language	<b>MODULE I ( 11 hours )</b> Language- its meaning,characteristics,functions ,varieties of language. First language, second language and foreign language Learning and acquisition ,Related theories Position of English in the language family. Features of English, Importance of English English as a global language Status of English in India	1. Make some items that would help to evaluate the writing skill of the trainees.
3. To familiarise with the four skills	<b>MODULE II ( 10 hours )</b> English as a skill subject-- LSRW skills and the process skills. Techniques to develop LSRW skills	2. Film review of any two English films. 3. Preparation and presentation of a minimum of ten discourses.
4.To understand the theories of language learning	<b>MODULE III ( 16 hours )</b> Behaviourism English Constructivism Multiple Intelligence Chomskian concept of Language Development Stephen Krashen's theory Dr. N.S.Prabhu's CBLT programme	4. Preparation of lesson plans –(behaviourist & constructivist ) on a single topic based on different approaches to experience the difference in outlooks.
5. To understand the methods and approaches of teaching English 6. To understand the nature of selecting language materials.	<b>MODULE IV ( 19 hours )</b> Method,approach, technique & strategy. Grammar –translation method, direct method,bilingual method. Structural approach, communicative approach, humanistic approach, whole language approach .Characteristics,principles,advantages & limitations. Innovative practices in ELT Principles of selection and grading of language materials	

7. To understand the techniques of teaching vocabulary, functions pronunciation, prose poetry, and composition.	<b>MODULE V</b> Vocabulary- Types of vocabulary, Kinds of words, Techniques of teaching vocabulary, Enrichment of vocabulary, Language games. Form and function—methods of teaching grammar. Teaching of pronunciation. Types of prose- intensive and extensive reader, techniques of teaching prose & poetry.	5. Book review on any two literary works published in the last ten years.
8. To update on the present practices of teaching English in the State of Kerala.	<b>MODULE VI ( 6 hours )</b> Challenges of teaching English in Kerala. Measures for improvement.	6. Get familiarised with the IT sources / packages that are helpful in teaching English.

<b>EDU. 132.PEDAGOGIC PRACTICES IN ENGLISH</b> Contact Hours:75 (Instruction) &15 Process Marks:50 (End Semester Examination) &10 (CE)		
<b>Objectives</b>	<b>Topics</b>	<b>Process</b>
1. To understand the aims & objectives of teaching English and 2. To acquaint with the principles of language teaching.	<b>MODULE I</b> Aims of teaching English. Objectives-types of objectives. Objectives of teaching English at secondary level. Taxonomy of educational objectives. Philosophical, psychological, sociological & technological principles of language teaching.	1. Make a pictorial representation of taxonomy of educational objectives
3. To develop skills for effective teaching—micro teaching.	<b>MODULE II</b> Core skills. Micro teaching—definition-principles-micro teaching cycle, limitations.	Prescribed in practicals
4. To understand and do the pedagogic analysis of English of 8 & 9 th standard.	<b>MODULE. III</b> Pedagogy & androgogy. Content analysis –Pedagogic analysis—objectives & components.	2. Make a content analysis of any unit of English in standard 8 or 9
5. To acquaint with the planning of instruction.	<b>MODULE. IV</b> Importance of planning—year plan, unit plan, lesson plan. Steps of lesson plan. Types of planning—behaviourist, constructivist---prose & poem.	3. Prepare a year plan or unit plan
6. To understand the evaluation techniques,	<b>MODULE. V</b> Evaluation - Different types of test items - merits and demerits. Construction and	4. Prepare a question bank on a unit of your

Diagnosis and remediation and prepare objective based test items as per the existing state syllabus pattern in English.	administration of Achievement tests. Continuous and Comprehensive Evaluation, Evaluation Criteria for Assignment, Seminar and Project. Diagnostic test-importance-process of construction Error analysis-remedial teaching—meaning. Grading—importance & types.	own choice from 8 <sup>th</sup> or 9 <sup>th</sup> std English Text Book. 5. Preparation of unit tests, diagnostic test and remedial lesson plan
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<b>EDU. 152. CURRICULUM AND RESOURCES OF ENGLISH</b> Contact Hours:75 (Instruction) &15 Process Marks:50 (End Semester Examination) &10 (CE)		
<b>Objectives</b>	<b>Topics</b>	<b>Process</b>
1. To understand the principles of organising curriculum.	<b>MODULE I ( 10 hours )</b> Curriculum—meaning,types. Principles of curriculum construction. Nature of language curriculum. Syllabus—types of syllabus—features and limitations.	1. Compare the styles of organisation of curriculum development,selecting a single topic from State and CBSE syllabi.
2.To familiarise with resources for teaching/learning English.	<b>MODULE II ( 20 hours )</b> Course books, qualities of a good course book. Source books—work book. Supplementary reader—types. E-book, CD's etc.	2. Evaluation of 8 & 9 th standard course books.
3. To acquaint with the preparation of various learning aids in English.	<b>MODULE III ( 20 hours )</b> Audio-visual aids—radio,TV,tape recorder,OHP,computer,language lab,video clippings,pictures,charts,flashcards ,realia, models etc.	3. Prepare a flash card to teach any five vocabulary.
4. To acquaint with the use of library.	<b>MODULE IV ( 15 hours )</b> Importance of library in language learning. E-library, inflienet. Principles of selecting language books.	4. List out 10 storybooks suitable for secondary school students. 5. Use inflienet to identify ELT journals and go through them. 6. Maintain a class library.
5. To familiarise with study skills.	<b>MODULE V ( 10 hours )</b> Reference skills—use of dictionary. Note-taking, note-	7. Make a dictionary with 20 words.

	making,summarizing, paragraphing, information transfer.	
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<b>EDU. 172. PROFESSIONALISING ENGLISH EDUCATION</b> Contact Hours:75 (Instruction) &15 Process Marks:50 (End Semester Examination) &10 (CE)		
<b>Objectives</b>	<b>Topics</b>	<b>Process</b>
1. To acquaint with professionalization of language teaching	<b>MODULE I ( 25 hours )</b> Professionalization of teaching. meaning,need,challenges and techniques. In-service & pre-service courses. Global opportunity IELTS,TOFEL,TESL. Language trainer,on-line teaching. Content writing,outsourcing.	1. Prepare a report on any on line language teaching Programme.
2. To familiarise the IT related professional inputs in language teaching.	<b>MODULE II</b> Online editing, tele-conferencing,social networking. Preparation of e-learning materials.	2. Experiencing the making of a multi-media package/very shortfilm/shortdocumentary/theatre education/puppetry.
3. To acquaint with the co-curricular activities in English.	<b>MODULE III</b> Magazine editing, reporting,running commentary. Anchoring, face to face communication, interview, event management. Language related co-curricular activities. Principles of organization.	3. Prepare a manuscript magazine and publish in the class. (group work)
4. To understand the importance of nurturing talented children.	<b>MODULE IV</b> Concept of multiple intelligence. Characteristics of talented children. Identification & techniques of nurturing talented children in English.	4. Prepare an enrichment material on English grammar of Standard 8.
5.To be a professional teacher of English.	<b>MODULE V</b> Development of communication skills, presentation skills & leadership qualities. Qualities of a professional teacher of English.	5. Preparation of a brief report about 10 recent researches in ELT.

	Ways to inculcate professionalism in teaching. Role of teacher-educators in developing professionalism in ELT. Reflective teaching.	
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## REFERENCES

- Ellis, Rod. (1990). Integrated Second Language Acquisition. Massachusetts: Basil Blackwell Inc.
- Nunan, David (1989). Syllabus Design: Language Teaching. Oxford: Oxford University Press.
- Doff, Adrian. (1988). Teach English: A Training Course for Teachers. Cambridge: Cambridge University Press.
- Ur Penny and Andrew Wright (1992). Five Minute Activities: A Resource Book for Language Teachers. Cambridge: Cambridge University Press.
- Bloom, B.S. (1971). Handbook on Formative and Summative Evaluation of Student Learning. USA: McGraw Hill, Inc.
- Tickoo, M.L. (2004). Teaching and Learning English: A Source Book for Teachers and Teacher Trainees. New Delhi: Orient Longman.
- Heaton, J.B. (1988). Writing English Language Test: A Practical Guide for Teachers of English as a Second for Foreign Language. UK: Longman Group.
- Bhattacharya, Indrajit (2002). An Approach to Communication Skills. New Delhi: Dhanpat Rai & Co.

### ***Books Accompanied by Audio Cassettes***

- Getting on In English by John Haycroft (The BBC Intermediate Course).
- Choosing Your English by John Haycroft & Terence Creed (The BBC Course for Advanced Learners).
- Keep Up Your English by W. Stannard Allen (The BBC Course).
- Advanced Spoken English through English Grammar and Simple Phonetics by Sharad Srivastava & Nidhi Srivastava (Franklin International).
- A Text Book of Pronunciation of English Words by J. Sethi & D.V. Jinde.

### ***Web Sites***

- [www.britishenglish.org](http://www.britishenglish.org)
- [www.indanenglish.com](http://www.indanenglish.com)
- [www.iatefl.com](http://www.iatefl.com)



# HINDI

<b>EDU. 113. METHODOLOGY OF TEACHING HINDI</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks: 50 (End semester Examination) & 10 (CE)		
<b>Objectives</b>	<b>Topics</b>	<b>Process</b>
1.To acquaint with nature and scope of Hindi	<b>MODULE I</b> 1.Aims of teaching language- need and importance of language with special reference to the Lingua Franca of India – importance of Hindi as national and official language- Three Language formula- objectives of teaching Hindi as a second Language in Kerala- Problems of Multi Lingualism and medium of instruction	1. Group learning cum discussion on three language formula and seminar on lingua franca of India.  2. General survey on language problem and medium of instruction.
2.To understand the theory of skill acquisition	<b>MODULE II</b> Acquisition of language skills such as understanding, speaking, reading and writing- formation and development of vocabulary	3. Preparation of comparative analysis of language development with students' psycho physical development.
3.To understand Approaches & Methods of Teaching Hindi	<b>MODULE III</b> 1.Maxims of language teaching- Known to unknown-simple to complex- concrete to abstract-seen to unseen- particular to general-whole to part- analysis to synthesis-psychological to logical 2.Communicative approach-direct, indirect method- structural method with special reference Noam Chomsky-Bilingual method- grammar translation method- project method-play way method- constructivist method-cooperative learning-collaborative learning	4. Collection and compilation of facts related to maxims of language teaching.  5. School classroom observation and preparation of reports.
4.To understand the Theoretical Bases of major approaches viz constructivism, behaviourism.	<b>MODULE IV</b> Principles of language teaching-principle of motivation, interest-correlation with life- individual differences-revision –selection-planning- learning by doing	6. Assignments on principles of language teaching.  7. Debate on constructivist and behaviourist methodology.
5.To understand the techniques of teaching vocabulary, functions, different language forms	<b>MODULE V</b> 1.Teaching of prose-aims, importance, types-literary and linguistic peculiarities-similarities in sentence construction in Hindi and English- similarities and contrast	8. Real classroom observation and mock practices.

	<p>with Malayalam- comprehension ability-different methods of teaching prose</p> <p>2. Teaching of poetry-aims, appreciation, duty, sound, rhythm, diction, emotions- Exercises for aiding and testing comprehension and appreciation-different methods of teaching poetry</p> <p>3. Teaching of composition- aims , general principles-guided and free composition- types of composition- correction of mistakes</p> <p>4. Teaching of drama and story- definition, aims and methods</p> <p>5. teaching of grammar- methods, place and objectives</p> <p>6. Teaching of conversation-need, importance and methods</p>	
6. To update on the present practices of learning and instruction practiced in the state schools of Kerala	<p><b>MODULE VI</b></p> <p>Importance of text books- significance, objectives, types, principles and characteristics</p>	9. Comparative analysis of textbooks.

<b>EDU. 133. PEDAGOGIC PRACTICES IN HINDI</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To understand the Aims and Objectives of Teaching Hindi	<p><b>MODULE I</b></p> <p>Instructional objectives of Hindi with Blooms Taxonomy.</p> <p>1.1 Concept of objective based instruction and evaluation</p> <p>1.2 Instructional objectives and specifications of Hindi.</p> <p>1.3 Principle of writing objectives</p> <p>1.4 Constructivist format-preparation of activities-selection of activities</p> <p>1.5 Issue based curriculum –Issues, critical pedagogy</p>	<p>1. Preparation of achievement test.</p> <p>2. Analysis of the student scholastic output.</p>
2. To develop skills for effective teaching (by micro teaching)	<p><b>MODULE II</b></p> <p>a. Teaching skills for classroom extension -Micro teaching, skill based practice-3 different skills and Link practice</p>	Prescribed for practical
	<b>MODULE III</b>	3. Perform content

3. To understand and do the pedagogic analysis of Hindi of 8 <sup>th</sup> standard and 9th standard.	Pedagogic Analysis of Lessons-Meaning and principles of content analysis- subject matter and language-Learning experiences-Evaluation	analysis, found out specifications, objectives in behaviorist system. 4. Find out issues, sub issues-modular approach-activities etc in constructivist pattern and find out the importance of critical pedagogy
4.To acquaint with Planning of instruction	<b>MODULE. IV</b> Lesson Planning-Ways of introducing various topics, Developing the skills, types of learning experiences required for different methods of teaching-Unit plan, year plan, importance of planning in education	5. Write discussion lessons in various strategies- demonstration, criticism lessons according to constructivist pattern
5.To understand the Evaluation techniques and prepare objective based test items as per the existing state syllabus pattern in Hindi	<b>MODULE. V</b> Evaluation of student achievements-tools of evaluation-formative and summative methods- continuous and comprehensive evaluation-tools used for CCE –Grading system-The new evaluation system existing in Kerala	6. Make sample question paper for objective based test and new type tests with blue print, value points and question wise analysis 7. Make mark list or grade list of students using spread sheet and analyze it.

<b>EDU 153 CURRICULUM &amp; RESOURCES IN HINDI</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination) & 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the principles of Organizing Curriculum	<b>MODULE I</b> Hindi curriculum – construction and organization of Hindi curriculum-position of Hindi in school curriculum-Present position,-time allotted at various stages- principles of curriculum construction, approach to curriculum construction- modern trends in curriculum construction- difference between curriculum and syllabus. A critical study of Hindi syllabus for all classes from V to XII relevance, various types of lessons	1. A comparison of Hindi text books in Kerala syllabus and CBSE syllabus.

2. To provide familiarization with Resources for teaching/learning Hindi	<b>MODULE II</b> New Developments in Hindi- A brief history of Hindi in Commission Reports- its importance, recommendations, Implementations etc New techniques of Hindi teaching- Hindi Magazines, CD's, VCD's etc	2. Prepare a report on Hindi commission.
3. To have a hands on approach in organizing and maintaining library, language lab and other resources in Hindi	<b>MODULE III</b> a. Library and language lab- importance of library books- CD's Computers, Internet etc. b. Use of language lab-old and new types of language labs their functioning.	3. Prepare a CD useful for teaching Hindi  4. Preparation of language lesson for High School Class with the help of computer.
4. To understand the meaning, scope and importance of models of teaching	<b>MODULE IV</b> Models of teaching- Concept Attainment, Advance Organizer, Inductive-Deductive models	5. Prepare a lesson plan on any topic USING Models of Teaching.

<b>EDU. 183. PROFESSIONALIZING HINDI EDUCATION</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks: 50 (End semester Examination) & 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To appreciate the role of Hindi in the Society	<b>MODULE. I</b> A short history of Hindi language- history of literature - middle & modern	1. Preparation of essay type notes on any branch in Hindi.
2. To acquaint with the co-curricular activities in Hindi	<b>MODULE. II</b> Co-curricular activities of Hindi, programme -their rules and regulations	2. Prepare any two activities included in Language Games- with rules and regulations
3. To understand the importance of nurturing talented children	<b>MODULE. III</b> Characteristics of gifted students in Hindi. Enrichment programmes and methods for the gifted students and Fostering creativity.	3. Preparation of enrichment materials for gifted students on a specific topic/list five creative activities that are suitable for developing language creativity in students

4. To familiarize the I T related professional inputs of teaching.	<b>MODULE. IV</b> New aids for Hindi teaching- computer assisted Instruction, CDs, VCD's Internet etc.	4. Arrange a seminar by using computer assistance
5.To be a Professional Hindi Teacher	<b>MODULE. V</b> Definition of profession, Teaching as a profession. Traits of professionalism, Professional ethics, Teacher Competencies listed by NCTE Soft Skills. Professional growth of Hindi teacher. – Teaching, Research and Extension. Research journals in Hindi. Role of SCERT and NCERT in the professional growth of a teacher. Professional organizations of teachers. Hindi teacher, qualities of a good Hindi teacher, nature of work and duties-qualifications	5. Prepare a report on qualities of a good Hindi teacher

## REFERENCES

1. Acharya Sithram Chaturvedi. *Bhasha Ki Siksha*.
2. Dr. Sreedharanatha Mukherji. *Rashtra Bhasha Ki Siksha*.
3. P.G. Kamath, *Any Bhasha Sikshan Eak Bhasha Vajanik Drishti*.
4. K.M. Siva Ram Sharma. *Hindi Sikshan Kala*.
5. Bhai Yogendra Jit. *Hindi Bhasha Sikshan*.
6. Shri Satyanarayan Thripadi. *Hindi Bhasha Aur Lipi Ka Aithihasic Vikas*.
7. Dr. Ramakant Padak and Dr. Bnhagugadh Deekshi, *Adhunik Hindi Vyakaraan Aur Reehana*.
8. Nanda Bulare Baj Peyi, *Sahitya Sushama*.

# **MALAYALAM**

<b>EDU.114.METHODOLOGY OF TEACHING MALAYALAM</b> Contact Hours: 75(instruction) & 15(process) Marks: 50 (semester Examination) & 10 (CE)		
<b>Objectives</b>	<b>Topics</b>	<b>Process</b>
1.Gets acquainted with the evolution of Malayalam language and  2.Gets familiarised with nature and scope of language with special reference to mother tongue	<b>MODULE. I ( 10Hrs)</b> <b>Evolution of Malayalam language</b> over the ages Status of Malayalam language at different periods Relationship between language and social development Functions of language in the society Influence of mother tongue in the formation of culture Relevance of mother tongue in a democratic society Mother tongue as a medium of instruction Malayalam as an official language	1.Prepare a short essay on inter relationship between language and social development. (group activity) 2. Open discussion on Mother tongue as a tool for transforming culture 3. Seminar(group) on Need of mother tongue as the medium of instruction
3.finds out the impact of art and folklore in the development of language and culture through analysing different forms arts, Idioms, phrases, proverbs, folklore, etc  4. Gets acquainted with the influence of other languages over Malayalam	<b>MODULE. II ( 8Hrs)</b> Culture and its association with arts, folklore, idioms, phrases, proverbs, etc. Relation between language and culture Impact of arts and folklore in the development of culture and language The changes occurred in Malayalam language and culture through it's contact with Sanskrit, Arabic and English The language used as a tool for cultural dominance with special reference to Sanskrit and English	4. Prepare a short essay on the impact of arts and folklore in the development of culture and language 5. Debate on Role of other languages in transforming culture 6. Conduct a symposium on cultural dominance of languages
5. understands the importance of basic language skills and their inter relationships	<b>MODULE. III ( 10Hrs)</b> Listening Speaking Reading Writing Importance of basic skills in language learning–strategies and activities appropriate for different levels –process learning	7. Trace out the activities included in the Text book/Hand book for developing basic language skills among the learners 8. Find out the activities mentioned in the text book and hand book for developing the creativity among the learners



4. gets acquainted with the theory and practice of different language discourses popular in the day to day life	<b>MODULE. IV ( 15Hrs)</b> Importance of discourses in the daily life. Functions of seminars, symposiums, debates, discussions, speeches, brain storming, screen play, essays, memorandums, letter writing, notice, press notes, editorial, postures, advertisement, travelogue, biography, auto biography, description, dramatisation etc. for effective communication	9. Prepare an editorial for your class magazine  10. Prepare postures on any social issues  11. Write a screen play based on any one of the poems in the 8 <sup>th</sup> or 9 <sup>th</sup> std text book
5. understands the approaches ,Techniques and Methods of teaching Malayalam	<b>MODULE. V ( 12 Hrs)</b> Lecture cum Demonstration method Inductive and Deductive method Dalton Plan Project method Play way method Role play and simulation Co operative and Collaborative strategies Problem solving method	12. Select a poem from any text book and present the same through simulation (group task)
6. understands the basis of major theoretical approaches viz constructivism, social constructivism and behaviourism	<b>MODULE. VI (20Hrs)</b> <b>Theory and practice of :</b> cognitive constructivism (Piaget and Bruner) and Social constructivism Chomsky's concept of language development Multiple intelligence Critical Pedagogy Recent changes practiced in the state schools	13. Conduct a debate on the relevance of critical pedagogy in the context of the teaching-learning atmosphere prevailing in the schools in Kerala 14. Conduct a seminar on Chomsky 's concept of language development

<b>EDU.134. PEDAGOGIC PRACTICES IN MALAYALAM</b> Contact Hours: 75 Hours (Instruction) and 15 Hours (process) Marks: 50 (End semester Examination) and 10 (CE)		
<b>Objectives</b>	<b>Topics</b>	<b>Process</b>
1. Understands the Aims and Objectives of Teaching Malayalam	<b>MODULE. I ( 10Hrs)</b> Aims of Teaching Malayalam Objectives of Teaching Malayalam at Secondary Level Taxonomy of Educational Objectives and the objectives based on cognitive learning theories	1. Discusses and prepares the list of specific objectives of teaching Malayalam at higher secondary level 2. Compares and contrast the mental processes of the learner in both the approaches
2. Develops effective skills in Teaching – Micro Teaching	<b>MODULE. II ( 10Hrs)</b> Core skills Micro teaching -Definition & Principles -Micro Teaching Cycle -Limitations	3. Prescribed in practicals
3. Understands and does Pedagogic Analysis of Malayalam lessons in 8 <sup>th</sup> & 9 <sup>th</sup> /11th standards	<b>MODULE. III ( 18Hrs)</b> Pedagogic Analysis -Meaning and steps of analysis -Pedagogic analysis of the lessons in the text book of 8 <sup>th</sup> & 9 <sup>th</sup> /11th standards (group task)	4. Analyse and trace out the learning activities included in any one topic on the basis of prescribed curricular objectives ( Group task) 5. Analyse any one text book and Trace out new vocabulary, phrases, idioms, proverbs, and grammar contents (group task)
4. Get acquainted with the student , learning process and acquire practical experience in creating conducive environment for effective learning	<b>MODULE. IV ( 7 Hrs)</b> Physical, Psychological, Social and Emotional nature of the student. Peculiarities of learning activities. Specific peculiarities of language class. Nature of learning and learning strategies. Role of teacher in the language class. Role of students in the language class. Techniques of creating conducive and democratic environment for learning Qualities of a good learning activity. Appropriateness with the latest approach -interesting -challenging -feasibility -sense of need -considering multilevel of students	6. Prepare and present a vision about your own class room

5. Get acquainted with Planning of Instruction based on theories of Learning	<b>MODULE. V (20Hrs)</b> Need and significance of Planning Planning of Instruction -Year plan -Unit plan -Lesson plan (teaching Manual ) Techniques and theories of developing year plan, unit plan, and lesson plan. Techniques of developing learning equipments. Techniques of implementing learning activities and its evaluation. Process and utility of maintaining response sheet of the teaching Manual.	7. Prepare a year plan /unit plan for 8 <sup>th</sup> Or 9 <sup>th</sup> standard (group task)  8. Prepare a teaching manual based on constructivist pedagogy
6. Understands the evaluation techniques and prepares objective based test items as per the existing state syllabus pattern in Malayalam	<b>MODULE. VI ( 10Hrs)</b> Importance of evaluation. Different types of evaluation –merits and limitations. Continuous and comprehensive evaluation –Area of CCE. Evaluation criterion for different learning activities. Construction and administration of achievement tests. Evaluation of mental processes. Relevance and administration of grading system.	9. Conducts a panel discussion on the relevance of grading system in the B.Ed programme  10. Prepares a sample question paper considering all the elements of a scientific question paper (group task)

<b>EDU.154. CURRICULUM AND RESOURCES OF MALAYALAM EDUCATION</b> Contact Hours: 75 Hours (Instruction) and 15 Hours (process) Marks: 50 (End semester Examination) and 10 (CE)		
Objectives	Topics	Process
1. Understands the principles of organising curriculum	<b>MODULE. I (20Hrs)</b> Curriculum – A conceptual analysis Curriculum and syllabus Principles of curriculum construction Nature of language curriculum Modern trends in curriculum construction -spiral and open ended curriculum	1. Critically analyse the organisation of the content within a unit in relation to curriculum organisation
2. Understands the techniques of using text books, Teachers hand books and other relevant materials for transacting language curriculum	<b>MODULE. II (20Hrs)</b> Importance and significance of Resource materials for teaching-learning process Techniques of using teacher's hand book, periodicals, magazines, handouts, books, and other local resources as learning materials Techniques of using text books ( prose and poetry) as learning materials	2. Collects articles from periodicals and prepares a scrap book for using curriculum transaction

3. Gets acquainted with the preparation and use of various learning aids in Malayalam	<b>MODULE. III ( 10Hrs)</b> Use of Audio-visual aids –Radio, TV, OHP, , Video, language Lab, Internet, CD, Clippings, Pictures, Charts, Models etc.	3. Prepares a collage on any relevant subject
4. To get hands on approach in organising and maintaining library, language lab and other resources in Malayalam	<b>MODULE. IV ( 12 Hrs)</b> Importance of library in language learning Types of library Organisation of classroom library and school library Techniques of library utilisation in language learning Relevance of language lab	4. Prepare two journal articles reviews from popular journals of Malayalam 5. Prepare a list of 10 books with all bibliographic details.
5. To get hands on experience in appreciating poems, short stories and other forms of literature	<b>MODULE. V ( 13Hrs)</b> Importance of reciting poems in chorus in the language classroom Importance of analysing symbols, images, rhetoric, tunes etc. used in poems Importance of analysing symbols, images, rhetoric, etc. used in stories for the appreciation	6. Collects folksongs with similar tunes of poems in the text book and recite in groups 7. Analyse the language, images, rhetoric and symbols used in any short story/Poem

<b>EDU. 174. PROFESSIONALIZING MALAYALAM EDUCATION</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination) & 10 (CE)		
<b>Objectives</b>	<b>Topics</b>	<b>Process</b>
1. To appreciate the role of Malayalam in the society	<b>MODULE. I (15 Hrs)</b> <b>Malayalam language and society</b> Malayalam language & society, language and culture, Mother tongue and folklore, colloquial language and dialects Community resources- Types and utilization.	1. Prepare a list of folk arts and cultural activities in your locality. 2. Prepare a list of colloquial words used in your locality 3. write short notes on five community resources that can be used for Malayalam teaching.

2.To acquaint with the co-curricular activities in Malayalam	<b>MODULE. II (15 Hrs)</b> <b>Co curricular activities in malayalm language</b> Co curricular activities based on school related activities like literary club, drama club etc Malayalam language and Cinema	4. Staging a short drama in groups 5. Literary quiz programme in groups 6. preparation of wall magazine in groups 7. prepare a short screenplay based on topic within the uni.
3.To understand the importance of nurturing talented children	<b>MODULE. III (15 Hrs)</b> <b>Fostering giftedness and creativity in malayalam language</b> Characteristics of gifted students Enrichment programmes and methods for the gifted students and Fostering creativity.	8. Preparation of enrichment materials for gifted students on a specific topic 9. list five creative activities that are suitable for developing language creativity in students
4.To familiarize the IT related professional inputs of teaching. 5. To understand the meaning, importance and concept of models of teaching in Malayalam language teaching	<b>MODULE. IV (20 Hrs)</b> <b>ICT in language teaching</b> Computer aided teaching, e-learning resources in teaching Malayalam, Videoconferencing Module preparation for e-content Models of Teaching – meaning and scope Suitable models for Malayalam language teaching-Concept Attainment and Synetics.	10. Write a script for developing an e-content on any language discourses (story,poe try etc.). 11. Preparing lesson plan based on one model
6.To be a professional Malayalam teacher.	<b>MODULE. V ( 10Hrs)</b> <b>Professional development of malayalam teacher</b> Teaching as a profession Professional ethics Personal and professional qualities of a teacher Special qualities of Malayalam teacher, Ways and means of improving professionalism among Malayalam teachers Traits of professionalism-competencies listed by NCTE	12. Malayalam teacher is an all rounder in schools-express your views in the class 13. Conducting a discussion on the changing role of teachers.

## REFERENCES

- Allen,D & Ryan, K (1969). *Micro teaching*. London: Adison Wesley
- Bindhu,C.M(2<sup>nd</sup> Ed.)(2009). *Mathrubhashabhodhanam*: Pravanathakalum Reethikalum. Calicut: Scorpio
- Bloom.B.S.(1956). *Taxonomy of Educational Objectives: cognitive domain*, New York: David Mckay Co.
- Brooks,N(1964). *Language and language learning* : Theory and practice, New York:Harcourt, Brace &world, Inc.
- Chomsky,N (1975). *Reflections on Language*. New York:Random ouse.
- Dale,(1961). *Audio visual methods in teaching*, New York: Holt Rinehart & Winston
- Ebel,L.& Frisbie,A.(1991). *Essentials of educational measurement*. New York:McGraw Hill.
- Entwistle,N.J.(1981). *Style of learning and teaching*. London: John Wiley &Sons
- Fosnot,C.(1996). *Constructivism: theory,perspectives and practice*.Newyork:Teachers College Press.
- Gren,G.H.(1987). *Planning the lesson*.London: Logman
- Gronlund,N.E(1970) *Stating Behavioural objectives for class room instruction*.London: **MacMillan**
- Joyce, B & Weil, M (2003). *Models of Teaching*(5<sup>th</sup> Ed.) New Delhi.Prentice hall
- Kumar ,S.P.K & Noushad.P.P(2<sup>nd</sup> Ed.) (2009). *Social studies in the class room: Trends & methods*, Calicut: scorpio
- Kumar,S.P.K & Bindhu C.M.(2002) *Instructional Learning Strategies and Cognitive Entry Behaviour-An Experimental Analysis*. Kanishka Publishers: NewDelhi.
- Lado,R (1979). *Language teaching- a scientific approach*.New York: McGraw Hill INC
- Lee,W.R(1972). *Language teaching games and contexts*. London : Oxford University press.
- Mayer,R.E(2003). *Language and instruction* , Upper saddle river. Pearson education
- Nair, Chandrashekharan,C.K(2002) *Mathrubhasha Bhodhanam*. Trivandrum. Kerala bhasha institute.
- NCERT(2005)National Cruuiculum Framework.New Delhi:NCERT
- SCERT(2007),Kerala Curriculum Frame work.Trivandrum:SCERT
- Passy,B.K(Ed)(1976). *Becoming better teacher: A micro teaching approach*. Ahmadabad
- Pillai,P.E(1991) *Malayala bhasha bhodanam*.Kerala:chris printers kottayam.
- Sivarajan,k & Sreemannuni,P.S.(2003) *Malayalabhashadhyapanam*.Central cooperative stores,Calicut university.
- Variyar, Prabhakaran,K.M & A. Santha(1998). *Modern linguistics*, Trivandrum: kerala bhasha institute.

**SANSKRIT**

<b>METHODOLOGY OF TEACHING SANSKRIT</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To acquaint with the nature and scope of Sanskrit	<b>MODULE. I</b> <b>Learning Sanskrit</b> , its significance, historical background, world language-link between with other languages, modern and classical-comparison with each- contribution to the other languages and literatures- its importance in modern society- contribution of Sanskrit to various subjects.	1. List any five classics in Sanskrit.
2.To understand the theory of skill acquisition	<b>MODULE. II</b> a. <b>Language skills</b> -acquisition of skills-listening and reading skills, techniques to attain these skills, different kinds of reading, methods of teaching to read-importance of pronunciation sounds-organization of speech- Training for correct pronunciation etc b. Productive skills- speaking and writing skills, their importance, peculiarities-causes of bad spelling-training for spelling correction.	2. Making at least five criticism lesson plans with the help of computer instruction.
3.To understand Approaches & Methods of Teaching Sanskrit	<b>MODULE. III</b> <b>General principles and methods</b> of language learning with special reference to Sanskrit. Psychology of language learning-functions of language learning ,maxims of language learning –theories of language learning	3. Preparation of power point presentation-internet browsing
4. To understand the theoretical bases of major approaches viz constructivism, behaviourism	<b>MODULE. IV</b> <b>Methods of teaching Sanskrit</b> -a.Ancient methods, Gurukula- Padasala etc. Medieval methods , Bandarkar, textbook, direct method b. New method –Behaviourist, constructivist, issue based and critical pedagogy.	
5. To understand the techniques of teaching vocabulary, functions and different language forms.	<b>MODULE. V</b> a. Teaching of prose-aims of teaching prose, methods of reading prose-different types of prose lessons. b. Teaching of poetry- aims of teaching poetry, methods of teaching poetry-vritta- Alankara -Rasas- Appreciation etc.	4. Make a list of difficulties that students may experience while teaching grammar.



	c. Grammar- place of grammar-aims & objectives Functions of grammar- Methods of teaching grammar. d. Composition-oral work and written work- types of composition	
6. To update on the present practices of learning and instruction practiced in the state schools of Kerala	<b>MODULE. VI</b> Text book- use of textbooks- detailed texts, non detailed- differences in teaching both texts- use of new aids like computer, internet etc.	5. Suggest 5 non detailed textbooks with bibliographic details for high school students.

<b>PEDAGOGIC PRACTICES IN SANSKRIT</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks: 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the Aims and Objectives of Teaching Sanskrit	<b>MODULE. I</b> <b>Instructional objectives of Sanskrit with Blooms Taxonomy.</b> 1.1 Concept of objective based instruction and evaluation 1.2 Instructional objectives and specifications of Sanskrit. 1.3 Principle s of writing objectives 1.4 Constructivist format-preparation of activities-selection of activities 1.5 Issue based curriculum –Issues, critical pedagogy	1. Prepare objectives of all domains on a selected topic.
2.To develop skills for effective teaching .	<b>MODULE. II</b> a. <b>Teaching skills</b> for classroom extention-Micro teaching, skill based practice-3 different skills and Link practice b. Models of teaching- Concept Attainment, Advance Organizer, Inductive-Deductive models	2. Prepare a lesson transcript for a topic based on any one model of teaching
3. To understand and do the pedagogic analysis of Sanskrit of 8 <sup>th</sup> standard and 9th standard.	<b>MODULE. III</b> <b>Pedagogic Analysis</b> of Lessons-Meaning and principles of content analysis- subject matter and language-Learning experiences-Evaluation	3. Perform content analysis, found out specifications, objectives in behaviourist system 4. Find out issues, sub issues-modular approach-activities etc in constructivist pattern and find out the importance of critical pedagogy

4.To acquaint with Planning of instruction	<b>MODULE. IV</b> <b>Lesson Planning</b> -Ways of introducing various topics, Developing the skills, types of learning experiences required for different methods of teaching-Unit plan, year plan, importance of planning in education	5. Write discussion lessons in various strategies- demonstration, criticism lessons according to constructivist pattern
5.To understand the Evaluation techniques and prepare objective based test items as per the existing state syllabus pattern in Sanskrit	<b>MODULE. V</b> Evaluation of student achievements- tools of evaluation-formative and summative methods- continuous and comprehensive evaluation-tools used for CCE –Grading system-The new evaluation system existing in Kerala	6. Make sample question paper for objective based test and new type tests with blue print, value points and question wise analysis

<b>CURRICULUM &amp; RESOURCES IN SANSKRIT</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the principles of Organizing Curriculum	<b>MODULE. I</b> <b>Sanskrit curriculum</b> – construction and organization of Sanskrit curriculum-position of Sanskrit in school curriculum-Present position,-time allotted at various stages-principles of curriculum construction, approach to curriculum construction-modern trends in curriculum construction-difference between curriculum and syllabus. A critical study of Sanskrit syllabus for all classes from V to XII relevance, various types of lessons	1. A comparison of Sanskrit text books in Kerala syllabus and CBSE syllabus
2.To provide familiarization with Resources for teaching/learning Sanskrit	<b>MODULE. II</b> <b>New Developments in Sanskrit</b> - A brief study of Sanskrit Commission Report- its important recommendations, Implementations etc New techniques of Sanskrit teaching- Navavani Magazines, CD's, VCD's etc	2. Prepare a report on Sanskrit commission

3. To have a hands on approach in organising and maintaining library, language lab and other resources in Sanskrit	<p style="text-align: center;"><b>MODULE. III</b></p> <p><b>a. Library and language lab-</b> importance of library books- CD's Computers, Internet etc.  <b>b. Use of language lab-</b>old and new types of language labs their functioning.</p>	<p>3. Prepare a CD useful for teaching Sanskrit</p> <p>4. Preparation of language lesson for High School Class with the help of computer.</p>
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<p style="text-align: center;"><b>PROFESSIONALIZING SANSKRIT EDUCATION</b>  Contact Hours: 75 Hours (Instruction) &amp; 15 hours (process)  Marks : 50 (End semester Examination) &amp; 10 (CE)</p>		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To appreciate the role of Sanskrit in the Society	<p style="text-align: center;"><b>MODULE. I</b></p> <p><b>A short history of Sanskrit language-</b> history of literature-history of sashtras, different schools, Indian dharsanas, Grammar,</p>	1. Preparation of essay type notes on any branch in Sanskrit.
2. To acquaint with the co-curricular activities in Science	<p style="text-align: center;"><b>MODULE. II</b></p> <p><b>Co-curricular activities of Sanskrit,</b> programmes included in samskritholsavas-their rules and regulations, Evaluation Criteria</p>	2. Prepare any two activities included in saskritholsavam with rules and regulations
3. To familiarize the I T related professional inputs of teaching.	<p style="text-align: center;"><b>MODULE. III</b></p> <p><b>New aids for Sanskrit teaching-</b> computer assisted Instruction, CDs, VCD's Internet – E-Learning resources and E-Content preparation.</p>	3. Arrange a seminar by using computer assistance
4.To be a Professional Sanskrit Teacher	<p style="text-align: center;"><b>MODULE. IV</b></p> <p><b>Sanskrit teacher,</b> qualities of a good Sanskrit teacher, nature of work and duties- qualifications- Teaching a profession- Professional ethics- Traits of professionalism, soft skills</p>	4. Prepare a report on qualities of a good Sanskrit teacher

**REFERENCES:**

1. Practical Sanskrit Grammar : PRD Sarma
2. First book of Sanskrit and Second Book of Sanskrit: Bhandarkar
3. A Sanskrit Grammar for students : A MacDoval
4. Kuvalayanadam : Appaya Dikshdar
5. Sidhanta Kaumudi : Bhattoji Dhikshidar
6. Laghusidhanta Kaumudi : Varadaraja Panditan
7. Sidharupa :
8. Rasa and Dhvani : Dr. A. Sankarn
9. Kavyaprakasa : Manmatan
10. History of Sanskrit literature : Keith
11. Sahityadarpana : Viswanadha
12. Vritaratnakara : Kedarabhattacha
13. Sabdasodhini : A.R. Rajaraja Varma
14. Vritamanjari : Pingala Muni

**TAMIL**

**EDU 116. METHODOLOGY OF TEACHING TAMIL**

Contact Hours: 75 Hours (Instruction) &amp; 15 hours (process)

Marks : 50 (End semester Examination) &amp; 10 (CE)

Objectives	Content	Process
1. To acquaint with the nature and scope of Tamil	<b>MODULE I</b> Nature of language-origin and growth-language learning. The aims of teaching the mother tongue The mother tongue as medium of thought and communication of ideas, emotions and experiences, means of developing imagination and aesthetic taste-language as cultural heritage and means to final development	1. Prepare a minor project on Tamil literature  Conduct an interview with the Tamil literary figure  Analysis of Folk Art forms and their Cultural background.
2. To understand the theory of skill acquisition	<b>MODULE II</b> <b>a. HEARING</b> Learning by hearing – encourage hearing habits – get practice in paragraphing – briefing of paragraph and long paragraph – to attain various aims-knowing of news – appreciation etc advertising for the above the difference between hearing and understanding. <b>b. SPEAKING</b> Speak with clarity-speak without grammatical mistake-traditional way proverbs-ability in speech in the initial stage debates-discussions-question on time-make use of these in the primary, middle and high school classes. <b>c. READING</b> The aims of teaching reading methods, reading according to letters, reading according to words, their benefits and draw backs (merits and demerits), increase of vocabulary, to instigate in the studies, loud reading, methods, merits and demerits, making use of books, reading in libraries, dailies weeklies using, deep study, wide study, aims, merits and demerits. <b>d. WRITING</b> Handwriting and writing without spelling mistakes, give practice for that, certain basic exercises. How to hold the pencil or pen, the characteristics of good handwriting, boldness, clarity, beauty, proper spacing, methods of writing exercise, writing on lines, copy writing, writing on hearing.	

3. To understand Approaches & Methods of Teaching Tamil	<b>MODULE III</b> a. The methods of teaching mother tongue- ancient way of teaching, play way, acting way, conversation way, study of supervision way, project way, kinder garden method, individual teaching way, submissions, and other modern trends-Co-operative and Collaborative learning b. The aims and methods of teaching prose, poetry, grammar, and composition-general and specific aims. and other modern trends	
4. To understand the Theoretical Bases of major approaches viz constructivism, behaviourism	<b>MODULE IV</b> a. Behaviourist approach b. Constructivism, Social Constructivism	Restructure a behaviourist lesson plan in to constructivist form
5. To understand the techniques of teaching vocabulary, functions and different language forms	<b>MODULE. V</b> Modern techniques in teaching Tamil- discussion, Seminar, team teaching-brain storming, techniques making the past real- utilizing community resources for teaching Tamil.	Prepare a resource unit for any unit in Tamil text book
6. To update on the present practices of learning and instruction practiced in the state schools of Kerala	<b>MODULE. VI</b> NCF-2005, KCF 2007-Issue based curriculum, Critical Pedagogy	

<b>EDU 136. PEDAGOGIC PRACTICES IN TAMIL</b> Contact Hours: 75 Hours (Instruction) &15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To understand the Aims and objectives of Teaching Tamil	<b>MODULE I</b> General aims of teaching Tamil. Taxonomy of educational objectives- Bloom's Taxonomy, objectives of Tamil teaching. Cognitive, affective and psychomotor domains Specific objectives of teaching Tamil.	Prepare a pictorial representation of Taxonomy of educational objectives.

2. To develop skills for effective teaching (by micro teaching)	<b>MODULE II</b> Skills and their components-teaching skills essential for Tamil teacher. Qualities and competencies of a Tamil teacher	Prescribed in practicals
3. To understand and do the Pedagogic analysis of Tamil of 8 <sup>th</sup> & 9 <sup>th</sup> standard	<b>MODULE III</b> Pedagogic analysis of Tamil content of 8 <sup>th</sup> and 9 <sup>th</sup> standard, Kerala State into terms, facts, concepts etc.	Pedagogic analysis of standard 8 <sup>th</sup> Tamil text book
4. To acquaint with Planning of instruction	<b>MODULE IV</b> Need and importance of planning Levels of planning-year plan, Unit plan, Lesson plan. Modern trends in planning instruction Behaviourist and constructionist model of planning.	Prepare a unit plan
5. To understand the Evaluation teaching and prepare objective based test items as per the existing state syllabus pattern in Tamil	<b>MODULE. V</b> Continuous comprehensive evaluation, system of grading Different types of test items Construction of Achievement test and diagnostic tests.	Construct 5 multiple choice item from a topic which test understanding OR Making a mark list/rank list using a spread sheet and making graphs like bar/pie to analyse results

<b>EDU 156. CURRICULUM &amp; RESOURCES OF TAMIL EDUCATION</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To understand the principles of Organizing Curriculum	<b>MODULE I</b> Meaning and scope of curriculum construction Importance of curriculum construction Changing concept of curriculum Objectives of each and their influence on the curriculum, Forces effecting curriculum development : Philosophical, Sociological and Psychdlogical Curriculum development Principles of organizing curriculum Types of Curriculum-Core Curriculum, Hidden Curriculum	Compare the styles of organization of curriculum in 9 <sup>th</sup> standard text books of state and cbse school syllabus



2. To provide familiarization with Resources for teaching/learning Tamil	<b>MODULE II</b> Resources for teaching learning Tamil- Community resources-utilizing community resources Technological Resources Teacher as a curriculum developed Supplementary reading materials	Prepare a Tamil dictionary with 25 words OR Prepare a study guide for one chapter of standard 8 <sup>th</sup> Tamil text book
3. To have a hands on approach in organizing and maintaining library, language lab and other resources in Tamil	<b>MODULE III</b> Library & its uses Language Lab Language Games Community Resource Technological devices IT enabled education	Prepare any one language game
4. To understand models of teaching	<b>MODULE IV</b> Models of teaching-concept attainment model, advance organizer model, inductive thinking model.	Prepare a lesson transcript for a topic based on any model of teaching (3 marks)

<b>EDU 176. PROFESSIONALIZING TAMIL EDUCATION</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To appreciate the role of Tamil in the Society	<b>MODULE I</b> Values of Teaching Tamil Physiological, Sociological & Philosophical bases of Tamil language Tamil and other languages-the importance of Tamil as a mother Tongue in learning Non-language subjects	Experiencing the making of a multimedia package/very short film/short documentary/ puppetry/theatre education OR Conduct an exhibition with the help of community resources
2. To acquaint with the co-curricular activities in Tamil	<b>MODULE II</b> Techniques and Strategies Debate b. Discussion c. Role play d.Simulation e.Exhibition and workshop, Club activities	Prepare a script for role playing in Tamil
3. To understand the importance of nurturing talented children	<b>MODULE III</b> Individual difference-gifted children in Tamil language, creativity, Nurturing talent and creativity In Tamil language	A buzz session to list techniques to identify and nurture talent. Prepare an enrichment material in Tamil for 8 <sup>th</sup> Std gifted students

4. To familiarize the IT related professional inputs of teaching.	<b>MODULE IV</b> IT as an education Technology in Tamil education Educational informatics and e-Learning	Preparation of power point presentation with ten slides
5. To be a Professional Tamil Teacher	<b>MODULE. V</b> Teaching as a profession. Professional ethics. Ways and means of improving professionalism. Personal and Professional qualities of a Tamil teacher. Inservice Teacher education Pre-service course Orientation and Refresher courses Self study Doing Research for self development.	

### REFERENCES

- History of Tamil literature. Dr. Mu.Va.
- do– Anandan
- do– Sivasubramanian
- do– Jeyam
- Tolkaappiyam
- Nannool – Viruttiyurei
- Tamizhilakkanam (for 6 to 12). Kapilavaanan.
- Ileinjar Ilakkanam. Dr. M. Rajamaanikkanaar.
- Dandi Alamkaaram
- Ani Ilakkana Nool Dr. Ka. Tamizharacan
- Tamizh Ilakkana Ilakkiya Arimukam V. Ganapati
- Yaappanumkala Kaarikei Amita Saagarar
- Ilakkiyak Kalei A.S. Gnanasambandan
- Mozhi Varalaaru Dr. Mu.Vaa
- Ilakkiiya Thiran Dr. Mu. Vaa.
- Tamizh Mozhi Varalaaru Dr. Su.Saktivel.
- Ilakkiyak Kalei Dr.Tamizhannal
- Mozhi Iyal Su. Innaasi
- do– Dr.R.Srinivasan
- Tiranaaivuk Kalei T.S. Natarajan
- Itazh Iyal Kalei Aa. Maa.Sami
- Naattup Pura Iyal – Or Aayvu Su.Saktivel.
- Tamizhar Naattup Paatalkal Naa. Vaanamaamalei.
- Naattup Pura Ilakkiya Varalaaru Dr. Su. Shanmuka Sundaram.
- Mass Communication Dr. Arockiya Naatam
- Takaval Totarpiyal Krishnaswamy
- Kanip Pori Mahaa Akraati
- Inaiya Dhalam Bhuvaneswari
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- Nunnilei Karpittal Aravindasami
- Pazham Tamizh Ilakkiyattil Isai Iyal Dr. Vi.Pa. Ka. Sundaranaar

**URDU**

<b>EDU. 117. METHODOLOGY OF TEACHING URDU</b> Contact Hours:75 (Instruction)&15 Process Marks:50 (End Semester Examination)&10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To acquaint with the nature and scope of Urdu language	<b>MODULE. I ( 5 hours )</b> 8.1 Language-Urdu Language-History and development Its relation with languages especially with Hindi and Persian-Development of Urdu Literature	
2. To familiarise with the four skills	<b>MODULE. II ( 10 hours )</b> 10.1 Urdu as a skill subject-- LSRW skills and the process skills. 10.2 Techniques to develop LSRW skills	1. Film review of any two Urdu films. 2. Preparation and presentation of a minimum of ten discourses.
3. To understand the theories of language learning	<b>MODULE. III ( 16 hours )</b> 12.1 Behaviourism 12.2 Urdu Constructivism 12.3 Multiple Intelligence 12.4 Chomskian concept of Language Development 12.5 Stephen Krashen's theory 12.6 Dr. N.S.Prabhu's CBLT programme	3. Making multiple lesson plans on a single topic based on different approaches to experience the difference in outlooks.
4. To understand the methods and approaches of teaching Urdu  5.To understand the nature of selecting language materials.	<b>MODULE. IV ( 19 hours )</b> 14.1 Method,approach, technique & strategy. Grammar –translation method, direct method,bilingual method. Structural approach, communicative approach, humanistic approach, whole language approach .Characteristics,principles,advantages & limitations. 14.2 Innovative practices in ULT Principles of selection and grading of language materials	4. Select a topic in Urdu and prepare teaching material in two diverse methods.
6. To understand the techniques of teaching vocabulary,functions pronunciation,prose poetry,and composition.	<b>MODULE. V ( 13 hours )</b> 15.1 Vocabulary- Types of vocabulary, Kinds of words,Techniques of teaching vocabulary, Enrichment of vocabulary,Language games. 15.2 Form and function—methods of teaching grammar. 15.3 Teaching of pronunciation. 15.4 Types of prose- intensive and extensive reader , techniques of teaching prose & poetry.	5. Preparation of library note containing review of at least 10 popular books.
7. To update on the present practices of teaching Urdu in the State of Kerala.	<b>MODULE. VI</b> 15.5 Challenges of teaching Urdu in Kerala. 15.6 Measures for improvement.	Get familiarised with the IT sources / packages that are helpful in teaching Urdu.

<b>EDU. 137.PEDAGOGIC PRACTICES IN URDU</b> Contact Hours:75 (Instruction)&15 Process Marks:50 (End Semester Examination)&10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To understand the aims & objectives of teaching Urdu	<b>MODULE. I</b> 1. Aims of teaching Urdu. 1.1. Objectives-types of objectives. 1.2. Objectives of teaching Urdu at secondary level. 1.3. Taxonomy of educational objectives.	1. Picturise the taxonomy of educational objectives.
2. To acquaint with the principles of language teaching.	<b>MODULE. II</b> 2. Philosophical, psychological, sociological & technological principles of language teaching.	
3. To develop skills for effective teaching—micro teaching.	<b>MODULE. III</b> 3.Core skills. 3.1Micro teaching—definition-principles-micro teaching cycle,limitations.	2. Prescribed in Practicas
4. To understand and do the pedagogic analysis of Urdu of 8 & 9 th standard.	<b>MODULE. IV</b> 4. Pedagogy & androgogy. 4.1Content analysis –Pedagogic analysis—objectives & components.	3. Perform content analysis 4. Preparation of any two pedagogic analysis of Urdu.
5. To acquaint with the planning of instruction.	<b>MODULE. V</b> 5. Importance of planning—year plan, unit plan,lesson plan. 5.1Steps of lesson plan. 5.2 Types of planning—behaviourist, constructivist---prose & poem.	5. Discussion lessons, Demo lessons, Criticism lessons
6. To understand the evaluation techniques and prepare objective based test items as per the existing state syllabus pattern in Urdu.	<b>MODULE. VI</b> 6.1 Evaluation - Different types of test items - merits and demerits. Construction and administration of Achievement tests . 6.2 Continuous and Comprehensive Evaluation, Evaluation Criteria for Assignment, Seminar and Project.	6. Prepare a question bank on a unit of your own choice from 8 <sup>th</sup> or 9 <sup>th</sup> std English Text Book
7.Diagnosis and remediation	<b>MODULE. VII</b> 7.1 Diagnostic test-importance-process of construction 7.2 Error analysis-remedial teaching—meaning. 7.3 Grading—importance & types.	7. Preparation of unit tests,diagnostic test and remedial lesson plan.

<b>EDU. 157. CURRICULUM AND RESOURCES OF URDU</b> Contact Hours:75 (Instruction)&15 Process Marks:50 (End Semester Examination)&10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To understand the principles of organising curriculum.	<b>MODULE. I ( 10 hours )</b> Curriculum—meaning,types. Principles of curriculum construction. Nature of language curriculum. Syllabus—types of syllabus—features and limitations.	1. Compare the styles of organisation of curriculum in IX std text book.
2. To familiarise with resources for teaching/learning Urdu.	<b>MODULE. II ( 20 hours )</b> Course books, qualities of a good course book. Source books—work book. Supplementary reader—types. E-book, CD's etc.	2. Prepare a work book on a selected unit in Urdu Standard 8
3. To acquaint with the preparation of various learning aids in Urdu.	<b>MODULE. III ( 20 hours )</b> Audio-visual aids—radio,TV,tape recorder,OHP,computer,language lab,video clippings,pictures,charts,flashcards ,realia, models etc.	3. Make a drama (Story writing & acting)
4. To acquaint with the use of library.	<b>MODULE. IV ( 15 hours )</b> Importance of library in language learning. E-library, infolibnet. Principles of selecting language books.	4. List out 10 literary books suitable for the secondary students.
5. To familiarise with study skills.	<b>MODULE. V ( 10 hours )</b> Reference skills—use of dictionary. Note-taking, note-making,summarizing, paragraphing, information transfer.	5. Evaluation of present 8 <sup>th</sup> and 9 <sup>th</sup> class book.

<b>EDU. 177. PROFESSIONALISING URDU EDUCATION</b> Contact Hours:75 (Instruction)&15 Process Marks:50 (End Semester Examination)&10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To acquaint with the co-curricular activities in Urdu	<b>MODULE. I</b> Co-curricular activities-organisation of field and trips study tours, their importance, language club	1. Arrange a gazal programme. 2. Plan a language club activity for your school.
2. To understand the importance of nurturing talented children	<b>MODULE. II</b> Multiple intelligence, characteristics of talented children, identification, techniques of nurturing talented children	3. Prepare an enrichment material on a selected topic in Urdu

3. To familiarise the IT related professional inputs in language teaching.	<b>MODULE. III</b> Computer Assisted Instruction-Urdu typing ability-Online tele conferencing	4. Experiencing the making of a multi-media package/short film/documentary/drama(Mush aryira)/role playing.
4. To be a professional Urdu Teacher	<b>MODULE. IV</b> Definition of profession, Teaching as a profession. Traits of professionalism, Professional ethics, Teacher Competencies listed by NCTE Soft Skills Professional growth of Urdu teacher. – Teaching , Research and Extension. Research journals in Urdu.Role of SCERT and NCERT in the professional growth of a teacher. Professional organizations of teachers. Qualities and virtues of an Urdu Teacher-organisation of libraries-community participation in organising various activities	5. Conduct a discussion in the class on changing role of teachers.

## REFERENCES

1. Principles of Language Study. H.E. Planer.
2. Language Teaching – Robert Lado.
3. Method of Teaching the Mother tongue. Ryborn.
4. Tadrees-c-zaban-urdu-shervani
5. Urdu Ki Tadrees-Mainudheen
6. Urdu ki Dars – 0 – Tadrees – Masayil- Haroon Ayoob.
7. Urdu Kaise Padayam –Mainudheen.
8. Evaluation in Language Education – CIII. Mysore.
9. Dr. Abdul Haq. Quwayide-e-Urdu.
10. Rasheed Hassan Khan. Saheeh Imla.
11. Rambabu Saksena. Tareekh-Adab-c-Urdu
12. Syed Shafi Murteza. Ashaf-c-Adab-KO Irthiqa.
13. Prof. M.A. Zahid. Tarz-c-Nigarish.
14. Anjumen Tarqui-Urdu-Hind. Nazeemal Balagth.
15. Azeemul Haq Jincidi. Urdu Adb Ki Tareekh.
16. Habbcc Khan. Ghalib-sc-Iqbal tak-
17. Prof. Moinudheen. Hum Urdu Kaise Pad haayen.
18. Shafi Ahmed Saddiqui. Urdu Zaban Wa Quawaid. Part I & II

# COMMERCE



<b>EDU. 118. METHODOLOGY OF TEACHING COMMERCE</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination) & 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To acquaint with the nature of Commerce	<b>MODULE. I ( 5 hours )</b> <b>Meaning and Nature of Commerce</b> 1.1 Meaning and Definition of Commerce. 1.2 Nature and Scope of Commerce subject. 1.3 Recent developments in commerce.	1. List out the major areas of commerce and its recent developments.
2. To familiarize the evolution of Teaching of Commerce	<b>MODULE. II ( 7 hours )</b> <b>Evolution of Commerce Education</b> 2.1 Commerce Education- Meaning, Definition and Importance. 2.2 Historical development of Commerce Education. 2.3 KCF(2007)	2. Make an operational definition for Commerce education 3. Collect any 5 definitions of Commerce education.
3. To understand Approaches, Techniques & Methods of Teaching Commerce	<b>MODULE. III ( 35 hours )</b> <b>Approaches, Methods and Techniques of Teaching Commerce</b> 3.1 Maxims and Principles of Teaching. 3.2 Approaches of Teaching Commerce- Learner centered approach, Competency based approach and Multi Media approach. 3.3 Approaches of Teaching Accountancy- Balance sheet approach, Equation approach, Spiral Development approach. 3.4 Methods of Teaching Commerce- Lecture method, Discussion, Debate, Project method, Problem Solving method, Inductive and Deductive method, Case Study method. 3.5 Techniques of Teaching Commerce- Review, Role play, Simulation, Brainstorming.	4. Prepare a Project plan or draft a case or a script of role play on any topic in Commerce.
4. To understand the theoretical bases of major approaches viz; Constructivism and Behaviourism	<b>MODULE. IV (20 hours )</b> <b>Theoretical Bases of Constructivism and Behaviourism</b> 4.1 Constructivism- Learning as a generative process. 4.2 Behaviourism- Objective based instruction 4.3 Constructivism vs. Behaviourism. 4.4 Large group activity and Small group activity. 4.5 Cooperative Learning Strategies. 4.6 Competency based instruction- meaning, features and steps.	5. Debate on Constructivism and Behaviourism.

5. To update on the present practices of learning and instruction in the Higher Secondary Schools of Kerala	<b>MODULE. V ( 8 hours )</b> <b>Present Practices in Teaching of Commerce</b> 5.1 Critical Pedagogy and Commerce – Problem posing education 5.2 Review on the latest happenings in the State Higher Secondary schooling procedure.	6. Prepare a list of five social issues that can be addressed in commerce class.
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<b>EDU. 138. PEDAGOGIC PRACTICES IN COMMERCE</b> Contact Hours: 75 Hours (Instruction) & 15 hours (Process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the Aims and Objectives of Teaching Commerce	<b>MODULE. I (13 hours )</b> <b>Aims and Objectives of Teaching Commerce</b> 1.1 Aims of teaching commerce, Values of teaching commerce. 1.2 Objectives of teaching commerce at Higher Secondary Level. 1.3 Instructional Objectives-Bloom's taxonomy- Criteria of writing instructional objectives – Specifications 1.4 Revised Bloom's Taxonomy- a conceptual review. 1.5 Process Skills in commerce.	1. Prepare instructional objectives for any one concept in commerce based on Bloom's taxonomy.
2.To develop skills for effective teaching( by micro teaching)	<b>MODULE. II ( 12 hours )</b> <b>Teachings Skills</b> 2.1 Teachings skills-Core teaching skills and its components. 2.2 Micro teaching procedure.	2. Prescribed in the practical.
3. To understand the pedagogy of Business studies and Accountancy of 11 <sup>th</sup> standard	<b>MODULE. III ( 20 hours )</b> <b>Pedagogic Analysis of Commerce</b> 3.1 Pedagogic analysis-Meaning and steps-Content analysis. 3.2 Analysis of Business studies and Accountancy content of 11 <sup>th</sup> standard textbooks of Kerala State.	3. Perform content analysis on any one topic each from Business studies and Accountancy.
4.To acquaint with planning of instruction	<b>MODULE. IV ( 20 hours )</b> <b>Planning of Instruction</b> 4.1 Planning of instruction-Year plan, Unit plan and Lesson plan-(Herbartian approach and Evaluation approach)-Resource Unit. 4.2 Lesson planning in Behaviourist and Constructivist approaches.	4. Prepare a Year plan or Unit plan in commerce.

5.To understand the evaluation techniques and prepare objective based test items as per the existing state syllabus pattern in Business studies and Accountancy	<b>MODULE. V ( 10 hours )</b> <b>Evaluation in Commerce</b> 5.1 Continuous and Comprehensive evaluation. 5.2 Types of test items-merits and demerits. 5.3 Construction and administration of Achievement tests and Diagnostic tests.	5. Prepare at least 10 Multiple choice test items on any topic either in Business studies or in Accountancy.
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<b>EDU.158. CURRICULUM AND RESOURCES OF COMMERCE</b> Contact Hours: 75 Hours (Instruction) &15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
Objectives	Content	Process
1.To understand the principles of organizing Commerce Curriculum	<b>MODULE. I ( 20 hours )</b> <b>Commerce Curriculum</b> 1.1 Commerce Curriculum- Meaning, Definition and Bases of curriculum development. 1.2 Principles of curriculum construction. 1.3 Modern Trends in Curriculum Development. 1.4 Types of curriculum. 1.5 Approaches of curriculum organization. 1.6 Curriculum evaluation.	1. Critically analyze the organization of the content within a unit in relation to curriculum organization 2. Which 3 principles will be given priority, if you were asked to construct a curriculum for higher secondary classes? Justify your view point with your life experience.
2. To appreciate the nature of the discipline	<b>MODULE. II ( 10 hours )</b> <b>Commerce as a core subject</b> 2.1 Interdisciplinary approach. 2.2 Commerce and it branches. 2.3 Relation of commerce with other subjects.	3. Correlate Commerce with subjects like Mathematics, Economics and Geography
3. To provide familiarization with Teaching Learning Materials in Commerce	<b>MODULE. III ( 15 hours )</b> <b>Teaching Learning Materials in Commerce</b> 3.1 Commerce Textbook-qualities and functions, Criteria for selection-Textbook review. 3.2 Supplementary materials in Commerce- Need and Importance. 3.3 Audio-Visual aids –Projected aids, Non Projected aids and Activity aids.	4. Prepare a collage based on a particular topic in commerce.

4. To organize and maintain Resource room in Commerce	<b>MODULE. IV ( 15 hours )</b> <b>Resource room in Commerce</b> 4.1 Commerce Room- Importance and its organization. 4.2 Commerce Library 4.3 Workbooks, handbooks and reference materials 4.4 Use of Internet – Use of Websites like ERIC, INFLIBNET, etc	5. Prepare a list of 10 books with bibliography or Make a list of 5 commerce journals that can be used in Higher Secondary Schools.
5. To understand the meaning, scope and importance of Models of Teaching	<b>MODULE. V ( 15 hours )</b> <b>Models of Teaching in Commerce</b> 5.1 Models of Teaching- Meaning- Families. 5.2 Advance Organizer Model. 5.3 Jurisprudential Inquiry Model	6. Prepare a lesson plan on Advance Organizer Model on any one topic in commerce.

<b>EDU.178. PROFESSIONALIZING COMMERCE EDUCATION</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To appreciate the role of commerce in society	<b>MODULE. I ( 16 hours )</b> <b>Commerce and Society</b> 1.1 Commerce education and Business Ethics. 1.2 Field trips- importance and its organization. 1.3 Community resources in commerce 1.4 Methods of utilizing community resources. 1.5 Market studies and surveys. (16 Hours)	1. Make an observation of a local industrial/commercial unit near to your residence and prepare a report on it.
2. To acquaint with the co curricular activities in commerce.	<b>MODULE. II ( 10 hours )</b> <b>Co curricular activities in Commerce</b> 2.1 Co curricular activities- Meaning and importance. 2.2 Commerce club 2.3 Commerce magazine 2.4 Running of school bank and cooperative store.	2. Prepare a wall magazine in commerce.
3. To understand the importance of nurturing talented children	<b>MODULE. III ( 14 hours )</b> <b>Nurturing talented children in Commerce</b> 3.1. Fostering creativity among students 3.2. Gifted Children -Characteristics 3.3 Treatment of Gifted children.	3. Make a plan of an enrichment prorammmme for gifted children.

4. To familiarize the IT related professional inputs of teaching.	<b>MODULE. IV ( 20 hours )</b> <b>IT related professional inputs of teaching.</b> 4.1 Computer Aided Teaching. 4.2 Exploration of IT resources in commerce like CD's, DVD's, Multimedia Packages, learning objects etc. 4.3 Module preparation for e-content development.	4. Develop a module on any topic in commerce for e-content.
5.To be a professional Commerce Teacher	<b>MODULE. V ( 15 hours )</b> <b>Professional Commerce Teacher</b> 5.1 Commerce teacher –Qualities - Competencies (NCTE). 5.2 Teaching as a profession –Traits of Professionalism 5.3 Professional Ethics 5.4 Professional growth-ways and means	5. Discussion on the topic:- “Does the profession of teaching command the same respect as other profession”.

### References

1. **Aggarwal, J.C**, *Teaching of Commerce: A Practical Approach*. Vikas Publishing House Pvt. Ltd: New Delhi.
2. **Anderson,W,L and Krathwohl,D,R**, *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Allyn & Bacon: Boston.
3. **Bloom, B. S.et.al.**, *Taxonomy of Educational Objectives, Hand Book 1: Cognitive Domain*. Longmans green &Co: New York.
4. **Borich,Gary.D**, *Effective Teaching Method*. Prentice Hall Inc: New Jersey
5. **Boynton,L.D**, *Methods of Teaching Bookkeeping and Accounting*. South Western Publishing Company, Ohio.
6. **Brown,J.W and Lewins**, *Audio Visual Instruction technology, Media and Methods*. Mc Graw-Hill Book Co: New York.
7. **Gratz,J.E**, *Future Curriculum in Business Education*. Business Education Association: Washington.
8. **Gronlund, N.E.**, *Measurement and Evaluation in Teaching*. Macmillan: New York.
9. **Harrow, A.J**, *Taxonomy of Psycho-motor Domain*. Mc Kay:New York.
10. **Joyce,B & Weil, M**. *Models of Teaching* (5<sup>th</sup> Ed.) New Delhi: Prentice Hall.
11. **Khan.S.Mohammed**. *Commerce Education*. Sterling Publishers Pvt. Ltd: New Delhi.
12. **Krathwohl.et.al**, *Taxonomy of Educational Objectives, Hand Book II: Affective Domain*. Mc Kay: New York.
13. **Passi,B.K**). *Becoming a Better Teacher: A Micro Teaching Approach*. Ahamadabad: Sahithya Mundranalya.
14. **Pophan,Scharg and Blockhus**, *A Teaching Learning System for Business Education*. Mc Graw-Hill Book Co: New York.
15. **Roa, Seema**. *Teaching of Commerce*. Anmol Publications pvt.Ltd: New Delhi.
16. **SCERT**. (2007). *Kerala Curriculum Framework*. Trivandrum: SCERT.
17. **Sharma, Aditi**. *Contemporary Teaching of Commerce*. Surjeet Publications: New Delhi.
18. **Singh,M,N**, *Methods and Techniques of Teaching Commerce*. Youngman and co :New Delhi.
19. **Singh,Y,K**, *Teaching of Commerce*. APH PublishingCorporation:New Delhi.
20. **Tiwari, S.A**, *Commerce Education in the global Era*. Adhyayan Publishers:New Delhi.

# **MATHEMATICS**

<b>EDU 120 METHODOLOGY OF TEACHING MATHEMATICS</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination) & 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To acquaint with the nature of Mathematics	<b>MODULE I (15 Hours)</b> <b>Nature of Mathematics</b> 1.1 Meaning of Mathematics-Development of mathematics as a science, Reasoning- Inductive and deductive -Axioms and postulates- Mathematics language. 1.2 Pure and applied mathematics, Modern mathematics- Fundamental branches of mathematics (Arithmetic, Geometry, Algebra, Trigonometry)	1.1 Prepare a note on various branches of mathematics other than fundamentals (Any five) 1.2. List out any five mathematical symbols with its evolutionary aspects .
2.To familiarize the evolution of Teaching of Mathematics	<b>MODULE II (10 Hours)</b> <b>Mathematics Education</b> 2.1 Landmarks in the development of mathematics education 2.2 Values of teaching mathematics.	2.1 Prepare a time line on the development of mathematics of any century <b>or</b> Familiarize with the biographies of any five mathematicians (Two Indians)
3. To understand Approaches, Methods & Techniques of Teaching Mathematics	<b>MODULE III (20 Hours)</b> <b>Approaches, Methods &amp; Techniques of Teaching Mathematics</b> 3.1 Process oriented approach, Heuristic approach, Realistic mathematics education. 3.2 Inductive-deductive method, analytic-synthetic method, problem solving method, laboratory method, project method, seminar 3.3 Questioning, brain storming, assignment	3.1 Prepare a project plan (Individual) <b>or</b> 3.2 Prepare a plan for a laboratory activity on any topic <b>or</b> 3.3 Frame a sequence of analytic questions based on a topic of ninth standard.
4. To understand the Theoretical Bases of major approaches viz constructivism& behaviourism	<b>MODULE IV (20 Hours)</b> <b>Theoretical Bases of Different Approaches.</b> 4.1 Theoretical outline of behaviorism, Constructivism-Social and cognitive constructivism. 4.2 Co-operative learning, peer tutoring, 4.3 Learning as a generative process, Managing group and individual works.	4.1 Analyse KCF and list major suggestions to make mathematics teaching and learning more effective <b>or</b> 4.2 Prepare a plan for teaching a specific topic based on co-operative learning strategy.

5. To update on the present practices of learning and instruction practiced in the state schools of Kerala	<b>MODULE. V (10 Hours)</b> <b>Trends in Teaching Mathematics</b> 5.1 Recent practices of teaching and learning of mathematics in state schooling -Critical pedagogy, Issue based approach, Edubuntu etc.	5.1 present a topic using a suitable programme in Edubuntu.
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<b>EDU. 140. PEDAGOGIC PRACTICES IN MATHEMATICS</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the Aims and Objectives of Teaching Mathematics	<b>MODULE . I (10 Hours)</b> <b>Aims and Objectives</b> 1.1. Aims and objectives of teaching mathematics 1.2. Blooms Taxonomy of Educational Objectives, Revised Blooms Taxonomy-a conceptual over view. 1.3. Major Competencies and skills to be developed through mathematics learning.	1.1 Compare RBT with any other Taxonomy of educational objectives using pictorial representation.
2.To develop skills for effective teaching (by micro teaching)	<b>MODULE. II (13 Hours)</b> <b>Skills of Teaching Mathematics</b> 2.1 Major skills in teaching mathematics 2.2 Micro teaching – Skill based practice.	Prescribed in practicals
3.To understand the pedagogy of Mathematics of 9 <sup>th</sup> standard and the pedagogy of Mathematics of 11 <sup>th</sup> standard.	<b>MODULE III (20 Hours)</b> <b>Pedagogical Analysis</b> 3.1 Pedagogic analysis- Conceptual orientation – Content analysis of 8 <sup>th</sup> and 9 <sup>th</sup> standard text books, listing objectives and specific outcomes or curricular objectives, previous knowledge or prerequisites, resources, strategies of teaching and evaluation, misconcepts	3.1 Analyse the content of a specific topic in 8 <sup>th</sup> or 9 <sup>th</sup> mathematics text book <b>or</b> 3.2 List some possible misconcepts in 8 <sup>th</sup> standard students while learning mathematics and suggest the remedies for that.
4.To acquaint with Planning of instruction	<b>MODULE IV (20 Hours)</b> <b>Planning of instruction</b> 4.1 Stages of planning instruction- year plan-unit plan, lesson plan- importance and steps. 4.2 Objective based format of lesson planning (behaviorist format) – Objective based instruction, inter relationship between objectives, learning experience and evaluation 4.3 Constructivist format of lesson planning	Prepare a unit plan for a selected topic of 8 <sup>th</sup> or 9 <sup>th</sup> standard mathematics. <b>Or</b> Convert a behaviouristic lesson plan to constructivist format or vice versa.



5.To understand the Evaluation techniques in Mathematics	<p align="center"><b>MODULE. V (12 Hours)</b></p> <p><b>Evaluation</b>            5.1 Evaluation – Importance, CRE and NRE. Different types of test items, construction of achievement and diagnostic tests.            5.2. CCE, Evaluation of collection, seminar, assignment, project, practical, portfolio etc.,            5.3 Evaluation of non cognitive areas – interest, attitudes, skills etc,</p>	5.1 Prepare at least ten items for assessing any affective outcome of learning mathematics <b>or</b> 5.2 Prepare a diagnostic test based on a single concept.
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<b>EDU 160 CURRICULUM &amp; RESOURCES OF MATHEMATICS</b> Contact Hours: 75 Hours (Instruction) &15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the principles of Organizing Curriculum	<p align="center"><b>MODULE I (20 Hours)</b></p> <p><b>Curriculum in Mathematics</b>            1.1Curriculum- Meaning, types            1.2 Curriculum development, basis of curriculum construction, principles of curriculum construction, curriculum organization, principles and approaches            1.3Curricular reforms- SMP, SMSG, Nuffield.</p>	Establish the correlation of mathematics with other subjects, within the subject and with daily life <b>or</b> Select a topic in Mathematics and connect it with other branches of Mathematics.
2.To provide familiarization with Resources for teaching/learning Mathematics	<p align="center"><b>MODULE II (25 Hours)</b></p> <p><b>Resources for Mathematics teaching/learning</b>            2.1. Text books, hand books, work book, reference books, journals, resource CD's, e materials, etc.,            2.2. Audio visual aids, improvised aids            2.3. Role of recreational activities in mathematics learning.</p>	Prepare an improvised aid for teaching mathematics at secondary level <b>or</b> List out any two e-materials for mathematics learning and describe the suitability of the materials with respect to the content dealt. <b>or</b> Prepare a work book on a specific unit in Mathematics
3.To acquaint with the knowledge of organizing and maintaining library and resources in Mathematics.	<p align="center"><b>MODULE III (10 Hours)</b></p> <p><b>Resource Room</b>            3.1 Mathematics room- mathematics lab – equipments, mportance, organisation. Mathematics library – organization, effective functioning</p>	List any five books that can be included in mathematics library with all bibliographic details.

<p>4.To understand meaning, scope and importance of Models of teaching.</p>	<p align="center"><b>MODULE IV (20 Hours)</b></p> <p><b>Models of Teaching</b>  4.1 Models of Teaching-meaning, Definitions-Characteristics- Families- Information Processing Family-Concept Attainment Model, Inductive Thinking Model-Application in Mathematics classroom</p>	<p>Select an appropriate concept from 8<sup>th</sup> or 9<sup>th</sup> Mathematics text book and prepare a lesson plan in Concept Attainment Model/ Inductive Thinking Model.</p>
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<b>EDU 180 PROFESSIONALIZING MATHEMATICS EDUCATION</b> Contact Hours: 75 Hours (Instruction) &15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
<p>1.To appreciate Linking Mathematics with Society</p>	<p align="center"><b>MODULE I (10 Hours)</b></p> <p><b>Mathematics and Society</b>  1.1 Role of mathematics in the development of civilization-Scientific and technological development-economic development.  1.2 Mathematics as a part of social life –, mathematics in astrology, religious observances, architecture, weather forecasting, folkarts, etc</p>	<p>1.1 Present the application of Mathematics in a specific area (astrology, religious observances, architecture, weather forecasting, folkarts, etc.) in detail.</p>
<p>2. To acquaint with the co-curricular activities in Mathematics</p>	<p align="center"><b>MODULE II (10 Hours)</b></p> <p><b>Managing Co-curricular Activities</b>  2.1 Co-curricular activities - organization of field trips, its importance. Maths Club - its pattern, organization and activities such as Maths fairs, exhibition and Quiz</p>	<p>2.1 Organize a Mathematics Quiz programme in your class.  <b>or</b>  List different items in Maths fair at school level and prepare any one item.</p>
<p>3. To understand the importance of catering to the needs of exceptional children</p>	<p align="center"><b>MODULE III (15 Hours)</b></p> <p><b>Exceptional Children in Mathematics</b>  3.1 Mathematical giftedness. Mathematical Creativity- Characteristics, Role of teacher.  3.2 Mathematics Olympiad.  3.3 Slow learners in Mathematics- Characteristics, remedial measures.</p>	<p>3.1. Prepare a remedial material for slow learners based on a particular topic  <b>or</b>  3.2 Prepare a enrichment material for gifted learners based on a particular topic in mathematics</p>

4. To familiarize the IT related professional inputs of teaching.	<b>MODULE. IV (15 Hours)</b> <b>Integrating IT in Teaching Mathematics</b> 4.1 Computer Aided Teaching, module preparation for e-content .	4.1. Write a script for an e-content on any concept in Mathematics.
5.To know about qualities and competencies of a Mathematics teacher..	<b>MODULE. V (25 Hours)</b> <b>Competencies of a Mathematics Teacher</b> 5.1 Teaching as a profession.- Professional growth of teacher. – Role of SCERT and NCERT in the professional growth of a teacher. Printed and Internet resources for professional growth of a mathematics teacher. 5.2. Qualities of a mathematics teacher – General qualities-personal qualities-specific qualities. 5.3. Teacher competencies -Contextual, Conceptual, Curricular and content, Transactional, Competencies in other educational activities, related to teaching-learning materials, Evaluation, Management, Parental contact and co-operation, Community contact and co-operation	5.1. Prepare a checklist on qualities and competencies of a mathematics teacher and based on this checklist evaluate any of your mathematics teacher. <b>or</b>  5.2 Conduct a discussion on the changing role of teacher.

## REFERENCES

1. Travers,J,K; Pikaart,L; Suydam,M.N & Runion,E,G. (1977). Mathematics teaching.New York, Harper&Row.
2. Chambers,P.(2008). Teaching mathematics- developing as a reflective secondary teacher. NewDelhi, Sage.
3. Soman,K. (2000). Ganithasasthra bhodhanam. Trivandrum, Kerala Bhasha Institute.
4. Cooke,H.(2003). Success with mathematics.London, Routledge.
5. Rao,N.M.(2008).A manual of Mathematics library, Neelkamal.
6. NCTE (1998). Pre-Service Education.
7. Arnold V. *et al* (2000). Mathematics: Frontiers and perspectives AMS.
8. Backhouse, J. *et al.*( 1992). Improving the Learning of Mathematics. Cassel.London..
9. Bloom, B.S. *et al.*( 1968). Taxonomy of Educational objectives. Hand book I: Cognitive domain. David Mckay company Inc New York..
10. Bruner, J.S.( 1966). Toward a theory of Instruction. Harvard University press. Cambridge, Mass..
11. Eves, H.( 1963).The History of Mathematics. Holt RineHeart & Winston, New York.
12. Krathwohl, D.R. *et al* (1964).Taxonomy of Educational objectives. Affective domain, David Makay, New York.
13. Kumar, P.K.S. & Bindu, C.M.(2002). Instructional Learning Strategies and Cognitive Entry Behavior. An experimental Analysis. Kanishka Publishers. New Delhi.

14. Mangal. S.K. (1984). The Teaching of Mathematics. Fadon Prakash Brothers, Ludhiana..
15. NCERT. A Text Book of content-cum- Methodology of teaching mathematics. New Delhi.
16. Orlich, D.C.*et al.* (2001). Teaching Strategies. A guide to better instructions. Houghton Mifflin Co. New York..
17. Paintal Iris (1982). Micro Teaching : A Hand book for teachers. Oxford University Press. New Delhi,
18. Passi, B.K.(1976). Becoming Better Teachers: Micro Teaching Approach. Sahithya Mudranalaya, Ahamedabad,
19. Piaget, J.( 1972.) Psychology of Intelligence. Little field, Adams & Co. NJ.
20. Russel, J.( 2004) Teaching of mathematics. Campus books. New Delhi
21. Sidhu, K.S. The Teaching of Mathematics. Sterling Publishers. Banglore.
22. Simmons, M.( 1991). The Effective Teaching of Mathematics. Longman, New York..
23. State Text Books and Hand Books in mathematics of kerala, Class VII – XII.
24. Struik, D.J. .( 1967) A Concise History of Mathematics. Dower Pub. New York.
25. Topping, K. (1988). The peer Tutoring Hand Book: Promoting Co-operative Learning. Croom Helm.
26. Travers, J.K. *et al* (1977). Mathematics teaching. Harper & Row. New York.  
[www.ugc.ac.in/oldpdf/xiplanpdf/EContentxiplan.pdf](http://www.ugc.ac.in/oldpdf/xiplanpdf/EContentxiplan.pdf)  
[www.fisme.science.uu.nl/en/rme/](http://www.fisme.science.uu.nl/en/rme/)  
[www.wcer.wisc.edu/news/coverstories/promises\\_of\\_realistic\\_math\\_education.php](http://www.wcer.wisc.edu/news/coverstories/promises_of_realistic_math_education.php)

# **NATURAL SCIENCE**

**EDU. 121.METHODOLOGY OF TEACHING NATURAL SCIENCE.**

Contact Hours:75 (Instruction)&15 Process  
Marks:50 (End Semester Examination)&10 (CE)

<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To acquaint with the nature of Science To develop understanding of the place of science in national School curriculum	<b>MODULE I (10 Hours)</b> <b>Nature and Scope of Science</b> 1.1 Scienc-its meaning,definitions,and nature Science as a product and process- Science an ongoing process of enquiry 1.2 Importance of science as a school subject. Values of teaching science with special reference to Biology. 1.3 Scientific Attitude.	Formulate a definition of science of your own and substantiate its foci. OR Make some items (4 or 5 items) that would help to evaluate scientific attitude
2.To familiarize the evolution of Teaching of Science	<b>MODULE II (5 Hours)</b> <b>History of Science Education</b> 2.1 Landmarks in the development of science education. 2.2 Science Education as envisaged in NCF and KCF 2007-developing global perspectives in science teaching.	Make a comparison of NCF 2005 &KCF with respect to science education
3.To understand Approaches, Methods & Techniques of Teaching Science	<b>MODULE III (25 Hours)</b> <b>Approach, Methods and Techniques of Teaching Science</b> 3.1 Inductive, Deductive, Enquiry& Discovery Approaches of Teaching. 3.2 Methods of Instruction – Lecture, Lecture cum demonstration method, Heuristic method, Project method, Problem solving method , Dalton Plan, Individual laboratory method, 3.3 Questioning Technique, Brain storming, Buzz session, & Role Playing.	Prepare a group project plan for IX standard students OR Prepare an instruction card on a topic to be taught by Individualized Laboratory Method. Role playing of a Biological theme. ( 2 marks) (Group Work)
4.To understand the Theoretical Bases of major approaches viz constructivism, behaviorism and to familiarize with the methods and techniques for implementing constructivism in the classroom	<b>MODULE IV (20 Hours)</b> <b>Learning as a Generative Process</b> 4.1 Theory of Cognitive Constructivism, Social Constructivism and Multiple Intelligences. 4.2 Learning as a generative process - Children's science, learner as a scientist, Behaviorist approach Vs Constructivist approach, 4.3 Collaborative learning, Managing Group learning in a classroom Activity based learning, role of experiments in science, integration of theories and experiments in science.	Restructure a behaviorist learning of a topic into a constructivist format OR Making multiple lesson plans (behaviorist Vs constructivist) on a single topic based on different approaches to experience the difference in outlooks. OR Create an imaginary case study of a teacher trainee doing things wrongly in the constructivist classroom and list the precautions and suggestions to correct the trainee.

5. To update on the present practices of learning and instruction prevailing in the state schools of Kerala	<b>MODULE. V (15 Hours)</b> <b>Present Practices in Teaching and Learning.</b> 5.1 Critical Pedagogy, Issue-based Teaching, Edubuntu –exploration of the science resources, Review of the latest happenings in the state schooling procedures.(Teacher trainees are expected to acquaint with the emerging practices related to schooling from time to time.)	List a topic each from (viii) and (ix) Std Biology and formulate issue based learning situations. ( 2 marks)
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<b>EDU 141.PEDAGOGIC PRACTICES IN NATURAL SCIENCE.</b> Contact Hours:75 (Instruction)&15 Process Marks:50 (End Semester Examination)&10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the Aims and Objectives of Teaching Science	<b>MODULE I (20 Hours)</b> <b>Aims and Objectives of Teaching Science</b> 1.1 General aims of teaching Natural Science. Broad National Goals. 1.2 Taxonomy of educational objectives –Revised Bloom's Taxonomy, Mc Cormack & Yager Taxonomy 1.3 Process skills in Science at secondary stage, developing process skills in students.	Compare the two taxonomies in pictorial representation. OR Identify any suitable content /topic that would emphasize the development of a particular process skill. (Do this for all the 13 skills and justify your selection)
2.To develop skills for effective teaching	<b>MODULE II (10 Hours)</b> <b>Micro Teaching</b> 2.1 Teaching skills for class room instruction, Essential skills for Science teaching, Micro teaching - a skill based practice	Prescribed in Practicals
3.To understand and practice the pedagogic analysis of 8 <sup>th</sup> and 9 <sup>th</sup> Biology	<b>MODULE III (23 Hours)</b> <b>Pedagogic Analysis</b> 3.1 Pedagogic Analysis- A conceptual overview, Pedagogic Analysis of the Biology content portions of 8 <sup>th</sup> and 9 <sup>th</sup> standard textbooks of Kerala state, (1.Arranging teaching points in a logical order. 2.Analysing concepts, Working out strategies for teaching concepts. 3.Stating general instructional objectives and specific instructional objectives in terms of behavioural outcomes. (The	Perform content analysis of a particular topic of 8 <sup>th</sup> or 9 <sup>th</sup> std Biology OR Select a concept and formulate instructional objectives of all domains

	<p>Behaviourist approach) OR Stating ‘curriculum objectives’ in terms of concepts, process skills, strategies of instruction and evaluation. (The Constructivist approach) 4. Planning suitable learning experiences according to objectives. Planning the procedures of evaluation according to objectives.)</p>	
4.To acquaint with Planning of instruction	<p><b>MODULE IV (12 Hours)</b> <b>Planning of instruction</b> 4.1 Objective based instruction – interdependence of objectives, learning experience, and evaluation. 4.2 Planning of Instruction - year plan, unit plan, resource unit 4.3 Lesson planning – Need, Stages (Herbartian steps) 4.4 Lesson plan preparation based on (1) The objective based Behaviourist format (2) The Constructivist format</p>	<p>Prepare a comprehensive lesson plan following Herbartian Steps on a selected topic of Biology OR Prepare a Unit plan or Year plan</p>
5.To understand the Evaluation techniques and prepare objective based test items as per the existing state syllabus pattern in Science	<p><b>MODULE. V (10 Hours)</b> <b>Evaluation in Science</b> 5.1 Evaluation - Different types of test items - merits and demerits. Construction and administration of Achievement tests and Diagnostic tests. 5.2 Continuous and Comprehensive Evaluation, Evaluation Criteria for Assignment, Seminar and Project. 5.3 Evaluation of Non Cognitive Areas – Interest, Attitude and Skill</p>	<p>Make sample test items corresponding to any three objectives (Bloom’s taxonomy or Mc Cormack &amp; Yager) that would go into an achievement test OR Prepare a question bank in Biology on a concept of your own choice. OR select a concept in Biology (8<sup>th</sup> or 9<sup>th</sup>) and prepare a Diagnostic Test</p>



**EDU 161.CURRICULUM AND RESOURCES OF NATURAL SCIENCE.**

Contact Hours:75 (Instruction)&15 Process  
Marks:50 (End Semester Examination)&10 (CE)

<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the principles of Organizing Curriculum	<b>MODULE I (20 Hours)</b> <b>Science Curriculum</b> 1.1 Curriculum- A conceptual Analysis, Curriculum and Syllabus, Principles of Curriculum Construction. 1.2 Approaches to curriculum organisation - Integrated, Disciplinary and Interdisciplinary Approach. Concentric and Spiral Approach, Nature rambling, Nature study. 1.3 Concept of correlation - Systematic correlation of Natural Science within the subject and with other subjects in the curriculum such as mathematics, Physics, Chemistry, Languages, Geography, History, Earth Science, Drawing, Music and Craft. Incidental correlation achieved while teaching. 1.4 Curriculum reforms abroad - BSCS, Nuffield Foundation	Compare the style of organization of curriculum of State and CBSE. principles of curriculum development selecting a single topic from state and CBSE syllabi. OR Make a cartoon on the concept of using a correlation in the classroom.  OR Make a table of similarities and differences of any two of BSCS versions OR Select a concept in Biology and correlate it with Physics, Chemistry and Geography.
2.To appreciate the systematic method of science	<b>MODULE II (10 Hours)</b> <b>The scientific method</b> 2.1 Scientific method – importance, steps involved in the scientific method, 2.2 Technical Aspects- Observation, Experiment, Data Collection 2.3 Corroboration and Falsification 2.4 Transfer value of Scientific Method, Strategies to give pupils training in Scientific method.	Go through the biography of any two scientists and prepare profile to recognize the scientific method they used in their pursuits. (To be done in groups of three or four.)
3.To understand the meaning, scope and importance of models of teaching	<b>MODULE III (10 Hours)</b> <b>Models of Teaching</b> Models of Teaching-common features of models-key concepts for describing models-four families-some typical models viz, Concept Attainment Model, Inquiry Training Model	Prepare a Concept Attainment Model or Inquiry Training Model lesson plan on any topic in Biology.
4.To provide familiarization with Resources for teaching/learning Science	<b>MODULE IV (20 Hours)</b> <b>Resources in Teaching Science</b> 4.1 Resource materials in teaching Natural Science. Syllabus, Textbooks - Vogel's criteria of selection. Work Book, Teachers handbook, reference books, supplementary readers.	Rate a Higher secondary level text book in science according to Vogel's Criteria. OR Make an improvised apparatus and contribute to a local school

	4.2 Teaching Aids, Improvised apparatus, Essential audiovisual aids. Biological drawings, specimens, video, power point presentation C.D. ROM such as <b>Encyclopaedia Britannica, Microsoft Encarta, Edubuntu</b> of it @school, kerala	OR Prepare a workbook on a unit of Biology in 8 <sup>th</sup> or 9 <sup>th</sup> std
5.To have a hands on approach in organizing and maintaining library and laboratory in Science	<p align="center"><b>MODULE. V (15 Hours)</b></p> <p><b>Laboratory and Library</b></p> <p>5.1 Laboratory and its organization, purchase and maintenance of chemicals, apparatus and equipments.Live corners and museum, Laboratory rules, accidents in the laboratory, precautions and First Aid.</p> <p>5.2 Science library and its organization.</p> <p>5.3 Using internet for accessing information, Websites for authoritative information like ERIC, INFLIBNET etc.</p>	<p>Make a sample stock register for the laboratory of your own college.</p> <p align="center">OR</p> <p>Arrange one shelf of the lab and label properly OR Update the stock register/ make a mock register with few items.</p> <p align="center">OR</p> <p>Prepare the list of at least 20 science books in the library and prepare an accession register for the same.</p> <p align="center">OR</p> <p>Catalogue the 20 books and make a computer data base of it.(Including author, title, key words and other necessary details)</p> <p>Suggest any one science book to the library with all necessary details of publisher author etc.</p> <p align="center">OR</p> <p>Suggest any journals in Science with publication that can be subscribed in our school.</p>

<b>EDU 181.PROFESSIONALISING NATURAL SCIENCE EDUCATION</b> Contact Hours:75 (Instruction)&15 Process Marks:50 (End Semester Examination)&10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To appreciate Linking science with Society	<b>MODULE I (15 Hours)</b> <b>Science and Society</b> 1.1 Science as a social Endeavor; Scientific Literacy, Dual role of science (emancipatory and oppressive). 1.2 The Science Teacher and Society. Role of science teacher in eradicating misconceptions and superstitions in Society. Non-formal Science Education. 1.3 Science and Technology, complementarities between Science and Technology	Make a /short film/very short documentary/ puppetry for linking science with society OR Practice a theatre education, role playing, street show, or any art form to popularize science among public. OR List any five misconcepts in science of High School children( 2 marks)
2. To acquaint with the co-curricular activities in Science	<b>MODULE II (18 Hours)</b> <b>Co-curricular activities in Science</b> 2.1 Co-curricular activities - organization of field trips and study tours, their importance. Science Club - its pattern, organization and activities such as science fairs, science exhibition, science debates. 2.2 Experimental projects, nature rambling, nature calendar	Manifest a scientific hobby OR conduct a debate on any biological issue OR prepare an action plan to make a campaign on eradication of diseases
3. To understand the importance of nurturing gifted children	<b>MODULE III (10 Hours)</b> <b>Gifted Students in Science</b> 3.1 Identifying and nurturing the gifted children. Creativity and Critical thinking. 3.2 NSTS(National Science Talent Search)	Prepare a poster in groups of five highlighting the importance of scientific method . OR prepare an enrichment material on a concept in Biology for gifted students of 9 <sup>th</sup> std OR Prepare an evaluation tool to identify gifted students in science
4. To familiarize the I T related professional inputs of teaching.	<b>MODULE IV (10 Hours)</b> <b>Use of computer in Teaching</b> 4.1 Computer Assisted Instruction, Programmed Learning-Expert System, Module preparation for E-content Development, 4.2 Course ware, Free Software's in Science. 4.3 Learning Management Systems - MOODLE	Construct a linear Programme in electronic form (at least 10 frames) on a simple concept in Biology OR Write a script on a concept in biology for its E-content development

5.To be a Professional Science Teacher	<p align="center"><b>MODULE. V (22 Hours)</b></p> <p><b>Professional Science Teacher</b></p> <p>5.1 Definition of profession, Teaching as a profession.</p> <p>5.2 Traits of professionalism, Professional ethics, Teacher Competencies listed by NCTE</p> <p>5.3 Soft Skills</p> <p>5.3 Professional growth of Science teacher. – Teaching , Research and Extension. Research journals in Science and Science Education. Role of SCERT and NCERT in the professional growth of a teacher. Professional organizations of teachers.</p> <p>5.4 Internet resources and websites for professional growth of a science teachers</p>	<p>Arrange a seminar in science in the college for popularizing scientific outlook.</p> <p align="center">OR</p> <p>Prepare a review of a research based article on Education from INFLIBNET or ERIC</p> <p align="center">OR</p> <p>Conduct a discussion in the class on the changing role of teachers</p>
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## REFERENCES

- Anderson, J.B. (1980). Cognitive Psychology and its Implications. San Francisco: W. H. Freeman and Company.
- Anderson, C. and K. Roth. (1992). Teaching for Meaningful and Self Regulated Learning of Science. Advances in Research of Teaching, Vol. 1, J. Brophy, ed. Greenwich, Conn : JAI.*
- Alsop, S. & Hicks, K. (2003) Teaching science. New Delhi: Kogan page India Private Ltd.
- Arons, A.B. (1983). Achieving Wider Scientific Literacy. Daedalus Spring 91—122.
- Aggarwal, D.D. (2001): Modern Methods of Teaching Biology. Sarup Teaching Series. Sarup & Sons, New Delhi.
- Bhaskara Rao, D. (2000): Teaching of Biology. Nagarjuna Publishers, Guntur.
- Bhatt, B. D., & Sharma, S.R. (1996). Methods of Teaching Science. Delhi: Kanishka Publishing House.
- Bloom, B.S. (Ed). (1956). Taxonomy of Educational Objectives : New York :David McKay Company.
- Bloom, B.S. (Ed.) (1956). Taxonomy of Educational Objectives, Handbook 1— Cognitive Domain, Harcourt Brace & World Inc., New York.
- Chikara, M. S. and S. Sarma (1985): Teaching of Biology, Prakash Brothers, Ludhiana.
- Dale, E. (1967): Audiovisual Methods in Teaching.(2<sup>nd</sup> ed.). New York: The Drygen Press, Inc.

- Das, R.C. (1985). Science Teaching in Schools. New Delhi: Sterling Publishers.
- Elkind, D. (1977). Piaget and Science Education. In. N. Vaidya & J.S. Rajput (Eds.), Reshaping our School Science Education. New Delhi: Oxford & I.B.H. Publishing Company.
- Gagne, R.M., Briggs, L.J. & Wagner, W.W. (1986). Principles of Instructional Design (3<sup>rd</sup> ed.). Chicago: Holt, Rinehart and Winston Inc
- Gentn, D. & Stevens, A.L.(Eds.).(1983). Mental Models. Hillsdale, New Jersey: Larence Erlbaum Associates, Publishers.
- Gupta, S.K. (1985). Teaching of Physical Science in Secondary Schools. New Delhi : Sterling Publications (Pvt.) Limited.
- Hull, D. L., (1988). Science as a process. Chicago: The University of Chicago Press.
- Joyce, B. & Weil, M. (1986). Models of Teaching (3<sup>rd</sup> ed.) New Jersey: Prentice Hall Inc.
- Kohli, V.K. (1986). How to teach Science. Ambala City, Haryana : Vivek Publishers.
- Lowman, J. (1995). Mastering the Technique of Teaching. Second Edition, San Francisco.
- Mangal,S.K.,Teaching of Science, New Delhi:Arya Book Depot.1997.
- Mohan, R (1995). *Innovative science teaching for physical science*. New Delhi: Prentice Hall.
- Mohan R (2011) *Teacher Education*, New Delhi Prentice Hall India Ltd
- Narendra Vaidya: Science Teaching in Schools for the 21<sup>st</sup> century, Deep and Deep Publications Pvt.Ltd.,1999.
- N.C.E.R.T. (1989). *Instructional objectives of school subjects*. New Delhi: N.C.E.R.T.
- N.C.E.R.T. (1993). *National curriculum for elementary and secondary education* (rev. ed. ). New Delhi: N. C. E. R.T.
- NCERT . (2005)National Curriculum Frame Work New Delhi: NCERT
- SCERT. (2007) Kerala Curriculum Frame Work Thiruvananthapuram: SCERT
- S.Venkataih(Ed)..Science Education.Anmol publications Pvt Ltd.,2000
- S.K.Kochhar..Methods and Techniques of Teaching, Sterling Publishers pvt ltd 2003
- Sharma Jagdish, Model of Science Teaching,Raj Publishing House, Jaipur.(2006)
- Siddiqui,N.H.and Siddiqui.M.N., Teaching of Science Today and Tomorrow.Delhi:Doaba House.1983.
- Sivarajan, K & Faziluddin, A., Science Education—Methodology of Teaching and Pedagogic Analysis. Calicut University Co-Operative Store.
- Sharma, R.C. (1985). Modern Science Teaching. New Delhi: Dhanpat Rai & Sons.
- UNESCO,New UNESCO Source Book for Science, France UNESCO.
- Washton Nathan,S, Teaching Science..In Elementary &Middle School.David ,Mc Kenny Co.,N.York(1974).
- Yadav.M.S Teaching of Science, Mangaldeep Publication, N.Delhi 1992.

# **PHYSICAL SCIENCE**

<b>EDU 122 METHODOLOGY OF TEACHING PHYSICAL SCIENCE</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination) & 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To acquaint with the nature of Science	<b>MODULE I (10 Hours)</b> <b><u>Nature and Scope of Science</u></b> 1.1 Science, its meaning, nature of science, Science as a product and process, Interdependency of product and process. 1.2 Importance of science as a school subject. Practical, disciplinary vocational, social, moral and recreational functions of science. 1.3 Scientific Attitude and Scientific Aptitude	List any 10 branches of science with a short description. OR Make some items (4 or 5 items each) that would help to evaluate scientific attitude and scientific aptitude.
2.To familiarize the evolution of Teaching of Science	<b>MODULE . II (10 Hours)</b> <b><u>History of Science Education</u></b> 2.1 Landmarks in the history of Education with respect to Science. 2.2 Science Education as envisaged in NCF 2005 and KCF 2007	Conduct a debate on the relevance of NCF 2005 or KCF 2007 in science education in Kerala.
3.To understand Approaches, Methods & Techniques of Teaching Science	<b>MODULE. III (20 Hours)</b> <b><u>Methods and Techniques of Teaching Science</u></b> 3.1 Inductive Approach and Deductive Approach of Teaching 3.2 Methods of Instruction – Lecture cum demonstration method, Heuristic method, Project method, Problem solving method – Definition of a problem, Well-structured and ill structured Problems, The Problem-solving Cycle. Individualized laboratory method, supervised study, Dalton plan 3.3 Questioning Technique, Brain storming, Buzz session	Perform an experiment from 8 <sup>th</sup> or 9 <sup>th</sup> standard as demonstration before your peers and accept criticisms from peers. (to be done in groups) OR Prepare a project plan on any relevant science problem. OR Have a buzz session in your class about the importance of questioning technique and table the views of each group.
4.To understand the Theoretical Bases of major approaches viz constructivism, behaviourism	<b>MODULE. IV (15 Hours)</b> <b><u>Learning as a generative process</u></b> 4.1 Theory of Cognitive Constructivism, Social Constructivism and Multiple Intelligences. 4.2 Learning as a generative process - Children's science, learner as a scientist, guided discovery approach, Behaviourist approach Vs Constructivist approach,	Making multiple lessonplans (bhrst Vs constructivist) on a single topic based on different approaches to experience the difference in outlooks. OR Create an imaginary case study of a teacher trainee doing things wrongly in the constructivist classroom and list the precautions and suggestions to correct the trainee.

5. To familiarize with the methods and techniques for implementing constructivism in the classroom and to update on the present practices of learning and instruction practiced in the state schools of Kerala	<p align="center"><b>MODULE. V (20 Hours)</b></p> <p><b><u>Present practices in Teaching and Learning</u></b></p> <p>5.1 Collaborative learning, Managing Group learning in a classroom - group discussion, observation in a group, experiment or other activity in a group.</p> <p>5.2 Activity based learning, role of experiments in science, integration of theories and experiments in science.</p> <p>5.3 Critical Pedagogy, Issue-based Teaching, Edubuntu –exploration of the science resources, Review of the latest happenings in the state schooling procedures. (Teacher trainees are expected to acquaint with the emerging practices related to schooling from time to time.)</p>	<p>List the social issues that can be addressed in a selected unit from Physics/ Chemistry of 8<sup>th</sup> standard.</p> <p>OR</p> <p>Get familiarized with anyone IT resource/ package available in EDUBUNTU that is helpful in teaching Science and present a topic using it.</p>
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<b>EDU 142 PEDAGOGIC PRACTICES IN PHYSICAL SCIENCE</b> Contact Hours: 75 Hours (Instruction) &15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the Aims and Objectives of Teaching Science	<p align="center"><b>MODULE I (15 Hours)</b></p> <p><b><u>Aims and Objectives of Teaching Science</u></b></p> <p>1.1 General aims of teaching physical science.</p> <p>1.2 Taxonomy of educational objectives - Bloom's taxonomy, A conceptual overview of Revised Bloom's Taxonomy, Taxonomy of Mc Cormack &amp; Yager</p> <p>1.3 Process skills in Science at secondary stage, developing process skills in students.</p>	<p>Compare the essential differences between any two taxonomies pictorially. OR</p> <p>Identify any suitable content /topic that would emphasize the development of a particular process skill. (Do this for all the 13 skills and justify your selection)</p>
2.To develop skills for effective teaching (by micro teaching)	<p align="center"><b>MODULE. II (15 Hours)</b></p> <p><b><u>Micro Teaching</u></b></p> <p>2.1 Teaching skills for class room instruction, Essential skills for Science teaching, Micro teaching - a skill based practice (minimum three skills). A link Practice.</p>	(Prescribed in the practicals)



<p>3.To understand and do the pedagogic analysis of Physics <b>and</b> Chemistry of 8<sup>th</sup> standard and 9th standard.</p>	<p align="center"><b>MODULE III (20 Hours)</b></p> <p><b>Pedagogic Analysis</b></p> <p>3.1 Pedagogic Analysis- Meaning and Steps of Analysis, Pedagogic Analysis of the Physics and Chemistry content portions of 8<sup>th</sup> and 9<sup>th</sup> standard textbooks of Kerala state,  <i>(1.Arranging teaching points in a logical order. 2.Analysing concepts, Working out strategies for teaching concepts. 3.Stating general instructional objectives and specific instructional objectives in terms of behavioural outcomes. (The Behaviourist approach) OR Stating ‘curriculum objectives’ in terms of concepts, process skills, strategies of instruction and evaluation. (The Constructivist approach) 4. Planning suitable learning experiences according to objectives. Planning the procedures of evaluation according to objectives.)</i></p>	<p>Select a concept and formulate instructional objectives of all domains.  OR  Make separate list of learning experiences on any topic for fast learners as well as for slow learners.</p>
<p>4.To acquaint with Planning of instruction</p>	<p align="center"><b>MODULE IV (15 Hours)</b></p> <p><b>Planning of Instruction</b></p> <p>4.1 Objective based instruction – interdependence of objectives, learning experience, and evaluation.  4.2 Planning of Instruction - year plan, unit plan, resource unit  4.3 Lesson planning – Need, Stages (Herbartian steps)  4.4 Lesson plan preparation based on (1) The objective based Behaviourist format (2) The Constructivist format</p>	<p>Conduct a debate on the importance as well as limitations of “planning of an event”.</p>
<p>5.To understand the Evaluation techniques and prepare objective based test items as per the existing state syllabus pattern in Science</p>	<p align="center"><b>MODULE. V (10 Hours)</b></p> <p>5.1 Evaluation - Different types of test items - merits and demerits. Construction and administration of Achievement tests and Diagnostic tests.  5.2 Continuous and Comprehensive Evaluation, Evaluation Criteria for Assignment, Seminar and Project.  5.3 Evaluation of Non Cognitive Areas – Interest, Attitude and Skill</p>	<p>Make sample test items corresponding to any three objectives (Bloom’s taxonomy or Mc Cormack &amp; Yager) that would go into an achievement test.</p>

<b>EDU 162 CURRICULUM &amp; RESOURCES OF PHYSICAL SCIENCE</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination) & 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the principles of Organizing Curriculum	<b>MODULE. I (20 Hours)</b> <b><u>Curriculum</u></b> 1.1 Curriculum- A conceptual Analysis, Curriculum and Syllabus, Principles of Curriculum Construction. 1.2 Approaches to curriculum organisation - concentric plan, type study, historical approach, Nature rambling, Nature study. Integrated, Disciplinary and Interdisciplinary Approach. 1.3 Concept of correlation - Systematic correlation of physical science within the subject and with other subjects in the curriculum such as mathematics, Biology, Languages, Geography, History, Earth Science, Drawing, Music and Craft. Incidental correlation achieved while teaching. 1.4 Curriculum reforms abroad - PSSC, Chem Study and CBA	Identify and compare the principles of curriculum development selecting a single topic from state and CBSE syllabi. OR Make a cartoon on the concept of using a correlation in the classroom. OR Make a table of similarities and differences of any two of PSSC, Chem Study, CBA.
2.To appreciate the systematic method of science (The scientific method)	<b>MODULE II (20 Hours)</b> <b><u>The scientific method</u></b> 2.1 Scientific method – importance, steps involved in the scientific method, 2.2 Logical aspects of scientific method - Induction, Mill's five canons of induction, deduction, analogy, Analysis, Synthesis. Hypotheses – characteristics and importance. Technical Aspects- Observation, Experiment, Data Collection 2.3 Corroboration and Falsification 2.4 Transfer value of Scientific Method, Strategies to give pupils training in Scientific method.	Go through the biography of any one scientist and prepare profile to recognize the scientific method they had used in their pursuits. OR Prepare a poster in groups of three highlighting the importance of scientific method.
3.To provide familiarization with Resources for teaching/learning Science	<b>MODULE III (20 Hours)</b> <b><u>Resources in Teaching Science</u></b> 3.1 Resource materials in teaching physical science. Syllabus, Textbooks - Vogel's criteria of selection. Work Book, Teachers handbook, reference	Make an improvised apparatus in a group of three and contribute to the local school. OR Select a unit in Physics or Chemistry of 8 <sup>th</sup> standard and prepare a workbook. OR Rate a Higher secondary

	books, supplementary readers. 3.2 Teaching Aids, Improvised apparatus, Essential audiovisual aids. C.D. ROM such as <b>Encyclopaedia Britannica, Microsoft Encarta, Edubuntu</b> of it @school, Kerala	level text book in science according to Vogel's Criteria.
4.To have a hands on approach in organizing and maintaining library and laboratory in Science	<b>MODULE IV (15 Hours)</b> <b><u>Library and laboratory</u></b> 4.1 Laboratory and its organization, purchase and maintenance of chemicals, apparatus and equipments. Laboratory rules, accidents in the laboratory, precautions and First Aid. 4.2 Science library and its organization. 4.3 Using internet for accessing information, Websites for authoritative information like ERIC, INFLIBNET etc.	Arrange one shelf of the lab and label properly OR make a mock register with few items. OR Prepare the list of at least 20 science books in the library and prepare an accession register for the same. OR Catalogue the 20 books and make a computer data base of it.(Including author, title, key words and other necessary details) OR Suggest any 5 journals in Science with publication details that can be subscribed for schools

<b>EDU 182 PROFESSIONALIZING PHYSICAL SCIENCE EDUCATION</b> Contact Hours: 75 Hours (Instruction) &15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To appreciate Linking science with Society	<b>MODULE I (15 Hours)</b> <b><u>Science and Society</u></b> 1.1 Science as a social Endeavor; Scientific Literacy, Dual role of science (emancipatory and oppressive). 1.2The Science Teacher and Society. Role of science teacher in eradicating misconceptions and superstitions in Society. 1.3 Science and Technology, complementarities between Science and Technology	Make a multimedia package/short video/very short documentary/ puppetry OR Enact /practice theatre education, role playing, street show, or any art form to popularize science among public. OR Prepare a time line of significant developments in Science in any one century.
2. To acquaint with the co-curricular activities in Science	<b>MODULE . II (10 Hours)</b> <b><u>Co-curricular Activities in Science</u></b> 2.1 Co-curricular activities - organization of field trips and study tours, their importance.	Arrange a seminar in science in the class for popularizing scientific outlook. or Prepare a science show with

	2.2 Science Club - its pattern, organization and activities such as science fairs, science exhibition, science debates.	simple interesting experiments and perform it before other students of the college. (To be done in groups)
3. To understand the importance of nurturing talented children	<b>MODULE. III (10 Hours)</b> <b><u>The scientifically Gifted Children</u></b> 3.1 Identifying and nurturing the scientifically gifted children. Creativity and Critical thinking. 3.2 NSTS(National Science Talent Search)	Prepare an evaluation tool to identify the science talented students
4. To familiarize the I T related professional inputs of teaching.	<b>MODULE IV (20 Hours)</b> <b><u>Using Computers in Teaching</u></b> 4.1 Computer Aided Teaching, Expert System, Module preparation for E-content Development, 4.2 Course ware, Free Softwares in Science. 4.3 Learning Management Systems - MOODLE	Write a script for developing e-content development for a concept OR Prepare a rating scale to evaluate an educational CD and evaluate one using the same.
5.To be a Professional Science Teacher	<b>MODULE. V (20 Hours)</b> <b><u>The Professional Science Teacher</u></b> 5.1 Definition of profession, Teaching as a profession. Professional ethics. Traits of professionalism- competencies listed by NCTE 5.2 Soft Skills for a teacher 5.3 Professional growth of Science teacher. – Teaching , Research and Extension. Research journals in Science and Science Education. Role of SCERT and NCERT in the professional growth of a teacher. 5.4 Internet resources and websites for professional growth of a science teacher.	Does the profession of teaching command same respect as other professions? Express your views in the class. OR Prepare a review of a research based article in Science from any Science e-journal.

## REFERENCES

Alsop, S. & Hicks, K. (2003)Teaching science. New Delhi: Kogan page India Private Ltd.

Anderson, W. L. & Krathwohl D. R. *A taxonomy for Learning, Teaching and Assessing*. Newyork: Longman.

Das, R. C. (1985). *Science teaching in schools*. New Delhi: Sterling Publishers.

- Harlen, W. & Elstgeest (1992) *UNESCO Sourcebook for Science in the primary school*. New Delhi: National Book Trust.
- Joseph T. T. (1982). *Modern trends in science education* (2nd ed.) Kottayam: Kerala.
- Joyce, B. & Weil, M. (1986). *Models of teaching* (3rd ed.) New Jersey: Prentice-Hall Inc.
- Lee, A.J. (2010) *The Scientific Endeavour*. New Delhi: Dorling Kindersley Pvt Ltd.
- Menon, R.V.G. (2010) *An Introduction to the History and Philosophy of Science*. New Delhi: Dorling Kindersley Pvt Ltd.
- Mohan, R (2011). *Teacher Education*. New Delhi: Prentice-Hall of India Pvt.Ltd
- Mohan, R (1995). *Innovative science teaching for physical science*. New Delhi: Prentice Hall.
- N.C.E.R.T. (1989). *Instructional objectives of school subjects*. New Delhi: N.C.E.R.T.
- N.C.E.R.T. (1993). *National curriculum for elementary and secondary education* (rev. ed. ). New Delhi: N. C. E. R.T.
- NCERT . (2005) *National Curriculum Frame Work* New Delhi: NCERT
- Rajan, K. M. (1999). *Perspectives in physical science teaching*. Kottayam: Vidyarthi Mithram.
- SCERT. (2007) *Kerala Curriculum Frame Work* Thiruvananthapuram: SCERT
- Sharma, R. C. (1985) *Modern science teaching*. New Delhi: Dhanpat Rai &, Sons.
- Sivarajan, K & Faziluddin, A. (2006) *Science Education*. Calicut University : Central Co-operative stores.
- Sternberg, R. J.(2006) *Cognitive Psychology*. New Delhi : Thomson Wadsworth
- Turner, T. & DiMarco, W. (1998). *Learning to teach Science in the Secondary School*. London : Routledge.

### **Websites**

[www.ict4lt.org/](http://www.ict4lt.org/)  
[c4lpt.co.uk/](http://c4lpt.co.uk/)  
<http://www.wisc-online.com/>  
[exelearning.org/](http://exelearning.org/)  
[moodle.org/](http://moodle.org/)  
<http://www.merlot.org/merlot/index.htm>

# **SOCIAL SCIENCE**

**EDU 123 METHODOLOGY OF TEACHING SOCIAL SCIENCES**

Contact Hours: 75 Hours (Instruction) &amp; 15 hours (process)

Marks : 50 (End semester Examination)&amp; 10 (CE)

<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To acquaint with the nature of Social science	<b>MODULE I (15 Hours)</b> <b>Social Sciences – Preliminary Considerations</b> 1.1 Meaning and Definition of Social Sciences 1.2 Classification of Definitions of Social Sciences by John U Michaelis 1.3 Social Studies Vs Social Sciences 1.4 Scope of Social Sciences 1.5 Semi Social Sciences, Social Sciences and Natural Sciences	1. Collect any 5 definitions of social studies and classify them
2.To familiarize the evolution of Teaching of Social science	<b>MODULE II (8 Hours)</b> <b>Evolution of Social Sciences</b> 2.1 History of Teaching Social Sciences in 20 <sup>th</sup> Century 2.2 Vision of Teaching Social Sciences in NCF(2005) and KCF(2007)	2. Conduct a discussion on the vision of Teaching Social Sciences in NCF(2005) and KCF (2007)
3.To understand Approaches, Techniques & Methods of Teaching Social science	<b>MODULE III (22 Hours)</b> <b>Approaches, Techniques and Methods of Social Science</b> 3.1 Approaches to Teaching Social Sciences – Didactic, Socratic and Facilitative 3.2 Methods of Teaching – Lecture, Discussion, Problem Solving, Project and Source method 3.3 Techniques of Teaching – Questioning, Roleplays and Simulations, Explorations, Investigations and Guided Discovery	3. Select a topic from social sciences and prepare a group project Plan/ Prepare a Script for Role play in groups (a group may consist of minimum 5 trainees)
4.To understand the Theoretical Bases of major approaches viz constructivism, behaviourism,.....	<b>MODULE IV (25 Hours)</b> <b>Shift from Behaviourism to Constructivism</b> 4.1 Towards Social Construction of Knowledge 4.2 Constructivist Learning Design – Cooperative Learning, Metacognitive strategies, Concept Mapping, Reflective Practices 4.3 Objective Based Instruction/Behaviourit Approach	4. Prepare a concept map on any one concept in Social Science Subjects/prepare a list of any five Metacognitive strategies/Reflective Practices

5. To update on the present practices of learning and instruction practiced in the state schools of Kerala	<b>MODULE. V (5 Hours)</b> <b>5. Present Practices in Social Science Teaching</b> 5.1 Critical Pedagogy and Social Sciences – Problem posing education 5.2 Recent changes in social science teaching in the state of kerala.	5. Prepare a list of any five social issues that can be addressed in social science class
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<b>EDU 143 PEDAGOGIC PRACTICES OF SOCIAL SCIENCES</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination) & 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the Aims and Objectives of Teaching Social science	<b>MODULE I (20 Hours)</b> <b>Aims and Objectives of Teaching Social Sciences</b> 1.1 Contributions of Social Sciences to the Goals of Education 1.2 Conceptual, Inquiry, Skill and Affective objectives of social sciences 1.3 Bloom's Taxonomy of Educational Objectives 1.3 Revised Bloom's Taxonomy 1.4 Multiple intelligences as the objectives of social sciences	1. Prepare Conceptual, inquiry. Skill and Affective objectives of a Topic in Social Sciences
2.To develop skills for effective teaching (by micro teaching)	<b>MODULE II (15 Hours)</b> <b>Teaching Skills and Micro Teaching</b> 2.1 Maxims of Teaching 2.2 Core Teaching skills 2.3 Micro Teaching Procedure	Prescribed in Practicals
3.To understand and do the pedagogic analysis of Social Science of 8 <sup>th</sup> and 9 <sup>th</sup> standards	<b>MODULE III (10 Hours)</b> <b>Pedagogic Analysis</b> 3.1 Pedagogic analysis – Meaning and definition 3.2 Analysis of relevant content of social science textbook of Std 8 <sup>th</sup> and 9 <sup>th</sup>	2. Prepare a sample Content analysis /Prepare instructional objectives/Learning Activity/Learning Experience of a Topic from standard 8 <sup>th</sup> or 9 <sup>th</sup>
4.To acquaint with Planning of instruction	<b>MODULE IV (15 Hours)</b> <b>Planning of Instruction</b> 4.1 Need and Importance of Planning 4.2 Levels of Planning – Year plan, Unit Plan, Lesson Plan	3. Prepare a Year Plan for a subject in Social Science/Unit Plan for a Unit



5.To understand the Evaluation techniques and prepare objective based test items as per the existing state syllabus pattern in Social science	<b>MODULE. V (15 Hours)</b> <b>Evaluation in Social Sciences</b> 5.1 Process Evaluation and Product Evaluation 5.2 Construction of Achievement test and Diagnostic Test 5.3 Continuous and Comprehensive Evaluation 5.4 Evaluation of Non-cognitive Domain	4. Prepare a sample of Different Types of Test items on different objectives/ Select a concept in Social Science prepare a diagnostic test
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<b>EDU 163 CURRICULUM &amp; RESOURCES IN SOCIAL SCIENCES</b> Contact Hours: 75 Hours (Instruction) &15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To understand the principles of Organizing Curriculum	<b>MODULE I (15 Hours)</b> <b>Social Science Curriculum</b> 1.1 Principles of Curriculum Construction 1.2 Organizing Social Science Curriculum – Topical, Spiral and Unit Approaches	1. Compare the styles of organization of curriculum in 9 <sup>th</sup> standard text books of state and CBSE school syllabus.
2.To appreciate the nature of the discipline Social Sciences	<b>MODULE II (15 Hours)</b> <b>Social Science as a core subject</b> 2.1 Reasons for considering social science as a core subject 2.2 Relationship of Social Sciences with other core subjects 2.3 Fusion, integration and correlation in social sciences	2. Identify and List Examples for Fusion, Integration and Correlation in Social Sciences
3.To provide familiarization with Resources for teaching/learning Social science	<b>MODULE III (15 Hours)</b> <b>Resources for Teaching/Learning Social Sciences</b> 3.1 Models of Teaching – Concept Attainment, Jurisprudential Inquiry 3.2 Social Science Laboratory 3.3 Social Science museum 3.4 Maps and Globes 3.5 Timelines	3. Draw different types of maps of World, India, Kerala and locality /Create a comparative timeline of events in India and world of Modern age/prepare a plan based on any one Model of Teaching
4.To have a hands on approach in organizing and maintaining library and resources in Social science	<b>MODULE IV (15 Hours)</b> <b>Social Science Library and other Reference Materials</b> 4.1 Social Science Library 4.2 Social Science Text Book 4.2 Workbooks, handbooks and reference materials 4.3 Educational websites 4.4 Uses of INFLIBNET 4.5 Edubundu	4. Prepare a list 10 of books/Journals in social sciences with all bibliographic details for purchasing to the classroom library/Prepare a Text book Material for a Particular Topic

5. To understand the possibilities of Student Activities in Social Sciences	<b>MODULE. V (15 Hours)</b> <b>Selecting and Sequencing Learning activities</b> 5.1 Introductory Activities 5.2 Data Gathering activities 5.3 Organizing and summarizing activities 5.4 Applicative activities 5.5 Creative activities	5. List any five Applicative/creative/Data Gathering/ Organizing/Summarising activities that can be used in social science teaching
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<b>EDU 183 PROFESSIONALIZING SOCIAL SCIENCE EDUCATION</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To appreciate Linking social science with Society	<b>MODULE I (10 Hours)</b> <b>Community Resources In Social Sciences</b> 1.1 Important Community resources 1.2 Utilising Community resources in Social Sciences 1.3 Ways of Utilising Community resources	1. Make an Observation of a place of historical interest/monument nearer to your residence and prepare a report on it/ Prepare a List of Places of Cultural/Historical// Geographical/Economic/ political/scientific interest of your locality
2. To acquaint with the co-curricular activities in Science	<b>MODULE II (10 Hours)</b> <b>Co-curricular Activities in Social Science</b> 2.1 Club activities 2.2 Exhibitions 2.3 Field Trips 2.4 Quiz Competitions	2. Conduct a quiz competition in the class on a day of national importance/Prepare questions for a quiz programme/Prepare an action plan for social science club
3. To understand the importance of nurturing talented children	<b>MODULE III (10 Hours)</b> <b>3.Fostering Giftedness and Creativity in Social Sciences</b> 3.1 Higher order thinking skills 3.2 Characteristics of Gifted and creative children 3.3 Fostering giftedness and creativity	3. Suggest any four learning activities for a creative/gifted child
4. To familiarize the I T related professional inputs of teaching.	<b>MODULE IV (25 Hours)</b> <b>IT inputs in Social Science Teaching</b> 4.1 Computer aided teaching 4.2 Using Presentation softwares 4.3 Module Preparation for E content 4.4 Videoconferencing 4.5 learning objects, Free Soft-wares in Social Science, IHMC C Map Tools	4. Write a Script for developing an e content for a concept/Make of a multimedia package/short film/very short documentary/ puppetry/prepare a C Map using IHMC CMap Tool on topic relevant to social sciences

5.To be a Professional Social Science Teacher	<p style="text-align: center;"><b>MODULE. V (20 Hours)</b></p> <p><b>Becoming a Professional Social Science Teacher</b></p> <p>5.1 Teaching as a profession</p> <p>5.2 Professional Ethics</p> <p>5.3 Personal and professional qualities of a Social science teacher</p> <p>5.4 Ways and means of improving professionalism.</p>	5. Prepare a scholarly article on current issues in education/review a book or journal article/Conduct a discuss on changing role of teacher
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## REFERENCES

1. Aggarwal, J.C. (2003). *Teaching of Social Studies: A Practical Approach*. Mumbai: Vikas Publishing House.
2. Bining, A.C & Bining, D.H. (1952) *Teaching Social Studies in Secondary Schools*. New York: McGraw Hill
3. Clark, L.H.(1973). *Teaching Social Studies in Secondary Schools*.(2<sup>nd</sup> Ed.)New York: McMillan.
4. Dhand, H. (1991). *Research in Teaching Social Studies*. New delhi: Ashish Publishing House
5. Ebel, L & Frisbie, A. (1991). *Essentials of Educational Measurement*. New York: McGraw Hill
6. Entwistle, N.J. (1987). *Understanding Classroom Learning*. London: John Wiley
7. Gardner, H. (1983) *Frames of Mind: The Theory of Multiple Intelligences*. New York : Basic Books
8. Green, G.H. (1987). *Planning the Lesson*. London: Longman
9. Gross, R.E .,Messick, R., Chapin, J.R & Sutherland. (1978). *Social Studies for our Times*. New York: John Wiley
10. High, J. (1967). *Teaching Secondary School Social Studies*. New York: John Wiley
11. Jarolimek, J. (1990). *Social Studies in Elementary Education*, New York: McMillan
12. Joyce,B & Weil, M. (2003). *Models of Teaching* (5<sup>th</sup> Ed.) New Delhi: Prentice Hall
13. Kenworthy, L.S.(1962). *Guide to Social Studies Teaching*. California: Wordsworth Publishing
14. Kochhar, S.K. (2002). *The Teaching of Social Studies*. New Delhi: Sterling.
15. Kumar, S.P.K & Noushad,P.P.(2009). *Social Studies in the Classroom: Trends and Methods*. Calicut University: Scorpio Publishers
16. Kumar, S.P.K.(2007) *How Pupils Learn?*New Delhi: Kanishaka
17. Michaelis, J.U & Garsia, J. (2000). *Social Studies for Children: A guide to Basic Instruction*.(12<sup>th</sup> Ed.) New York: Allyn & Bacon
18. Michaelis, J.U. (1976). *Social Studies for Children in a Democracy: Recent Trends and Development* (5<sup>th</sup> Edition)New Jersey: Prentice Hall
19. Michaelis, J.U. (1976). *Social Studies for Children: A guide to Basic Instruction* (7<sup>th</sup> Ed.)New Jersey: Engelwood cliffs
20. NCERT(2005) *National Curriculum Framework*. New Delhi: NCERT
21. Noushad, P.P & Musthafa, M.N. (2010). *Taxonomy Reframed: Educational Objectives for the 21<sup>st</sup> Century*, *Edutracks*, 9, 16-22.

22. Passi, B.K (1976). *Becoming a Better Teacher: A Micro Teaching Approach*. Ahamadabad: Sahithya Mundranalya.
23. SCERT(2007). Kerala Curriculum Framework. Trivandrum: SCERT
24. Sills, D.L. (1972) *International Encyclopedia of Social Sciences*. New York: McMillan.
25. Wesley, E.B. (1937). *Teaching the Social Studies Theory and Practice*. New York: Heath
26. Yajnik, K.S. (1966). *Teaching Social Studies in India*. Bombay: Orient Longman.

# **COMPUTER SCIENCE**

**EDU. 119. METHODOLOGY OF TEACHING COMPUTER SCIENCE**

Contact Hours: 75 Hours (Instruction) &amp; 15 hours (process)

Marks: 50 (End semester Examination) &amp; 10 (CE)

Objectives	Content	Process
1.To acquaint with the values of computer science education	<b>MODULE. I</b> Practical values with reference to: Scientific and technological developments in all domains of knowledge (ii) Practical application in the day to day life of common man-related to various occupations, information and communication, medical services, education, etc. (iii) Research in all areas. Cultural values with reference to: Communication facilities binding humanity as a whole. Recreation and utilization of leisure time Spread of universal and continuing education	1. Make a list of educational CDs available for teaching various subjects at higher secondary level.
3.To understand Approaches, Methods & Techniques of Teaching Computer Science	<b>MODULE. III</b> Methods of teaching –Lecture cum demonstration method, Heuristic method, seminar, discussion etc, Individualized instruction – Self learning – Programmed learning – Computer assisted learning . Questioning Technique, Brain storming, Buzz session	3. Have a buzz session in your class about the importance of questioning technique and table the views of each group.
4.To understand the Theoretical Bases of major approaches viz constructivism, behaviourism	<b>MODULE. IV</b> 4.1 Theory of Cognitive Constructivism, Social Constructivism and Multiple Intelligences. 4.2 Learning as a generative process - Behaviourist approach Vs Constructivist approach,	4. Make multiple lessonplans (bhrst Vs constructivist) on a single topic based on different approaches to experience the difference in outlooks.

<p>5. To familiarize with the methods and techniques for implementing constructivism in the classroom and to update on the present practices of learning and instruction practiced in the state schools of Kerala</p>	<p style="text-align: center;"><b>MODULE. V</b></p> <p>5.1 Collaborative learning, Managing Group learning in a classroom - 5.2 Critical Pedagogy, Edubuntu –exploration of the resources, Review of the latest happenings in the state schooling procedures. (Teacher trainees are expected to acquaint with the emerging practices related to schooling from time to time.)</p>	<p>5. Create an imaginary case study of a teacher trainee doing things wrongly in the constructivist classroom and list the precautions and suggestions to correct the trainee. 6. Get familiarized with the IT resources/ packages that are helpful in teaching Science. To be done individually by exploring the EDUBUNTU CD or any other educational CD that is available.</p>
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<p style="text-align: center;"><b>EDU. 139. PEDAGOGIC PRACTICES IN COMPUTER SCIENCE</b> Contact Hours: 75 Hours (Instruction) &amp;15 hours (process) Marks : 50 (End semester Examination)&amp; 10 (CE)</p>		
Objectives	Content	Process
<p>1.To understand the Aims and Objectives of Teaching Science</p>	<p style="text-align: center;"><b>MODULE I</b></p> <p>Aims and objectives of teaching computer science in schools with special reference to IT @ school projects – The place of computer science in Higher Secondary Curriculum – Use of computers as a teaching aid for other subjects –The use of Internet in educational areas. 1.2 Taxonomy of educational objectives Blooms Taxonomy a conceptual over view of Revised Bloom's Taxonomy,</p>	<p>1. Prepare a pictorial representation of the hierarchy of Blooms Taxonomy.</p>
<p>2.To develop skills for effective teaching (by micro teaching)</p>	<p style="text-align: center;"><b>MODULE II</b></p> <p>2.1 Teaching skills for class room instruction, Essential skills for teaching, Micro teaching - a skill based practice (minimum three skills). A link Practice.</p>	<p>Prescribed for Practicals</p>

<p>3.To understand and do the pedagogic analysis of 11th standard textbook for Computer Science</p>	<p style="text-align: center;"><b>MODULE III</b></p> <p>3.1 Pedagogic Analysis- Meaning and Steps of Analysis, Pedagogic Analysis of the Physics 11th standard textbook for Computer Science of Kerala state, (1.Arranging teaching points in a logical order. 2.Analysing concepts, Working out strategies for teaching concepts. 3.Stating general instructional objectives and specific instructional objectives in terms of behavioural outcomes. (The Behaviourist approach) OR Stating ‘curriculum objectives’ in terms of concepts, process skills, strategies of instruction and evaluation. (The Constructivist approach) 4. Planning suitable learning experiences according to objectives. Planning the procedures of evaluation according to objectives.)</p>	<p>2. Perform content analysis on a selected unit.</p>
<p>4.To acquaint with Planning of instruction</p>	<p style="text-align: center;"><b>MODULE IV</b></p> <p>4.1 Objective based instruction – interdependence of objectives, learning experience, and evaluation. 4.2 Planning of Instruction - year plan, unit plan, resource unit 4.3 Lesson planning – Need, Stages (Herbartian steps) 4.4 Lesson plan preparation based on (1) The objective based Behaviourist format (2) The Constructivist format</p>	<p>3. Conduct a debate on the importance as well as limitations of “planning of an event”.</p>
<p>5.To understand the Evaluation techniques and prepare objective based test items as per the existing state syllabus pattern in Computer Science</p>	<p style="text-align: center;"><b>MODULE V</b></p> <p>5.1 Evaluation - Different types of test items - merits and demerits. Construction and administration of Achievement tests and Diagnostic tests. 5.2 Continuous and Comprehensive Evaluation, Evaluation Criteria for Assignment, Seminar and Project. 5.3 Evaluation of Non Cognitive Areas – Interest, Attitude and Skill</p>	<p>4. Make sample test items corresponding to any three objectives (Bloom’s taxonomy) that would go into an achievement test. 5. Use a DBMS to store the marks and grade of an achievement test and generate graphs like bar /pie to analyse results</p>



**EDU. 159. CURRICULUM & RESOURCES IN COMPUTER SCIENCE EDUCATION**

Contact Hours: 75 Hours (Instruction) &amp; 15 hours (process)

Marks : 50 (End semester Examination) &amp; 10 (CE)

<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1. To understand the principles of Organizing Curriculum	<b>MODULE. I</b> 1.1 Curriculum- A conceptual Analysis, Curriculum and Syllabus, Principles of Curriculum Construction. 1.2 Approaches to curriculum organization	1. Identify and compare the principles of curriculum development selecting a single topic from state and CBSE syllabi.
2. To understand and practice certain models of teaching relevant to computer Science Education	<b>MODULE. II</b> Models of Teaching – Four families – Cognitive Growth Model, Inductive Thinking Model, Inquiry Training Model, Syntectics Model for training Creativity	2. Prepare two lessons using any two models of teaching on a selected topic.
3. To provide familiarization with Resources for teaching/learning Science	<b>MODULE. III</b> 3.1 Resource materials in teaching Computer science. Syllabus, Teachers handbook, reference books, supplementary readers, periodicals, manuals. 3.2 Teaching Aids, Improvised apparatus, Essential audiovisual aids. C.D. ROM such as Encyclopaedia Britannica, Microsoft Encarta, Edubuntu of it @school, Kerala	3. Make an improvised apparatus in a group of three and contribute to the local school.
4. To have a hands on approach in organizing and maintaining library and laboratory in Science	<b>MODULE. IV</b> Programme library, Reference Library, Need for planning the computer laboratory – setting up a computer lab. Essential infrastructure – LAN topologies – advantages of using a LAN – Laboratory management – Lab. Routine for Pupils – arranging for pupils practical – maintenance of records.	4. Make a sample stock register for the laboratory of your own college. 5. Prepare the list of at least 20 Computer science books in the library and prepare an accession register for the same.

**EDU.179. PROFESSIONALIZING COMPUTER SCIENCE EDUCATION**

Contact Hours: 75 Hours (Instruction) &amp; 15 hours (process)

Marks: 50 (End semester Examination) &amp; 10 (CE)

<b>Objectives</b>	<b>Content</b>	<b>Process</b>
1.To appreciate Linking science with Society	<b>MODULE. I</b> Computer literacy, Computerisation of governmental administration and services, Internet and allied services for outreaching to society. Internet based banking services, e-commerce, e grants, on line services-booking tickets, application submission etc.	1. Make of a multimedia package/short film/very short documentary
2. To acquaint with the co-curricular activities in Computer Science	<b>MODULE. II</b> Co-curricular activities - organization of field trips, Public computer literacy programmes, Computer clubs, Linkage with Home.	2. Plan a computer literacy programme for a rural neighbourhood village.
3. To understand the importance of nurturing talented children	<b>MODULE. III</b> 3.1 Identifying and nurturing the gifted children. Creativity and Critical thinking. Algorithmic reasoning.	3. Prepare an enrichment material for gifted students in computer science on a concept of standard 11
4. To familiarize the I T related professional inputs of teaching.	<b>MODULE. IV</b> 4.1 Computer Assisted Instruction, Expert System, E-content Development, 4.2 Course ware, Free Softwares in Education. 4.3 Learning Management Systems – MOODLE Creative Commons Licensing	4. Prepare a rating scale to evaluate an educational CD and evaluate one using the same.
5.To be a Professional Science Teacher	<b>MODULE. V</b> 5.1 Definition of profession, Teaching as a profession. 5.2 Traits of professionalism 5.3 Soft Skills 5.3 Professional growth of Science teacher. – Teaching , Research and Extension. Research journals in Computer Science. Role of SCERT and NCERT in the professional growth of a teacher. 5.4 Internet resources and websites for professional growth of a Computer Science teacher.	5. Does the profession of teaching command same respect as other professions? Express your views in the class. 6. Prepare a review of a research based article on computer science from any e - journal

## REFERENCES

- 1 Emerging Trends in : Ratho, T.N. and Ravi  
. Teaching of Computer Prakash  
2 Computer Education : (ed.) Venkataih  
.   
3 Computer Education : U.K.Singh and  
. K.N.Sudarsan  
4 Models of Teaching : Bruce Joyce and Marsha  
. Weil  
5 A Study of Thinking : Jerome S. Bruner et al.  
.   
6 Piaget for Classroom : Bavry J. Wadsmith  
. Teaching  
7 Cybernetic principles of : Karl U.Smith and margaret  
. Learning and Education Edlts Smith  
Design  
8 Behaviour therapy : Rimm and Masters  
.   
9 Synetics : William J.J. Gorden  
.   
1 Education in Digital : R.K. Ramana  
0 Age  
.   
1 Computer Assisted : Stainberg  
1 Instruction – A  
. synthesis of Theory,  
Practice and  
Technology  
1 Microcomputers in : Smith, I.C.H.  
2 Education  
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1 Annotate C++ : Stroustrup  
3  
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1 Education via internet : Venkataiah S.  
4  
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1 Education in the : Wldavsky A.  
5 computer age-issue of  
. policy, practice, and  
reform  
1 Oracle 8I – The : Kevin Loney and George  
6 Complete Reference Kock  
.   
1 Object Oriented : James Rumbaugh et al.  
7 Modeling and Design

# **MODEL QUESTION PAPERS**

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 101. PERSPECTIVES ON EDUCATION**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*  
*Each question carries 1 mark.*

1. Write any one definition for Education
2. Trace the etymological meaning of education
3. What are purusharthas?
4. List any two articles of Indian education pertaining to education
5. Write any two recommendations of mecauley's minutes
6. What is the significance of Kothari commission report
7. What is culture of silence
8. What is 'emile'? (8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*  
*Each question carries 2 marks.*

9. What are the functions of education?
10. List the major factors affecting education
11. Distinguish between aims and functions of education
12. What are the National goals of education?
13. Write a note on 86<sup>th</sup> constitutional amendment
14. What do you meant by international understanding?
15. Why did Wood's dispatch is known as the Magna-carta of Indian education?
16. What are folk schools? (8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*  
*Each question carries 4 marks.*

17. What are the characteristics of Negative education
18. Briefly describe the basic principles of pragmatism
19. Write a short note on NCF (2005)
20. What are the arguments favouring to inclusion of education under concurrent list?
21. Explain the co curricular activities for promoting National Integration
22. What are the major focal areas of education as a discipline (4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Compare and contrast the educational ideas of Idealism and Pragmatism as the philosophies of education
24. Briefly describe the major landmarks in the history of Indian education in the post independence period

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 102. PSYCHOLOGY OF THE LEARNER**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. What is mean by 'case' in a case study?
2. Mention the names of any two psychoanalytical psychologists.
3. What is mean by identity crisis?
4. Explain the concept of 'Emotional Quotient'
5. What are the stages in creative thinking?
6. What is mean by 'Mental Hygiene'?
7. Explain the concept of Learning disability
8. What is approach avoidance conflict?

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Explain the differences between cross sectional study and Longitudinal study
10. What do you meant by Multiple Intelligence?
11. Briefly explain Bruner's modes in cognitive development
12. As a teacher how can you help a slow learner in the ordinary class room?
13. Explain the concept of "Ideal self" of Rogers
14. Why should Guidance and counseling be made an essential programme in secondary schools?
15. Distinguish between Assimilation and Accommodation
16. What is educational psychology defined as the "science and technology of education"?

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. Discuss the effect of a maladjusted teacher on student's personality development
18. Explain Guilford's view of structure of intelligence
19. Explain the relative role of heredity and environment on individual difference
20. "EQ matters more than IQ"- Comment
21. Explain Kohlberg's view regarding moral development
22. Describe Allport's Trait Approach to personality

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Explain how knowledge of educational psychology is useful to the classroom teacher?
24. What are the recent issues related to adolescent's development in Kerala today? How can school tackle issues in an effective manner?

(1 X 10 = 10 marks)



**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 103. TECHNOLOGY AND INFORMATICS IN EDUCATION**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Define communication
2. What you mean by educational informatics
3. What you know about ViCTERS
4. Give two examples for activity aids
5. Define the concept of multimedia
6. Expand the acronym HTML and mention its purpose
7. Give two examples for search engines
8. Define e-learning

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. What is mean by communication cycle ?
10. Write any four merits of multisensory approach
11. Differentiate CAI and CMI
12. Write a short note on e- content authoring
13. What is blog? How it is useful in learning
14. Distinguish hardware and software approach
15. Explain the terms, home page, bookmarking, web browser and web page
16. What are the functions of EDUSAT

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. What are the barriers of communication?
18. Explain the scope of technology in classroom teaching
19. Explain briefly about computer networks
20. How will you create a power point presentation
21. What are the merits of e-mail? How will you create an e-mail ID
22. Explain the role of teacher in computer mediated learning (4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Traditional learning process are replaced by e-learning today – substantiate your views
24. Briefly explain the major strategies for technology enabled teaching and learning

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 104. EDUCATION IN THE SOCIO CULTURAL CONTEXT**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*  
*Each question carries 1 mark.*

1. What is socialization?
2. What is social structure?
3. Define acculturation
4. List the societal agencies of education
5. What are the social indices of development
6. What is GER
7. What do you mean by inclusive education
8. Write the expansions for GDP and FFLP

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*  
*Each question carries 2 marks.*

9. What do you mean by social system?
10. What are the causes of cultural lag?
11. Define the term cultural capital as perceived by Bourdieu
12. Define modernization. How is it different from modernization
13. How does education become an investment?
14. Mention any two projects for UEE
15. What is value crisis?
16. Write any four child rights

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*  
*Each question carries 4 marks.*

17. Explain the issue of Quality – Quantity Paradox in Indian education
18. What is the significance of inclusive education in Indian context?
19. Discuss the role of education in Kerala Development Experience
20. What are the aspirations of Indian society?
21. What is social system? How does education act as a sub system of society
22. Describe different types of social control

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. What is social change? Describe the factors affecting education. What are the roles of education in social change?
24. Briefly describe the significance of environmental education in the current era.  
Describe the educational strategies for Environmental Education

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 105. PSYCHOLOGY OF LEARNING**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Define reinforcement.
2. What is meant by span of attention? What are the class room implications?
3. What is meant by achievement-motivation? How is it measured?
4. Mention the strategies for metacognition.
5. What is ZPD?
6. What do you mean by cognitive apprenticeship?
7. Define schema as given by Piaget.
8. Define peer tutoring. (8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Examine the relative significance of maturation and learning in human development.
10. Explain the factors affecting learning.
11. What are the stages of problem solving? What are the classroom implications?
12. Relate the terms assimilation, accommodation and equilibration as given by Piaget.
13. Distinguish between co-operative learning and collaborative learning.
14. What are the causes of forgetting?
15. Explain how knowledge of group dynamics helps the teacher in effective classroom management.
16. Write a short note on transfer of learning. (8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. Explain Gagne's hierarchy of learning and examine its relevance in classroom instruction.
18. Explain in detail the different steps in concept formation. Illustrate with an example.
19. What do you mean by 'approaches to studying'? Distinguish between the different 'approaches to studying' found in learners.
20. Define sociometry. Explain the procedure for constructing a sociogram. What is its importance?
21. Explain Experiential learning as put forward by Carl Rogers. Write its educational implications.
22. What do you mean by Brain based learning? Explain the strategies to be adopted for brain based learning in class room. (4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

- 23. Explain the Skinnerian theory of learning and its educational implications.
- 24. Explain the theory of Transactional Analysis

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 106. EDUCATIONAL MANAGEMENT**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Mention any two tools of evaluation
2. Explain any two postural deformity
3. Briefly explain the qualities of a head master
4. Write a few advantages of time table
5. What are the major symptoms of diabetics
6. Write any four important records that a school should keep
7. What you know about service book
8. What is the concept of TQM (8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. What are the functions of evaluation
10. Find the median of the scores 48,25,37,19,28,44
11. Discuss the major principles of time table
12. Briefly explain School Management Committee and its functions
13. Mention any two functions of staff council
14. List any four records to be maintained in the school
15. How do you maintain quality of the school through Total Quality Committee
16. Differentiate Formative and Summative evaluation (8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. Briefly explain any two essential qualities required for a good evaluation tool
18. Write a short note on the graphical representation of statistical data
19. What is the role of the head of the institution in school administration
20. List the major functions of school complexes
21. What should be the role of PTA in schools
22. Define physical fitness. Explain the major components involved in it (4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Differentiate measurement and evaluation. What are the functions of evaluation?  
Explain the grading system followed in our schools
24. Define the term educational management. Enumerate the scope and characteristics of educational management (1 X 10 = 10 marks)



**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 120. METHODOLOGY OF TEACHING MATHEMATICS**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Give two examples for axioms in Mathematics
2. Mention two programmes in Edubuntu that can be used for teaching mathematics
3. List any two advantages of Laboratory method in Mathematics
4. What is peer tutoring?
5. List any two disciplinary values attainable through learning mathematics.
6. Differentiate Mathematics from Basic Science.
7. What is a Project?
8. List any two characteristics of good questioning. (8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. How is modern mathematics different from traditional one?
10. Explain the features of Mathematics language.
11. What are the process abilities to be developed through Mathematics learning?
12. Explain practical/ utilitarian values of teaching Mathematics.
13. Explain the importance of Inductive method of teaching mathematics.
14. What are the characteristics of co-operative learning/
15. How will you organize seminar in your class?
16. Bring out the advantages of peer tutoring. (8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. Explain values of teaching Mathematics.
18. Bring out the salient features of RME.
19. Compare Behaviorist and Constructivist approaches to teaching.
20. Explain importance of Problem solving method in teaching mathematics.
21. Discuss the merits and demerits of Heuristic approach in mathematics education.
22. Explain the role of assignments in mathematics learning.

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Explain analytic and synthetic method of teaching mathematics. Prepare a list of analytic questions based on a suitable topic of your choice.
24. Explain the major events in the development of mathematics education.  
(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 140. PEDAGOGIC PRACTICES IN MATHEMATICS**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Write an instructional objective in mathematics under the objective comprehension.
2. List the stages of planning instruction.
3. Mention any two advantages of lesson planning.
4. Write any two disadvantages of essay type items.
5. Write a multiple choice item from any type of instructional Mathematics.
6. What is specification? Give an example.
7. What is micro teaching?
8. Write one common misconception among students related to operations with fractions.

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Write any four objectives of teaching mathematics at secondary level.
10. Write any four competencies that be developed through mathematics learning.
11. Bring out the significance of prerequisites in learning mathematics.
12. Why evaluation is important in mathematics education.
13. Explain the salient features of CCE.
14. How will you evaluate a project in mathematics?
15. Write four items to measure attitude towards mathematics of your students
16. List four curricular objectives of any topic from 8<sup>th</sup> standard mathematics.

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. Explain the interrelationship between objectives, learning experiences and evaluation with suitable example.
18. Differentiate achievement test and a diagnostics test.
19. Bring out the significance of micro teaching in a teacher preparation course.
20. Differentiate CRE & NRE with suitable examples.
21. What are the principles to be borne in mind while constructing an objective type question.
22. Explain the major areas of teaching mathematics.

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Construct an achievement test with proper explanations of the steps to be followed.
24. Write a lesson plan in constructivist format on the topic proportion of 9<sup>th</sup> standard.  
(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU 160 CURRICULUM & RESOURCES OF MATHEMATICS**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Write any two reasons that demand frequent revisions in mathematics curriculum.
2. Write any two functions of work book in mathematics.
3. What is an improvised aid?
4. List the nurturant effects of ITM.
5. Write any two salient features of Nuffield curriculum.
6. Write any two reference books in mathematics for secondary school students.
7. Write any two functions of mathematics library.
8. List any two essential equipments in mathematics lab. (8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Explain the concept of curriculum.
10. What are the principles of curriculum organization?
11. Write any four characteristics of good textbook.
12. Write the major contributions made by SMSG.
13. Bring out the importance of A.V. aids in teaching and learning of mathematics.
14. Mention different families of models of teaching.
15. Explain any one game than can be used for increasing skill computations among students.
16. What is the role of mathematics lab at secondary level? (8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. Explain the syntax of ITM.
18. Write the principles of curriculum construction.
19. Explain an improvised aid that can be used for teaching any concept/principle in mathematics at secondary level.
20. Explain various approaches of curriculum organization.
21. Bring out the importance of text books in mathematics.
22. Explain characteristics of 'Models of teaching'. (4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Write a lesson plan based on CAM for a suitable topic in mathematics at secondary level.
24. Explain role of recreational activities in mathematics learning with suitable example.

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU 180 PROFESSIONALIZING MATHEMATICS EDUCATION**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Prepare two questions for a mathematics quiz at secondary level.
2. What is a module?
3. What is CAI?
4. Write any two specific qualities of a mathematics teacher.
5. Who is an exceptional child in mathematics?
6. Write any two characteristics of a slow learner in mathematics.
7. List any two programmes that can be organized by mathematics club.
8. Write the components of mathematical creativity. (8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. List the functions of a mathematics club.
10. What measures will you take to cater the needs of slow learners in mathematics?
11. Write major functions of mathematics Olympiad?
12. What are the advantages of field trip?
13. List the objectives of mathematics exhibition.
14. As a mathematics teacher how will you ensure parental contact and co-operation?
15. Explain the concept of remedial measure.
16. What are the guiding principles of managing co-curricular activities?

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. How will you develop mathematics creativity among your students?
18. Explain the role of NCERT in professionalizing teachers.
19. How will you identify a mathematically gifted learner in your class?
20. Write the major teacher competencies suggested by NCTE.
21. Write the steps involved in the preparation of an e-content.
22. What are the points to be kept in mind while selecting an enrichment material?

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Bring out the role of mathematics in the development of civilization.
24. 'Teaching is a profession' - Comment. Explain the adequacy of provisions for professional growth of teachers.

(1 X 10 = 10 marks)



**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 118. METHODOLOGY OF TEACHING COMMERCE**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Point out any two recent developments in commerce.
2. Mention any two features of learner centered education.
3. What is Review?
4. What is competency?
5. List out any two social issues that can be addressed in commerce class at higher secondary level.
6. Suggest any two small group activity methods of teaching suitable for commerce class.
7. Define project.
8. Write any two features of cooperative learning.

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Briefly explain the major areas of commerce.
10. Elucidate the meaning of commerce education.
11. "Instruction should proceed from empirical to rational". Comment.
12. List out the precautions to be taken while adopting lecture method of teaching.
13. What is problem posing education?
14. List out the merits of brain storming technique.
15. What is Critical Pedagogy?
16. Write a note on "Jigsaw method" in co- operative learning

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. "Commerce education is more relevant in our modern age of business and technology". Comment this statement.
18. Briefly explain the steps in competency based instruction.
19. "Induction is the making of tools and deduction is using of tool". Explain.
20. Explain the spiral development approach of teaching accountancy.
21. Mention the important recommendations of KCF 2007.
22. How can you use case study method to teach business subjects? Explain the phases involved in it.

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Describe the importance of role playing in the teaching of commerce subjects. Suggest two areas and explain how you would apply this method in commerce stream.
24. Explain the significance of constructivist approach for curriculum transaction in commerce subjects. How it differs from Behaviourism?

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 138. PEDAGOGICAL PRACTICES IN COMMERCE**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Mention any two values that can be developed among commerce students.
2. Give two specifications under the objective 'application'.
3. Define Micro Teaching.
4. Write down the pre-requisites for learning the topic Business Ethics.
5. What is meant by fact?
6. Point out any two merits of objective type question.
7. Mention the significance of question wise analysis.
8. Frame a creative assignment for the topic 'Sources of finance'

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Enumerate the process skills involved in learning the topic Basic Accounting Cycle
10. Frame four multiple choice questions to test the ability of understanding from the topic 'Kinds of shares'.
11. Write four institutional objectives on the topic 'Preparation of Bank Reconciliation Statement'.
12. Write down the subunits come under the unit Internal Trade.
13. What is contra entry?
14. In What ways you should review the topic Sole Proprietorship Business.
15. What is remedial teaching?
16. What are the aims of teaching commerce?

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

- 17 Suggest the learning activities which can be given to the students while teaching the topic 'Co- operative society'.
- 18 "Skills are the reflections of the competency of a teacher". Explain any one core skill from the point of view of commerce teaching
- 19 What do you mean by reserves and provisions? How would you make students to distinguish between reserves and provisions?
- 20 With the help of a chart how will you explain the topic "Role of profit in business".
- 21 Describe the steps in Herbertian approach in Lesson planning
- 22 Briefly explain the Revised Bloom's Taxonomy.

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Write down the curricular objectives, learning activities, instructional strategies and instructional aides used for teaching the topic “Depreciation and its methods”.
24. Develop a Lesson Plan on the topic “Partnership-Meaning and Features”.  
(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU.158. CURRICULUM AND RESOURCES OF COMMERCE**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Define curriculum
2. Point out any two significance of interdisciplinary approach in teaching commerce.
3. List out any two supplementary materials that can be used in teaching of commerce.
4. Suggest any two ways for efficient and proper use of commerce library.
5. Mention two nurturant effects of Advance Organizer Model.
6. State the importance of work book.
7. List out two facilities needed in an effective Accounting classroom.
8. List the names of any two commerce journals.

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Outline the modern trends in construction of commerce curriculum.
10. What is interdisciplinary approach?
11. Mention the importance of Audio-Visual Aids in commerce education.
12. Explain the 'operational heart' of an instructional model.
13. What are the points to be noted while presenting a paper by using LCD projector?
14. Write a note on commerce room.
15. Give any four qualities of Commerce Text Book.
16. How text book review helps in learning of commerce subjects.

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

- 17 State any four principles of curriculum construction. To what extent it is reflected in present curriculum of Accounting at Higher Secondary Level?
- 18 Explain the relationship of Commerce with Economics and Computer Science.
- 19 "A good text book should be a servant, not a master". Comment.
- 20 Discuss the use of internet in teaching of commerce.
- 21 Explain the key terms involved in describing a specific models of teaching.
- 22 Describe briefly the criteria for the selection of text book for teaching of commerce.

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Describe the major approaches followed in designing curriculum. Give the rationale for following any specific approach at Higher Secondary levels for teaching of commerce subjects.
24. 'Teaching models are instructional designs'. Comment this statement and describe the role of the Jurisprudential Inquiry Model in teaching Business studies  
(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU.178. PROFESSIONALIZING COMMERCE EDUCATION**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. What is Business ethics?
2. Cite any two situations in commerce where market studies and surveys can be effectively used.
3. Define creativity.
4. State any two qualities of good commerce teacher.
5. Mention any two enrichment programmes for gifted children.
6. State any two merits of pre-service programmes for commerce teachers.
7. Outline any two objectives of commerce club.
8. Who are gifted children?

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. 'Visits made to commercial and industrial establishments gives practical experience to students of commerce'. Comment.
10. What are the techniques to foster creativity among the children?
11. What kinds of value are developed through organization of school bank?
12. Explain the term 'Computer Aided Teaching.'
13. What is professional ethics?
14. How is commerce magazine helpful in shaping the thoughts of the students?
15. "A lamp can never light another lamp unless it continues to burn its own flames". Comment.
16. Mention any four situations where social responsibility of business is violated.

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

- 17 How commerce education helps the students to become a socially responsible citizen?
- 18 Discuss the educational implications of co- curricular activities in teaching commerce subjects for Higher Secondary students.
- 19 What are the educational provisions for gifted children?
- 20 Explain the steps involved in e-content development with the help of an example from Business studies.
- 21 Discuss briefly the important competencies suggested by NCTE with which the commerce teacher should be equipped.
- 22 Explain how will you mobilize and use the community recourses for effective teaching of commerce subjects in Higher Secondary School?

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Define professionalism. What are the opportunities available for the professional growth of commerce teachers in Kerala?
24. “New Information Technology has revolutionised the field of commerce education in many ways”. Justify your answer with the help of examples.

(1 X 10 = 10 marks)



**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 112.METHODOLOGY OF TEACHING ENGLISH**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Give any two functions of language.
2. What do you mean by diachronic study of a language ?
3. List out any two features of English as a link language.
4. Language comprises of four major skills. Which are they ?
5. What is skimming ?
6. What is ZPD ?
7. Give any two activities that enhances speaking skill
8. What is the difference between rhyme and rhythm? (8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Differentiate productive and receptive skills.
10. What is scaffolding?
11. What is TPR ? Highlight any two principles.
12. What are the principles of bilingual method of teaching English ?
13. Language is a system of arbitrary vocal symbols by means of which a social group co-operates Comment.
14. What are the main obstacles in the realization of educational objectives of teaching English?
15. What is focused listening?
16. List out the core issues envisaged in the KCF .

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. Write short note on LAD
18. Differentiate acquisition and learning.
19. Enumerate the principles of selection and gradation of vocabulary.
20. Briefly explain the different methods of teaching pronunciation.
21. What are the differences in the procedure of teaching function and content words in English ?
22. Write a note on the illogical nature of English. (4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Enumerate the features of social constructivism and explain how far it is effective in teaching of English in the Kerala context.
24. Explain the differences among translation, direct and bilingual methods of teaching English.  
(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 132.PEDAGOGIC PRACTICES IN ENGLISH**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Who introduced micro teaching ?
2. What is a blueprint ?
3. Give any two advantages of pedagogic analysis.
4. What is CCE ?
5. Give an example for an oxymoron.
6. What do you mean by ' specification ' ?
7. What is remedial teaching ?
8. What is link practice ?

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Differentiate andragogy and pedagogy
10. Define micro teaching.
11. List out any two advantages of short answer type questions.
12. What is reflective teaching ?
13. What are the steps involved in the construction of an achievement test ?
14. List out the importance of evaluation.
15. What are the different types of grading ?
16. What is content analysis ?

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. Indicate the objectives of teaching English in our secondary schools.
18. Differentiate formative and summative evaluation.
19. What are the characteristics of a good test?
20. What are the objectives of teaching poetry in secondary level?
21. Which are the different types of supplementary readers?
22. Briefly explain the problems of teaching literature in schools ?

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Prepare a constructivist lesson plan on the poem "DREAMS" by Langston Hughes
24. Explain the basic concerns of critical pedagogy, with special reference to the role of teacher, learner and curriculum.

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 152. CURRICULUM AND RESOURCES OF ENGLISH**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. List out any two principles of curriculum.
2. What is realia ?
3. Give any two characteristics of a good learning aid .
4. What is a teaching machine ?
5. Give two advantages of multimedia .
6. Name any two ELT journals.
7. Give an example for an information gap activity.
8. List out the importance of library

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Differentiate process and product oriented syllabus.
10. What are the characteristics of a good paragraph ?
11. List out the entries in a dictionary.
12. Write any two importance of reference skills.
13. What are the criteria of a good course book ?
14. Give the advantages of a work book.
15. How does a course book differ from a source book ?
16. Give any two limitations of bulletin board.

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. Discuss the place of audio-visual aids in teaching of English.
18. Differentiate note-taking and note-making.
19. What is task based syllabus ?
20. Write a short note on progressive type supplementary reader.
21. Suggest some techniques for improving note-taking.
22. What are the basic principles of English language curriculum ? (4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Explain the principles of curriculum construction.
24. As a teacher of English language, what will be your criteria in selecting a course book for your students ?  
(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 172. PROFESSIONALISING ENGLISH EDUCATION**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. List out any two competencies required of a teacher of English.
2. Who is the exponent of MI theory ?
3. Give two examples of dyadic communication.
4. What is outsourcing ?
5. Suggest two characteristics of creativity.
6. State the role of teacher as a diagnostician.
7. List out the major causes of indiscipline.
8. Write down any two merits of manuscript magazine. (8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. What is reflective teaching ?
  10. What do you mean by professionalism ?
  11. List out any four language related activities for std. 9 students.
  12. What are the merits of on-line teaching ?
  13. What is reflective questioning ?
  14. Suggest some ways to improve pronunciation of secondary school students.
  15. Write any two principles of playway in education.
  16. Give the importance of humour in classroom.
- (8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. What are the characteristics of talented children ? How will you cater to their needs ?
18. Develop a communicative task which enhances the speaking skill of students.
19. Write a short note on Interactive Learning Model (ILM)
20. How would you boost the creativity of your students in an English language classroom?
21. Briefly explain the different roles of a language teacher in the present system of education.
22. Detail upon the steps involved in reflective teaching. (4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Explain the principles of teaching and techniques for improving the quality of teaching.
24. Prepare a short module for teaching e-content (1 X 10 = 10 marks)



**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU 123 METHODOLOGY OF TEACHING SOCIAL SCIENCES**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Define social studies
2. List any two social sciences and semi social sciences
3. What do you mean by 'new social studies'
4. What is didactic approach to teaching
5. Write any two principles of project method
6. What is pedagogy of oppressed
7. What do you mean by specifications
8. Mention any two advantages of discussion

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Distinguish between social studies and social science
10. Name the list of social sciences listed by David Sills
11. What are the scope of social sciences in secondary schools
12. When to use lecture in the classroom
13. What are the advantages of source method
14. What is metacognition
15. What are the uses of concept maps
16. Mention the basic elements of cooperative learning

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. Explain the classification of definitions given by John U Michaelis to Social Studies
18. Briefly describe the scope of social sciences in a democratic country
19. Briefly describe the post war history of social sciences
20. How will use source method in your class
21. Distinguish between role play and simulations
22. Describe the vision of social science curriculum in NCF(2005)

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Define project method. What are its basic principles? Explain how will you conduct a project in classroom
24. Distinguish between behaviourist and constructivist approaches to teaching. Briefly explain the various strategies used in constructivist paradigm

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 143. PEDAGOGIC PRACTICES OF SOCIAL SCIENCES**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. What are conceptual objectives
2. What is RBT
3. Which are the domains of the taxonomy of educational objectives
4. Who developed the concept of multiple intelligences
5. Write any two maxims of teaching
6. What are the uses of micro teaching
7. What is pedagogic analysis
8. What are the levels of planning

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. What do you mean by process evaluation
10. What are the purposes of diagnostic test
11. What are the components of unit plan
12. List any four core teaching skills
13. Distinguish between Aims and Objectives
14. What are the stages involved in micro teaching
15. Prepare a time line of mughal period
16. What teaching aids will you use for the topic time zones

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. How multiple intelligence act as the objectives of social sciences
18. Explain the components of any two core teaching skills
19. What are the needs and significance of planning instruction
20. How will you evaluate non cognitive domain
21. What are the stages involved in constructing an achievement test
22. What do you mean by CCE

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

- 23. Explain the aims and objectives teaching social sciences at secondary schools
- 24. Prepare a lesson plan of the topic of your choice

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU 163 CURRICULUM & RESOURCES IN SOCIAL SCIENCES**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. What is curriculum
2. What is a unit
3. What do you mean by core subject
4. Write a note fusion
5. What are the elements of a map
6. Mention any two types of timelines
7. What is INFLIBNET
8. Write the URL of any one educational websites

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Write any two creative activities in social sciences
10. What do you mean by data gathering activities. illustrate
11. What are the advantages of EDUBUNDU
12. Explain the advantages of work books
13. Write the syntax of concept attainment model
14. What are the advantages of using museum in social sciences
15. Write any two examples for correlation in social sciences
16. What are different types of globes

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. Explain the basic principles of curriculum construction
18. How social science subjects are related with other subjects
19. What are the uses of social science library
20. Explain the procedure involved in Jurisprudential inquiry model
21. Mention the essential qualities of a social science hand book
22. Write any two applicative and demonstrative activities in social sciences

(4X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Briefly describe the organization of subject matter in social science curriculum with special reference to secondary level
24. How will select and sequence learning activities in social sciences. Illustrate with examples  
(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 183. PROFESSIONALIZING SOCIAL SCIENCE EDUCATION**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. What are community resources
2. List any two activities for social science club
3. What is giftedness
4. Who is creative learner
5. Write the names of any two free softwares that can be used in social sciences
6. What is IHMC CMap tools
7. Write any two professional ethics of a teacher
8. What are learning objects

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Prepare a list of places of cultural interest
10. Mention any four occasion where quiz competition can be effective
11. Write any four personal quality of a teacher
12. What are the higher order thinking skills in social sciences
13. What are the stages of creative thinking
14. What is e content
15. Write any two uses of teleconferencing
16. Why teaching is considered as a profession

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. What are the important community resources in social sciences
18. What are the ways and means of improving professionalism
19. How computer can make effective teaching in social sciences
20. How will you foster creativity among your child
21. What are the learning activities suitable for a gifted child
22. How will you conduct a field trip in social science

(4X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

- 23 What are community resources? How will you use community resources in social sciences
- 24 What are the personal and professional qualities of a social science teacher? How will you improve your professionalism

(1 X 10 = 10 marks)



**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 122. METHODOLOGY OF TEACHING PHYSICAL SCIENCE**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Give any two examples for the moral function of Science?
2. Give any one suggestion for science education on the basis of NCF 2005?
3. What is the word meaning of 'heurism'?
4. Give any one definition for 'problem'?
5. List any two intelligences suggested by Howard Gardner?
6. List any two peculiarities of constructivist teaching?
7. What does the banking concept of education denote?
8. Give any two resources in EDUBUNTU helpful in Science Teaching?

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Give any two differences between scientific attitude and scientific aptitude?
10. List two merits and two demerits of lecture cum demonstration method.
11. What are the points to be taken care of while organizing a brain storming session?
12. What is social constructivism?
13. List the main principles of guided discovery approach?
14. List any two issues and corresponding topics that may be suitable for issue based learning.
15. List any two landmarks in the history of education in Science.
16. What is the essential difference between cognitive constructivism and social constructivism?

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. Describe the interdependency of the Product and Process aspect of Science with examples.
18. Describe the Problem Solving Cycle.
19. List any four specialties of Dalton Plan.
20. Learning is a generative process. Substantiate.
21. List any two science activities that you may give in a constructivist class and suggest the precautions you may adopt for its perfect execution.
22. Give any two situations where you can integrate theory and practical in a science class. And highlight the significance of doing the same.

(4 X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Write an essay on Questioning technique – its importance, technique of asking questions and the merits it would produce in the class.
24. Describe collaborative learning. How is social constructivism employed in this type of learning? List any two advantages and two disadvantages with examples.

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 142. PEDAGOGIC PRACTICES IN PHYSICAL SCIENCE**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Write down any one strategy that can be used for developing Process skills in your students.
2. Define Micro Teaching
3. Write a life situation that you may use to teach the concept of inertia.
4. Mention any one experiment you may suggest to your students in order to make them understand chemical change.
5. Develop a follow up activity on any one topic of physics or chemistry which can ensure social constructivism among your students.
6. Pictorially represent the interdependence of objectives, learning experiences and evaluation.
7. Which are the three dimensions represented in a blue print for evaluation.
8. Prepare a multiple choice question from physics or chemistry to check the specification 'recognises'  
(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Define process skills and list any four process skills in science at secondary stage.
10. List the components of the skill of illustrating with example.
11. Give the conceptual meaning of pedagogic analysis.
12. How will you demonstrate the concept of electroplating to your students.
13. Identify an analogy to use in a class on 'isotopes'.
14. What is meant by comprehensive evaluation?
15. Mention four limitations of objective type test item.
16. Give the criteria for evaluation of a project.

(8 X 2 = 16 marks)

### **Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

- 17 Describe general aims of teaching physical science.
- 18 Write a micro lesson from Physics/Chemistry on the skill of introducing a lesson.
- 19 State the curricular objectives and learning experiences on the topic 'surface tension'.
- 20 Describe the teaching learning activities that you may use while developing the concept electro magnetic induction.
- 21 Prepare the blue print of an improvised apparatus that you may use to your students for understanding the topic 'Focus'.
- 22 Explain how you would reduce subjectivity of a test.

(4X 4 = 16 marks)

### **Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Describe the importance of the assessment of non-cognitive domain. Explain how you would produce and develop a lesson in physical science so as to develop interest and scientific attitude among your students.
24. Discuss in detail Bloom's taxonomy of educational objectives with specific example from Physics/Chemistry and express your views on Revised Bloom Taxonomy.

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 162. CURRICULUM AND RESOURCES OF PHYSICAL SCIENCE**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Write any two principles of science curriculum construction
2. Mention a topic / content from Physics or chemistry which can be taught through type study.
3. Expand INFLIBNET
4. List the technical aspects of scientific method
5. Define Hypothesis.
6. List two educational CD's that can be used for science teaching.
7. Mention any one improvised apparatus that can be used for teaching 'centre of gravity'
8. What first aid you will suggest for a student who has exposed to acid burn.

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. How will you correlate physical science with geography
10. Differentiate between induction and deduction with a suitable example.
11. Why do we consider Teachers Handbook as an important source book
12. Explain the values of improvisation in science.
13. List the objectives behind 'Nature rambling'
14. How will you utilize the ERIC resources in your science teaching
15. Suggest any four reference books in Physics/Chemistry.
16. Write any four laboratory rules to be maintained by your students.

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

- 17 Comment on the scope and limitations of Historical approach to science curriculum organization.
- 18 How will you organize your classroom activities to give pupils training in scientific method.
- 19 Explain the concept of corroboration and falsification
- 20 Justify the importance of supplementary reading in science.
- 21 What are the major requirements of a physical science laboratory?
- 22 Multimedia can be effectively used in science Teaching – illustrate with examples.

(4X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. List the major characteristics of PSSC and Chem Study Project. Based on these curricular reforms suggest broad outline for a secondary school science curriculum in Indian Context.
24. Describe with illustrations Mill's canons of induction and explain its scope in developing a conceptual understanding of science.

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 182. PROFESSIONALIZING PHYSICAL SCIENCE EDUCATION**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Give an instance to show the emancipatory role of Science.
2. Suggest a place for field trip in Science and point out its educational value.
3. Who is the secretary of a school science club?
4. List any two peculiarities of scientifically gifted children.
5. Who conducts the NSTS? Who can apply?
6. What is a course ware?
7. Give the expansion of MOODLE.
8. List any two e journals in Science?

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. What is the essential difference between science and technology?
10. Give any two steps in planning a study tour and highlight their importance.
11. What is critical thinking?
12. What is expert system?
13. List any two things you can do with a learning management system.
14. How do soft skills become important for a science teacher in the laboratory?
15. List any four competencies listed by NCTE
16. for debate in science Give any one topic suitable. Also list points for and against that may come up during the debate.

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. How can a science teacher contribute to the social uplift of the society?
18. Detail upon the steps for planning a field trip.
19. How do you foster scientific creativity among students.?
20. What are essential features of MOODLE?
21. Give the URL of any one website that is useful for a school science teacher. Describe resources inside it for science teaching in Schoolshow you can use the resource?
22. Teaching Research and Extension go hand in hand—substantiate .

(4X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. prepare a short module for e content with animation, graphics and video incorporated into it.
24. Teaching is a noble profession. Substantiate the statement by describing the aspects of professionalism.

(1 X 10 = 10 marks)



**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 121. METHODOLOGY OF TEACHING NATURAL SCIENCE**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. What is the importance of hypothesis in science learning?
2. What is role of science in removing superstitions
3. Mention any two IT based school science resources
4. Who is the exponent of heuristic method? Write the uniqueness of this method.
5. What is jig-saw learning? Suggest one topic suitable for adopting this strategy.
6. How you can foster kinesthetic intelligence in science class room?
7. Mention two values that can be developed through science teaching.
8. Define critical pedagogy in your own words

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Differentiate between inductive and deductive approaches
10. Mention the steps involved in scientific method.
11. Explain the various components of Scientific Attitude
12. Differentiate between attitude and interest
13. Identify four limitations of lecture method.
14. Experiments are integral part of learning science. Substantiate.
15. Explain the term Zone of proximal development.
16. Bring out the role of teacher at various stages of problem solving method.

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

17. List four precautions required for the conduct of a good demonstration
18. Describe the unique features of Dalton plan. How it could be effectively utilized in learning science?
19. Discuss the attributes of collaborative learning. Explain any two types of collaborative learning.
20. Illustrate the major issues envisaged in KCF 2007 with special reference to biology.
21. With a suitable example describe Guided discovery approach in teaching science
22. Differentiate between simulation and role play

(4X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Define project method. Explain the various stages of project method with suitable illustration.
24. Discuss the underpinning theories of constructivism. What are the constraints faced by teachers in classroom to implement this strategy?

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 141. PEDAGOGIC PRACTICES IN TEACHING NATURAL**  
**SCIENCE**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Mention one example for Utilitarian value of biology
2. Differentiate between objectives and specifications with an example.
3. What is a resource unit?
4. List two follow up activities suitable for 'circulatory pathway in man'
5. What is micro in micro teaching?
6. What is a red data book?
7. Give suitable word:

Immigration: to a population;	Emigration :-----
EEG : Brain ;	ECG :-----

8. Mention the function of a diagnostic test. (8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. What are the broad goals of teaching natural science?
10. Write the specification for the objective 'Analysis'
11. Describe the components of explanation skill
12. Mention four topics that need field
13. Name two science journal in malayalam
14. Explain the NCERT classification f Bloom's taxonomy
15. With suitable example explain the specifications under objective 'Application'
16. Mention the specifications of 'Appreciation' (8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

- 17 Briefly explain the salient features of revised bloom's taxonomy
- 18 Bring out the herbartian steps in lesson planning
- 19 Describe the precautions required for writing multiple choice items with suitable examples.
- 20 Explain four process skills listed by Mc Cormack and Yager. How will you foster these process skills in science class room?
- 21 Illustrate the components of creativity in science. How will you foster creativity among students?
- 22 Write suitable introduction to the following topics:  
a)structure of ear , b)plant tissues

(4X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Content Analysis is the lifeblood of all instructional planning'. Substantiate this statement in light of writing lesson plan.
24. Prepare a lesson plan for a period of 45 minutes on any one of the topic:
- (a) Structure of DNA
  - (b) Respiration in Man

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU. 161. CURRICULUM AND RESOURCES OF NATURAL**  
**SCIENCES**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Write an example for interdisciplinary correlation.
2. Give two examples for school level science journals.
3. What you mean by falsification in scientific method?
4. What is ERIC?
5. What are the three phases of concept attainment model?
6. Give two examples for 3D aids?
7. What is a vivarium?
8. Expand BSCS.

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. Write any two advantages of science teacher's handbook.
10. Give two examples for the transfer value of scientific method.
11. What are the importance of specimen in teaching biology?
12. How INFLIBNET helpful for a science teacher?
13. Write any four advantages of nature rambling?
14. What is improvisation?
15. What is lab manual?
16. List any two advantages of pupil's workbook?

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

- 17 Differentiate between concentric and spiral approaches in curriculum construction.
- 18 What are the advantages of lab work in science?
- 19 What are the steps in scientific method?
- 20 How you will motivate the students to utilise the library?
- 21 List any for advantages and disadvantages of internet as a learning resource.
- 22 What are the educational advantages of natural rambling

(4X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. Critically evaluate the present IX standard Biology text book.
24. What are the differences between curriculum and syllabus? What are the principles of curriculum construction?

(1 X 10 = 10 marks)

**B.Ed. DEGREE (SEMESTER PATTERN) EXAMINATION**  
**MODEL QUESTION PAPER**  
**EDU.181. PROFESSIONALISING NATURAL SCIENCE EDUCATION**

Time: Two Hours

Maximum: 50 Marks

**Part A**

*Answer **all** questions.*

*Each question carries 1 mark.*

1. Write an example for the emancipator role of science.
2. List any two free soft waves in science.
3. Expand MOODLE.
4. Write two examples for misconceptions in science.
5. List any two topics for a project work in science.
6. Write any two advantages of CAI.
7. List any two soft skills required for a science teacher.
8. What is the meaning of professional growth.

(8 X 1 = 8 marks)

**Part B**

*Answer **all** questions.*

*Each question carries 2 marks.*

9. What are the advantages of field trips?
10. What is non-formal science education?
11. How NSTS helps the science education in India?
12. What are the programmes to improve the professionalism of the science teacher?
13. What is scientific literacy?
14. What are the five basic principles behind programmed learning?
15. How nature calendar is helpful in learning science?
16. List any four internet resources to help the professional growth of science teachers.

(8 X 2 = 16 marks)

**Part C**

*Answer any **four** questions.*

*Each question carries 4 marks.*

- 17 How you will foster creativity in your classroom?
- 18 What are the competencies required by a science teacher?
- 19 Differentiate between science and technology ?Give examples.
- 20 What is the importance of research and extension in teaching?
- 21 What are the advantages of experimental projects in learning science?
- 22 Why science is considered both as a product and process?

(4X 4 = 16 marks)

**Part D**

*Answer any **one** question.*

*The question carries 10 marks.*

23. What are the functions of science club? What are the educational advantages of science exhibition
24. Define teaching as a profession. Explain the role of various agencies and their programmes in professionalizing teaching

(1 X 10 = 10 marks)



# **HANDBOOK FOR TEACHER EDUCATORS**

# **UNIVERSITY OF CALICUT**

**Re structuring of Curriculum-2012  
Credit Based Semester and Grading System**

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**With effect from 2012-13 Academic Year**

**BOARD OF STUDIES  
EDUCATION (UG)**

**EDU. 101. PERSPECTIVES ON EDUCATION**  
**Contact Hours: 75 (Instruction) & 15 (Process)**  
**Marks: 50 (End Semester Examination) & 10 (CE)**

CONTENT	SCOPE	REFERENCE
<b>Module 1 (10 hours)</b> <b>Education preliminary considerations</b> Defining Education – Meaning – Definitions – Functions. Nature of education as a discipline - Theory and Practice - Interdisciplinary nature - Scope of Education as a discipline Considerations in education – Philosophical - Socio- cultural - Psychological	<b>Defining Education (4 hours)</b> Concept of education in different perspectives - Objective perspectives, subjective perspectives <b><i>Reason for a variety of interpretations of Education-</i></b> Complex nature of human personality - Complexity of environment Different philosophies of life - Different educational theories and practice <b><i>Meaning</i></b> Narrow meaning – schooling/instruction Broad meaning - life long process/womb to tomb process Etymological origin of the term education <b><i>Definitions</i></b> Classification of definitions – Biological – Social – Environmental - Operational <b><i>Functions of education</i></b> Distinction between Meaning, Functions and Aims of Education Meaning – what education is? Function – what education does? Aims – what education should do? Two fold functions - Individual development (to be elaborated) Social Development (to be elaborated) <b>Nature of education as a discipline (4  hours)</b> Education as a discipline Characteristics of education - Education is purposive - Drawing out or bringing up process - Knowledge as well as experience For the good of the individual and the welfare of the society - Liberal and vocational - Stabilizer, conservator and reconstruction - Education is deliberate - Education is planned - Education is life long - Education is influence exerted - Education is bipolar and tripolar - Education is psychological and social - Education is growth <b><i>Education – theory and practice</i></b> The theory of education – positive/Descriptive theories and	Chhaya .(2004). Theory and principles of education. New Delhi: APH Purkait, B.R. (2004). Principles and practices of Education. Kolkata: New Central Aggarwal, J.C. (2010) theory and principles of education (13 <sup>th</sup> Ed.). New Delhi: Vikas Or any other relevant books

<p><b>Module 2 (15 hours)</b>  <b>Aims of education -</b>  Individual Aims -  Social Aims  Goals of Education in India –  Purusharthas -  Constitutional Goals –</p>	<p>Normative/prescriptive theories - a set of coherent thoughts from formal philosophies - Idealism, naturalism, humanism, pragmatism, Marxism, existentialism etc. - Educational theories are indispensable for analyzing educational and developmental problems - Theories are guidelines for practice - It allows for practice – eclectic tendency  Policy making - Dynamic and practical side of the theory  <b>Interdisciplinary nature</b>  Relationships with philosophy, sociology, psychology, economics, history, politics, etc.  <b>Scope of Education as a Discipline</b>  Distinction between Education, Teaching, Instruction, Training, Learning, Literacy and Indoctrination  <b>Aspects of Education</b>  Aims of Education (why)  Curriculum &amp; Text books (What)  Methods (How)  Teacher (by whom)  Learner  Discipline  <b>Considerations in Education (2hrs)</b>  Philosophical factors, Socio-cultural factors and psychological factors – influence on theory and practice of education – how they influences different aspects of education such as Aims, Methods, Curriculum, Teacher, Discipline, school organization, Evaluation etc.</p> <p><b>Aims of Education (2 hours)</b>  Determining the Aims of Education – Idealistic and Realistic Way  <b>Individual Aims Vs Social Aims</b> and their reconciliation - Education for vocation - Education for knowledge - Education for culture - Education for character - Education for leisure - Education for spiritualism - Education for complete living - Education for harmonious development - Education for citizenship  <b>Goals of Education in India (2 hours)</b>  Vedic education – features, paravidya and</p>	<p>Dash, B.N. (2002). Teacher and Education in the Emerging Indian Society. 2 Vols.  Chhaya .(2004). Theory and principles of education. New Delhi: APH  Purkait, B.R. (2004). Principles and practices of Education. Kolkata: New Central  Aggarwal, J.C. (2010) theory and principles of education (13<sup>th</sup> Ed.). New Delhi: Vikas  Or any other relevant books</p>
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<p>Democracy – Socialism – Secularism - Equality of Opportunity - Preparing for the duties and rights of Indian Citizen - Articles of Indian Constitution - Pertaining to Education - National Integration and International – Understanding - Education for a knowledge society</p>	<p>aparavidya Purusharthas – dharma, artha, kama, moksha <b><i>Constitutional goals (6 hours)</i></b> Democracy, Socialism, Secularism, Equality of Opportunity (Preamble of the constitution) Fundamental Rights of Indian Citizens Fundamental Duties of Indian Citizens Articles of Indian Constitution Pertaining to Education – salient features of Indian constitution and major articles. <b><i>National Integration (2 hour)</i></b> Definition, constraints, curricular and co curricular activities for National Integration <b><i>International Understanding (1 hours)</i></b> Definition, constraints, programmes for International Understanding <b>Education for Knowledge Society ( 2 hours)</b> International Commission on Education (Delors Commission) Four Pillars Learning to know Learning to do Learning to live together Learning to be The millennium Development Goals(MDG)</p> <p><b>Landmarks in Modern Indian Education</b> <b><i>British Education (3 hours)</i></b> Mecauley’s Minutes - Woods Despatch Anglicists – Orientalists Controversy Contributions of British Education Limitations of British education <b><i>Primary Education as a Constitutional Obligation (2 hours)</i></b> The scenario in 1947 - Number and enrolment of primary schools Article 45 (Pre-amended) <b>Kothari commission report (1964-66) ( 3 hours)</b> Education and National Development Aims of Education - Major Recommendations</p>	<p>Jagannath Mohanty (1998). Modern Trends in Indian Education. New Delhi: Deep and Deep publications.</p> <p>Aggarwal (2007). Landmarks in the history of modern Indian education(6<sup>th</sup> Ed.) Delhi: Vikas Any other relevant book National Curriculum Framework for School Education (2005). NCERT Government of India (1966). Education and national development. The report of Indian education commission 1964-66 Naik, J.P. (1998). The Education Commission and After. New Delhi: Publishing Corporation.</p> <p><a href="http://www.delta.org.in/form/rt e.pdf">http://www.delta.org.in/form/rt e.pdf</a></p>
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<p>Education in the concurrent list - New Education Policy (1986) - National Curricular Framework-2005 - Right to Education Act -2009</p> <p><b>Module 4 (30 hours)</b>  <b>Philosophical perspectives on education</b> - Relationship between Philosophy and Education          Thinkers on Education – Plato – Rousseau – Dewey – Freire – Tagore – Gandhi – Vivekananda.          Thoughts on Education - Idealism - Pragmatism and Realism - Basic Principles and their influences on various aspects of education.          Alternative thoughts - A</p>	<p><b><i>Education in the concurrent list ( 2 hour)</i></b>          Amendment in 1976 - Arguments favouring including education under concurrent list  <b><i>New education policy 1986 ( 4 hours)</i></b>          Major features - PoA 1986 - Ramamurti Review committee 1990 - Janardhana reddy Committee 1992 - Learning without burden 1993  <b><i>National Curriculum Frame work (2005)(2 hours)</i></b>          Major features - Vision of education in NCF (2005)  <b><i>Right to Education Act (2009) ( 4 hour)</i></b>          86<sup>th</sup> amendment - Article 21A, Article 45, Article 51A - Passed by parliament on August, 4, 2009 and came to force on 1<sup>st</sup> April 2010</p> <p><b>Philosophical perspectives on Education</b>          Meaning and definition of philosophy (3 hours)          Branches of philosophy – Metaphysics – Epistemology - Axiology  <b><i>Relationship Between Education and Philosophy</i></b>          Interdependence of education and philosophy (1 hour)  <b><i>Thinkers on Education (10 hours)</i></b>          Plato – the republic and academy          Rousseau – Emile, Negative Education          Dewey – Democracy and Education          Freire – Pedagogy of Oppresses, Culture of silence, banking system, culture of freedom, critical pedagogy          Gandhi – Sarvodaya, Basic Education          Tagore – Universalization, santinketan          Vivekananda – manmaking education, character formation  <b><i>Thoughts on education ( 9 hours)</i></b>          Idealism – Realism - Pragmatism          Their philosophical aspects, basic principles and influences on various aspects of education in a comparative perspective  <b><i>Alternative thoughts ( 7 hours)</i></b>          Ivan Illich – deschooling society – as a critique to the process of</p>	<p>any other relevant book</p> <p>Brubacher John. S (1962). Modern Philosophies of Education. New Delhi: Tata McGraw Hill Publishing Co. Pvt. Ltd.</p> <p>Butter J. Donald (1951). Four Philosophies and Their Practice in Education and Religion. New York: Harper and Brothers Publishers.</p> <p>Dewey John (1916). Democracy and Education, New York: MacMillan.</p> <p>Dewey John (1938). Experience and Education. New York: Macmillan.</p> <p>Morsy, Z. (1997). Thinkers on education. New Delhi: IBH</p> <p>NCTE (1998). Gandhi on Education. New Delhi.  <a href="http://www.infed.org/thinkers/et-illic.htm">http://www.infed.org/thinkers/et-illic.htm</a>  <a href="http://gyanpedia.in/Portals/0/Toys%20from%20Trash/Resources/books/dead.pdf">http://gyanpedia.in/Portals/0/Toys%20from%20Trash/Resources/books/dead.pdf</a>  <a href="http://www.rishivalley.org/school/overview.htm">http://www.rishivalley.org/school/overview.htm</a>  <a href="http://www.whatcomfolkschool.org/about-us/history-2">http://www.whatcomfolkschool.org/about-us/history-2</a></p>
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<p>Brief note on Illich, Reimer, Rishi valley School, Folk School, Kanav.</p>	<p>institutionalization – concept of learning web          Everett Reimer – the school is dead – influenced by the ideas of illich - man becomes the slave of technology          Rishi valley school - Rishi Valley School is based on the philosophy of J. Krishnamurti - Global outlook, Concern for man and the environment, Religious spirit, which includes the scientific temper.          Folk schools are institutions for education that generally do not grant academic degrees, though certain courses might exist leading to that goal. The concept originally came from the Danish writer, poet, philosopher and pastor Nikolaj Frederik Severin Grundtvig (1783–1872). Popular education, against conservative book learning.          Folk schools are community schools          Kanav is folk school situated at vayanadu, sarang in attappadi is another example.</p>	
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Process	Description
<ol style="list-style-type: none"> <li>1. Collect at least 10 definitions of education (Minimum 5 from east and 5 from west)</li> <li>2. Conduct a Discussion to analyze the collected definitions for perspectives and scope</li> <li>3. Prepare a flow chart/diagrammatic representation showing the different levels and forms of education</li> <li>4. Identification of Aims/Goals of Education in Secondary Education Commission, Kothari Commission, NPE 1986, NCF 2005 and Delor's Report.</li> <li>5. Prepare a Collage/ Cartoon/ Poster/ Presentation on the different aspects of National Integration in India (a group</li> </ol>	<ol style="list-style-type: none"> <li>1. Student teachers are directed to go through as many definitions of education. Each student should collect at least one Indian and one western definition to education and submit in a group of five.</li> <li>2. 5 students sit in a group and identify the perspective and scope of the definitions collected by them and present it to the entire class and submit the report.</li> <li>3. Individual students should prepare flow chart showing levels and forms of education. Students may use pictures drawing text etc. for preparing flow chart. Provide as an individual home work</li> <li>4. Divide the class into 5 groups of students and ask each group to identify the Goals/Aims of Education suggested by any one of the reports.( Secondary Education Commission, Kothari Commission, NPE1986, NCF 2005 and Delor's Report.). library work followed by class presentations.</li> <li>5. A group of five students can make collage/cartoon/poster on relevant themes of national integration such as 'unity in diversity', regionalism, terrorism, art forms, celebration of</li> </ol>

<p>work of 5 students)</p> <p>6. Prepare a brief content overview of Kothari commission report/NCF 2005/Right to education act</p> <p>7. Review and reflect on the educational thoughts in any one book of Freire/ Dewey/ Gandhi/ Tagore/ Plato</p> <p>8. Conduct a discussion on alternate thoughts of education</p>	<p>national days etc.</p> <p>6. Prepare a summary of any one report having 2- 3 pages by a group of 5-6 students. It is desirable that different groups work on different reports</p> <p>7. Select one book and identify at least one core theme by each group. Present the themes for entire class and reflect on the relevance of the themes in the current scenario.</p> <p>8. Conduct a class discussion on any one alternative thoughts on education giving emphasis to the advantages and limitations of them. necessary planning must be made before hand</p>
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<b>EDU. 102. PSYCHOLOGY OF THE LEARNER</b> <b>Contact Hours: 75 (Instruction) &amp; 15 (Process)</b> <b>Marks: 50 (End Semester Examination) &amp; 10 (CE)</b>		
<b>MODULE I</b> <b>Introduction to Educational Psychology</b>		
<b>CONTENT</b>	<b>SCOPE</b>	<b>REFERENCES</b>
<b>Defining psychology</b>	<ul style="list-style-type: none"> <li>How meaning of psychology evolved</li> <li>Meaning and definitions of psychology</li> <li>Nature of psychology <b>(1 Hour)</b></li> </ul>	<ul style="list-style-type: none"> <li>De Cecco J. P, (1977) The Psychology Of Learning And Instruction. New Delhi: Prentice Hall,</li> <li>Bigg and Hunt, Psychological Foundations of Education</li> <li>Morgan. C.T, Introduction to Psychology, Tata Mc Grow Hill</li> </ul>
<b>Approaches To Psychology</b>	<ul style="list-style-type: none"> <li>Salient features of behaviouristic approach, constructivist approach, psycho-analytic approach and humanistic approach <b>(2Hours)</b></li> </ul>	<ul style="list-style-type: none"> <li>Chaplin.J. P., &amp; Krawiec, T. S ; Systems and Theories of Psychology</li> <li>Mangal,S. K, Advanced Educational Psychology</li> </ul>
<b>Educational Psychology</b>	<ul style="list-style-type: none"> <li>Relationship between education and psychology</li> <li>Educational psychology as an applied branch of psychology</li> <li>Meaning and definitions of educational psychology</li> <li>Scope of educational psychology – the learner, learning experiences, learning process, learning situations and the teacher</li> <li>Relevance of educational psychology in the field of education <b>(3 Hours)</b></li> </ul>	<ul style="list-style-type: none"> <li>Chaplin.J. P., &amp; Krawiec, T. S ; Systems and Theories of Psychology</li> <li>Mangal,S. K, Advanced Educational Psychology</li> <li>De Cecco J. P, (1977) The Psychology Of Learning And Instruction. New Delhi: Prentice Hall,</li> </ul>
<b>Methods of Psychology</b>	<ol style="list-style-type: none"> <li>Case study method</li> <li>Experimental method</li> <li>Survey method.</li> </ol> <ul style="list-style-type: none"> <li>Merits and Demerits <b>(2Hours)</b></li> </ul>	<ul style="list-style-type: none"> <li>Andrews, C. G. Methods of Psychology, John Wiley, New York, 1958</li> <li>Mangal,S. K. Advanced Educational Psychology</li> </ul>
<b>Process</b>		
<ul style="list-style-type: none"> <li>Identify a case from your neighborhood/ locality or from any institution and conduct a case study. Conduct a peer discussion on the case study and prepare an individual report – not exceeding two pages.</li> </ul>		

<b>MODULE II</b> <b>Learners Development</b>		
<b>CONTENT</b>	<b>SCOPE</b>	<b>REFERENCES</b>
<b>Concept of Growth and Development</b>  <b>Principles of Growth And Development</b>  <b>Approaches to Study Development</b>	<ul style="list-style-type: none"> <li>• Concept of Growth and Development</li> <li>• Difference between growth and development</li> <li>• Principles of growth and development and their educational implications</li> <li>• Means of studying Development- cross sectional and longitudinal study <b>(3Hours)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Adolescent Development Hurlock, E.B (1955) MC Graw – Hill Co Inc, Nw York.</li> <li>• Hurlock, Elizabeth B, Developmental Psychology - A life span approach, New Delhi, Tata Mc Graw</li> <li>• Kolsnik, W. B . Educational Psychology ., New York, Mc Graw Hill Publishing house Co</li> <li>• Developmental Psychology Suhail, S. and Bapat, A (1996) Bombay Himalaya Publishing House.</li> <li>• Dutt, N.K (1984) New York : Prentice Hall Inc.</li> <li>• Developmental Psychology, A life span Approach, Witting A F,(2001) Mc. Graw Hill New Delhi</li> </ul>
<b>Childhood and Adolescent Period</b>	<ul style="list-style-type: none"> <li>• Characteristics of childhood and adolescent period with special reference to physical cognitive emotional and social aspects of development (in detail)</li> <li>• Developmental tasks of childhood and adolescence (Havighurst) <b>(4Hours)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Adolescent Development Hurlock, E.B (1955) MC Graw – Hill Co Inc, Nw York.</li> <li>• Advanced Educational Psychology Chauhan, S.S (2006) New Delhi : Vikas Publishing House.</li> <li>• Advanced Educational Psychology Kakkar S.B (1992), New Delhi : Oxford &amp; IBH Publishing Co.</li> <li>• Hurlock, Elizabeth B, Developmental Psychology- A life span approach, New Delhi, Tata Mc Graw</li> <li>• Berk, L. Child Development, Harper &amp; Row, New York</li> <li>• Kolsnik, W. B . Educational Psychology ., New York, Mc Graw Hill Publishing house Co</li> <li>• Mangal, S. K. Advanced Educational Psychology</li> </ul>
<b>Theories of growth and development</b>	<ul style="list-style-type: none"> <li>• Theories of development and their educational implications</li> </ul> <ol style="list-style-type: none"> <li>1. Jean Piaget's theory of cognitive development (focus on stages only)</li> <li>2. Bruner's theory of cognitive development (focus on stages only)</li> </ol>	<ul style="list-style-type: none"> <li>• Erickson, E. Childhood and Society. New York, Norton</li> <li>• Kohlberg, L. Modern Stages and Moralization, New York</li> <li>• Piaget, J, The Language and</li> </ul>

	3. Kohlberg's theory of moral development 4. Erickson's theory of psycho- social development <b>(10Hours)</b>	Thought of The Child, New York, Brace and World <ul style="list-style-type: none"> <li>Bruner, J.S, Towards a Theory of Instruction, London, Howard University Press</li> </ul>
<b>Recent Issues and Problems of Adolescence</b>	Recent problems and issues of adolescence <ul style="list-style-type: none"> <li>Loneliness and peer pressure</li> <li>Change in family structure</li> <li>Information overload</li> <li>Sexual abuse</li> <li>Substance abuse</li> <li>Impact of media (internet, mobile, cinema, TV etc)</li> <li>Depression and suicide</li> </ul> Other problems may also discuss like <ul style="list-style-type: none"> <li>Infatuation</li> <li>Disobedience</li> <li>Identity crisis</li> <li>Isolation</li> </ul> Role of teacher to solve the problems <b>(3 Hours)</b>	<ul style="list-style-type: none"> <li>Adolescent Development Hurlock, E.B (1955) MC Graw – Hill Co Inc, Nw York.</li> <li>Erickson, E.H. Identity and the Life Cycle</li> <li>Hurlock, Elizabeth B, Developmental Psychology - A Life Span Approach, New Delhi, Tata Mc Graw</li> </ul>

#### Processes

- Divide the whole class into groups and each group will prepare a note (appro. Two pages) on the physical, social, emotional and cognitive developmental aspects of childhood and adolescence and conduct a discussion based on the note – Participation in discussions to be evaluated
- Divide the class into groups and each group collects news paper cuttings related to the problems and issues of adolescence and categorize the type of problems, interpret and suggest remedies – submit group reports with collected items

### MODULE III Learners Intelligence and creativity

CONTENT	SCOPE	REFERENCES
Concept of intelligence	Concept of intelligence Meaning and definitions of intelligence <b>(1 Hours)</b>	<ul style="list-style-type: none"> <li>Berk, L. Child Development, Harper &amp; Row, New York</li> <li>Pillai,N.P., Pillai,K.S &amp; Nair, K. S, Psychological Foundations of Education</li> </ul>
<b>Theories of Intelligence</b>	1) Spearman's two factor theory 2) Guilford's theory of structure of intellect model 3) Howard Gardner -Multiple intelligences theory and its educational implications 4) Emotional intelligence (Meaning and definitions, Components of emotional intelligence- self awareness, self regulation, self motivation, empathy and social skills, Emotional Quotient (EQ), Importance of emotional intelligence	<ul style="list-style-type: none"> <li>Berk, L. Child Development, Harper &amp; Row, New York</li> <li>Guilford, J. P, The Nature of Intelligence, New York, Mc Graw Hill Publishing house Co.</li> <li>Golman. D Emotional Intelligence New York. Bentam books</li> <li>Gardner, H. Frames of Mind, The Theory of Multiple Intelligence, Basic Books</li> <li>Freeman, F. S, Theory and</li> </ul>

	<ul style="list-style-type: none"> <li>• Concept of mental age and intelligence quotient (IQ)</li> <li>• Verbal Non verbal and Performance tests (brief description) <b>(8 Hours)</b></li> </ul>	Practice of Psychological Testing
<b>Concept of Creativity</b>	<ul style="list-style-type: none"> <li>• Meaning and nature of creativity</li> <li>• Components of creativity – sensitivity, fluency, flexibility, originality, elaboration etc</li> <li>• Stages in creative thinking – preparation, incubation, illumination and verification <b>(3 Hours)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Mangal, S.K. Advanced Educational Psychology</li> <li>• Chauhan, S. S. Advanced Educational Psychology</li> </ul>
<b>Identification of Creative Learner</b>	<ul style="list-style-type: none"> <li>• Creativity tests- verbal and non verbal</li> <li>• Role of teacher in fostering student's creativity</li> <li>• mention the techniques such as)               <ol style="list-style-type: none"> <li>1. Brain storming</li> <li>2. Lateral thinking</li> <li>3. Synectics <b>(3 Hours)</b></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Gown, J. C ., Demos, G.D &amp; Torrance, E. P Creativity, Its Educational Implications</li> <li>• Mangal, S.K. Advanced Educational Psychology</li> <li>• Chauhan, S. S. Advanced Educational Psychology</li> </ul>
<b>Processes</b>		
<ul style="list-style-type: none"> <li>• Administer five to ten items of an intelligence test available in the psychology lab of the college in two or three children/peers and conduct a sample administration in your class and familiarize the procedure of Administering the test.</li> <li>• Organize any one classroom task that foster creative thinking abilities of children using brain storming / lateral thinking/ synectics etc – Activity is to be evaluated.</li> <li>• Prepare sample items of verbal creativity test giving importance to the three major components of creativity- fluency, flexibility and originality (five items)</li> </ul>		
<b>MODULE IV</b>		
<b>Understanding Learner Diversities</b>		
<b>CONTENT</b>	<b>SCOPE</b>	<b>REFERENCES</b>
<b>Concept of Individual Differences</b>	<ul style="list-style-type: none"> <li>• Meaning of individual differences</li> <li>• Areas of individual difference - interest, attitude and aptitude</li> <li>• Difference between aptitude, attitude and interest <b>(2 Hours)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Boring, E. C., Langfield, H. S &amp; Weld, H. P (ed) Foundations of Psychology New York</li> <li>• Mangal, S.K. Advanced Educational Psychology</li> <li>• Chauhan, S. S. Advanced Educational Psychology</li> </ul>
<b>Role of Heredity And Environment</b>	<ul style="list-style-type: none"> <li>• Role of heredity and environment as determinants of individual difference <b>(3 Hours)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Mangal, S.K. Advanced Educational Psychology</li> <li>• Chauhan, S. S. Advanced Educational Psychology</li> </ul>
<b>Understanding Exceptional Learners</b>	<ul style="list-style-type: none"> <li>• Concept of exceptional children</li> <li>• Types of exceptional children               <ol style="list-style-type: none"> <li>1. Gifted Children</li> <li>2. Slow learners</li> </ol> </li> <li>• Educational provisions for exceptional children <b>(4 Hours)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Ker, C, Exceptional Children, New Delhi, Sterling Publishers.</li> <li>• Krick, S. A , Educating Exceptional Children</li> <li>• Burt. C. The Backward Child. London</li> </ul>

<b>Learning Disability</b>	<ul style="list-style-type: none"> <li>• Meaning and definitions of Learning Disability-</li> <li>• Types (Dyslexia, Dysgraphia, Dyscalculia and ADHD)</li> <li>• Causes of learning disability</li> <li>• Educational provisions for learner diversities</li> </ul> <b>(3 Hours)</b>	<ul style="list-style-type: none"> <li>• Lerner, J. W, Children with Learning Disabilities</li> <li>• Lerner, J., Learning Disabilities - Theories, Diagnosis and Teaching Strategies</li> </ul>
<b>Processes</b>		
<ul style="list-style-type: none"> <li>• Conduct A Debate On The Role Of Heredity And Environment On Learner Diversities. Prepare Two Group Reports Based On The Debate</li> <li>• Prepare Remedial Teaching Material For Slow Learners Or Enrichment Material For Gifted Children on a topic of your choice</li> </ul>		
<b>Module V</b>		
<b>Learners Personality And Adjustment</b>		
<b>Content</b>	<b>SCOPE</b>	<b>REFERENCES</b>
<b>Concept of Personality</b>	<ul style="list-style-type: none"> <li>• Meaning and definitions of personality</li> </ul> <b>(1 Hour)</b>	<ul style="list-style-type: none"> <li>• Hall, C. S. &amp; Lindzey, Theories of Personality</li> <li>• Ryckman, R. M Theories Of Personality</li> <li>• Dandapani, S. &amp; Santhanam, S, A Text Book of Advanced Educational Psychology</li> </ul>
<b>Approaches To Study Personality</b>	<ol style="list-style-type: none"> <li>1) Psycho analytic approach- (Freud) – basic assumptions</li> <li>• Personality dynamics(levels of consciousness)</li> <li>• Personality structure (id, ego and super ego)</li> <li>• Psycho-social development (oral, anal, phallic, latency and genital stages)</li> <li>2) Trait approach- <ul style="list-style-type: none"> <li>• Allport – meaning of personality traits, cardinal, central and secondary traits</li> <li>• Cattell – concepts of common, unique, surface and source traits</li> </ul> </li> <li>3) Humanistic approach <ul style="list-style-type: none"> <li>• Abraham Maslow’s self actualization theory</li> <li>• Basic concepts- physiological needs, safety needs, love and belongingness needs, and self actualization needs</li> <li>• Carl Rogers self theory -Basic concepts- organisms, self, real self and ideal self- idea of congruence and incongruence</li> </ul> </li> </ol> <b>(7 Hours)</b>	<ul style="list-style-type: none"> <li>• An Introduction to theories of Personality Ewen, R.B (1980) New York : Academic Press.</li> <li>• Child Development and Personality Musser, P.H, Conger, S and Kagar, P (1964), New York : Harper Row</li> <li>• Hall, C. S. &amp; Lindzey, Theories of Personality</li> <li>• Cattell, R. B, Personality and Motivation: Structure and Measurement</li> <li>• Allport G.W, Personality A Psychological Interpretation</li> <li>• Ryckman, R. M, Theories of Personality</li> <li>• Dandapani, S. &amp; Santhanam, S, A Text Book of Advanced Educational Psychology</li> <li>• Mangal, S.K. Advanced Educational Psychology</li> <li>• Chauhan, S. S. Advanced Educational Psychology</li> </ul>

<b>Mature Personality</b>	<ul style="list-style-type: none"> <li>• Characteristics of mature personality (1 Hours)</li> </ul>	<ul style="list-style-type: none"> <li>• Hall, C. S. &amp; Lindzey, Theories of Personality</li> <li>• Cattell, R. B, Personality and Motivation: Structure and Measurement</li> <li>• Allport G.W, Personality A Psychological Interpretation</li> <li>• Ryckman, R. M, Theories of Personality</li> </ul>
<b>Personality Testing</b>	<ul style="list-style-type: none"> <li>• Brief description about personality testing techniques (2 Hours)</li> </ul>	<ul style="list-style-type: none"> <li>• Cattell, R. B, Personality and Motivation: Structure and Measurement</li> <li>• Mangal, S.K. Essentials of Advanced Educational Psychology</li> </ul>
<b>Adjustment And Mal Adjustment</b>	<ul style="list-style-type: none"> <li>• Concept of adjustment and mal adjustment</li> <li>• Causes of mal-adjustment with special reference to teachers and students</li> <li>• Defence mechanisms</li> <li>• Role of teacher in the proper adjustment of children (3Hours)</li> </ul>	<ul style="list-style-type: none"> <li>• Adms, Henry. E, Psychology of Adjustment</li> <li>• Mangal, S.K. Essentials of Advanced Educational Psychology</li> </ul>
<b>Mental Health And Mental Hygiene</b>	<ul style="list-style-type: none"> <li>• Concept of mental health and mental hygiene</li> <li>• Importance of mental health of teachers and students</li> <li>• Causes of mental ill health of teachers and students</li> <li>• Mental hygiene – Concept, aims and objectives</li> <li>• Role of teacher in the proper mental health of children (3Hours)</li> </ul>	<ul style="list-style-type: none"> <li>• Carol.H. A. Mental Hygiene</li> <li>• Kapler, Mental Health and Human Relations in Education</li> <li>• Mangal, S.K. Essentials of Advanced Educational Psychology</li> </ul>
<b>Guidance and Counselling</b>	<ul style="list-style-type: none"> <li>• Meaning and nature of guidance and counselling.</li> <li>• Need for guidance and counselling in the educational institution</li> <li>• Types of guidance- educational, vocational and personal</li> <li>• Types of counseling- directive ,non directive and eclectic</li> <li>• Techniques of imparting guidance (3Hours)</li> </ul>	<ul style="list-style-type: none"> <li>• Mangal, S.K. Essentials of Advanced Educational Psychology</li> <li>• Counselling Psychology Rao S.N (1981) Tata Mc Graw Hills, New Delhi</li> <li>• Bengale, M. D. Guidance and Councelling</li> <li>• Rao, S.N, Counseling Psychology</li> <li>• Chauhan, S. S. Advanced Educational Psychology</li> </ul>
<b>Processes</b>		
<ul style="list-style-type: none"> <li>• Select any one personality testing technique from the psychology lab of the college and conduct a sample administration in your class and familiarize the procedure of administering the test.</li> </ul>		

- Divide the whole class into groups and conduct a discussion on what the teacher can do for improved adjustments in students – Participation in discussion to be evaluated
- Set up a career corner in your class room. Collect career literature from pamphlets, news paper career bulletins, prospectus of various institutions etc and display it in the career corner.

**EDU. 103. TECHNOLOGY AND INFORMATICS IN EDUCATION****Contact Hours: 75 (Instruction) & 15 (Process)****Marks: 50 (End Semester Examination) & 10 (CE)**

<b>Content</b>	<b>Scope of Content</b>	<b>Reference</b>
<b>MODULE. I</b> <b>(15 Hours)</b> <b>Teaching &amp; Communication</b> Meaning of teaching - Functions of Teaching - Difference among Teaching – instruction & training.	<b>Teaching: (3 Hrs)</b> <ul style="list-style-type: none"><li>- Meaning</li><li>- Formal definitions of teaching may be provided</li><li>- Teaching as a noble profession</li><li>- Major functions of teaching (preservative, Transmissive &amp; progressive aspects) may be discussed</li><li>- Differentiate teaching, instruction and training</li></ul>	Prasad Janardan, (2007). Audio Visual education. Teaching innovative technique. New Delhi: Kanishka Publishers.  Educational Technology by SK Mangal
Communication – Meaning - Types: Verbal- oral & written, Non- verbal.	<b>Communication: (3 Hrs)</b> <ul style="list-style-type: none"><li>- Meaning of communication</li><li>- Formal definitions may be given</li><li>- Different types of communication - Verbal &amp; Non-verbal, Inter &amp; Intra personal etc.</li><li>- Teaching as a communication process, communicative elements in teaching</li></ul>	
Communication Cycle - Barriers of communication - Effective Classroom Communication.	<b>Elements of communication: (2 Hrs)</b> <ul style="list-style-type: none"><li>- Communication cycle &amp; its components</li><li>- Barriers of communication</li><li>- Classroom communication, its effectiveness and influencing factors, Barriers of classroom communication</li></ul>	
Supporting aids for Teaching and communication - Projected (OHP, LCD Projector), Non – projected and Activity aids	<b>Supporting aids for teaching: (7 Hrs)</b> <ul style="list-style-type: none"><li>- Concept of teaching aids &amp; their scope</li><li>- Teaching aids &amp; learning aids</li><li>- Classification of teaching aids - Projected, Non projected &amp; Activity aids</li><li>- Projected (OHP, LCD, DLP &amp; New generation technologies.) – Merits. General awareness regarding the operation of each may be discussed and demonstrated.</li><li>- Non Projected (Audio, Visual, Audio-</li></ul>	



	visual) Merits - Activity aids- Use & Merits	
<b>Process</b>	<b>Explanations</b>	
1. Present a concept of your choice from this module using projected or non projected aids prepared by you (Group work) 2. Group wise presentation of a theme using non verbal communication strategies	Take any one concept and prepare suitable aid for presenting the same to your colleagues. Teacher may ask for random presentation  Here miming technique may be practiced Activities promoting non verbal elements of communication may be planned and implemented (body posture, gestures, non verbal cues, actions etc.)	
<b>Content</b>	<b>Scope of Content</b>	<b>Reference</b>
<b>MODULE. II (10 Hours)</b>  <b>Educational Technology</b> Meaning, Definition & Scope  Approaches of Educational technology – Hardware - Software - System approach	<p>Preface to the module:</p> <ul style="list-style-type: none"> <li>- Technological basis of education</li> <li>- Technology as an essential supportive strategy for teaching and learning process</li> <li>- Recent trend – educational technology – ICT – educational informatics</li> </ul> <p>Educational Technology: <b>(3 Hrs)</b></p> <ul style="list-style-type: none"> <li>- Meaning of educational technology</li> <li>- Formal definitions and Scope</li> <li>- Scope of ET in recent educational scenario</li> <li>- Advantages of ET</li> </ul> <p>Approaches: <b>(3 Hrs)</b></p> <ul style="list-style-type: none"> <li>- Hardware, Software &amp; System approaches</li> <li>- Concept and features of each approach</li> <li>- Impact of each approaches in teaching learning process with suitable illustrations.</li> <li>- Discriminate between technology in Education and technology of education.</li> </ul>	Aggarwal J.C (1995) Essentials of Education Technology Teaching Learning – Innovations in Education, Vikas Publishing House.

Relevance of Multimedia - Concept & Scope - Multisensory approach	Multi media: <b>(4 Hrs)</b> <ul style="list-style-type: none"> <li>- Concept of communication media</li> <li>- New technology and media revolution</li> <li>- Media globalisation</li> <li>- Recent changes in media culture</li> <li>- Meaning of Multi media</li> <li>- Features, scope and impact in teaching and learning</li> <li>- Multisensory approach, concept, scope and impact on teaching and learning</li> </ul>	Mayer Richard E(2001); Multimedia Learning, Cambridge University Press, UK.
<b>Process</b>	<b>Explanations</b>	
1. Prepare a list of Examples for software and hardware approach in educational technology 2. Prepare a list of Learning/Teaching aids in your subject which facilitates Multimedia approach	Prepare the list of examples with a brief description (Maximum 3 for each approach.)  Consider a topic of your choice and list out as many aids that may facilitate multimedia approach.	
<b>Content</b>	<b>Scope of Content</b>	<b>Reference</b>
<b>MODULE. III (15 Hours)</b> <b>Information Communication Technology</b> Meaning, Concept, Characteristics, scope, advantages and limitation of ICT in Education.  Educational Informatics - Concept	Information Communication Technology: <b>(2 Hrs)</b> <ul style="list-style-type: none"> <li>- Meaning of Information &amp; Communication Technology</li> <li>- ICT- features &amp; Scope</li> <li>- ICT &amp; Education, Impact of ICT on Teaching and Learning.</li> <li>- Advantages &amp; Limitations of ICT in Education.</li> </ul> Educational Informatics: <b>(1 Hr)</b> <ul style="list-style-type: none"> <li>- Meaning of Informatics</li> <li>- Educational Informatics an emerging concept</li> <li>- Mechanization of teaching learning process</li> <li>- Technology enabled teaching &amp; learning process.</li> </ul>	Alexey Semenov, UNESCO, (2005): Information and Communication Technologies in Schools: A Handbook for Teachers.  Information Technology in Education. Manju Genlawat,  Informatics- Teaching in Action, Alan Evans & Rainer Handel Pearson Publication

<p>Networking of computers- LAN, WAN, Internet - World Wide Web</p> <p>Web sites and concept of web designing- HTML- KompoZer</p> <p>Using free web resources - Search engines- Google, yahoo etc - Public utility websites and uses</p>	<p>Networking of computers: <b>(4 Hrs)</b></p> <ul style="list-style-type: none"> <li>- Concept of connecting computer together</li> <li>- Computer networks (LAN, WAN &amp; Internet)</li> <li>- Internet &amp; WWW</li> <li>- Difference between internet &amp; intranet</li> </ul> <p>Web sites &amp; web designing: <b>(4 Hrs)</b></p> <ul style="list-style-type: none"> <li>- Websites, meaning and nature</li> <li>- Browsing &amp; Web Browsers</li> <li>- Webpages &amp; home pages</li> <li>- Downloading &amp; Uploading</li> <li>- Familiarizing two or three popular educational websites</li> <li>- Creating web pages using HTML</li> <li>- Simple web designing- use of KompoZer</li> </ul> <p>Web resources &amp; Search engines: <b>(4 Hrs)</b></p> <ul style="list-style-type: none"> <li>- Resources in Web - free web resources</li> <li>- Concept of search engine &amp; its utility</li> <li>- Google &amp; yahoo</li> <li>- Searching techniques in search engines</li> <li>- Public information and resource sharing through websites</li> <li>- Public utility websites such as official website of Govt, KPSC, Indian Railway, Education Department, UGC etc.</li> </ul>	<p>Harasim, L. (1993) Global Networks Computers and International Communication. Cambridge; NIT Press 5.</p> <p>Sagar Krishna, (2005). ICT Teacher training. New Delhi :</p> <p>ICT Text Books of STD VIII, IX &amp; X (Kerala Syllabus)  <a href="http://www.searchenginewatch.com">http://www.searchenginewatch.com</a>, (ALTA VISTA, EXCITE, HOTBOT, INFOSEEK).  <a href="http://www.kerala.gov.in/">http://www.kerala.gov.in/</a>  <a href="http://india.gov.in/">http://india.gov.in/</a>  <a href="http://keralapsc.org/">http://keralapsc.org/</a>            UGC  <a href="http://www.ugc.ac.in">http://www.ugc.ac.in</a>            NCERT  <a href="http://www.ncert.nic.in">http://www.ncert.nic.in</a>            CIET  <a href="http://www.ciet.nic.in/">http://www.ciet.nic.in/</a>            MHRD  <a href="http://www.education.nic.in">http://www.education.nic.in</a>            SSA  <a href="http://www.ssa.nic.in">http://www.ssa.nic.in</a>            NCTE  <a href="http://www.ncte-india.org">http://www.ncte-india.org</a>            NUEPA  <a href="http://www.nuepa.org">http://www.nuepa.org</a>            General Education Kerala  <a href="http://www.education.kerala.gov.in">http://www.education.kerala.gov.in</a>            IT @ School  <a href="http://www.itschool.gov.in">http://www.itschool.gov.in</a>            SIET  <a href="http://www.sietkerala.org">http://www.sietkerala.org</a></p>
Process	Explanations	
1. Create a web page and upload personal profile.	Create web page using HTML Tag Type the tag in any one text editors & save the file as .html Upload the HTML file using any free webhosting services like Google sites.	
2. Visit any public utility	Visit KPSC website & download any new notification	

<p>website and download a material related to any two areas</p> <p>3. Download &amp; Upload educational resources</p> <p>4. Hands on experience on web browsing and use of search engines</p>	<p>Login to any social networking website and upload any details</p> <p>ICT Text Books of STD VIII, IX &amp; X ( Kerala Syllabus) may be used as a guideline in this process</p>	
Content	Scope of Content	Reference
<p><b>MODULE. IV(20 Hours)</b></p> <p><b>Technology mediated learning</b></p> <p>Meaning of Technology mediated Learning.</p> <p>E-Learning: -Meaning &amp; Characteristics - moodle Types of E-Learning: Off-line Learning (Meaning, Importance), On-line Learning- (Synchronous and Asynchronous),</p> <p>Use and Importance of Chat, E-mail, Discussion Forum, e- journals, e-reading and blogs in E – Learning.</p> <p>Computer Managed Instruction (CMI) and Computer Assisted instruction (CAI) Eg. Sun Clock <u>gor/</u> K- Star</p> <p>Teleconferencing- Audio, Video and Computer mediated- Skype</p> <p>Role of the Teacher</p>	<p>Technology mediated learning. <b>(1hr)</b></p> <ul style="list-style-type: none"> <li>- Learning through e-resources</li> <li>- Wide use of electronic devices</li> </ul> <p>E-Learning. <b>(6 Hrs)</b></p> <ul style="list-style-type: none"> <li>- Meaning of e-learning</li> <li>- Features &amp; impact of e-learning in classroom</li> <li>- moodle – an e learning platform</li> <li>- Off-line Learning (Meaning, Importance),</li> <li>- On-line Learning- (Synchronous and Asynchronous)</li> </ul> <p>Use and Importance of Chat, E-mail etc. <b>(5 Hrs)</b></p> <ul style="list-style-type: none"> <li>- Concept &amp; use</li> <li>- Familiarizing facilities available</li> </ul> <p>Computer Managed Instruction (CMI) &amp; Computer Assisted instruction (CAI) <b>(5 Hrs)</b></p> <ul style="list-style-type: none"> <li>- Concept &amp; use</li> <li>- Familiarizing Sun Clock &amp; K-Star</li> </ul> <p>Teleconferencing <b>(2 Hrs)</b></p> <ul style="list-style-type: none"> <li>- Meaning</li> <li>- Types &amp; features</li> <li>- Familiarizing Skype</li> </ul> <p>Role of the Teacher as an instructor and demonstrator</p>	<p>Khan, BoH (1977) Web-based Instruction. Englewood Cliffs: Educational Technology Publications.</p> <p><a href="http://www.moodle.org">www.moodle.org</a></p> <p>Morison, R. Gary &amp; Lowlher, L. Deborah &amp; DeMeulle Lisa. (1995). Integrating computer technology in the classroom. New Jersey: Prentice Hall.</p> <p>Roblyer, M.D. (2008). Integrating educational technology into teaching. New Delhi: Pearson.</p> <p><a href="http://www.moodle.org">www.moodle.org</a></p> <p>ICT Text Books of STD VIII, IX &amp; X (Kerala Syllabus)</p> <p>Online Teaching &amp; Learning, Rajive Ranjan</p>

Process	Explanations
1. Prepare and Submit an E- assignment.	Submit one or two assignment to the e-mail of your concerned faculty or e-mail created for specific purpose.
2. Conduct a debate on the topic “ can e- media replace the teacher”	
3. Create a group in a social network of your class.	Facebook, twitter, Google etc.
4. Create a blog of your own.	
5. Provide hands on experience to the students on practical oriented topics	ICT Text Books of STD VIII, IX & X ( Kerala Syllabus) may be used as a guideline for this process

Content	Scope of Content	Reference
<b>MODULE. V (15 Hours)</b>	Media skills in teaching and learning. <b>(4 Hrs)</b>	
<b>Media skills in teaching and learning</b> Presentation software in teaching - Impress & Power Point	<ul style="list-style-type: none"> <li>- Presentation software in teaching</li> <li>- Impress &amp; Power Point</li> <li>- Creating slides in presentation software</li> </ul>	
Basics of Graphics, Audio and video editing - Gimp/ Audacity/Kdenlive	Basics of Graphics, Audio and video editing. <b>(7 Hrs)</b> <ul style="list-style-type: none"> <li>- Basic functions of Gimp/ Audacity/Kdenlive</li> </ul>	Battacharjee Shymali, (2007). Media and Mass communication. An introduction. New Delhi: Kanishka Publishers.
Simple animation techniques - Tupi	Simple animation. <b>(2 Hrs)</b> <ul style="list-style-type: none"> <li>- Preparation of storyboard for animation</li> <li>- Basic functions</li> </ul>	ICT Text Books of STD VIII, IX & X ( Kerala Syllabus)  <a href="http://www.cec-ugc.org/">http://www.cec-ugc.org/</a>
E content authoring - Concept and scope of E content authoring - Familiarizing the facilities available - CEC, EMMRC. Role of Edusat - Gyan Darsan - ViCTERS	E content authoring <b>(1 Hr)</b> <ul style="list-style-type: none"> <li>- Concept and scope of E content authoring</li> <li>- Visit the Websites of CEC, EMMRC.</li> </ul>	
	Role of Edusat <b>(1 Hr)</b> <ul style="list-style-type: none"> <li>- Gyan Darshan - ViCTERS</li> </ul>	

Process	Explanations
<p>1. Provide hands on experience on Audio, video and graphics editing.</p> <p>2. Prepare a report on an educational programme observed through Gyan Darsan or ViCTERS.</p>	<p>ICT Text Books of STD VIII, IX &amp; X (Kerala Syllabus) may be used as a guideline for this process</p> <p>Observe any one programme on Gyan Darsan or ViCTERS and write an observation report.</p>

**EDU. 104. EDUCATION IN THE SOCIO CULTURAL CONTEXT****Contact Hours: 75 (Instruction) & 15 (Process)****Marks: 50 (End Semester Examination) & 10 (CE)**

CONTENT	SCOPE	REFERENCE
<b>Module 1 ( 15 hours)</b> <b>Sociological perspectives on education</b> Social Structure and Function - Social System and Education. Education as a social sub system - Education and Socialization. Education and Culture - Acculturation and Enculturation - Education as cultural capital. Education in a Democracy.	<b>Sociological perspectives on ( 3 hours) education</b> Sociology – meaning and definition Contributions of Comte and George Payne <b>Social Structure and functions</b> Elements of society (structuralist view) Functions of society (functionalist view) Education as an element of society and as a function of society <b>Social system and education ( 2 hours)</b> Society as a system (Parson’s Ideas) Components of social system Education as a subsystem of society Relationship of education with other subsystem of the society <b>Education and socialization ( 2 hours)</b> process of socialisation hindrances functions of educational institutions role of teacher <b>Education and culture (3 hours)</b> Meaning and definition of culture Universal characteristics of culture Cultural diffusion Types of culture Influence of education on culture  <b>Acculturation (3 hours)</b> The process of cultural and psychological change that results following meeting between cultures - process in which members of one cultural group adopt the beliefs and behaviors of another group - Education as a process of acculturation <b>Enculturation</b> <b>Enculturation</b> is the process whereby an established culture teaches the accepted norms and values of a society. - Role of education in enculturation <b>Education as cultural capital (Pierre Bourdieu) ( 1 hour)</b> The term cultural capital refers to non-financial social assets that promote social	Mathur, S.S.(2000). A sociological approach to Indian Education. Agra: Vinod Pustak Mandir  Brown, Francis. J. (1947). Educational Sociology. New York: Prentice Hall.  Russell, B (1932) Education and the social order, London: Unwin Books  Any other relevant book

	<p>mobility beyond economic means - Relationship with economic capital and social capital - Education as cultural reproduction - Cultural reproduction is the transmission of existing cultural values and norms from generation to generation. - Education as a agent for cultural reproduction</p> <p><b>Education in a democracy (1 hours)</b> Democracy as a way of life Education for a democracy and in democracy</p>	
<p><b>Module 2 ( 15 hours)</b> <b>Education and Society -</b> Characteristics of Indian Society - Aspirations of Indian Society - Societal Agencies of Education. Education and Social Change - Social Change in India - Education and Modernization - Cultural Lag Social Control.</p>	<p><b>Education and Indian society</b> <b><i>Characteristics of Indian society ( 2hours)</i></b> Caste system Class system Family system Religions languages pluralism Closed nature etc.</p> <p><b><i>Aspirations of Indian Society ( 2hours)</i></b> Nationalism Social order – family and kinship, economic order, political order, religious order, legal order, Social justice Universalism Role of education relevant to Indian society</p> <p><b>Societal agencies of education (4 hours)</b> Formal, informal and non formal agencies Family, school, state and society and their functions Active and passive agencies</p> <p><b>Education and social change ( 4 hours)</b> Meaning and definition of social change Factors contributing social change</p> <p><b>Social change in India – Post independent</b> Constraints on social change in India Processes of social change in India - Sankritization and westernization Social mobility – vertical and horizontal</p>	<p>Mathur, S.S.(2000). A sociological approach to Indian Education. Agra: Vinod Pustak Mandir</p> <p>Srinivas.M,N. (1966). Social change in modern india. Bombay: Allied</p> <p>Towards an enlightened and humane society (1990). Ramamurti committee report</p> <p>Any other relevant book</p>



<p>Module 3 (15 hours)</p> <p><b>Economics of Education</b></p> <p>Education and Economic Development - Education as an Investment - Share of GDP to Education - Education in Five Year Plans- education and National Development - Social Indices of Development - Role of Education in Kerala Development Experience</p>	<p>Role of Education in Social Change</p> <p><b>Education and modernization (1 hour)</b></p> <p>Characteristics modernization</p> <p>Role of education in modernizing Indian society</p> <p><b>Cultural lag (1 hour)</b></p> <p>Causes of cultural lag</p> <p>Role of education in removing cultural lag</p> <p><b>Social control (1 hour)</b></p> <p>Direct and indirect</p> <p>Positive and negative</p> <p>Agencies of social control</p> <p>Education and social control</p> <p><b>Economics of Education ( 5 hours)</b></p> <p>Education and economic development</p> <p>Relationship between education and economy</p> <p><b>Education as an investment</b></p> <p>Education as an economic good – human capital theory – Gary Becker</p> <p>Cost of education – public, private, opportunity</p> <p><b>Share of GDP to education (2 hours)</b></p> <p>Budget allocation to education in last few budgets</p> <p>Percentage allocated to primary secondary and higher educations</p> <p><b>Education in five year plan (8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup>) (2 hour)</b></p> <p>Plan allocation to education in different five year plans</p> <p><b>Social indices of development (only a brief description required) (3 hour)</b></p> <p>Sustainability- Population – Literacy – Education – Employment – Health - Food, water and sanitation - Life expectancy - Per capita Income – GDP - Human Development Index</p> <p><b>Role of education in Kerala Development Experience ( 3 hours) (3 hours)</b></p> <p>Higher HDI with lower Per capita income</p> <p>Higher Literacy rate, health awareness, life expectancy etc.</p> <p>Issues particular to Kerala society</p> <p>-Marginalization – children, women,</p>	<p>Pandey, VC (2001)</p> <p>Education and Globalisation, Delhi: Kalpaz publication</p> <p>Pathak, R.P. (2010).</p> <p>Education in Modern India; global trends and developments. Chennai: Atlantic</p> <p><a href="http://data.worldbank.org/country/india">http://data.worldbank.org/country/india</a></p> <p><a href="http://www.upscguide.com/content/summary-five-year-plans-india">http://www.upscguide.com/content/summary-five-year-plans-india</a></p> <p><a href="http://www.economywatch.com/five-year-plans/1st.html">http://www.economywatch.com/five-year-plans/1st.html</a></p>
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<p><b>Module 4 (30 hours)</b>  <b>Current Issues in Education</b>  Quality – Quantity Paradox  Equalization of Educational Opportunities -  Universalization of Elementary and Secondary Education - Adult and Continuing Education - Gender Issues in Education - Inclusive Education – Meaning, - Relevance and Practices - Population Education – Need, Trends in Demography, Adolescence education - Value Education – value crisis, - classification of values, Strategies for value education - Education for Peace - Environmental Education –Meaning and scope, Sustainable development, Environmental Problems, Strategies of EE, - Child rights Education - Impacts of Liberalization, Privatization and Globalization on Education</p>	<p>tribal  -Environmental issues  -Over emphasis on service sector  -Unequal Distribution of GER in different Districts etc.</p> <p><b>Current Issues in Education</b>  <b>Quality – Quantity Paradox (3 hours)</b>  Increase in number of educational institutions after independence  Decreasing quality of education  External Quality Assurance Mechanisms  Internal quality Assurance mechanisms  <b>Equalizing Educational Opportunities (2 hours)</b>  Causes of Inequality in India  Remedies for inequality  Measures taken  <b>Universalization of Elementary and secondary education (3 hours)</b>  Problems before UEE  Comparison with other countries  Remedies  SSA, RMSA and other projects  <b>Adult and Continuing Education ( 4 hours)</b>  Literacy rates  Literacy programmes in India  Continuing education programmes  <b>Inclusive Education ( 2 hours)</b>  Meaning and definition  Relevance of Inclusive education in Indian situation  Inclusive practices  <b>Population education (2 hours)</b>  Need and objectives  World population growth pattern  Factors affecting population growth  Population transition  Adolescence education programme  <b>Value Education (3 hours)</b>  Meaning and definition of values  Classification of values  Sources of values  Value crisis  Strategies for value education  <b>Education for peace ( 2 hours)</b>  Meaning and definition  Need and importance</p>	<p><a href="http://www.nationmaster.com/graph/edu_edu_spe-education-spending-of-gdp">http://www.nationmaster.com/graph/edu_edu_spe-education-spending-of-gdp</a></p> <p><a href="http://prayatna.typepad.com/education/2004/05/expenditure_on_.html">http://prayatna.typepad.com/education/2004/05/expenditure_on_.html</a></p> <p><a href="http://hdr.undp.org/en/media/HDR_2011_EN_Table1.pdf">http://hdr.undp.org/en/media/HDR_2011_EN_Table1.pdf</a></p> <p>Panikkar, K.N &amp; Nair, M.B. (2011) emerging trends in Education in India. New Delhi: Pearson</p> <p>Passi, B.K. &amp; Singh (1988). Value Education. Agra: National Psychological Corporation</p> <p>Ruhela, S.P. (1968). Human Values and Education. New Delhi: Sterling Publishers.</p> <p>Gore M.S. (1994). Indian Education – Structure and Process. New Delhi: Rawat Pub.</p> <p>Aggarwal, J.C. (2008). Educational Reforms in India. Delhi: Shipra</p> <p>Any other relevant book</p> <p><a href="http://nvpie.org/inclusive.html">http://nvpie.org/inclusive.html</a></p>
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	<p>Peace, human rights and democracy</p> <p>Curricular inputs for peace education</p> <p><b>Environmental education ( 5 hours)</b></p> <p>Meaning and scope</p> <p>Concept of sustainable development</p> <p>Environmental issues</p> <p>Educational strategies</p> <p><b>Child rights education ( 2 hours)</b></p> <p>CRC</p> <p>Categories of child rights</p> <p>Role of education</p> <p><b>LPG and their Impacts on education ( 2 hours)</b></p> <p>Positive and negative impacts of LPG on education</p>	<p><a href="http://www.unesco.org/new/en/education/themes/strengthening-education-systems/inclusive-education/">http://www.unesco.org/new/en/education/themes/strengthening-education-systems/inclusive-education/</a></p> <p><a href="http://www.create-rpc.org/pdf_documents/PTA15.pdf">http://www.create-rpc.org/pdf_documents/PTA15.pdf</a></p> <p><a href="http://www.unicef.org.uk/UNICEFs-Work/Our-mission/Childrens-rights/Education/">http://www.unicef.org.uk/UNICEFs-Work/Our-mission/Childrens-rights/Education/</a></p> <p><a href="http://www.un.org/cyberschoolbus/peace/frame2.htm">http://www.un.org/cyberschoolbus/peace/frame2.htm</a></p> <p>Pandey, VC (2001) Education and Globalisation, Delhi: Kalpaz publication</p> <p>Vats, A. (2008). Development of Education in India. Delhi: Surabh</p>
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Process	Description
1. Prepare a poster on the social issues of current Kerala society with special reference to family norms and cultural change.	1. Prepare a poster by a group of students on any relevant issues such as marginalization, small family norms, seasonal diseases, waste management, land utilization, filling of agricultural land, consumerisms, privatization of education etc.
2. Prepare a write up/presentation on social changes in the last two decades in the locality of students and present in the class (presentation by random selection of students).	2. All students should prepare a brief write up on changes in beliefs/ customs/transportation and communication/schooling/family norms/consumer behavior/life style etc. of their locality and present randomly in the class
3. Prepare a Table of allocation to different levels of (Elementary/Secondary/Higher/Technical) education in last three five Year Plans.	3. Prepare a table on one five year plan by each group using the library resources and present 3 groups on last three five year plans
4. Conduct a debate on role of Education in Kerala Development Experience	4. The debate can be conducted on the positive and negative aspects of Kerala development experience. Planning, execution and evaluation aspect of the debate is to be assessed.

<p>5. Collect data and prepare graph depicting the GER in Elementary/Secondary/in India with special reference to States/Castes/Regions.</p> <p>6. Identify a topic of student choice and suggest suitable learning activities for Environmental Education</p> <p>7. Prepare a lesson plan for developing essential values in children</p>	<p>5. Group of students can prepare a suitable graph on GER. One group should prepare graph on GER at any one level and any one category. Care should be taken that a batch of students prepare graph on all levels and on all categories.</p> <p>6. Identify a topic relevant to environmental education from school subject and plan a learning activity. Each student should prepare a brief plan of the activity.</p> <p>7. Select a topic from school subject and prepare a lesson plan for imparting essential values in children. The lesson plan is to be prepared in groups and should confine to the description of two learning activities for a duration of maximum 20 minutes.</p>
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**EDU. 105. PSYCHOLOGY OF LEARNING****Contact Hours: 75 (Instruction) & 15 (Process)****Marks: 50 (End Semester Examination) & 10 (CE)****Module I**

<b>CONTENT</b>	<b>SCOPE</b>	<b>REFERENCES</b>
<b>Concept of learning</b>	<ul style="list-style-type: none"><li>• Meaning and definitions of learning</li><li>• Characteristics of learning <b>(1 Hour)</b></li></ul>	<ul style="list-style-type: none"><li>• Mangal, S.K, Advanced Educational Psychology</li><li>• Chauhan, S. S. Advanced Educational Psychology</li><li>• De Cecco, J. P. Psychology of Learning and Instruction</li><li>• Bower, G. H. &amp; Hilgard, R.R. Theories of Learning</li></ul>
<b>Factors influencing learning</b>	<p><b>1) Learner Variables</b></p> <ul style="list-style-type: none"><li>• Maturation</li><li>• Motivation</li><li>• Attention</li><li>• Attitude</li><li>• Interest</li><li>• Mental ability</li><li>• Past experience etc</li></ul> <p><b>2) Task variables</b></p> <ul style="list-style-type: none"><li>• Length of the learning material</li><li>• Meaningfulness</li><li>• Difficulty level</li><li>• organization</li></ul> <p><b>3) Method variables</b></p> <ul style="list-style-type: none"><li>• spaced v/s massed learning</li><li>• whole v/s part learning</li><li>• recitation</li><li>• over learning</li><li>• method of loci etc <b>(5 Hours )</b></li></ul>	<ul style="list-style-type: none"><li>• Mangal, S.K. Advanced Educational Psychology</li><li>• Chauhan, S. S. Advanced Educational Psychology</li><li>• De Cecco, J. P. Psychology of Learning and Instruction</li></ul>
<b>Maturation</b>	<ul style="list-style-type: none"><li>• meaning</li><li>• educational significance <b>(1 Hour)</b></li></ul>	<ul style="list-style-type: none"><li>• Mangal, S.K. Advanced Educational Psychology</li><li>• Chauhan, S. S. Advanced Educational Psychology</li></ul>
<b>Attention (2Hrs )</b>	<ul style="list-style-type: none"><li>• Concept of attention -Types of attention(involuntary and voluntary), Factors affecting attention, span of attention <b>(2 Hours)</b></li></ul>	<ul style="list-style-type: none"><li>• Mangal, S.K. Advanced Educational Psychology</li><li>• Chauhan, S. S. Advanced Educational Psychology.</li></ul>
<b>Motivation</b>	<ul style="list-style-type: none"><li>• Meaning and definitions</li><li>• Types (intrinsic, extrinsic and achievement motivation by (Mc Clelland)</li></ul>	<ul style="list-style-type: none"><li>• Maslow, A. Motivation and Personality</li><li>• Atkinson, J. W. &amp; Feather, N. T. A Theory of Achievement</li></ul>

	<ul style="list-style-type: none"> <li>Ways to motivate children</li> <li>How to develop achievement motivation (3 Hours)</li> </ul>	Motivation <ul style="list-style-type: none"> <li>Mc Clelland, D. C., Atkinson, J. W., Clark R. A. &amp; Lowell . The Achievement Motive</li> </ul>
<b>Transfer of learning (4Hrs )</b>	<ul style="list-style-type: none"> <li>Concepts and definitions of Transfer of Learning.</li> <li>Types of Transfer- specific, general, Positive, Negative, Zero, Vertical and Horizontal Transfer.</li> <li>Educational implications (3 Hours)</li> </ul>	<ul style="list-style-type: none"> <li>Mangal, S.K. Essentials of Advanced Educational Psychology</li> <li>Chauhan, S. S. Advanced Educational Psychology</li> </ul>

## Processes

- Organize brainstorming session to list out the examples for transfer of learning in the life situations or in the classroom situation
- Divide the whole class into groups and each group will develop a plan for enhancing achievement motivation in students

## Module II

CONTENT	SCOPE	REFERENCES
<b>Behaviorist views on learning</b>	<ul style="list-style-type: none"> <li>More teacher centered</li> <li>Content oriented</li> <li>Learning is mechanical</li> <li>Learning is a passive process</li> <li>Learner is a receiver of knowledge etc</li> <li>Role of the teacher (1 Hour )</li> </ul>	<ul style="list-style-type: none"> <li>Bower, G. H. &amp; Hilgard, R. R. Theories of Learning</li> <li>Skinner, B. F. The Behavior of Organism</li> </ul>
<b>Behaviorist Theory of learning</b>	<b>Operant conditioning theory Concepts</b> <ul style="list-style-type: none"> <li>Elicited and emitted response</li> <li>S-conditioning and R-conditioning</li> <li>Reinforcer- Positive and negative</li> <li>Reinforcement</li> <li>Negative reinforcement and punishment</li> <li>Schedules of reinforcement- continuous reinforcement schedule, fixed interval schedules of reinforcement, fixed ratio schedules of reinforcement, variable reinforcement schedule</li> <li>Educational implications of the theory (3 Hours)</li> </ul>	<ul style="list-style-type: none"> <li>Bower, G. H. &amp; Hilgard, R. R. Theories of Learning</li> <li>Skinner, B. F. The Behavior of Organism</li> <li>Snelbecker, G. E. Learning Theory , Instructional Theory &amp; Psycho educational Design</li> </ul>
<b>Gagne's hierarchy of learning</b>	<ul style="list-style-type: none"> <li>Description about different types of learning identified by Gagne</li> <li>educational implications of</li> </ul>	<ul style="list-style-type: none"> <li>Gagne, R. M. The Conditions of Learning</li> </ul>

	Gagne's hierarchy of learning <b>(2 Hours)</b>	
<b>Constructivist views on learning</b>	<ul style="list-style-type: none"> <li>• More learner centered</li> <li>• More interactive</li> <li>• Process oriented</li> <li>• Learning is a dynamic process</li> <li>• Learning is an active process</li> <li>• Learner constructs knowledge</li> <li>• Constructivist learning design (situation, grouping, bridging, exhibiting and reflections )</li> <li>• Role of the teacher</li> </ul> <b>(2 Hours)</b>	<ul style="list-style-type: none"> <li>• Glaserfeld, E von. Constructivism in Education</li> <li>• Glaserfeld, E von. An Exploration of Constructivism , Why Some Like It Radical</li> <li>• Jonassen, D. H. Evaluating Constructivist Learning</li> </ul>
<b>Constructivist theories of learning</b>	<p><b>1) Cognitive development theory – Jean Piaget</b></p> <ul style="list-style-type: none"> <li>• Theoretical concepts – cognitive structure, disequilibrium , Schema , reversibility, assimilation, accommodation, , equilibration and adaptation</li> <li>• educational implications</li> </ul> <p><b>2) Discovery learning – Jerome. S. Bruner</b></p> <ul style="list-style-type: none"> <li>• Concept of discovery learning</li> <li>• Concept formation strategies in learning (observation, attribute analysis, comparison, classification, generalization and verification)</li> <li>• Educational implications</li> </ul> <p><b>3) Meaningful Verbal Learning Theory by David. P. Ausubel</b></p> <ul style="list-style-type: none"> <li>• Concept of advance organisor and Types of advance organizers - Subsumer and Subsumption - Scaffolding</li> <li>• progressive differentiation and Integrative reconciliation</li> <li>• Educational implications</li> </ul> <p><b>4) Theory of Social constructivism- Vygotsky</b></p> <ul style="list-style-type: none"> <li>• Concept of Social constructivism</li> <li>• ZPD (Zone of Proximal Development)</li> <li>• Scaffolding</li> </ul> <b>(12 Hours)</b>	<ul style="list-style-type: none"> <li>• Glaserfeld, E von. Constructivism in Education</li> <li>• Glaserfeld, E von. An Exploration of Constructivism , Why Some Like It Radical</li> <li>• Jonassen, D. H. Evaluating Constructivist Learning</li> <li>• Ausubel , D. Psychology o f Meaningful Verbal Learning</li> </ul>
<b>Constructivist learning Strategies</b>	1. Cooperative and collaborative learning	<ul style="list-style-type: none"> <li>• Glaserfeld, E von. Constructivism in Education</li> </ul>

	2. Peer tutoring 3. Concept mapping 4. Brain Based learning 5. Cognitive apprenticeship 6. Engaged learning <b>(3 Hours)</b>	<ul style="list-style-type: none"> <li>Glaserfeld, E von. An Exploration of Constructivism , Why Some Like It Radical</li> <li>7. Jonassen, D. H. Evaluating Constructivist Learning</li> </ul>
<b>Humanistic views on learning</b>	<ul style="list-style-type: none"> <li>Human being have purpose in life</li> <li>Learning is experienced based</li> <li>Learning become effective when it is need based</li> <li>Freedom and independence learning</li> <li>It emphasis self motivation for better learning</li> <li>Learning as a process inevitable and unique for every individual</li> <li>It gives emphasis on learners self direction and independence</li> </ul> <b>(1 Hour)</b>	<ul style="list-style-type: none"> <li>Mangal, S.K. Essentials of Advanced Educational Psychology</li> <li>Chauhan, S. S. Advanced Educational Psychology</li> </ul>
<b>Humanistic theory of learning</b>	<ul style="list-style-type: none"> <li>Experiential learning – Carl Rogers</li> <li>Educational implications of the humanistic approach to learning (emphasis on individuality, child centered education, self control, self discipline, understanding the child, etc)</li> </ul> <b>(1 Hour)</b>	<ul style="list-style-type: none"> <li>Mangal, S.K. Essentials of Advanced Educational Psycholog</li> <li>Chauhan, S. S. Advanced Educational Psychology</li> </ul>

#### Processes

- Each student should construct a concept map of a concept of his/ her choice
- Student teachers should take up a concept from educational psychology and conduct peer tutoring for a duration of six minutes simultaneously in the prescribed process hour. For the comfortable execution of peer tutoring the class may divide into small groups. All students should undertake peer tutoring in rotation – Participation in peer tutoring is to be evaluated.
- Prepare a list of five learning activities based on any one of the learning strategy. Ensure that all learning strategies are explored and submit group report in the college.

### Module III

CONTENT	SCOPE	REFERENCES
<b>Mental processes of learning</b>	<b>1) Memory</b> <ul style="list-style-type: none"> <li>Concept and definitions</li> <li>Types (STM, LTM)</li> <li>Strategies to improve memory</li> </ul> <b>2) Forgetting</b> <ul style="list-style-type: none"> <li>Concept and definitions</li> </ul>	<ul style="list-style-type: none"> <li><b>Boune, L. E., Dominowski, R. L., &amp; Loftus, E. F. Cognitive Processes</b></li> <li><b>Davis, G. A. Psychology of Problem Solving</b></li> <li>Mangal, S.K. Essentials of</li> </ul>



	<ul style="list-style-type: none"> <li>Causes of forgetting</li> </ul> 3) <b>Thinking</b> <ul style="list-style-type: none"> <li>Divergent, convergent and reflective thinking</li> </ul> 4) <b>Reasoning</b> <ul style="list-style-type: none"> <li>Inductive and deductive reasoning</li> </ul> 5) <b>Concept formation</b> <ul style="list-style-type: none"> <li>Steps and strategies</li> </ul> 6) <b>Problem Solving</b> <ul style="list-style-type: none"> <li>Steps and strategies</li> </ul> <b>(15 Hours)</b>	Advanced Educational Psychology <ul style="list-style-type: none"> <li>Chauhan, S. S. Advanced Educational Psychology</li> </ul>
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#### Process

Prepare test items (minimum five items ) to assess any one of the mental processes (memory/ reasoning/ problem solving)

#### MODULE IV

CONTENT	SCOPE	REFERENCES
<b>Learning in groups</b>	<ul style="list-style-type: none"> <li>Concept of group</li> <li>Types of groups</li> <li>Characteristics of social groups</li> <li>Sociometry- use and importance</li> <li>Concept of group dynamics</li> <li>Educational importance of group dynamics</li> <li>Concept of group cohesion</li> <li>Importance of developing group cohesion</li> </ul> <b>(7 Hours)</b>	<ul style="list-style-type: none"> <li>Mc Dougall, William. Introduction to Social Psychology</li> <li>Kuppuswami, B. An Introduction to Social Psychology</li> </ul>
<b>Interpersonal Relationship</b>	<b>Transactional Analysis</b> <ul style="list-style-type: none"> <li>Concept and importance of TA</li> </ul> <b>(3 Hours)</b>	<ul style="list-style-type: none"> <li>Berne, E. Transactional Analysis in Psycho Therapy</li> <li>Thomas, Haris. I am ok , you are ok</li> <li>Berne, E. Games People Play</li> </ul>

#### Processes

- Construct a sociogram based on the sociomatrix (group work of five to six students )
- Prepare an imaginary communication script and identify the elements of child, adult and parent ego state

#### MODULE V

CONTENT	SCOPE	REFERENCES
<b>Learning from learner's perspectives</b>	<ul style="list-style-type: none"> <li>Meaning and definitions of learning style</li> <li>Approaches to learning (deep, surface and strategic approaches)</li> <li>Orientations in learning</li> <li>Types of Orientations in learning (meaning orientation, reproducing</li> </ul>	<ul style="list-style-type: none"> <li>Entwistle , N. J. (1981) Styles of Learning and Teaching</li> <li>Entwistle , N. J. (1987) Understanding classroom learning</li> <li>Kumar, S.P.K (2006) How pupils learn? Theory research and</li> </ul>

	<p>orientation, achieving orientations and non academic orientations)</p> <ul style="list-style-type: none"> <li>• Reflective practices- attending to the experience, returning to the experience, reevaluating the experience</li> <li>• Meta cognition – planning, monitoring and evaluation</li> </ul> <p><b>(10 Hours)</b></p>	practice
<b>Process</b>		
<ul style="list-style-type: none"> <li>• Prepare a tool on learning style / learning approach in group and administer the tool in another group of students and submit the report including the items of the tool and identified learning style preference</li> </ul>		

<b>EDU. 106. EDUCATIONAL MANAGEMENT</b> <b>Contact Hours: 75 (Instruction) &amp; 15 (Process)</b> <b>Marks: 50 (End Semester Examination) &amp; 10 (CE)</b>		
Content	Scope	Process
<b>MODULE I (20 Hours)</b>  Educational management Concept – Need, Scope and functions Characteristics of democratic institutional climate	Meaning and definitions of educational management Need, Importance and Scope. Functions: Planning, Organizing, Directing, Motivating, Evaluating and Decision-making.  Concept, meaning and types of institutional climate. Characteristics of democratic climate- factors influencing organizational climate like leadership style, organizational policies, managerial values, economic conditions etc. <b>(7 Hours)</b>	Conduct a group discussion on “the impact of organizational climate on the effective performance of teachers”
Organizational process in school - HM/Principal as a leader - Duties and responsibilities of HM	The organizational process- Academic planning, resource mobilization, co-curricular activities planning, time allocation, monitoring, evaluation, feedback etc. Leadership qualities of HM/ Principal Role of HM as a leader and a manager-Leader of Academic, administrative, discipline, human and financial management of the school. Duties and responsibilities of HM in academic, non academic and administrative aspects <b>(5 Hours)</b>	Prepare a questionnaire for HMs for collecting data regarding his/her difficulties in performing duties and responsibilities
Performance Appraisal - meaning and importance - performance appraisal of Teachers	Performance Appraisal: meaning and importance, (as the systematic evaluation of the performance of employees and to understand the abilities of a person for further growth and development). Criteria of performance appraisal of Teachers- Knowledge of Content Area Knowledge of Delivery Methods Understanding the Learning Process Understanding of Student Needs Curriculum Alignment Ability to use Student Achievement Data in Planning Instruction Classroom Management Professional Growth/Continuous Improvement Ability to use Technology as a Tool in the Classroom Communication with Stakeholders Inside and Outside the School Setting Establishes relationships with colleagues, students and parents. <b>(4 Hours)</b>	
Importance of essential records -	Importance of essential records - Admission Register, Attendance Register for Staff &	

Admission Register - Attendance Register for Staff & students - Stock Registers – Acquittance, Teaching Manual – Student Profile - Cumulative Record - Service Book	students, Stock Registers, Acquittance roll, Teaching Manual, Student Profile, Cumulative Record, Service Book. Importance and purpose of each record. Rules to be followed while maintaining each record. <b>(4 Hours)</b>	Prepare a hypothetical admission register of 5 students (Xerox copies of one page of Admission Register may be used)
<b>MODULE II (10 Hours)</b> Institutional management Institutional Planning - Meaning and Importance	Meaning and importance of Institutional planning Objectives and characteristics Steps of institutional planning Analysis of the existing conditions Planning for the improvement of existing conditions Implementation of the plan Evaluation and feed back Merits of institutional planning <b>(3 Hours)</b>	Divide the whole class into different groups and assign each group to List out the various co-curricular activities usually conducted in the schools of Kerala. Make them prepare an action plan of all the listed co-curricular activities within the frame of the year plan of the school
School Management Committee (SMC) – School Development Plan	SMC- Structure and Functions. (The RTE Act (2009) emphasizes the involvement of communities in school governance through SMCs to ensure school quality with equity.) School Development Plan( a process undertaken by the SMC) - its concept <b>(1 Hour)</b>	Prepare a poster on ‘Structure and functions of SMC (group work)
Functions of staff council and student council	Organizational Structure and Functions of the Staff council and Student Council <b>(1 Hour)</b>	Prepare an agenda for a staff council/ students’ council.
Timetable - Types and Principles of timetable construction	Concept of time table Need and importance of time table Types- class time table. Teacher’s time table, Master time table, home work time table, co-curricular activities time table etc. Principles of time table construction - Principle of fatigue Principle of Variety Principle of Justice Principle of Rest and recreation Principle of flexibility..... <b>(2 Hours)</b>	Create a class time table or a framework for school time table
Total Quality Management (TQM)	Concept of Quality and TQM (TQM as an integrative philosophy of management for	

– Concept and Scope.	continuously improving the quality of products and processes.) Scope of TQM- awareness for the need and opportunity for improvement, set explicit goals for improvement, provide appropriate training, create an organizational structure, identify and report progress, SWOT analysis, quality audit etc.  <b>(3 Hours)</b>	
<b>MODULE III (25 Hours)</b> <b>Managing evaluation in school</b> Measurement and Evaluation- Meaning, functions - Formative & Summative Evaluation	Measurement and Evaluation- meaning, functions Types of evaluation- Formative and Summative evaluation- difference, importance, purpose and examples  <b>(3 Hours)</b>	
Tools and techniques of Evaluation - Qualities of good evaluation tool.	Techniques of evaluation- observation, interview, self reporting, testing, sociometric, projective, case study- concept, merits and demerits of each technique.-when to use Tools of evaluation- tests, checklist, rating scale, questionnaire, inventory, schedule- concept and when to use Qualities of good evaluation tool- objectivity, comprehensiveness, validity, reliability, practicability, - to be explained. <b>(6 Hours)</b>	
CCE -Concept and relevance - Grading system, merits and limitations - Semester system of examination – Open book examination.	CCE- Concept and relevance Grading system- direct and indirect (relative and absolute)  Reforms of examination- semester system of examination- concept, relevance, merits and demerits. Open book examination- relevance, merits and demerits Online examination. Etc..... <b>(3 Hours)</b>	Undergo an open book examination in the class on relevant unit.
Basic statistics in Evaluation - Measures of central tendency & dispersion - Graphical representation of data.	Importance of statistics, utility of statistics (how it helps in data presentation and interpretation) Concept, important measures of central tendency- mean, median, mode (concept, importance, calculation for raw data and frequency distribution. Measures of dispersion- concept, relevance and calculation using raw data and frequency distribution. Graphical representation for continuous and discrete data- Histogram, Frequency curve, Ogive. Bardigram,	Compute the measures of central tendency, measures of dispersion and draw appropriate graphical representation using hypothetical data

	Pie Diagram, Merits of graphical representation in general and for each one. <b>(11 Hours)</b>	
Using spread sheets in computer for data entry & basic statistics	Use of ICT in evaluation process Using spreadsheets in computer for data entry and basic statistics. <b>(2 Hours)</b>	Make data entry in a spreadsheet using hypothetical data and workout basic statistics.
<b>MODULE IV (20 Hours)</b> <b>Managing physical and health education practices in school</b> Introduction, Definition, aims and objectives of Physical Education.	Meaning, need and importance of physical education Meaning, need and importance of health education Difference between the two Aims and objectives of physical education. <b>(3 Hours)</b>	
Introduction and Definition of Health, fitness and Wellness.	Definition of Health, Definition of fitness and Definition of Wellness. Relationship among health, fitness and wellness. <b>(2 Hours)</b>	Practice of Yogasanas and relaxation techniques
Types of Physical Fitness - Health related physical fitness - Performance related physical fitness - Cosmetic fitness.	Concept of physical fitness Three types of physical fitness Health related physical fitness Performance related physical fitness and Cosmetic related physical fitness. <b>(3 Hours)</b>	Practice of warm up and warm down exercises.
Physical fitness components – Fitness Balance.	Components of physical fitness Strength, agility, endurance, speed, power etc. Fitness balance- how to balance them each. <b>(2 Hours)</b>	
Hypo-kinetic Diseases and its Management – Obesity – Diabetes – Dyslipidemia – Hypertension – Osteoporosis - Coronary heart disease -Back pain.	Hypo-kinetic Diseases- meaning, general causes, remedies Obesity, Diabetes, Dyslipidemia, Hypertension, Osteoporosis, Coronary heart disease, Back pain (specific causes of each, its symptoms and preventive measures). <b>(5 Hours)</b>	Practice Walking, jogging, stretching and resistance training
Posture and Postural deformities. Principles of first	Meaning of posture Importance of good posture Meaning of bad posture, its causes (congenial and	

aid. Food and nutrition.	acquired) Examples of bad posture- scoliosis, lordosis, kyphosis, flat foot Principles of first aid- concept and importance Definition of balanced diet Concept of nutrition and mal nutrition Deficiency diseases- concept and examples <b>(5 Hours)</b>	
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## REFERENCES

- Adrianne Hardman and David J Stenesel, Physical activity and Health (2004)
- Adrianne, CR, Your Guide to Health, Oriental Watchman Publishing House (1967)
- Aggarwal J.C (1997) School Organization and Administration Management. New Delhi: Doaba House, Book sellers and Publishers
- Ajmer Singh et al. Modern text of Physical Education, Health and Sports, Kalyani
- Alka Kalra (1997) Efficient School Management and Role of Principals, APH
- Best, J W & Khan, J.V (1992). Research in Education, New Delhi: Prentice Hall of India.
- Bhatnagar, RP and Agarwal, V (1986) Educational Administration and Management,
- Bhatnagar, S.S. , & Gupta , P.K. (2006). Educational Management. Meerut: Lall Book Dept.
- Buch, M.B, Institutional Planning for Educational Improvement and Development,
- Chaube A Chaube. (2003). School Organization, New Delhi: Vikas
- Chaudhary, N.R. (2001). Managements in education. New Delhi: APH.
- Daniels C J. (1949) Teachers'handbook of test construction. Marking and Records. London: Crosby Lock wood & sons limited
- Dowine, N.M. (1958). Fundamentals of measurement. New York: oxford.
- Ebel, Robert et al (1991) Essentials of Educational Measurement, New Delhi: Prentice Hall of India.
- Greene, H.A., Jorgensen, A.N & Gerbrich , J.r. (2008). Measurement and evaluation in the secondary school. New Delhi: Surjeet.
- Hardayal Singh, Science of Sports training, DVS Publications (1995)
- Indian Edition National Council of Educational Research and Training; Educational Testing Service . 1960
- James Brown & Longmans. (1996). Objective Tests their construction and analysis. A Practical handbook for teachers. London: Spot tiswoode, Ballantyne and Co. LTD.
- Kerala Education Rule (KER) Govt. of Kerala
- Lal, J.p. (2007). Educational Measurement and Evaluation. New Delhi: Anmol. Loyal Depot, Meerut.
- Macnee, E.A. (2004). School Management and methods of teaching. New Delhi: Sonali.
- Mohanty, J. (1990). Educational Administration, supervision and school management. New Delhi: Sonali
- Mukhopadhyay,M. (2005). Total Quality Management in Education ,Sage
- Muller JP (2000) Health Exercise and fitness, New Delhi, Khel Sahitya Kendra.
- Nair TKD. (2004). School Planning and Managements. A Democratic Approach. Delhi: Choudhari offset Process.
- Noll Victor H, (1957). Introduction to educational measurement. USA: Cambridge Mesachusetts.
- Patel, R.N. (1989). Educational Evaluation: Theory and evaluation. New Delhi: Himalaya.

Publishers , New Delhi.

Sidhu, K.S. (2007). School organization and administration. New Delhi: Sterling.

Sindhu, I.S. , & Gupta,S. (2005). School Managements and pedagogies of education. Meerut. International.

Srivastava, A.B.L and Sharma K.K (1989) Elementary Statistics in Psychology and education, New Delhi: Sterling Publications.

Thomas, J.P, Organisation of Physical Education, Gnanodya Press, Chennai (1964)

Thorndike . R.L and Elizabeth (1977) Measurement and Evaluation in Psychology and Education, New York : John Wiley.

Wert Churchman. C. & Philbarn Ratoosh (Ed.). (1995). Measurement; Definition and theories. USA: John Willey and sons, Inc.

World Health Organisation (1991) Comprehensive School Health Curriculum, New Delhi Region Office for South East Asia.



# **UNIVERSITY OF CALICUT**

**Re structuring of Curriculum-2012  
Credit Based Semester and Grading System**

## **HANDBOOK FOR TEACHER EDUCATORS (COMMERCE EDUCATION)**

**Programme: Bachelor of Education (B Ed)  
With effect from 2012-13 Academic Year**

**BOARD OF STUDIES  
EDUCATION (UG)**

<b>EDU. 118. METHODOLOGY OF TEACHING COMMERCE</b>		
<b>Content</b>	<b>Scope</b>	<b>Guidelines for the process</b>
<b>Meaning and Nature of Commerce</b>  1.1 Meaning and Definition of Commerce.  1.2 Nature and Scope of Commerce subject.  1.3 Recent developments in commerce.	1.1. Meaning and any two definitions of Commerce and its analysis. (1 hour) 1.2. Nature of commerce subject as an academic discipline and vocational discipline, knowledge subject and skill subject, deals with the structure and functions of commerce, both for preparation to further studies and terminal to enter into the careers of middle level lines of employment, etc. Scope of Commerce as a Subject-Scope of commerce subject at secondary level, higher secondary level, college level and professional level. (2 hours) 1.3. Recent Developments in Commerce- Briefly explain the meaning of E-Commerce, E-Banking, On-line Marketing, M-Commerce, Social commerce etc. (2 hours)	<b>List out the major areas of commerce and its recent developments</b>  Make a discussion in the class about the major areas of commerce like transport, communication, warehousing, banking, insurance, advertising etc. The student teachers should submit an individual report on the list of major areas of commerce and its recent development prepared by them.
<b>Evolution of Commerce Education</b>  2.1 Commerce Education- Meaning, Definition and Importance.  2.2 Historical development of Commerce Education.  2.3 KCF(2007)	2.1. Meaning, any three definitions with its analysis and Importance of commerce education-Discuss the role of commerce education in general education, as a part of vocational education, impact of privatization and industrialization, creation of employment opportunities, increases standard of living, economic development, develops national and international understanding etc. (3 hours) 2.2. Historical Development of Commerce Education-Discuss the chronological development of commerce education from ancient period to the present status. Also highlight the landmarks in commerce education. (2 hours) 2.3. KCF(2007)-Aims of education.- Briefly explain the aims of education in KCF (social justice, awareness on environment, scientific temper, cultural identity, vocational skills, democratic values, citizenship, nationalism, awareness of one's right, awareness of science and technology, resistance, construction of knowledge, critical approach) and discuss the relevance and significance of these aims in commerce education. (2 hours)	<b>Make an operational definition for Commerce education. Collect any 5 definitions of Commerce education.</b>  The student teachers should collect any 5 definition of commerce education and make an in-depth analysis of these definitions and formulate a definition of their own.

<p><b>Approaches, Methods and Techniques of Teaching Commerce</b></p> <p>3.1 Maxims and Principles of Teaching.</p> <p>3.2 Approaches of Teaching Commerce- Learner centered approach, Competency based approach and Multi Media approach.</p> <p>3.3 Approaches of Teaching Accountancy- Balance sheet approach, Equation approach, Spiral Development approach.</p> <p>3.4 Methods of Teaching Commerce- Lecture method, Discussion, Debate, Project method, Problem Solving method, Inductive and Deductive method, Case Study method.</p> <p>3.5 Techniques of Teaching Commerce- Review, Role play, Simulation, Brainstorming.</p>	<p>3.1. Maxims and Principles of teaching- Meaning of maxims, various maxims of teaching like known to unknown, simple to complex, concrete to abstract, particular to general, whole to parts etc., Meaning and characteristics of teaching, various principles of teaching like definite goals, child centeredness, individual difference, linking with life, correlation, creating conducive environment, remedial teaching, motivation, planning etc. (4 hours)</p> <p>3.2. Approaches of teaching commerce- Meaning, Characteristics and Advantages of Learner centered approach; Competency based approach and Multi Media approach. (3 hours)</p> <p>3.3 Approaches of Teaching Accountancy- Discuss the principles of teaching Accountancy such as thoroughness in teaching, organization of learning, effective demonstration, selection of appropriate approach, motivation, maintaining interest etc. Meaning and steps of Balance sheet approach, Equation approach and Spiral Development approach. (4 hours)</p> <p>3.4. Methods of Teaching Commerce- Meaning of methods of teaching, Lecture method, Discussion-types of discussion- Group discussion and panel discussion, Debate, Project method, Problem Solving method, Inductive and Deductive method, Case Study method- A discussion on meaning, characteristics, principles (if any), steps/procedures/ organization, merits, demerits and role of teacher in each method with examples from commerce. (16 hours)</p> <p>3.5 Techniques of Teaching Commerce- meaning of techniques, Review- meaning, purpose and techniques of review, Role play- meaning, characteristics, importance, advantages, limitations and steps, Simulation- meaning, characteristics, advantages, limitations and steps, Brainstorming- meaning, importance and phases. Also discuss the application of each technique in teaching of commerce. (8 hours)</p>	<p><b>Prepare a Project plan or draft a case or a script of role play on any topic in Commerce.</b></p> <p>Individual project plan should be prepared by the student teachers based on any topic in commerce or commerce education. It should include the aspects such as introduction, need and significance, statement of the problem, objectives and methodology, references etc.</p> <p>Or</p> <p>Draft a case situation related to any topic in commerce and suggests a suitable solution.</p> <p>Or</p> <p>Prepare the script of role play for a topic in business studies or accountancy.</p>
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<p><b>Theoretical Bases of Constructivism and Behaviourism</b></p> <p>4.1 Constructivism- Learning as agenerative process.</p> <p>4.2 Behaviourism- Objective based Instruction.</p> <p>4.3 Constructivism vs. Behaviourism.</p> <p>4.4 Large group activity and Small group activity.</p> <p>4.5 Cooperative Learning Strategies.</p> <p>4.6 Competency based instruction-meaning, features and steps.</p>	<p>4.1 Constructivism- Meaning, characteristics, theoretical background of cognitive and social constructivism, role of teacher. Make a discussion on learning as a generative process. ( 6 hours)</p> <p>4.2 Behaviourism-Theoretical outlines basic ideas of S-R learning, role of teacher. Objective based instruction – meaning and steps.(4 hours)</p> <p>4.3 Constructivism vs. Behaviourism-Difference between behaviourism and constructivism may be discussed in the light of theory as well as practical experience. (1 hour)</p> <p>4.4 Large group activity and Small group activity – meaning, features and examples.(1 hour)</p> <p>4.5 Cooperative Learning Strategies-meaning, elements and advantages, brief explanation of techniques such as Jigsaw, Think-pair-share, Circle the sage, Numbered heads together, Round robin etc. (4 hours)</p> <p>4.6 Competency based instruction-meaning of competency, meaning, features and steps in competency based instruction such as identification and classification of competencies, plan evaluation, construct performance goals, identification and sequencing of sub competencies, pre test and match learner with performance goals and sub competencies, apply learning principles, apply learning strategies, evaluating students achievement and effectiveness of the system. Also discuss the competencies desired by commerce students.( 4 hours)</p>	<p><b>Debate on Constructivism and Behaviourism</b></p> <p>Divide the class into two groups and organize a debate on constructivism vs behaviourism. Teacher should ensure the participation of each student and student teacher should note down the points of debate and prepare a report by themselves.</p>
<p><b>Present Practices in Teaching of Commerce</b></p> <p>5.1 Critical Pedagogy and Commerce – Problem posing education.</p> <p>5.2 Review on the latest happenings in the State Higher Secondary schooling procedure.</p>	<p>5.1 Critical Pedagogy and Commerce– Conceptual overview of Critical pedagogy and Banking concept of Education, The issues listed in KCF should be discussed in the context of commerce teaching. Problem posing education-a conceptual overview of meaning, characteristics, role of teacher and students. ( 7 hours)</p> <p>5.2 Review on the latest happenings in the State Higher Secondary schooling procedure- Critically evaluate the current practices in the state higher secondary based on the theory and practical experience of the teacher educator.(1 hour)</p>	<p><b>Prepare a list of five social issues that can be addressed in commerce class.</b></p> <p>Make a discussion on the issues listed in KCF and prepare an individual report on 5 issues relating to any topic from commerce. Each student teacher should prepare a report with two columns. The first column will list the issues. The second column will list the suitable topics - one against each issue.</p>

**EDU. 138. PEDAGOGIC PRACTICES IN COMMERCE**

<b>Content</b>	<b>Scope</b>	<b>Guidelines for the process</b>
<b>Aims and Objectives of Teaching Commerce</b>  1.1 Aims of teaching commerce, Values of teaching commerce.  1.2 Objectives of teaching commerce at Higher Secondary Level.  1.3 Instructional Objectives-Bloom's taxonomy- Criteria of writing instructional objectives-Specifications.  1.3 Revised Bloom's Taxonomy- a conceptual review.  1.5 Process Skills in commerce.	1.1 Aims of teaching commerce- Briefly explain knowledge aim, character development aim, citizenship development aim, moral and spiritual aim, vocational aim, economic efficiency aim, social efficiency aim, processional career aim. Values of teaching commerce-explain cultural values, disciplinary values, practical values, social values.(2 hours) 1.2 Objectives of teaching commerce at Higher Secondary Level-Discuss the objectives of teaching Business Studies and Accountancy at higher secondary level. The teacher educator should refer the source book of Business Studies and Accountancy for higher secondary.(1 hour) 1.3 Instructional Objectives-meaning, Bloom's taxonomy-classification and hierarchical arrangement of cognitive domain, affective domain and psychomotor domain with examples from commerce. Criteria of writing instructional objectives;Criteria for stating Instructional Objectives in the Behaviourist and Constructivist approaches may be emphasized. Specifications-meaning, specifications under each domain should be listed.(7 hours) 1.4 Revised Bloom's Taxonomy- a conceptual review of change in terminology, structure and emphasis.(2 hours) 1.5 Process Skills in commerce-The meaning and various process skills required for commerce student may be discussed.(1 hour)	<b>Prepare instructional objectives for any one concept in commerce based on Bloom's Taxonomy.</b>  The student teacher should select a topic either from Business studies or Accountancy and prepare the instructional objectives under cognitive, affective and psycho motor domains.
<b>Teachings Skills</b>  2.1 Teachings skills-Core teaching skills and its components.	2.1 Teachings skills-meaning, Core teaching skills and its components-Introduction, Stimulus Variation, Explanation, Illustrating with examples,	<b>Prescribed in the practical.</b>  Preparation of micro lessons and practice them by student teachers.

2.2 Micro teaching procedure.	Using Black board, Fluency in asking questions, Probing question and Reinforcement. Integration of skills and link practice.(9 hours) 2.2 Micro teaching procedure-Meaning, features, Micro teaching cycle and phases.(3 hours)	
<b>Pedagogic Analysis of Commerce</b>  3.1 Pedagogic analysis-Meaning and steps-Content analysis.  3.2 Analysis of Business studies and Accountancy content of 11 <sup>th</sup> standard textbooks of Kerala State.	3.1 Pedagogic analysis-Meaning, importance and steps-The scope of Pedagogic Analysis encompassing content analysis, statement of objectives, deciding prerequisites, determining inputs, assignments, activities and evaluation procedures may be discussed. Content analysis-Meaning and process; Content analysis may be done as terms, facts, concepts, principles and processes. Concept may be discussed as given by Bruner in Concept Attainment Model. The five elements of a concept (name, exemplar, attribute, attribute value and definition) may be emphasized.(5 hours) 3.2 Analysis of Business studies and Accountancy content of 11 <sup>th</sup> standard textbooks of Kerala State- Importance of selecting suitable learning experience for effective teaching may be emphasized.Selecting the appropriate evaluation procedure relevant to constructivist and behaviourist styles. .(15 hours)	<b>Perform content analysis on any one topic each from Business studies and Accountancy.</b>  At first the student teacher should select a topic suitable for teaching in a class of 40 minutes duration in Accountancy and Business studies. Then he/she has to make the content analysis based on terms, facts and concept.
<b>Planning of Instruction</b>  4.1 Planning of instruction-Year plan, Unit plan and Lesson plan-(Herbartian approach and Evaluation approach)-Resource Unit.  4.2 Lesson planning in Behaviourist and Constructivist approaches.	4.1 Planning of instruction- meaning, importance and steps in Year planning, Unit planning and Lesson planning- Steps involved in Herbartian approach and Evaluation approach -Resource Unit-meaning and purpose.(10 hours) 4.2 Lesson planning in Behaviourist and Constructivist approaches.(10 hours)	<b>Prepare a Year plan or Unit plan in commerce.</b>  After a group discussion the student teachers have to submit an individual unit plan based on any one unit either from Business Studies or Accountancy. Or After a group discussion the student teachers have to submit an individual year plan for Business studies or Accountancy.

<b>Evaluation in Commerce</b>  5.1 Continuous and Comprehensive evaluation.  5.2 Types of test items- merits and demerits.  5.3 Construction and administration of Achievement tests and Diagnostic tests.	5.1 Continuous and Comprehensive evaluation-concept, components of continuous and comprehensive evaluation such as CE, PE and TE. Evaluation criteria of collection, seminar, assignment, project, practical etc may be discussed.(2 hours) 5.2 Types of test items- Objective type-types, Short answer type and Essay type - merits and demerits of each. Guidelines for preparation of each test item should be discussed and provide practical experience in preparation of test items.(3 hours) 5.3.Construction and administration of Achievement tests and Diagnostic tests-meaning and steps of both with examples from commerce. The teacher educator should provide experiences for construction of achievement tests based on objectives and mental process.(5 hours)	<b>Prepare at least 10 Multiple choice test items on any topic either in Business studies or in Accountancy.</b>  The student teacher should select a suitable topic either from Business Studies or Accountancy and has to prepare 10 multiple choice test items. The instructional objective relevant to each question should be mentioned.
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<b>EDU.158. CURRICULUM AND RESOURCES OF COMMERCE</b>		
<b>Content</b>	<b>Scope</b>	<b>Guidelines for the process</b>
<b>Commerce Curriculum</b>  1.1 Commerce Curriculum- Meaning, Definition and Bases of curriculum development.  1.2 Principles of curriculum construction.  1.3 Modern Trends in Curriculum Development.  1.4 Types of curriculum.  1.5 Approaches of curriculum	1.1 Commerce Curriculum- Meaning, Definition and its analysis and Bases of curriculum developmentsuch as philosophical, sociological and psychological.(4 hours) 1.2Principles of curriculum construction- The various principles underlying the construction of curriculum should be discussed in detail .(3 hours) 1.3 Modern Trends in Curriculum construction- A brief explanation of modern trends in curriculum such as emphasis on conceptual learning, integrated approach, decentralized curriculum, pupil centered curriculum, use of self learning materials, use of low cost materials, social issues oriented, competency based etc. may be done..(2 hours) 1.4 Types of curriculum-subject centered, activity centered, child centered, experience centered, undifferentiated/ integrated, differentiated, hidden and competency based.(3 hours) 1.5 Approaches of curriculumorganization-	<b>1. Critically analyze the organization of the content within a unit in relation to curriculum organization.</b> <b>2. Which 3 principles will be given priority, if you were asked to construct a curriculum for higher secondary classes? Justify your view point with your life experience.</b>  The student teacher should select a unit either from Business Studies or Accountancy and make a critical evaluation of the organization of unit based on the approaches of curriculum construction.(group activity)  The student teacher should select any three principles of

<p>organization.</p> <p>1.6 Curriculum evaluation.</p>	<p>The approaches of curriculum construction such as concentric, spiral, psychological, logical, topic and unit approaches may be discussed with respect to meaning, merits and demerits of each.(5 hours)</p> <p>1.6. Curriculum evaluation-The meaning and purpose of curriculum evaluation must be discussed.</p> <p>An overview of levels of evaluation encompassing summative and formative evaluation, evaluation done by students, teachers, parents, professional bodies etc may be discussed.</p> <p>The various techniques employed for curriculum evaluation such as Questionnaire, checklist, observation, interview, group discussions, workshops and Delphi techniques may be discussed.(3 hours)</p>	<p>curriculum construction according to their preference in curriculum construction and their justification for selecting these three principles should be stated.(individual activity)</p>
<p><b>Commerce as a core subject</b></p> <p>2.1 Interdisciplinary approach.</p> <p>2.2 Commerce and its branches.</p> <p>2.3 Relation of commerce with other subjects</p>	<p>2.1 Interdisciplinary approach – The meaning and importance of interdisciplinary approach in commerce teaching must be discussed.(2 hours)</p> <p>2.2 Commerce and its branches- A discussion on relationship of commerce subject with its branches like insurance, banking, marketing, income tax, management etc has to be organized.(3 hours)</p> <p>2.3 Relation of commerce with other Subjects- A discussion on relationship of commerce subject with other subjects like economics, geography, politics, mathematics, statistics, information technology etc has to be discussed. (5 hours)</p>	<p><b>Correlate Commerce with subjects like Mathematics, Economics and Geography</b></p> <p>Organize group discussion in class based on the relationship of commerce subject with Mathematics, Economics and Geography and prepare an individual report on it.</p>
<p><b>Teaching Learning Materials in Commerce</b></p> <p>3.1 Commerce Textbook-qualities and functions, Criteria for selection-Textbook review.</p> <p>3.2 Supplementary materials in Commerce-Need and Importance.</p>	<p>3.1 Commerce Textbook- A brief explanation meaning, qualities and functions of text book, Criteria for selection of text book may be done-Textbook review- an overview of meaning and how to conduct book review with examples in commerce has to be done.(6 hours)</p> <p>3.2 Supplementary materials in Commerce-The need and importance, types of supplementary materials in commerce and hints for using supplementary materials may be discussed.(2 hour)</p> <p>3.3 Audio-Visual aids–A brief explanation of meaning, importance, classification of audio-</p>	<p><b>Prepare a collage based on a particular topic in commerce.</b></p> <p>The student teacher should collect pictures and paper cuttings based on a particular topic in commerce and prepare a collage under the supervision of teacher educator. (group activity)</p>



3.3 Audio-Visual aids –Projected aids, Non Projected aids and Activity aids.	visual aids-Projected aids,Non Projected aids and Activity aids. The importance of various aids in teaching of commerce must be discussed.(7 hours)	
<b>Resource room in Commerce</b>  4.1 Commerce Room- Importance and its organization.  4.2 Commerce Library.  4.3 Workbooks, handbooks and reference Materials.  4.4 Use of Internet – Use of Websites like ERIC, INFLIBNET, etc	4.1 Commerce Room-Explain briefly the importance of commerce room and the equipments needed for the effective organization of commerce room may be discussed.(3 hours) 4.2 Commerce Library- Discuss the types of library such as general school library and commerce department library, importance of commerce library, types of materials needed for an effective library. Also explain measures to be adopted for the effective functioning of library.(4 hours) 4.3 Workbooks and handbooks- Explain the meaning and importance workbooks and handbooks in commerce teaching. Reference books-A discussion on meaning, importance and forms of reference book may be done.(3 hours) 4.4 Use of Internet – Use of Websites likeERIC, INFLIBNET, etc. An overview of meaning and uses of websites such as ERIC, INFLIBNET, etc. The teacher educator should provide practical experience to the student teacher to explore the websites like ERIC , INFLIBNET etc. (5 hours)	<b>Prepare a list of 10 books with bibliography or Make a list of 5 commerce journals that can be used in HigherSecondary Schools.</b>  The student teachers should explore the websites like ERIC, INFLIBNET etc. and prepare a list of 10 books with bibliography or prepare a list of 5 commerce journals.
<b>Models of Teaching in Commerce</b>  5.1 Models of Teaching- Meaning- Families.  5.2 Advance Organizer Model.  5.3 Jurisprudential Inquiry Model	5.1 Models of Teaching- A brief explanation of meaning, features, families and how to describe a model has to be provided.(4 hours) 5.2 Advance Organizer Model-theoretical background and practical experience to be provided for developing lessons using the model.(5 hours) 5.3 Jurisprudential Inquiry Model- theoretical background and practical experience to be provided for developing lessons using the model.(6 hours)	<b>Prepare a lesson plan on AdvanceOrganizer Model on any one topic in commerce.</b>  The student teacher should select a suitable topic either from Business Studies or Accountancy and prepare a lesson plan by using the phases of Advance organizer model.

<b>EDU.178. PROFESSIONALIZING COMMERCE EDUCATION</b>		
<b>Content</b>	<b>Scope</b>	<b>Guidelines for the process</b>
<b>Commerce and Society</b>  1.1 Commerce	1.1 Commerce education and BusinessEthics-Discuss the meaning and analysis of definition of ethics, the impact of commerce on society, relationship between business and	<b>Make an observation of a local Industrial/commercial unit near to your residence and</b>

<p>education and Business Ethics.</p> <p>1.2 Field trips-importance and its organization.</p> <p>1.3.Community resources in commerce.</p> <p>1.4 Methods of utilizing community resources.</p> <p>1.5 Market studies and surveys.</p>	<p>society.</p> <p>Explain the meaning, definition and characteristics of Business ethics and factors of business ethics such as code of conduct, moral and social values, protection of social groups, provides basic framework, needs willing acceptance for enforcement, education and guidance required for introduction, not against profit making, act as '<i>summum bonum</i>' of human life etc. Also discuss the ethical standards.</p> <p>Make a discussion on the role and need of ethics in business.</p> <p>Explain the business values such as <b>Accuracy, orderliness, punctuality and timeliness, maximum utilization of resources, quality of products and services, regularity, reliability, responsiveness, speed of operations, honesty in dealings, fair dealings, systematic, socially responsible, etc.</b></p> <p>Discuss the role of commerce education in developing business ethics and values among the students .(9 hours)</p> <p>1.2.Field trips-A discussion on importance of field trip in commerce, steps in organization of field trip, preparation of guide sheet for field trip and places of commercial importance has to be done.</p> <p>The factors to be considered to organize visits to banks, industry, insurance office, stock exchange etc to be discussed .(3 hours)</p> <p>1.3 Community resources in commerce-meaning and importance of community resources in teaching of commerce.(1 hour)</p> <p>1.4 Methods of utilizing community resources-The ways of utilizing community resources i.e. taking school to community and bringing community to school has to be discussed.(2 hours)</p> <p>1.5 Market studies and surveys-.meaning and importance market studies and surveys in teaching of commerce, examples in commerce.(1 hour)</p>	<p><b>prepare a report on it.</b></p> <p>The student teacher should select an industrial unit or commercial establishment near to their locality and make a brief report about the organization.</p>
<p><b>Co curricular activities in Commerce</b></p> <p>2.1 Co curricular</p>	<p>2.1 Co curricular activities- An overview of meaning, objectives, principles such as cooperation, level of students, sufficient time, balance, linking with life, experience, etc., advantages and types of co curricular</p>	<p><b>Prepare a wall magazine in commerce.</b></p> <p>A wall magazine should be prepared and published by the</p>

<p>activities- Meaning and importance.</p> <p>2.2 Commerce club.</p> <p>2.3 Commerce magazine.</p> <p>2.4 Running of school bank and cooperative store.</p>	<p>activities such as indoor activities and outdoor activities should be made.(4 hours)</p> <p>2.2 Commerce club- A discussion on importance, functions and activities to be conducted by a commerce club has to be done.</p> <p>The aspects of organization of commerce club such as name of institution, objectives, scope, membership, office bearers, meeting time and place, activities etc. to be discussed. Also provide practical experience in organizing commerce club may be provided.(4 hours)</p> <p>2.3 Commerce magazine-The importance of commerce magazine may be discussed and practical experience may be provided to encourage the creativity of the students.(1 hour)</p> <p>2.4 Running of school bank and cooperative store-Discuss the importance of running of school bank and cooperative store for the development of the students .(1 hours)</p>	<p>student teachers as an effort of group activity. The teacher educator should ensure the contribution of each student teacher.</p>
<p>Nurturing talented children in Commerce</p>	<p>3.1. Fostering creativity among students- A discussion on meaning, factors which fosters creativity among the students such as Freedom to respond, Opportunity for ego involvement, Encourage originality and flexibility, Removal of fear, Using the creative resources of the community, Proper organization of the curriculum, Reform in evaluation system, Use of special techniques, Brain storming, Synetics etc.(4 hours)</p> <p>3.2. Gifted Children – An overview of meaning, characteristics and identification of gifted children.(3 hours)</p> <p>3.3 Treatment of Gifted children-Special programmes for gifted children should be discussed. Also explain the meaning of enriched curriculum. Practical experience for designing enriched materials should be given.(7 hours)</p>	<p><b>Make a plan of an enrichment programme for gifted children.</b></p> <p>The student teacher should select a suitable topic either from Business Studies or Accountancy and prepare an enrichment material.</p>
<p><b>IT related professional inputs of teaching</b></p> <p>4.1 Computer Aided Teaching.</p> <p>4.2 Exploration of IT</p>	<p>4.1 Computer Aided Teaching-meaning and role of computers in teaching commerce i.e. the use of computer curriculum construction, for providing variety of experiences, to adopt multimedia approach, evaluation, helping learner to construct their knowledge, to develop learning aids, to complete assignments etc.(2 hours)</p>	<p><b>Develop a module on any topic in commerce for e-content.</b></p> <p>The student teacher should select a topic from business studies and develop a script for the e-content module. (group</p>

<p>resources in commerce like CD's, DVD's, Multimedia Packages, learning objects etc.</p> <p>4.3 Module preparation for e-content development.</p>	<p>4.2 Exploration of IT resources in commerce like CD's, DVD's, Multimedia Packages, learning objects etc.-meaning of multimedia packages and learning objects, e-learning-meaning and features-role in commerce teaching. The teacher educator should help the student teachers to explore available multimedia packages with the help of internet and other resources. Also provide practical experience in developing learning materials with the help of computers. (5 hours)</p> <p>4.3 Module preparation for e-content development- Explain the meaning of e-content, features of e-content such as multi sensory learning, digital convergence, principle of chunking, accessibility, reusability etc., forms of e-content such as short learning objects and module, steps in the preparation of e-content such as conceptualization, composition, writing of script, correct the script, collect all visuals and pictures needed, prepare story board, prepare for narration, video shooting, editing the video.(13 hours)</p>	<p>activity)</p>
<p><b>Professional Commerce Teacher</b></p> <p>5.1 Commerce teacher –Qualities - Competencies (NCTE).</p> <p>5.2 Teaching as a profession –Traits of Professionalism</p> <p>5.3 Professional Ethics</p> <p>5.4 Professional growth-ways and means</p>	<p>5.1 Commerce teacher – A discussion on qualities, qualifications of commerce teacher should be organized. Explanation of Competencies listed by NCTE such as contextual competencies, content competencies, conceptual competencies, transactional competencies, competencies related with other educational activities, competencies to develop teaching-learning materials, evaluation competencies, management competencies, competencies related with working with parents and competencies related to working with community. (6 hours)</p> <p>5.2 Teaching as a profession – Explanation of meaning and characteristics of profession, Traits of Professionalism. A discussion on Teaching as a profession can be organized.(3 hours)</p> <p>5.3 Professional Ethics-meaning(1 hour)</p> <p>5.4 Professional growth-ways and means, in-service and pre-service programmes and its importance. Explain how various in-service and pre-service programmes help in the professional growth of teachers. (5 hours)</p>	<p><b>Discussion on the topic:-“Does the profession of teaching command the same respect as other profession”.</b></p> <p>Divide the class into various groups and the student teachers discuss the topic “Does the profession of teaching command the same respect as other profession.” One member from each group presents their findings and they should submit an individual report.</p>

## References

1. **Aggarwal, J.C**, *Teaching of Commerce: A Practical Approach*. Vikas Publishing House Pvt.Ltd: New Delhi.
2. **Anderson,W,L and Krathwohl,D,R**, *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Allyn & Bacon: Boston.
3. **Bloom, B. S.et.al.**, *Taxonomy of Educational Objectives, Hand Book I: Cognitive Domain*. Longmans green & Co: New York.
4. **Borich, Gary.D**, *Effective Teaching Method*. Prentice Hall Inc: New Jersey.
5. **Boynton,L.D**, *Methods of Teaching Bookkeeping and Accounting*. South Western Publishing Company, Ohio.
6. **Brown,J.W and Lewins**, *Audio Visual Instruction technology, Media and Methods*. McGraw-Hill Book Co: New York.
7. **Fernando, A.C**. *Business Ethics and Corporate Governance*. Pearson Education India; Delhi.
8. **Gratz,J.E**, *Future Curriculum in Business Education*. Business Education Association: Washington.
9. **Gronlund, N.E.**, *Measurement and Evaluation in Teaching*. Macmillan: New York.
10. **Harrow, A.J**, *Taxonomy of Psycho-motor Domain*. Mc Kay: New York.
11. **Joyce,B& Weil, M**. *Models of Teaching* (5<sup>th</sup> Ed.). Allyn & Bacon: Boston.
12. **Kemp,Jerrold,E.et.al**. *Designing Effective Instruction*. Prentice Hall: USA.
13. **Khan.S.Mohammed**. *Commerce Education*. Sterling Publishers Pvt. Ltd: New Delhi.
14. **Krathwohl.et.al**, *Taxonomy of Educational Objectives, Hand Book II: Affective Domain*. McKay: New York.
15. **Passi,B.K**. *Becoming a Better Teacher: A Micro Teaching Approach*. Ahmabad: Sahitya Mundranalya.
16. **Pophan,Scharg and Blockhus**, *A Teaching Learning System for Business Education*. McGraw-Hill Book Co: New York.
17. **Roa, Seema**. *Teaching of Commerce*. Anmol Publications pvt.Ltd: New Delhi.
18. **SCERT**. (2007). Kerala Curriculum Framework. Trivandrum: SCERT.
19. **Sharma, Aditi**. *Contemporary Teaching of Commerce*. Surjeet Publications: New Delhi.
20. **Singh,M,N**, *Methods and Techniques of Teaching Commerce*. Youngman and co :New Delhi.
21. **Singh,Y,K**, *Teaching of Commerce*. APH Publishing Corporation: New Delhi.
22. **Tiwari, S.A**, *Commerce Education in the global Era*. Adhyayan Publishers: New Delhi.
23. **Vekateswarlu,K.et.al**. *Method of Teaching Commerce*. Discovery House: New Delhi.

# **UNIVERSITY OF CALICUT**

**Re structuring of Curriculum-2012  
Credit Based Semester and Grading System**

## **HANDBOOK FOR TEACHER EDUCATORS (PHYSICAL SCIENCE)**

**Programme: Bachelor of Education (B Ed)  
With effect from 2012-13 Academic Year**

**BOARD OF STUDIES  
EDUCATION (UG)**

## EDU 122 METHODOLOGY OF TEACHING PHYSICAL SCIENCE

Contact Hours: 75 Hours (Instruction) & 15 hours (process)

Marks : 50 (End semester Examination) & 10 (CE)

Content	Scope	Reference
<b>Module 1 Nature and Scope of Science</b> 2+3+5=10 hours		
<p>1.1 Science, its meaning, nature of science, Science as a product and process, Interdependency of product and process.</p> <p>1.2 Importance of science as a school subject. Practical, disciplinary, vocational, social, moral and recreational functions of science.</p> <p>1.3 Scientific Attitude and Scientific Aptitude</p>	<p>1.1 Definitions of Science. The three fold nature of Science – body of knowledge, Method of enquiry and attitude towards life. The product and process aspect of Science. How both aspects contribute mutually for the development of Science.</p> <p>1.2 A general discussion on the importance of teaching science in School. Need, worth and value of teaching Science in the Practical, disciplinary, vocational, social, moral and recreational dimensions.</p> <p>1.3 Definition and characteristics of Scientific Attitude &amp; aptitude - The difference between them.</p>	<p>1.1 Mohan, R (1995). <i>Innovative science teaching for physical science</i>. New Delhi: Prentice Hall.</p> <p>1.2 Sharma, R. C. (1985) <i>Modern science teaching</i>. New Delhi: Dhanpat Rai &amp; Sons.</p> <p>1.3 Any appropriate textbook</p>
<b>Module 2 History of Science Education</b> 3+7=10 hours		
<p>2.1 Landmarks in the history of Education with respect to Science.</p> <p>2.2 Science Education as envisaged in NCF 2005 and KCF 2007</p>	<p>2.1 Efforts on science education with special reference to India. Scientific Policy Resolution of 1958, efforts like establishing the University Grants Commission and the All India Council for Technical Education, Institute of Technology, Indian Institute of Science, Navodaya Vidyalayas etc</p> <p>2.2 Relevant sections of NCF – Section 3.3 Science - basic criteria of validity of a science curriculum, Section 3.3.1 The Curriculum at different Stages, Section 3.3.2 Outlook</p> <p>Relevant sections of KCF – 5.2.2 Major criticisms leveled against the prevailing science education, 5.2.4 aims of science education, 5.2.5.1 Knowledge Domain, 5.2.5.2 Science Process Domain, 5.2.5.3 Creativity Domain, 5.2.5.4 Attitudinal Domain, 5.2.5.5 Application Domain, 5.2.13 <i>The Nature of Science and Science Education</i>,</p>	<p>2.1 <a href="http://www.iisc.ernet.in/insa/ch4.pdf">http://www.iisc.ernet.in/insa/ch4.pdf</a></p> <p>2.2 <a href="http://www.ncert.nic.in/rightside/links/pdf/framework/english/nf2005.pdf">http://www.ncert.nic.in/rightside/links/pdf/framework/english/nf2005.pdf</a></p> <p><a href="http://www.ssamis.com/web/downloads/KCF%202007.pdf">http://www.ssamis.com/web/downloads/KCF%202007.pdf</a></p>

	5.2.17 The areas of science education that need to be evaluated.	
<b>Module 3 Methods and Techniques of Teaching Science 3+12+5=20 hours</b>		
<p>3.1 Inductive Approach and Deductive Approach of Teaching</p> <p>3.2 Methods of Instruction – Lecture cum demonstration method, Heuristic method, Project method, Problem solving method – Definition of a problem, Well-structured and ill structured Problems, The Problem-solving Cycle. Individualized laboratory method, supervised study, Dalton plan</p> <p>3.3 Questioning Technique, Brain storming, Buzz session</p>	<p>3.1 Inductive approach (Generalizing from instances) &amp; deductive approach (Verifying the theories) – meaning, comparison, examples, merits and demerits</p> <p>3.2 Methods of Instruction – Each method should be explained with regard to its meaning, general principles/characteristics if any, procedure, role of teacher, merits &amp; demerits.</p> <p>A general Definition for methods of teaching may also be discussed.</p> <p>Problem solving method - (Problem solving method should not be confused with the scientific method. The former is a teaching method which incorporates the principles of the latter. The scientific method is a method of finding truth in science; it is not a method of teaching.)</p> <p>An appropriate definition of problem by Polya, Mayer or any other , types of problem viz ill structured and well structured and the problem solving cycle (Sternberg) may be discussed additionally.</p> <p>3.3 Importance of Questioning. Thumb rules of effective questioning, Brain storming and Buzz session may be discussed with essential practical wisdom in the class. Apart from the theory, student teachers should appreciate these techniques as tools for collaborative learning and social constructivism.</p>	<p>3.1 Any appropriate text book</p> <p>3.2 Methods of Instruction - Any appropriate text book. Problem Solving Cycle &amp; types of Problems- Sternberg, R.J., (2006) <i>Cognitive Psychology</i>, Thomson Wadsworth  <a href="http://eprints.utm.my/6084/1/aziziyahcognitivepsy.pdf">http://eprints.utm.my/6084/1/aziziyahcognitivepsy.pdf</a></p> <p>3.3 Any appropriate text book/ Internet resources.</p>



<b>Module 4      Learning as a generative process</b>		<b>5+10=15 hours</b>
<p>4.1 Theory of Cognitive Constructivism, Social Constructivism and Multiple Intelligences.</p> <p>4.2 Learning as a generative process - Children's science, learner as a scientist, guided discovery approach, Behaviourist approach Vs Constructivist approach,</p>	<p>4.1 Genetic Epistemology by Jean Piaget, Discovery learning by Jerome S. Bruner, Social Developmental Theory by L. Vygotsky and Multiple Intelligence by Howard Gardner may be discussed as the essential underpinnings of constructivism.</p> <p>4.2 UNESCO sourcebook (Harlen &amp; Elstgeest) -The idea of how children learn is given under the heading “Reflecting on Learning in Science” in Chapter 1 of the book. The schematic diagram under the heading “The role of process skills in Learning” may also be discussed.</p> <p>The teacher educator may also refer chapter 6 – “Development of children’s science concepts” of the UNESCO Sourcebook.</p> <p>Differences between behaviourism and constructivism may be discussed in the class in the light of theory as well as practical experience of the teacher educator.</p>	<p>4.1 Appropriate Text books in Cognitive Psychology.</p> <p>Ahmad J., (2009) Teaching of Biological Sciences. New delhi: PHI Pvt Ltd.</p> <p>4.2 Alsop, S. &amp; Hicks, K. (2003) Teaching science. New Delhi: Kogan page India Private Ltd.</p> <p>Harlen, W &amp; Elstgeest (1992) UNESCO Source Book for Science in the Primary School New Delhi : National Book Trust</p>

**Module 5 Present practices in Teaching and Learning 6+7+7=20 hours**

<p>5.1 Collaborative learning, Managing Group learning in a classroom - group discussion, observation in a group, experiment or other activity in a group.</p> <p>5.2 Activity based learning, role of experiments in science, integration of theories and experiments in science.</p> <p>5.3 Critical Pedagogy, Issue-based Teaching, Edubuntu – exploration of the science resources, Review of the latest happenings in the state schooling procedures. (Teacher trainees are expected to acquaint with the emerging practices related to schooling from time to time.)</p>	<p>5.1 The theory and explanations of collaborative learning should be comprehended and discussed from the Teachers' Hand books prepared and modified by SCERT, Kerala from time to time. A list of activities that can be used in a constructivist classroom such as Collection of specimens, Small scale survey, Model making, Projects, Seminar, Symposium, Debate, Bulletin board, Nature observation, Fieldtrip, Outdoor learning, Study tour, Library reference should be mentioned and strategies of managing Group discussion, Observation and Experiments in a group context should be discussed. Role of teacher in the constructivist class room should be discussed.</p> <p>5.2 ABL is an initiative under SSA, Tamilnadu. (Only key features of ABL are required). The student teachers may reflect upon their own experiences in school and college about linking theory and practical. The discussions should lead to fruitful thumb rules on providing effective science education in the school. The student teachers should convince themselves of the importance of experiments and activities in science learning.</p> <p>5.3 Conceptual overview of critical pedagogy and Banking Concept of Education, Terms such as conscientization, dialogical method and praxis should be discussed. The issues listed in the KCF should be discussed in the context of Science Teaching.</p> <p>The EDUBUNTU should be explored in the computer lab. And student teachers should get themselves acquainted with some of the resources like PhET, Celestia, Step, Avogadro, Chemical Calculator, gamgi, ghemical, GPeriodic, Kalzium, Kstars, Molecules Viewer, Periodic Table of the Elements, Rasmol, Stellarium etc.</p>	<p>5.1 <a href="http://www.collaborativelearning.org/clbooklet.pdf">http://www.collaborativelearning.org/clbooklet.pdf</a> <a href="http://www.studygs.net/cooplearn.htm">http://www.studygs.net/cooplearn.htm</a> <a href="http://www.evergreen.edu/washcenter/natlc/pdf/collab.pdf">http://www.evergreen.edu/washcenter/natlc/pdf/collab.pdf</a></p> <p>5.2 <a href="http://www.ssa.tn.nic.in/Docu/ABL-Report-by-Dr.Anandhalakshmi.pdf">http://www.ssa.tn.nic.in/Docu/ABL-Report-by-Dr.Anandhalakshmi.pdf</a> <a href="http://www.ssa.tn.nic.in/CurrActivities-A.htm">http://www.ssa.tn.nic.in/CurrActivities-A.htm</a></p> <p>Harlen, W &amp; Elstgeest (1992) UNESCO Source Book for Science in the Primary School New Delhi : National Book Trust</p> <p>5.3 Freire, P. (1970). <i>Pedagogy of the Oppressed</i>. Harmondsworth: Penguin.</p> <p>SCERT, Kerala (2009). <i>Teachers' Hand Book, Standard VIII</i>, Education Department, Government of Kerala.</p> <p><a href="http://mingo.info-science.uiowa.edu/~stevens/critped/index.htm">http://mingo.info-science.uiowa.edu/~stevens/critped/index.htm</a></p>
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## Processes for EDU 122 METHODOLOGY OF TEACHING PHYSICAL SCIENCE

Processes	Explanation
<p>List any 10 branches of science with a short description. OR Make some items (4 or 5 items each) that would help to evaluate scientific attitude and scientific aptitude.</p> <p>Conduct a debate on the relevance of NCF 2005 or KCF 2007 in science education in Kerala.</p> <p>Perform an experiment from 8<sup>th</sup> or 9<sup>th</sup> standard as demonstration before your peers and accept criticisms from peers. (to be done in groups) OR Prepare a project plan on any relevant science problem. OR Have a buzz session in your class about the importance of questioning technique and table the views of each group.</p> <p>Making multiple lessonplans (bhrst Vs constructivist) on a single topic based on different approaches to experience the difference in outlooks. OR Create an imaginary case study of a teacher trainee doing things wrongly in the constructivist classroom and list the precautions and suggestions to correct the trainee.</p> <p>List the social issues that can be addressed in a selected unit from Physics/ Chemistry of 8<sup>th</sup> standard. OR Get familiarized with anyone IT resource/ package available in EDUBUNTU that is helpful in teaching Science and present a topic using it.</p>	<p>The teacher may ensure that each student makes his own efforts to make the list. Either students may do it as homework or they may do the necessary home work and make their own list in the class after discussing in groups.</p> <p>Only a few sample items need be prepared. A rating scale is used to measure attitude and a test may be used to measure aptitude. The items that may be used in a scale and a test are different. This should be kept in mind while preparing sample items.</p> <p>A debate may be organized in the class only after teaching the relevant sections in the document. The debate may be organized with teacher as the moderator. All students shall prepare a report after the debate about his/ her role and contribution in the debate.</p> <p>An experiment in chemistry or Physics (of 5 or 6 minutes duration) like preparation of Chlorine gas in a test tube or like formation of image should be performed. The group members shall make a small observation report with suggestions for improvement.</p> <p>The project plan should consist of the anticipated steps of the project. The details of anticipated measures during each stage( need and significance, methodology to be adopted, implication of the study) of the project should be given.</p> <p>The topic of the buzz session shall be “importance of questioning technique”. The buzz session shall be conducted after the theory classes on questioning technique. Each group shall prepare a report after the buzz session with a list of the group members and the contribution of the group during the session.</p> <p>Each student may select a topic in Physics or Chemistry which can be taught in 40 minutes. Only the learning experiences need be devised along with the content. Thus the resulting two lesson plans shall have a content column and an activity/learning experience column. This exercise is only to feel the difference in organizing learning experiences in behaviourist and constructivist context. The format of the lesson plan ( 3 column/ 4 column format, content analysis part etc) may not be insisted.</p> <p>Imaginary case study means writing a paragraph of about 10 sentences where the situation of a new student teacher in a class room may be sarcastically described. The imaginary case study may include how he failed in building up a suitable introduction, how he failed to give proper instructions, and how he failed in managing group activities. The second part shall deal with the remedy for each mistake. This exercise shall make the student teacher prepare for the worst and hope for the best.</p> <p>Select a Unit from Physics or Chemistry and think of the issues (as given in KCF) that could be associated with at least 5 topics. Finally make a report listing the five topics, associated issues for each and elaboration of the issues in the relevant context.</p> <p>Use any one software in EDUBUNTU like PhET, Celestia, Step, Avogadro, Chemical Calculator, gamgi, gchemical, GPeriodic, Kalzium, Kstars, Molecules Viewer, Periodic Table of the Elements, Rasmol, Stellarium etc. and present a small science topic in the class.</p>

**EDU 142 PEDAGOGIC PRACTICES IN PHYSICAL SCIENCE**

Contact Hours: 75 Hours (Instruction) &amp; 15 hours (process)

Marks : 50 (End semester Examination)&amp; 10 (CE)

Content	Scope	Reference
<b>Module 1 Aims and Objectives of Teaching Science. 3+7+5=15 hours</b>		
1.1 General aims of teaching physical science.	1.1 The general aims of teaching science in schools like understanding the nature of science, skill acquisition, development of scientific attitude, training in scientific method, development of interest and appreciation, helping students to adjust better with society, developing suitable career interests may be discussed.	1.1 Any appropriate textbook
1.2 Taxonomy of educational objectives - Bloom's taxonomy, A conceptual overview of Revised Bloom's Taxonomy, Taxonomy of Mc Cormack & Yager	1.2 The Blooms taxonomy should be discussed in detail with proper discussion on all the instructional objectives of Cognitive and affective Domain. For Psychomotor domain, Dave's taxonomy may be followed.  While dealing the Revised Bloom's taxonomy, changes effected in the cognitive domain 1. Renaming and reorganizing of cognitive levels 2. Nouns changed to verbs 3. Structural change with two dimensions (the knowledge dimension and the cognitive process dimension) may be emphasized.  The domains of Science Education as given by McCormack & Yager and the Instructional Objectives may be discussed.	1.2 Mohan, R (2007). <i>Innovative science teaching for physical science</i> . New Delhi: Prentice Hall.  Anderson, W. L. & Krathwohl D. R. <i>A taxonomy for Learning, Teaching and Assessing</i> . Newyork: Longman.  <a href="http://www.unco.edu/cetl/sir/stating_outcome/documents/Krathwohl.pdf">http://www.unco.edu/cetl/sir/stating_outcome/documents/Krathwohl.pdf</a>  <a href="http://projects.coe.uga.edu/epltt/index.php?title=Bloom%27s_Taxonomy">http://projects.coe.uga.edu/epltt/index.php?title=Bloom%27s_Taxonomy</a>
1.3 Process skills in Science at secondary stage, developing process skills in students	1.3 The process skills may be discussed along with the ways of developing process skills in children. The teacher educator may refer chapter 6 – Developing children's process skills and attitudes of UNESCO sourcebook (Harlen & Elstgeest)	<a href="#">McCormack, A. J. &amp; Yager, R. E. (1989)</a> A New Taxonomy of Science Education. <i>Science Teacher</i> , v56 n2 p47-48. Mathew, T.K. & Mollykutty (2012) <i>Science Education – Theoretical Bases of Teaching &amp; Pedagogic Analysis</i> , Chengannur: Rainbow Publications  1.3 SCERT, Kerala (2009). <i>Teachers' Hand Book, Standard VIII</i> , Education Department, Government of Kerala. Harlen, W & Elstgeest (1992) <i>UNESCO Source Book for Science in the Primary School</i> New Delhi : National Book Trust

<b>Module 2    <u>Micro Teaching</u>15 hours</b>		
2.1 Teaching skills for class room instruction, Essential skills for Science teaching, Micro teaching - a skill based practice (minimum three skills). A link Practice.	<p>2.1 Micro teaching –origin, definition, micro teaching cycle, rationale and use of micro teaching, phases of micro teaching.</p> <p>Core teaching skills – components, preparation of micro lessons and appraisal format to elicit feedback.</p> <p>Integration of skills , link practice, macro teaching</p>	<p>2.1</p> <p>Passi, B. K. (ed.) 1976 Becoming a better teacher: A micro teaching approach, Ahmedabad: Sahitya Mudranalaya</p> <p>Mohan, R (2007). <i>Innovative science teaching for physical science</i>. New Delhi: Prentice Hall.</p>
<b>Module 3 <u>Pedagogic Analysis</u>20 hours</b>		
<p>3.1 Pedagogic Analysis- Meaning and Steps of Analysis, Pedagogic Analysis of the Physics and Chemistry content portions of 8<sup>th</sup> and 9<sup>th</sup> standard textbooks of Kerala state,</p> <p><i>(1.Arranging teaching points in a logical order. 2.Analysing concepts, Working out strategies for teaching concepts. 3.Stating general instructional objectives and specific instructional objectives in terms of behavioural outcomes. (The Behaviourist approach) OR Stating 'curriculum objectives' in terms of concepts, process skills, strategies of instruction and evaluation. (The Constructivist approach) 4. Planning suitable learning experiences according to objectives. Planning the procedures of evaluation according to objectives.)</i></p>	<p>3.1 The scope of Pedagogic Analysis encompassing content analysis, statement of objectives, deciding prerequisites, determining inputs, assignments, activities and evaluation procedures may be discussed.</p> <p>Content analysis may be done as terms, facts, concepts, principles, equations, processes, and law.</p> <p>Concept may be discussed as given by Bruner in Concept Attainment Model. The five elements of a concept (name, exemplar, attribute, attribute value and definition) may be emphasized.</p> <p>Criteria for stating Instructional Objectives in the behaviourist and Constructivist approaches may be emphasized.</p> <p>Importance of selecting suitable learning experience for effective teaching may be emphasized.</p> <p>Selecting the appropriate evaluation procedure relevant to constructivist and behaviourist styles. (Constructivist approach requires testing of process skills as well as conceptual understanding)</p>	<p>3.1 Sivarajan, K &amp; Faziluddin, A. (2005) <i>Science Education</i>. Calicut University : Central Co-operative stores.</p> <p>Joyce, B. &amp; Weil, M. (1986). <i>Models of teaching</i> (3rd ed.) New Jersey: Prentice-Hall Inc.</p>

<b>Module 4 Planning of Instruction</b> 2+3+2+8=15 hours		
<p>4.1 Objective based instruction – interdependence of objectives, learning experience, and evaluation.</p> <p>4.2 Planning of Instruction - year plan, unit plan, resource unit</p> <p>4.3 Lesson planning – Need, Stages (Herbartian steps)</p> <p>4.4 Lesson plan preparation based on (1) The objective based Behaviourist format (2) The Constructivist format</p>	<p>4.1 Teacher educator should emphasize how this triangular relationship is reflected in the planning of instruction.</p> <p>4.2 Format of Year plan and lesson plan produced in the SCERT hand Books may be adopted.</p> <p>4.3 The sequencing of a lesson based on Herbartian steps has to be emphasized.</p> <p>4.4 The Behaviourist format lesson plan may be prepared using the instructional objectives given by NCERT viz., Knowledge, Understanding, application, Skill, Sc. Interest, Sc. attitude, Sc. Appreciation</p>	<p>4.1 Mohan, R (2007). <i>Innovative science teaching for physical science</i>. New Delhi: Prentice Hall.</p> <p>4.2 Any appropriate text Book</p> <p>4.3 Any appropriate text Book</p> <p>4.4 Mathew, T.K. &amp; Mollykutty (2012) <i>Science Education – Theoretical Bases of Teaching &amp; Pedagogic Analysis</i>, Chengannur: Rainbow Publications</p>

<b>Module 5 Evaluation</b> 4+3+3=10 hours		
<p>5.1 Evaluation - Different types of test items - merits and demerits. Construction and administration of Achievement tests and Diagnostic tests.</p> <p>5.2 Continuous and Comprehensive Evaluation, Evaluation Criteria for Assignment, Seminar and Project.</p> <p>5.3 Evaluation of Non Cognitive Areas – Interest, Attitude and Skill</p>	<p>5.1 Free response versus Fixed response. Objective type test item – supply type and selection type. Guidelines for preparation of true-false type/multiple choice type/ completion type, matching type, simple recall etc. Short answer and essay type – characteristics, guidelines for preparation, merits and demerits. Teacher made test versus standardized tests. Differentiate achievement and diagnostic test. Process of construction of both.</p> <p>5.2 Meaning, Scope and Importance of CCE. Evaluation criteria ( SCERT Hand book format may be utilized)</p> <p>5.3 Non Cognitive Domain – Objectives in assessing, Difficulties in assessing, Assessment tools and techniques. ( observation, inventories, attitude scales, performance tests etc)</p>	<p>5.1 Any appropriate text book</p> <p>5.2 Any appropriate text book.</p> <p>Hand Book for teachers published by SCERT from time to time</p> <p>5.3 Any appropriate text book</p>

### Processes for EDU 142 PEDAGOGIC PRACTICES IN PHYSICAL SCIENCE

Processes	Explanation
Compare the essential differences between any two taxonomies pictorially. OR Identify any suitable content /topic that would emphasize the development of a particular process skill. (Do this for all the 13 skills and justify your selection)	<p>Instead of using meaningful sentences to describe and compare two things, we may use pictures involving, arrows, blocks, graphic designs or any other symbols to do the same task. (Eg. Edgar Dale's Cone of Experience summarizes the hierarchy of the effectiveness of learning experiences. )</p> <p>Each student should prepare a report with three columns. The first column will list the 13 process skills. The second column will list 13 suitable topics - one against each process skill. The third column will provide 13 sentences of justification corresponding to the process skill-topic pair. (Justification regards to why the student has considered a topic emphasize the particular process skill.)</p>

<p>Select a concept and formulate instructional objectives of all domains. OR</p> <p>Make separate list of learning experiences on any topic for fast learners as well as for slow learners.</p> <p>Conduct a debate on the importance as well as limitations of “planning of an event”.</p> <p>Make sample test items corresponding to any three objectives (Bloom’s taxonomy or Mc Cormack &amp; Yager) that would go into an achievement test.</p>	<p>First the student teacher will have to identify a suitable topic which has significant inputs from cognitive, affective and psychomotor domains. Then at least two or three instructional objectives should be formally stated from each domain.</p> <p>The expected output is a three column format where the first column will list the teaching points associated with the selected topic. The second column will list the learning experiences associated with each teaching point for fast learners. (Fast learners require a bit of advanced leaning, challenging activities, enriched material and additional thought provoking questions). The third column shall list the learning experiences associated with each teaching point for slow learners. (Slow learners require more time to comprehend, with more examples, down to earth illustrations, nonverbal cues like charts/pictures and a bit of peer teaching)</p> <p>The debate is about the relevance of planning any event that may occur in life. This may emphasize the relevance of planning in academics including planning of instruction and evaluation (year plan, unit plan, lesson plan, panning a test, blue print, academic calendar etc.)</p> <p>At first the student teacher should select a unit in Physics or Chemistry. Now he may decide upon any three instructional objectives either from one domain say cognitive or from different domains. And then he is supposed to make two or three questions pertinent to each instructional objective. This exercise shall convince the student teacher about the style-difference in framing questions with regard to different Instructional Objectives.</p>
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<b>EDU 162 CURRICULUM &amp; RESOURCES OF PHYSICAL SCIENCE</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination)& 10 (CE)		
Content	Scope	Reference
<b>Module 1 Curriculum 5+8+2+5=20 hours</b>		
1.1 Curriculum- A conceptual Analysis, Curriculum and Syllabus, Principles of Curriculum Construction. 1.2 Approaches to curriculum organisation - concentric plan, type study, historical approach, Nature rambling, Nature study. Integrated, Disciplinary and Interdisciplinary Approach. 1.3 Concept of correlation - Systematic correlation of physical science within the subject and with other subjects in the curriculum such as mathematics,	1. Origin of the word – curriculum, The definition of curriculum and syllabus, Conceptual analysis may include deciding factors of curriculum like nature of subject matter, nature of society, nature of learner etc. A list of principles of curriculum construction may be discussed. The characteristics of an effective curriculum may also be discussed. 2. The approaches may be discussed with supporting examples. 3. Incidental and Systematic correlation may be discussed with sufficient examples. The difference between them may also be highlighted. 4. A comparative study of PSSC, Chem	1.1 Any appropriate textbook  1.2 Sivarajan, K & Faziluddin, A. (2005) <i>Science Education</i> . Calicut  University : Central Co-operative stores.  1.3 Joseph t. T., (1991) <i>Modern Trends in Science Education</i> , Kottayam: St Joseph Training College  1.4 Rajan K. M. , (2004), <i>Science of Science Education</i> , Kottayam: St. Joseph Training

Biology, Languages, Geography, History, Earth Science, Drawing, Music and Craft. Incidental correlation achieved while teaching. 1.4 Curriculum reforms abroad - PSSC, Chem Study and CBA	Study and CBA may be attempted with reference to objectives and major instructional materials.	College.  Mohan, R (2007). <i>Innovative science teaching for physical science</i> . New Delhi: Prentice Hall.
<b>Module 2    The scientific method</b> 3+8+4+5=20 hours		
2.1 Scientific method – importance, steps involved in the scientific method,  2.2 Logical aspects of scientific method - Induction, Mill's five canons of induction, deduction, analogy, Analysis, Synthesis. Hypotheses – characteristics and importance. Technical Aspects- Observation, Experiment, Data Collection  2.3 Corroboration and Falsification  2.4 Transfer value of Scientific Method, Strategies to give pupils training in Scientific method.	2.1 Definition of scientific method and commonly followed steps of scientific method. The steps should be illustrated with a suitable example.  2.2 All logical elements are inferential processes which reveal the cause effect relationship. Induction is inferring a generalized statement from instances. Mills canons are used when there is a plurality of causes. Characteristics of Observation and experiment. Difference between observation and experiment may be emphasized. Procedures of data collection may be discussed.  2.3 Conceptual meaning of corroboration and falsification illustrated with examples.  2.4 Possibility of using systematic method of solving problems in day to day life situations. Strategies that can be employed by a science teacher to give training in scientific method may be discussed.	2.1 Sharma, R. C. (1985) <i>Modern science teaching</i> . New Delhi: Dhanpat Rai &, Sons.  <a href="http://www.freeinquiry.com/intro-to-sci.html">http://www.freeinquiry.com/intro-to-sci.html</a>  2.2 Rajan K. M. , (1999), <i>Perspectives in Physical Science Teaching</i> , Kottayam: Vidyarthimithram.  2.3 <a href="http://www.godslasteraar.org/assets/ebooks/Gardner_A_Skeptical_Look_at_Karl_Popper_sec.pdf">http://www.godslasteraar.org/assets/ebooks/Gardner_A_Skeptical_Look_at_Karl_Popper_sec.pdf</a>  <a href="http://plato.stanford.edu/entries/popper/">http://plato.stanford.edu/entries/popper/</a>  Popper, (2002) <i>The Logic of Scientific Discovery</i> , Routledge Publishers  2.4 Joseph t. T., (1991) <i>Modern Trends in Science Education</i> , Kottayam: St Joseph Training College
<b>Module 3    Resources in Teaching Science</b> 10+10 = 20 hours		
3.1 Resource materials in teaching physical science. Syllabus, Textbooks - Vogel's criteria of selection. Work Book, Teachers handbook, reference books, supplementary readers. 3.2 Teaching Aids, Improvised apparatus, Essential audiovisual aids. C.D. ROMs such as <b>Encyclopaedia Britannica, Microsoft Encarta, Edubuntu</b> of it @school, Kerala	3.1 Syllabus as a contract between teacher and students. Essential constituents of a syllabus. Science text book - Function, Characteristics, Vogel's Criteria for selection. Function and Characteristics/Merits of Work book, handbook, reference books and supplementary readers.  3.2 Teaching Aids - Discussion on the most commonly used aids in science class. Criteria of selection. Improvised aids – characteristics, merits, value, disadvantages. Science resources like video clips, animations, graphics etc available in CDs may be discussed. Students may explore the Cds for	3.1 <a href="http://www.youtube.com/watch?v=T7xLD4XfqAw">http://www.youtube.com/watch?v=T7xLD4XfqAw</a>  <a href="http://teachingcenter.wustl.edu/preparing-syllabus">http://teachingcenter.wustl.edu/preparing-syllabus</a>  Sivarajan, K & Faziluddin, A. (2005) <i>Science Education</i> . Calicut  University : Central Co-operative stores.  3.2 Mohan, R (2007). <i>Innovative science teaching for physical science</i> . New Delhi: Prentice Hall.



	themselves. Evaluation of an educational CD with a suitable proforma.	
<b>Module 4 Library and laboratory</b> 7+3+5= 15 hours		
4.1 Laboratory and its organization, purchase and maintenance of chemicals, apparatus and equipments. Laboratory rules, accidents in the laboratory, precautions and First Aid.	4.1 Science laboratory – design, organization, features of a good laboratory. Purchase of apparatus and chemicals, Registers to be maintained in a lab. General lab rules and discipline. Accidents and prevention. Precaution in storing chemicals. First aid	4.1 Mohan, R (2007). <i>Innovative science teaching for physical science</i> . New Delhi: Prentice Hall.
4.2 Science library and its organization.	4.2 Selecting good books for a science library. Organizing a school science library.	4.2 <a href="http://www.librariananurudh.com/images/LIBRARY-1-99.pdf">http://www.librariananurudh.com/images/LIBRARY-1-99.pdf</a>
4.3 Using internet for accessing information, Websites for authoritative information like ERIC, INFLIBNET etc.	4.3 Familiarising with websites devoted for science teaching and learning. Refer “How the web will change the classroom” by Mohan, R.,(2007) ERIC as an online <a href="http://www.inflibnet.ac.in/">digital library</a> of education research and information. INFLIBNET as network of library and information resources for research in particular subjects., N-LIST Programme.	4.3 Mohan, R (2007). <i>Innovative science teaching for physical science</i> . New Delhi: Prentice Hall.  <a href="http://www.inflibnet.ac.in/about/objective.html">http://www.inflibnet.ac.in/about/objective.html</a>  <a href="http://nlist.inflibnet.ac.in/faq.php">http://nlist.inflibnet.ac.in/faq.php</a>

### Processes for EDU 162 CURRICULUM & RESOURCES OF PHYSICAL SCIENCE

Processes	Explanation
Identify and compare the principles of curriculum development selecting a single topic from state and CBSE syllabi. OR Make a cartoon on the concept of using a correlation in the classroom. OR Make a table of similarities and differences of any two of PSSC, Chem Study, CBA.	<p>This exercise is a qualitative judgment of a representative topic with regard to the principles of curriculum construction. A topic of sufficient length ( may be a complete unit) has to be selected from Chemistry or Physics of state syllabus. And comparison should be made with similar topic from the CBSE syllabus. A report of comparison should be prepared. As the comparison is subjective it is quite natural that different individuals may come out with different viewpoints in their reports.</p> <p>A cartoon is a drawing depicting a humorous situation, often accompanied by a caption. A cartoon can be drawn on instances of using correlation in the classroom. (Using humour does not mean devaluing or disapproving something.)</p> <p>The expected output is a two column report with the similarities listed in the first column and differences in the second column.</p>
Go through the biography of any one scientist and prepare profile to recognize the scientific method they had used in their pursuits. OR Prepare a poster in groups of three highlighting the importance of scientific method.	<p>A two page report may be prepared and each student may prepare a profile of a different scientist.</p> <p>The poster should be prepared on a chart paper. The poster should illustrate the message / theme/ principle with minimum words. Typically posters include both textual and graphic elements. Posters are designed to be both eye-catching and informative. For tips visit</p>

<p>Make an improvised apparatus in a group of three and contribute to the local school. OR Select a unit in Physics or Chemistry of 8<sup>th</sup> standard and prepare a workbook. OR Rate a Higher secondary level text book in science according to Vogel's Criteria.</p> <p>Arrange one shelf of the lab and label properly OR make a mock register with few items. OR Prepare the list of at least 20 science books in the library and prepare an accession register for the same. OR Catalogue the 20 books and make a computer data base of it. (Including author, title, key words and other necessary details) OR Suggest any 5 journals in Science with publication details that can be subscribed for schools</p>	<p><a href="http://online.physics.uiuc.edu/courses/phys596/fall11/Lectures/ScientificPosterTips_FA11.pdf">http://online.physics.uiuc.edu/courses/phys596/fall11/Lectures/ScientificPosterTips_FA11.pdf</a></p> <p>The group of three may pre-decide on the improvised apparatus and come prepared to the class with required materials. Only one apparatus need be prepared in the group.</p> <p>Workbook is a booklet with practice problems, where the answers can be written directly in the book. The exercises/ problems should be of varied types incorporating all types of questions followed by space to solve them. A small booklet of about 6 pages need be prepared by each student teacher.</p> <p>Any science text book (NCERT/ CBSE / written by any author) appropriate for higher secondary level reading may be taken for rating.</p> <p>Each student shall arrange and label the apparatus/ reagents/ chemicals of one shelf of the science lab in the teacher education institution.</p> <p>Make a small sample register with about 20 items. one may choose any one of permanent stock register, stock register of breakables, stock register of consumables, order register or a requirement register.</p> <p>Prepare an accession register with minimum essential details of 20 science books.</p> <p>Prepare a catalogue in excel or any other spread sheet of any 20 books.</p> <p>Prepare a list of 5 science journals with all necessary details.</p>
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### EDU 182 PROFESSIONALIZING PHYSICAL SCIENCE EDUCATION

Contact Hours: 75 Hours (Instruction) & 15 hours (process)

Marks : 50 (End semester Examination) & 10 (CE)

Content	Scope	Reference
<b>Module 1 Science and Society 5+5+5=15 hours</b>		
<p>1.1 Science as a social Endeavor; Scientific Literacy, Dual role of science (emancipatory and oppressive).</p> <p>1.2 The Science Teacher and Society. Role of science teacher in eradicating misconceptions and superstitions in Society.</p> <p>1.3 Science and Technology, complementarities between Science and Technology</p>	<p>1.1 Scientific literacy – meaning/definition. Characteristics of literate students. Using science as a tool for oppression – Dark Ages (science in the middle Ages) Science as tool for educating and uplifting masses.</p> <p>1.2 Science as a tool for fighting superstitions, fostering logical thinking and instilling scientific outlook in life. Misconceptions about science, misconceptions in learners and ways to overcome misconceptions.</p> <p>1.3 Difference between science and technology. Significance and relevance of both. Discussion on how both complement for the progress of humanity.</p>	<p>1.1 <a href="http://www.scientifcliteracy.org/aboutus.htm">http://www.scientifcliteracy.org/aboutus.htm</a></p> <p><a href="http://www.curriculumsupport.education.nsw.gov.au/investigate/index.htm">http://www.curriculumsupport.education.nsw.gov.au/investigate/index.htm</a></p> <p>1.2 Alsop, S. &amp; Hicks, K. (2003) Teaching science. New Delhi: Kogan page India Private Ltd.</p> <p>1.3 Any appropriate text book</p>

<b>Module 2 Co-curricular Activities in Science 5+5=10 hours</b>		
<p>2.1 Co-curricular activities - organization of field trips and study tours, their importance.</p> <p>2.2 Science Club - its pattern, organization and activities such as science fairs, science exhibition, science debates.</p>	<p>2.1. Co-curricular activities need and significance- Fieldtrip and study tour, Meaning – importance/merits/values, steps of organizing.</p> <p>2.2 Science Club – Objectives, Organisation, list of activities conducted by Science Club. Science Fair, Science exhibition, and science debates – Objectives, steps of organizing.</p>	<p>2.1 Rajan K. M. , (1999), Perspectives in Physical Science Teaching, Kottayam: Vidyarthimithram.</p> <p>Ahmad J., (2009) Teaching of Biological Sciences. New delhi: PHI Pvt Ltd.</p> <p>2.2 Ahmad J., (2009) Teaching of Biological Sciences. New delhi: PHI Pvt Ltd. Sivarajan, K &amp; Faziluddin, A. (2005) <i>Science Education</i>. Calicut University : Central Co-operative stores.</p>
<b>Module 3 The scientifically Gifted Children 7+3=10 hours</b>		
<p>3.1 Identifying and nurturing the gifted children. Creativity and Critical thinking.</p> <p>3.2 NSTS(National Science Talent Search)</p>	<p>3.1 Characteristics of Scientifically gifted children. Measures to nurture scientific talent. Creativity in science-ways to foster. critical thinking in science</p> <p>3.2 NSTS- NSTS Scheme of NCERT. Objectives of the scheme. National Talent Search Examination conducted by NCERT, ,objectives, procedure, Olympiad</p>	<p>3.1 Sivarajan, K &amp; Faziluddin, A. (2005) <i>Science Education</i>. Calicut University : Central Co-operative stores.</p> <p>3.2 <a href="http://www.ncert.nic.in/programmes/talent_exam/pdf_files/Details.pdf">http://www.ncert.nic.in/programmes/talent_exam/pdf_files/Details.pdf</a> Sivarajan, K &amp; Faziluddin, A. (2005) <i>Science Education</i>. Calicut University : Central Co-operative stores.</p>
<b>Module 4 Using Computers in Teaching 7+7+6=20 hours</b>		
<p>4.1 Computer Aided Teaching, Expert System, Module preparation for E-content Development,</p> <p>4.2 Course ware, Free Softwares in Science.</p> <p>Learning Management Systems - OLE</p>	<p>4.1 Use of computers in teaching – as supporting and as a teaching machine. Human Teacher – merits and draw backs. Expert System as the major component of Intelligent tutoring systems,</p> <p>4.2 Course ware – Meaning , Free Software's in Science - a list of useful softwares and their functions.</p> <p>4.3 Moodle – philosophy, pedagogy, usage, moodle site-basic structure, key</p>	<p>4.1 Any appropriate text book in Educational Technology</p> <p>4.2 Appropriate internet resources</p> <p>4.3 <a href="http://docs.moodle.org/">http://docs.moodle.org/</a></p>

	terms as given in the moodle website.	23/en/About_Moodle
<b>Module 5    The Professional Science Teacher    7+3+5+5=20 hours</b>		
<p>5.1 Definition of profession, Teaching as a profession. Professional ethics. Traits of professionalism-competencies listed by NCTE</p> <p>5.2 Soft Skills for a teacher</p> <p>5.3 Professional growth of Science teacher. – Teaching, Research and Extension. Research journals in Science and Science Education. Role of SCERT and NCERT in the professional growth of a teacher.</p> <p>5.4 Internet resources and websites for professional growth of a science teacher.</p>	<p>5.1 Profession – definition. Characteristics of a profession, who is a professional teacher? Professional Ethics – Code of ethics as given by NCTE. Professional elements (traits). Teacher competencies listed by NCTE.</p> <p>5.2 Soft skills – meaning, significance in teaching. Essential soft skills required for a teacher like leadership skills, communication skills, time management skills, team skills, event management skills etc.</p> <p>5.3 Professional growth of science teacher – teaching research and extension. Improving professionalism by in service courses. Role of SCERT and NCERT in the professional growth of a teacher. Professional organizations of teachers. Research Journals in Science – A list of.</p> <p>5.4 A list of internet resources and websites For the professional growth of science teacher.</p>	<p>5.1 Mohan R., (2011) Teacher Education, NEWDELHI: PHI Learning Pvt Ltd.</p> <p>5.2 Appropriate internet resources.</p> <p>5.3 Mohan R., (2011) Teacher Education, NEWDELHI: PHI Learning Pvt Ltd.</p> <p>5.4 Appropriate internet resources.</p>

### Processes for EDU 182 PROFESSIONALIZING PHYSICAL SCIENCE EDUCATION

Processes	Explanation
<p>Make a multimedia package/short video/very short documentary/puppetry OR Enact /practice theatre education, role playing, street show, or any art form to popularize science among public. OR Prepare a time line of significant developments in Science in any one century.</p> <p>Arrange a seminar in science in the</p>	<p>A two or three minute project with a story line may be attempted. marks shall be awarded only for (1)the story board outline and (2)the novelty and originality of the idea contained. (Short film/multimedia package /documentary may be attempted with small mobile camera</p> <p>Time line is a graphical representation of chronological events. The important events, inventions, thoughts, scientists etc of any particular century may be selected.</p> <p>The seminar should have a student teacher as moderator and four or five student teachers should present papers on the theme of popularizing scientific outlook</p>

<p>class for popularizing scientific outlook. or Prepare a science show with simple interesting experiments and perform it before other students of the college. (To be done in groups)</p> <p>Prepare an evaluation tool to identify the science talented students.</p> <p>Write a script for developing e-content development for a concept OR Prepare a rating scale to evaluate an educational CD and evaluate one using the same.</p> <p>Does the profession of teaching command same respect as other professions? Express your views in the class.</p> <p>OR</p> <p>Prepare a review of a research based article in Science from any Science e-journal.</p>	<p>among the public. All other teacher educators who listen to the seminar shall prepare their own notes compiling the proceedings of the seminar. Marks shall be awarded for moderating/presenting the paper/compiling the proceedings.</p> <p>A group of four or five may decide on two or three simple interesting experiments. the group shall perform the experiments either in the optional class or to non science students of the college.</p> <p>A tool with items that test creativity, originality and problem solving ability shall be prepared. A test of about 15 items in science that require divergent/convergent thinking may be constructed for 8<sup>th</sup>/ 9<sup>th</sup>/ 10<sup>th</sup> standard.</p> <p>Select an appropriate concept in Physics/Chemistry and develop an econtent. Script is sufficient. <i>(One can also try e content development soft ware like eXe – the eLearning XHTML editor. eXe is an easy open source software which is freely downloadable and works on windows or linux platforms. Visit <a href="http://exelearning.org/">exelearning.org/</a> for download)</i></p> <p><i>A rating scale may be developed with essential criteria such as sequencing, user friendliness, hyperlinking, graphics and so on. Either a rating scale can be individually developed or it may be adapted/adopted from readymade proforma for evaluation of education Cd such as given in Mohan, R (2007). Innovative science teaching for physical science. New Delhi: Prentice Hall.</i></p> <p>This may be arranged as an unstructured casual talk. All the student teachers shall prepare a short note about their own participation and contribution after the session.</p> <p>First the full text of a research article in Physics/ Chemistry should be retrieved from any e journal. A number of e journals are available with full text option through the N –LIST programme of INFLIBNET. Most of the colleges subscribe to the NLIST programme which is accessed through internet.</p>
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# **UNIVERSITY OF CALICUT**

**Re structuring of Curriculum-2012  
Credit Based Semester and Grading System**

## **HANDBOOK FOR TEACHER EDUCATORS (NATURAL SCIENCE)**

**Programme: Bachelor of Education (B Ed)  
With effect from 2012-13 Academic Year**

**B O A R D O F S T U D I E S  
E D U C A T I O N (UG)**

**EDU. 121. METHODOLOGY OF TEACHING NATURAL SCIENCE.**

Contact Hours:75 (Instruction)&amp;15 Process

Marks:50 (End Semester Examination)&amp;10 (CE)

**MODULE I (10 Hours)****Nature and Scope of Science**

Content	Scope	Reference
1.1 Science-its meaning, definitions, and nature Science as a product and process- Science an ongoing process of enquiry	1.4 Definitions of Science. The three fold nature of Science – body of knowledge, Method of enquiry and attitude towards life. The product and process aspect of Science. How both aspects contribute mutually for the development of Science. Science an ongoing process of enquiry.	1.2 Mohan, R (1995). <i>Innovative science teaching for physical science</i> . New Delhi: Prentice Hall.
1.2 Importance of science as a school subject. Values of teaching science with special reference to Biology.	1.5 A general discussion on the importance of teaching science in School. Need, worth and value of teaching Science in the Practical, disciplinary, vocational, social, moral and recreational dimensions.	1.2 Sharma, R. C. (1985) <i>Modern science teaching</i> . New Delhi: Dhanpat Rai &, Sons.
1.3 Scientific Attitude.	1.6 Definition and characteristics of Scientific Attitude. The difference between attitude and aptitude (5+3+2 =10 Hrs)	1.3 Any appropriate textbook

**MODULE II (5 Hours)****History of Science Education**

2.1 Landmarks in the development of science education.	2.1 Science education through centuries (16 <sup>th</sup> - 21 <sup>st</sup> ) Landmarks in the development of science education in India-All India Seminar on Teaching of Science, National Scientific Policy Resolution of 1958, Indian parliamentary and scientific Committee, UNESCO Planning Mission and efforts like establishing the NCERT, University Grants Commission and the All India Council for Technical Education, Institute of Technology, Indian Institute of Science, Navodaya Vidyalayas etc	2.1 <a href="http://www.iisc.ernet.in/insa/ch4.pdf">http://www.iisc.ernet.in/insa/ch4.pdf</a>
2.2 Science		

Education as envisaged in NCF and KCF 2007- developing global perspectives in science teaching.	<p>2.2 Relevant sections of NCF – Section 3.3 Science - basic criteria of validity of a science curriculum, Section 3.3.1 The Curriculum at different Stages, Section 3.3.2 Outlook</p> <p>Relevant sections of KCF – 5.2.2Major criticisms leveled against the prevailing science education,5.2.4 aims of science education, 5.2.5.1Knowledge Domain, 5.2.5.2Science Process Domain, 5.2.5.3Creativity Domain, 5.2.5.4Attitudinal Domain, 5.2.5.5Application Domain, 5.2.13<i>The Nature of Science and Science Education</i>, 5.2.17<i>The areas of science education that need to be evaluated.</i></p> <p>Developing global perspectives in teaching science. (1+4=5Hrs)</p>	<p>2.2 <a href="http://www.ncert.nic.in/rightside/links/pdf/framework/english/nf2005.pdf">http://www.ncert.nic.in/rightside/links/pdf/framework/english/nf2005.pdf</a></p> <p><a href="http://www.ssamis.com/web/downloads/KCF%202007.pdf">http://www.ssamis.com/web/downloads/KCF%202007.pdf</a></p>
<b>MODULE III (25 Hours)</b> <b>Approach, Methods and Techniques of Teaching Science</b>		
<p>3.1 Inductive, Deductive, Enquiry &amp; Discovery Approaches of Teaching.</p> <p>3.2 Methods of Instruction – Lecture, Lecture cum demonstration method, Heuristic method, Project method, Problem solving method, Dalton Plan, Individual laboratory method,</p> <p>3.3 Questioning Technique, Brain storming, Buzz session, &amp; Role Playing.</p>	<p>3. Meaning of methods, approaches and techniques to be discussed.</p> <p>3.1 Inductive approach (Generalizing from instances) &amp; deductive approach (Verifying the theories) – meaning, comparison, examples, merits and demerits. Enquiry and discovery approaches. Guided and unguided enquiry.</p> <p>3.2 Methods of Instruction – Each method should be explained with regard to its meaning, general principles/characteristics if any, procedure, role of teacher, merits &amp; demerits.</p> <p>3.3 Importance of Questioning. Strategies of questioning. Thumb rules of effective questioning, Guidelines for dealing with pupils answer. Brain storming, Buzz session and Role playing may be discussed with essential practical wisdom in the class. Apart from the theory,</p>	<p>3.1 Any appropriate text book</p> <p>3.2Methods of Instruction - Any appropriate text book. Problem Solving Cycle &amp; types of Problems- Sternberg, R.J., (2006) <i>Cognitive Psychology</i>, Thomson Wadsworth <a href="http://eprints.utm.my/6084/1/aziziyahcognitivepsy.pdf">http://eprints.utm.my/6084/1/aziziyahcognitivepsy.pdf</a></p> <p>3.3 Any appropriate text book/ Internet resources.</p>



	<p>student teachers should appreciate these techniques as tools for collaborative learning and social constructivism.</p> <p>(4+16+5=25 Hrs)</p>	
<p align="center"><b>MODULE IV (20 Hours)</b> <b>Learning as a Generative Process</b></p>		
<p>4.1 Theory of Cognitive Constructivism, Social Constructivism and Multiple Intelligences</p> <p>4.2 Learning as a generative process - Children's science, learner as a scientist, Behaviorist approach Vs Constructivist approach,</p> <p>4.3 Collaborative learning, Managing Group learning in a classroom Activity based learning, role of experiments in science, integration of theories and experiments in science.</p>	<p>4.1 Genetic Epistemology by Jean Piaget, Discovery learning by Jerome S. Bruner, Social Developmental Theory by L. Vygotsky and Multiple Intelligence by Howard Gardner may be discussed as the essential underpinnings of constructivism.</p> <p>4.2 UNESCO sourcebook (Harlen &amp; Elstgeest) -The idea of how children learn is given under the heading “Reflecting on Learning in Science” in Chapter 1 of the book. The schematic diagram under the heading “The role of process skills in Learning” may also be discussed. The teacher educator may also refer chapter 6 – “Development of children’s science concepts” of the UNESCO Sourcebook. Differences between behaviourism and constructivism may be discussed in the class in the light of theory as well as practical experience of the teacher educator.</p> <p>4.3 The theory and explanations of collaborative learning should be comprehended and discussed from the Teachers’ Hand books prepared and modified by SCERT, Kerala from time to time. A list of activities that can be used in a constructivist classroom such as Collection of specimens, Small scale survey, Model making, Projects, Seminar, Symposium, Debate, Bulletin board, Nature observation, Fieldtrip, Outdoor learning, Study tour, Library reference should be mentioned and strategies of managing Group discussion, Observation and Experiments in a group context should be discussed. Role of teacher in the constructivist class room should be discussed.</p>	<p>4.1 Appropriate Text books in Cognitive Psychology.</p> <p>4.2 Alsop, S. &amp; Hicks, K. (2003) Teaching science. New Delhi: Kogan page India Private Ltd. Harlen, W &amp; Elstgeest (1992) UNESCO Source Book for Science in the Primary School New Delhi : National Book Trust</p> <p>4.3 <a href="http://www.collaborativelearning.org/clbooklet.pdf">http://www.collaborativelearning.org/clbooklet.pdf</a> <a href="http://www.studygs.net/cooplearn.htm">http://www.studygs.net/cooplearn.htm</a> <a href="http://www.evergreen.edu/washcenter/natlrc/pdf/collab.pdf">http://www.evergreen.edu/washcenter/natlrc/pdf/collab.pdf</a>  <a href="http://www.ssa.tn.nic.in/Docu/ABL-Report-by-Dr.Anandhalakshmi.pdf">http://www.ssa.tn.nic.in/Docu/ABL-Report-by-Dr.Anandhalakshmi.pdf</a> <a href="http://www.ssa.tn.nic.in/CurrActivities-A.htm">http://www.ssa.tn.nic.in/CurrActivities-A.htm</a></p>

	<p>ABL is an initiative under SSA, Tamilnadu. (Only key features of ABL are required). The student teachers may reflect upon their own experiences in school and college about linking theory and practical. The discussions should lead to fruitful thumb rules on providing effective science education in the school. The student teachers should convince themselves of the importance of experiments and activities in science learning.</p> <p>(6+7+7 =20 Hrs)</p>	
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**MODULE. V (15 Hours)**  
**Present Practices in**  
**Teaching and Learning.**

<p>5.1 Critical Pedagogy, Issue-based Teaching, Edubuntu –exploration of the science resources, Review of the latest happenings in the state schooling procedures.(Teacher trainees are expected to acquaint with the emerging practices related to schooling from time to time</p>	<p>5.1 Conceptual overview of critical pedagogy and Banking Concept of Education, Terms such as conscientization, dialogical method and praxis should be discussed. The issues listed in the KCF should be discussed in the context of Science Teaching. (10 Hrs)</p> <p>The EDUBUNTU should be explored in the computer lab. And student teachers should get themselves acquainted with some of the resources included in EDUBUNTU like Biology Resources, IT Resources for UP and Resource for VI and VIII etc (5 Hrs)</p>	<p>5.1 Harlen, W &amp; Elstgeest (1992) UNESCO Source Book for Science in the Primary School New Delhi : National Book Trust</p> <p>5.3 Freire, P. (1970). <i>Pedagogy of the Oppressed</i>. Harmondsworth: Penguin.</p> <p>SCERT, Kerala (2009). <i>Teachers' Hand Book, Standard VIII</i>, Education Department, Government of Kerala.</p> <p><a href="http://mingo.info-science.uiowa.edu/~stevens/critped/index.htm">http://mingo.info-science.uiowa.edu/~stevens/critped/index.htm</a></p>
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**Process for EDU. 121. METHODOLOGY OF TEACHING NATURAL SCIENCE.**

Process	Explanation
<p>Formulate a definition of science of your own and Substantiate its foci.</p> <p>OR</p> <p>Make some items (4 or 5 items) that would help to evaluate scientific attitude</p> <p>Make a comparison of NCF 2005 &amp; KCF with respect to</p>	<p>The students may analyze some definitions of science and formulate a definition of his/her own and label the foci (emphasis) and substantiate /justify them.</p> <p>Only a few sample items (5 items ) need be prepared. A rating scale is used to measure attitude.</p> <p>Go through relevant sections in both documents and make a comparison with respect to science education either in tabular</p>

<p>science education</p> <p>Prepare a group project plan for IX standard students</p> <p>OR</p> <p>Prepare an instruction card on a topic to be taught by Individualized Laboratory Method.</p> <p>Role playing of a Biological theme. (Group Work)</p> <p>Restructure a behaviorist learning of a topic into a constructivist format</p> <p>OR</p> <p>Making multiple lesson plans (behaviorist Vs constructivist) on a single topic based on different approaches to experience the difference in outlooks.</p> <p>OR</p> <p>Create an imaginary case study of a teacher trainee doing things wrongly in the constructivist classroom and list the precautions and suggestions to correct the trainee.</p> <p>List a topic each from (viii) and (ix) Std Biology and formulate issue based learning situations. ( 2 marks)</p>	<p>form or in descriptive form. (Not to exceed 5 aspects)</p> <p>A project should consist of the anticipated steps of the project. Students may select a topic of IXth standard Biology and prepare a plan showing the details of anticipated measures during each stage.(viz. problem, need and significance, methodology to be adopted,) the plan may contain time schedule and even references to be consulted.</p> <p>Select an experiment/a specimen for morphological study. Prepare an instruction card with instructions specifying the procedure of the experiment or observation to be conducted.</p> <p>A group of students (4-6) may prepare a script for role play of a Biological theme, rehearse and enact in the class.</p> <p>A behaviorist lesson plan may be provided to students for restructuring it into constructivist pattern.</p> <p>Each student may select a topic in Biology which can be taught in 40 minutes. Only the learning experiences need be devised along with the content. Thus the resulting two lesson plans shall have a content column and an activity/learning experience column. This exercise is only to feel the difference in organizing learning experiences in behaviourist and constructivist context. The format of the lesson plan ( 3 column/ 4 column format, content analysis part etc) may not be insisted.</p> <p>Imaginary case study means writing a paragraph of about 10 sentences where the situation of a new student teacher in a class room may be sarcastically described. The imaginary case study may include how he failed in building up a suitable introduction, how he failed to give proper instructions, and how he failed in managing group activities. The second part shall deal with the remedy for each mistake. This exercise shall make the student teacher prepare for the worst and hope for the best.</p> <p>Select atopic each from 8th and 9th std Biology and think of the issues as given in KCF that could be highlighted with the topic. Associate on issue with each topic and formulate corresponding learning situations</p>
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**EDU 141.PEDAGOGIC PRACTICES IN NATURAL SCIENCE.**

Contact Hours:75 (Instruction)&15 Process  
Marks:50 (End Semester Examination)&10 (CE

**MODULE I (20 Hours)****Aims and Objectives of Teaching Science**

Content	Scope	Reference
1.1 General aims of teaching Natural Science. Broad National Goals.	<p>1.3 The general aims of teaching science in schools, like understanding the nature of science, skill acquisition, development of scientific attitude, training in scientific method, development of interest and appreciation, helping students to adjust better with society, developing suitable career interests may be discussed.</p> <p>Broad national goals of teaching Natural Science.( to develop scientific literacy to raise the standard of living to effective social change and to create awareness of national goals with respect to increase of food production, eradication of diseases, better nutrition, importance of live stock, conservation of natural resources etc</p>	1.1 Sivarajan, K & Faziluddin, A. (2005) <i>Science Education</i> . Calicut University : Central Co-operative stores.
1.2 Taxonomy of educational objectives –Revised Bloom's Taxonomy, Mc Cormack & Yager Taxonomy	<p>1.4 The Blooms taxonomy should be discussed in detail with proper discussion on all the instructional objectives of Cognitive and affective Domain. For Psychomotor domain, Dave's taxonomy may be followed.</p> <p>While dealing the Revised Bloom's taxonomy, changes effected in the cognitive domain 1. Renaming and reorganizing of cognitive levels 2. Nouns changed to verbs 3. Structural change with two dimensions (the knowledge dimension and the cognitive process dimension) may be emphasized.</p> <p>The domains of Science Education as</p>	<p>1.2 Mohan, R (2007). <i>Innovative science teaching for physical science</i>. New Delhi: Prentice Hall.</p> <p>Anderson, W. L. &amp; Krathwohl D. R. <i>A taxonomy for Learning, Teaching and Assessing</i>. Newyork: Longman.</p> <p><a href="http://www.unco.edu/cetl/sir/stating_outcome/documents/Krathwohl.pdf">http://www.unco.edu/cetl/sir/stating_outcome/documents/Krathwohl.pdf</a></p> <p><a href="http://projects.coe.uga.edu/epltt/index.php?title=">http://projects.coe.uga.edu/epltt/index.php?title=</a></p>

1.3 Process skills in Science at secondary stage, developing process skills in students.	<p>given by McCormack &amp; Yager and the Instructional Objectives may be discussed.</p> <p>1.3 The process skills may be discussed along with the ways of developing process skills in children. The teacher educator may refer chapter 6 – Developing children's process skills and attitudes of UNESCO sourcebook (Harlen &amp; Elstgeest)</p> <p>(5+10+5 =20 Hrs)</p>	<p>Bloom's Taxonomy <a href="#">McCormack, A. J. &amp; Yager, R. E.</a> (1989) A New Taxonomy of Science Education. Science Teacher, v56 n2 p47-48. Mathew, T.K. &amp; Mollykutty (2012) Science Education – Theoretical Bases of Teaching &amp; Pedagogic Analysis, Chengannur: Rainbow Publications</p> <p>1.3 SCERT, Kerala (2009). <i>Teachers' Hand Book, Standard VIII</i>, Education Department, Government of Kerala. Harlen, W &amp; Elstgeest (1992) UNESCO Source Book for Science in the Primary School New Delhi : National Book Trust</p>
<p align="center"><b>MODULE II (10 Hours)</b> <b>Micro Teaching</b></p>		
2.1 Teaching skills for class room instruction, Essential skills for Science teaching, Micro teaching - a skill based practice	<p>2.1 Essential skills for teaching science Core teaching skills – components Micro teaching – origin, definition, micro teaching cycle, rationale and use of micro teaching, phases of micro teaching. Preparation of micro lessons and appraisal format to elicit feedback. Integration of skills, Link practice, macro teaching</p> <p>(7+3=10)</p>	<p>2.1 Passi, B.K (1976). <i>Becoming better teacher: A micro teaching approach</i>, Ahamadabad, Sahithya Mundranalya.</p>
<p align="center"><b>MODULE III (23 Hours)</b> <b>Pedagogic Analysis</b></p>		
3.1 Pedagogic Analysis- A conceptual overview, Pedagogic Analysis of the Biology content portions of 8th and 9th standard textbooks of Kerala state, (1. Arranging teaching points in a logical order.	<p>3.1 Meaning, Objective and scope of Pedagogic Analysis. Encompassing content analysis, statement of objectives, deciding prerequisites, determining inputs, assignments, activities and evaluation procedures etc may be discussed.</p> <p>Content analysis may be done as terms, facts, concepts, principles, equations, processes, and law.</p>	<p>3.1 Sivarajan, K &amp; Faziluddin, A. (2005) <i>Science Education</i>. Calicut University : Central Co-operative stores.</p>

<p>2. Analysing concepts, Working out strategies for teaching concepts.</p> <p>3. Stating general instructional objectives and specific instructional objectives in terms of behavioural outcomes. (The Behaviourist approach) OR Stating 'curriculum objectives' in terms of concepts, process skills, strategies of instruction and evaluation. (The Constructivist approach) 4. Planning suitable learning experiences according to objectives. Planning the procedures of evaluation according to objectives.</p>	<p>Concept may be discussed as given by Bruner in Concept Attainment Model. The five elements of a concept (name, exemplar, attribute, attribute value and definition) may be emphasized.</p> <p>Criteria for stating Instructional Objectives in the behaviourist and Constructivist approaches may be emphasized.</p> <p>Importance of selecting suitable learning experience for effective teaching may be emphasized.</p> <p>Selecting the appropriate evaluation procedure relevant to constructivist and behaviourist styles. (Constructivist approach requires testing of process skills as well as conceptual understanding)</p> <p>(23Hrs)</p>	
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#### MODULE IV (12 Hours)

#### Planning of instruction

<p>4.1 Objective based instruction – interdependence of objectives, learning experience, and evaluation.</p> <p>4.2 Planning of Instruction - year plan, unit plan, resource unit</p> <p>4.3 Lesson planning – Need, Stages (Herbartian steps)</p> <p>4.4 Lesson plan preparation based on (1) The objective based</p>	<p>4.1 Teacher educator should emphasize how this triangular relationship is reflected in the planning of instruction.</p> <p>4.2 Meaning and characteristics of Year plan, Unit plan, Resource Unit. Format of Year plan and lesson plan produced in the SCERT hand Books may be adopted.</p> <p>4.3 The sequencing of a lesson based on Herbartian steps has to be emphasized.</p> <p>4.4 The Behaviourist format lesson plan may be prepared using the instructional objectives given by NCERT viz., Knowledge, Understanding,</p>	<p>4.1 Mohan, R (2007). <i>Innovative science teaching for physical science</i>. New Delhi: Prentice Hall.</p> <p>4.2 Any appropriate text Book</p> <p>4.3 Any appropriate text Book</p> <p>4.4 Mathew, T.K. &amp; Mollykutty (2012) <i>Science Education – Theoretical Bases of</i></p>
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Behaviourist format (2) The Constructivist format	application, Skill,. Interest, Attitude, Appreciation (2+3+2+5 =12 Hrs)	Teaching & Pedagogic Analysis, Chengannur: Rainbow Publications
<b>MODULE. V (10 Hours)</b> <b>Evaluation in Science</b>		
5.1 Evaluation - Different types of test items - merits and demerits. Construction and administration of Achievement tests and Diagnostic tests.	5.1 Free response versus Fixed response. Objective type test item – supply type and selection type. Guidelines for preparation of true-false type/multiple choice type/ completion type, matching type, simple recall etc. Short answer and essay type – characteristics, guidelines for preparation, merits and demerits. Teacher made test versus standardized tests. Differentiate achievement and diagnostic test. Process of construction of both.	5.1 Mohan, R (2007). <i>Innovative science teaching for physical science</i> . New Delhi: Prentice Hall.
5.2 Continuous and Comprehensive Evaluation, Evaluation Criteria for Assignment, Seminar and Project.	5.2 Meaning, Scope and Importance of CCE. Evaluation criteria ( SCERT Hand book format may be utilized)	Any appropriate text book  5.2 Any appropriate text book
5.3 Evaluation of Non Cognitive Areas – Interest, Attitude and Skill	5.3 Non Cognitive Domain – Objectives in assessing, Difficulties in assessing, Assessment tools and techniques. ( observation, inventories, attitude scales, performance tests etc) (5+2+3)	5.3 Any appropriate text book on research methodology.

### Process for EDU 141.PEDAGOGIC PRACTICES IN NATURAL SCIENCE

Process	Explanation
Compare the two taxonomies in pictorial representation.	Instead of using meaningful sentences to describe and compare two things, we may use pictures involving, arrows, blocks, graphic designs or any other symbols to do the same task. (Eg. Edgar Dale's Cone of Experience summarizes the hierarchy of the effectiveness of learning experiences. )
OR Identify any suitable content /topic that would emphasize the development of a particular process skill. (Do this for all the 13 skills and justify your selection)	Each student should prepare a report with three columns. The first column will list the 13 process skills. The second column will list 13 suitable topics - one against each process skill. The third column will provide 13 sentences of justification corresponding to the process skill-topic pair. (Justification regards to why the student has considered a topic emphasize the particular process skill.)

<p>Perform content analysis of a particular topic of 8<sup>th</sup> or 9<sup>th</sup> std Biology</p> <p>OR</p> <p>Select a concept and formulate instructional objectives of all domains</p> <p>Prepare a comprehensive lesson plan following Herbartian Steps on a selected topic of Biology</p> <p>OR</p> <p>Prepare a Unit plan or Year Plan</p> <p>Make sample test items corresponding to any three objectives (Bloom's taxonomy or Mc Cormack &amp; Yager) that would go into an achievement test</p> <p>OR</p> <p>Prepare a question bank in Biology on a concept of your own choice.</p> <p>OR</p> <p>select a concept in Biology (8<sup>th</sup> or 9<sup>th</sup>) and prepare a Diagnostic Test</p>	<p>The student should select a topic of 8<sup>th</sup> or 9<sup>th</sup> std Biology and go through length and breadth. Analyze the content into terms, facts, concepts, principles, laws, processes etc.</p> <p>First the student teacher will have to identify a suitable topic which has significant inputs from cognitive, affective and psychomotor domains. Then at least two or three instructional objectives should be formally stated from each domain.</p> <p>Select a topic of Biology and prepare a lesson plan following Herbartian steps.</p> <p>Select a unit and prepare a Unit Plan OR Prepare a Year Plan based on 8<sup>th</sup> std or 9<sup>th</sup> std Biology text book</p> <p>At first the student teacher should select a unit in Biology. Now he may decide upon any three instructional objectives either from one domain say cognitive or from different domains. And then he is supposed to make three questions pertinent to each instructional objective. This exercise shall convince the student teacher about the style-difference in framing questions with regard to different Instructional Objectives.</p> <p>Select a concept in Biology and prepare test items of different forms. (MCT, CT, MT, Short Answer, etc which test different objectives . Max.15 Questions</p> <p>Select a concept in Biology 8<sup>th</sup> or 9<sup>th</sup> std and analyse the learning task and prepare Diagnostic Test. Max 10 Questions</p>
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**EDU 161.CURRICULUM AND RESOURCES OF NATURAL SCIENCE.**

Contact Hours:75 (Instruction)&15 Process  
Marks:50 (End Semester Examination)&10 (CE)

**MODULE I (20 Hours)****Science Curriculum**

Content	Scope	Reference
1.1 Curriculum- A conceptual Analysis, Curriculum and Syllabus, Principles of Curriculum Construction.	1.1 Origin of the word – curriculum, The definition of curriculum and syllabus, Conceptual analysis may include deciding factors of curriculum like nature of subject matter, nature of society, nature of learner etc. A list of principles of curriculum construction may be discussed. The characteristics of an effective curriculum may also be discussed.	1.2 Any appropriate textbook  1.2 Sivarajan, K & Faziluddin, A. (2005) <i>Science Education</i> . Calicut
1.2 Approaches to curriculum organisation - Integrated, Disciplinary and Interdisciplinary Approach. Concentric and Spiral Approach, Nature rambling, Nature study.	1.2The approaches may be discussed with supporting examples.	University : Central Co-operative stores.
1.3 Concept of correlation - Systematic correlation of Natural Science within the subject and with other subjects in the curriculum such as mathematics, Physics, Chemistry, Languages, Geography, History, Earth Science, Drawing, Music and Craft. Incidental correlation achieved while teaching.	1.3Incidental and Systematic correlation may be discussed with sufficient examples. The difference between them may also be highlighted.	1.3 Joseph t. T., (1991) Modern Trends in Science Education, Kottayam: St Joseph Training College
1.4 Curriculum reforms abroad – BSCS Nuffield Foundation	1.4A comparative study of different versions of BSCS, may be attempted with reference to objectives, approaches and major instructional materials. Nuffield	1.4 Sivarajan, K & Faziluddin, A. (2005) <i>Science Education</i> . Calicut

	Science - characteristics. (8+ 4+4+4= 20 hrs)	University : Central Co-operative stores. Mohan, R (2007). <i>Innovative science teaching for physical science</i> . New Delhi: Prentice Hall.
<b>MODULE II (10 Hours)</b> <b>The scientific method</b>		
2.1 Scientific method – importance, steps involved in the scientific method,	2.1 Definition of scientific method and commonly followed steps of scientific method. The steps should be illustrated with a suitable example.	2.1 Sharma, R. C. (1985) <i>Modern science teaching</i> . New Delhi: Dhanpat Rai &, Sons. <a href="http://www.freeinquiry.com/intro-to-sci.html">http://www.freeinquiry.com/intro-to-sci.html</a>
2.2 Technical Aspects- Observation, Experiment, Data Collection	2.2 All logical elements are inferential processes which reveal the cause effect relationship. Characteristics of Observation and experiment. Difference between observation and experiment may be emphasized. Procedures of data collection may be discussed.	2.4 Rajan K. M. , (1999), <i>Perspectives in Physical Science Teaching</i> , Kottayam: Vidyarthimithram.
2.3 Corroboration and Falsification	2.3 Conceptual meaning of corroboration and falsification illustrated with examples.	2.5 <a href="http://www.godslasteraar.org/assets/ebooks/Gardner_A_Skeptical_Look_at_Karl_Popper_sec.pdf">http://www.godslasteraar.org/assets/ebooks/Gardner_A_Skeptical_Look_at_Karl_Popper_sec.pdf</a> <a href="http://plato.stanford.edu/entries/popper/">http://plato.stanford.edu/entries/popper/</a>
2.4 Transfer value of Scientific Method, Strategies to give pupils training in Scientific method	2.4 Possibility of using systematic method of solving problems in day to day life situations. Strategies that can be employed by a science teacher to give training in scientific method may be discussed. (3+2+2+3 = 10 hrs)	Popper, (2002) <i>The Logic of Scientific Discovery</i> , Routledge Publishers 2.4 Joseph t. T., (1991) <i>Modern Trends in Science Education</i> , Kottayam: St Joseph Training College
<b>MODULE III (10 Hours)</b> <b>Models of Teaching</b>		
3.1 Models of Teaching- common features of models-key concepts for describing models-four families-some typical models viz, Concept Attainment Model,	3.1 Models of Teaching- Meaning, and origin common features of models-key concepts for describing models (syntax, Principles of reaction, Social system, Supporting system, Effects) -Four families of model –rationale, Some typical models viz, Concept Attainment Model, Inquiry Training Model to be dealt with in terms	Joyce B & Weil, M., (1986) <i>Models of Teaching</i> , New Jersey: PHI

Inquiry Training Model	of theory, syntax , Principles of reaction, Social system, Supporting system, Effects etc.	
<b>MODULE IV (20 Hours)</b> <b>Resources in Teaching Science</b>		
<p>4.1 Resource materials in teaching Natural Science. Syllabus, Textbooks - Vogel's criteria of selection. Work Book, Teachers handbook, reference books, supplementary readers.</p> <p>4.2 Teaching Aids, Improvised apparatus, Essential audiovisual aids. Biological drawings, specimens, video, power point presentation C.D. ROM such as <b>Encyclopaedia Britannica, Microsoft Encarta, Edubuntu</b> of it @school, kerala</p>	<p>4.1 Syllabus as a contract between teacher and students. Essential constituents of a syllabus. Science text book - Function, Characteristics, Vogel's Criteria for selection. Function and Characteristics/Merits of Work book, handbook, reference books and supplementary readers.</p> <p>4.2 Teaching Aids - Discussion on the most commonly used aids in science class. Criteria of selection. Improvised aids – characteristics, merits, value, disadvantages. Science resources like video clips, animations, graphics etc available in CDs may be discussed. Students may explore the Cds for themselves. Evaluation of an educational CD with a suitable proforma. (10+ 10 = 20 hours)</p>	<p>4.1 <a href="http://www.youtube.com/watch?v=T7xLD4XfqAw">http://www.youtube.com/watch?v=T7xLD4XfqAw</a> <a href="http://teachingcenter.wustl.edu/preparing-syllabus">http://teachingcenter.wustl.edu/preparing-syllabus</a> Sivarajan, K &amp; Faziluddin, A. (2005) <i>Science Education</i>. Calicut</p> <p>University : Central Co-operative stores.</p> <p>4.2 Mohan, R (2007). <i>Innovative science teaching for physical science</i>. New Delhi: Prentice Hall.</p>
<b>MODULE. V (15 Hours)</b> <b>Laboratory and Library</b>		
<p>5.1 Laboratory and its organization, purchase and maintenance of chemicals, apparatus and equipments. Live corners and museum, Laboratory rules, accidents in the laboratory, precautions and First Aid.</p> <p>5.2 Science library and its organization.</p>	<p>5.1 Science laboratory – design, organization, features of a good laboratory. Purchase of apparatus and chemicals, Registers to be maintained in a lab. General lab rules and discipline. Accidents and prevention. Precaution in storing chemicals. First aid. Aquarium, Vivarium, and Terrarium. Science Museum.</p> <p>5.2 Selecting good books for a science library. organizing a school science library.</p>	<p>5.1 Mohan, R (2007). <i>Innovative science teaching for physical science</i>. New Delhi: Prentice Hall.</p> <p>5.2 <a href="http://www.librariananurudh.com/images/LIBRARY-1-99.pdf">http://www.librariananurudh.com/images/LIBRARY-1-99.pdf</a></p>

5.3 Using internet for accessing information, Websites for authoritative information like ERIC, INFLIBNET etc.	5.3 Familiarising with websites devoted for science teaching and learning. Refer “How the web will change the classroom” by Mohan, R.,(2007) ERIC as an online <a href="#">digital library</a> of education research and information. INFLIBNET as network of library and information resources for research in particular subjects., N-LIST Programme. (8+3+4 = 15 hours)	5.3 Mohan, R (2007). <i>Innovative science teaching for physical science</i> . New Delhi: Prentice Hall. <a href="http://www.inflibnet.ac.in/about/objective.html">http://www.inflibnet.ac.in/about/objective.html</a> <a href="http://nlist.inflibnet.ac.in/faq.php">http://nlist.inflibnet.ac.in/faq.php</a>
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### Process for EDU 161.CURRICULUM AND RESOURCES OF NATURAL SCIENCE

process	Explanation
Compare the style of organization of curriculum of State and CBSE. principles of curriculum development selecting a single topic form State and CBSE syllabi.	This exercise is a qualitative judgment of a representative topic with regard to the principles of curriculum construction and organization of curriculum. A topic of sufficient length ( may be a complete unit) has to be selected from Biology of state syllabus. And comparison should be made with similar topic from the CBSE syllabus. A report of comparison should be prepared. As the comparison is subjective it is quite natural that different individuals may come out with different viewpoints in their reports.
OR Make a cartoon on the concept of using a correlation in the Classroom.	Prepare a cartoon on a selected Biological concept being correlated with Physics, Chemistry ..... (Group Work)
OR Make a table of similarities and differences of any two of BSCS versions	The expected output is a two column report with similarities and differences of one version in the first column and that of the other version in the second column.
OR Select a concept in Biology and correlate it with Physics, Chemistry and Geography	Select a Biological concept and correlate it with Physics, Chemistry and Geography
Go through the biography of any two scientists and prepare profile to recognize the scientific method they used in	A two page report may be prepared and each student may prepare a profile of a different scientist.

<p>their pursuits. (To be done in groups of three or four.)</p> <p>Prepare a Concept Attainment Model or Inquiry Training Model lesson plan on any topic in Biology.</p> <p>Rate a Higher secondary level text book in science according to Vogel's Criteria.</p> <p>OR</p> <p>Make an improvised apparatus and contribute to a local school</p> <p>OR</p> <p>Prepare a workbook on a unit of Biology in 8th or 9th std</p> <p>Make a sample stock register for the laboratory of your own college.</p> <p>OR</p> <p>Arrange one shelf of the lab and label properly OR Update the stock register/ make a mock register with few items</p> <p>OR</p> <p>Prepare the list of at least 20 science books in the library and prepare an accession register for the same.</p> <p>OR</p> <p>Catalogue the 20 books and make a computer data base of it.(Including author, title, key words and other necessary details) Suggest any one science book to the library with all necessary</p>	<p>Prepare a lesson transcript in CAM/ITM on any topic</p> <p>Any science text book (NCERT/ CBSE / written by any author) appropriate for higher secondary level reading may be taken for rating.</p> <p>The group of three may pre-decide on the improvised apparatus and come prepared to the class with required materials. Only one apparatus need be prepared in the group.</p> <p>Workbook is a booklet with practice problems, where the answers can be written directly in the book. The exercises/ problems should be of varied types incorporating all types of questions followed by space to solve them. A small booklet of about 6 pages need be prepared by each student teacher.</p> <p>Make a small sample register with about 20 items. One may choose any one of permanent stock register, stock register of breakables, stock register of consumables, order register or a requirement register.</p> <p>Each student shall arrange and label the apparatus/ reagents/ chemicals of one shelf of the science lab in the teacher education institution.</p> <p>Prepare an accession register with minimum essential details of 20 science books.</p> <p>Prepare a catalogue in excel or any other spread sheet of any 20 books.</p>
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<p>details of publisher author etc. OR Suggest any journals in Science with publication that can be subscribed in our school</p>	<p>Prepare a list of 5 science journals with all necessary details.</p>
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<b>EDU 181.PROFESSIONALISING NATURAL SCIENCE EDUCATION</b> Contact Hours:75 (Instruction)&15 Process Marks:50 (End Semester Examination)&10 (CE)		
<b>MODULE I (15 Hours)</b> <b>Science and Society</b>		
Content	Scope	Reference
1.1 Science as a social Endeavor; Scientific Literacy, Dual role of science (emancipatory and oppressive).  1.2 The Science Teacher and Society. Role of science teacher in eradicating misconceptions and superstitions in Society. Non-formal Science Education.  1.3 Science and Technology, complementarities between Science and Technology	1.2 Science as a social endeavor- Science as a human enterprise. Scientific literacy –meaning/definition. Characteristics of scientifically literate Dual role of science (emancipatory and oppressive). Using science as a tool for oppression – Dark Ages (science in the middle Ages) Science as tool for educating and uplifting masses.  1.2Science as a tool for fighting superstitions, fostering logical thinking and instilling scientific outlook in life.  Non-formal Science Education  1.3Difference between science and technology. Significance and relevance of both. Discussion on how both complement for the progress of humanity. (5+5+5 = 15 hours)	1.1 <a href="http://www.scientificliteracy.org/aboutus.htm">http://www.scientificliteracy.org/aboutus.htm</a>  <a href="http://www.curriculumsupport.education.nsw.gov.au/investigate/index.htm">http://www.curriculumsupport.education.nsw.gov.au/investigate/index.htm</a>  1.2 Alsop, S. & Hicks, K. (2003)Teaching science. New Delhi: Kogan page India Private Ltd.  1.3 Any appropriate text book
<b>MODULE II (18 Hours)</b> <b>Co-curricular activities in Science</b>		
2.1 Co-curricular activities - organization of field trips and study tours, their importance.	2.1. Co-curricular activities need and significance-Fieldtrip and study tour, Meaning – importance/merits/values, steps of organizing.	2.1 Rajan K. M. , (1999), Perspectives in Physical Science Teaching, Kottayam: Vidyarthimithram.

<p>Science Club - its pattern, organization and activities such as science fairs, science exhibition, science debates.</p> <p>2.2 Experimental projects, nature rambling, nature calendar</p>	<p>Science Club – Objectives, Organisation, list of activities conducted by Science Club. Science Fair, Science exhibition, and science debates – Objectives, steps of organizing.</p> <p>2.2 Experimental projects/ investigatory project, Nature rambling, Nature calendar (6+8+4 = 18 hours)</p>	<p>Sivarajan, K &amp; Faziluddin, A. (2005) <i>Science Education</i>. Calicut</p> <p>University : Central Co-operative stores. Ahmad J., (2009) Teaching of Biological Sciences. New delhi: PHI Pvt Ltd. 2.2 Ahmad J., (2009) Teaching of Biological Sciences. New delhi: PHI Pvt Ltd.</p> <p>Sivarajan, K &amp; Faziluddin, A. (2005) <i>Science Education</i>. Calicut University : Central Co-operative stores.</p>
<p align="center"><b>MODULE III (10 Hours)</b> <b>Gifted Students in Science</b></p>		
<p>3.1 Identifying and nurturing the gifted children. Creativity and Critical thinking.</p> <p>3.2 NSTS(National Science Talent Search)</p>	<p>3.1 Characteristics of Scientifically gifted children. Measures to nurture scientific talent. Creativity in science-ways to foster. critical thinking in science</p> <p>3.2 NSTS- objectives, procedure, Olympiad (7+3= 10 hours)</p>	<p>Sivarajan, K &amp; Faziluddin, A. (2005) <i>Science Education</i>. Calicut University : Central Co-operative stores.</p>
<p align="center"><b>MODULE IV (10 Hours)</b> <b>Use of computer in Teaching</b></p>		
<p>4.1 Computer Assisted Instruction, Programmed Learning-Expert System, Module preparation for E-content Development,</p> <p>4.2 Course ware, Free Software's in Science.</p> <p>4.3 Learning Management</p>	<p>4.1 Use of computers in teaching – as supporting and as a teaching machine. Human Teacher – merits and draw backs. Expert System as the major component of Intelligent tutoring systems,</p> <p>4.2 Course ware – Meaning , Free Software's in Science - a list of useful softwares and their functions.</p> <p>4.3 Moodle – philosophy, pedagogy, usage, moodle site-basic structure, key terms as given in</p>	<p>4.1 Any appropriate text in educational technology.</p> <p>4.2 Appropriate net resources</p> <p>4.3 <a href="http://docs.moodle.org/23/en/About_Moodle">http://docs.moodle.org/23/en/About_Moodle</a></p>

Systems –MOODLE	the moodle website. (5+3+2 = 10 hours)	
<b>MODULE. V (22 Hours)</b> <b>Professional Science Teacher</b>		
<p>5.1 Definition of profession, Teaching as a profession.</p> <p>5.2 Traits of professionalism, Professional ethics, Teacher Competencies listed by NCTE</p> <p>5.3 Soft Skills</p> <p>5.3 Professional growth of Science teacher. – Teaching , Research and Extension. Research journals in Science and Science Education. Role of SCERT and NCERT in the professional growth of a teacher. Professional organizations of teachers.</p> <p>5.4 Internet resources and websites for professional growth of a science teachers</p>	<p>5.1 Profession – definition. Characteristics of a profession, who is a professional teacher?</p> <p>5.2 Professional Ethics – Code of ethics as given by NCTE. Professional elements(trait)s. Teacher competencies listed by NCTE.</p> <p>5.3 Soft skills – meaning, significance in teaching. Essential soft skills in teaching like leadership skills, communication skills, time management skills, team skills, event management skills etc.</p> <p>Professional growth of science teacher – teaching research and extension. Improving professional ism by in service courses. Role of SCERT and NCERT in the professional growthof a teacher. Professional organizationsof teachers. Research Journals in Science – A list of.</p> <p>5.4 A list of internet resources and websites For the professional growth of science teacher.</p> <p>(8+4+5+5 = 22 hours)</p>	<p>5.1 Mohan R., (2011) Teacher Education, NEWdELHI: PHI Learning Pvt Ltd.</p> <p>5.2 Appropriate internet resources.</p> <p>5.3 Mohan R., (2011) Teacher Education, NEWdELHI: PHI Learning Pvt Ltd.</p> <p>5.4 Appropriate internet resources.</p>



## Process for EDU 181. PROFESSIONALISING NATURAL SCIENCE EDUCATION

process	Explanation
<p>Make a /short film/very short documentary/ puppetry for linking science with society</p> <p>OR</p> <p>Practice a theatre education, role playing, street show, or any art form to popularize Science among public.</p> <p>OR</p> <p>List any five misconcepts in science of High School children</p> <p>manifest a scientific hobby</p> <p>Conduct a debate on any biological issue.</p> <p>OR</p> <p>Prepare an action plan to make a campaign on eradication of disease.</p> <p>Prepare a poster in groups of five highlighting the importance of scientific Method.</p> <p>OR</p> <p>prepare an enrichment material on a concept in Biology for gifted students of 9th std</p> <p>OR</p> <p>Prepare an evaluation tool to identify gifted students in science</p> <p>Construct a linear Programme in electronic form (at least 10 frames) on a simple concept in Biology</p> <p>OR</p> <p>Write a script on a concept in biology for its E-content development</p> <p>Arrange a seminar in science in the college for popularizing scientific outlook.</p> <p>OR</p> <p>Prepare a review of a research based article on Education from INFLIBNET or ERIC</p> <p>OR</p> <p>Conduct a discussion in the class on the changing role of teachers</p>	<p>A two or three minute project with a story line may be attempted. Marks shall be awarded only for (1) the story board out line and (2) the novelty and originality of the idea contained. (Short film/multimedia package /documentary may be attempted with small mobile camera).</p> <p>Prepare a dramatic script on a theme popularizing science among public in group and enact / stage. Creative script writing is assessed and enacting appreciated.</p> <p>any five misconcepts in Biology of High School children.</p> <p>manifest a scientific hobby</p> <p>Select a biological issue for debate by two groups of the class.</p> <p>Study the disease and prevention measures to be adopted. Make an action plan including the target group, mode of intervention, message to be conveyed and supply materials if any.</p> <p>The poster should be prepared on a chart paper. The poster should illustrate the message / theme/ principle with minimum words. Typically posters include both textual and graphic elements. Posters are designed to be both eye-catching and informative. For tips visit <a href="http://online.physics.uiuc.edu/courses/phys596/fall11/Lectures/ScientificPosterTips_FA11.pdf">http://online.physics.uiuc.edu/courses/phys596/fall11/Lectures/ScientificPosterTips_FA11.pdf</a></p> <p>Prepare an enrichment material on a biological concept for gifted students of standard 9.</p> <p>Prepare an evaluation tool to identify gifted students in science.</p> <p>Construct a linear program in electronic form with 10 frames on a simple concept in Biology.</p> <p>Select an appropriate concept in Biology and develop an e-content with provision for graphics/text/ question answer sessions etc.</p> <p>The seminar should have a student teacher as moderator and four or five student teachers should present papers on the theme of popularizing scientific outlook among the public. All other teacher educators who listen to the seminar shall prepare their own notes compiling the proceedings of the seminar. Marks shall be awarded for moderating/presenting the paper/compiling the proceedings.</p> <p>Arrange a seminar in science in the college for popularizing scientific outlook.</p> <p>First the full text of a research article in Physics/ Chemistry should be retrieved from any e journal. A number of e journals are available with full text option through the N –LIST programme of INFLIBNET. Most of the colleges subscribe to the NLIST programme which is accessed through internet.</p>

# **UNIVERSITY OF CALICUT**

**Re structuring of Curriculum-2012  
Credit Based Semester and Grading System**

## **HANDBOOK FOR TEACHER EDUCATORS (MALAYALAM)**

**Programme: Bachelor of Education (B Ed)  
With effect from 2012-13 Academic Year**

**B O A R D O F S T U D I E S  
E D U C A T I O N (UG)**

## METHODOLOGY OF TEACHING MALAYALAM

O B	TOPIC	SCOPE OF CONTENT	REFERENCE
1	<p>മലയാള ഭാഷയുടെ വികാസ പരിണാമങ്ങൾ.</p> <p>ഭാഷയുടെ സ്ഥിതി വിവിധ കാലഘട്ടങ്ങളിൽ.</p> <p>ഭാഷയുടെ സാമൂഹിക ധർമ്മം</p> <p>ഭാഷയും സാമൂഹിക വികസനവും</p>	<p>ഭാഷ എന്നാൽ എന്ത്. ഭാഷയുടെ ധർമ്മം സാമാന്യമായി. ഭാഷാഗോത്ര സങ്കല്പം.</p> <p>പാട്ട് ഘട്ടം-(തമിഴുമായുള്ള ബന്ധം). മണിപ്രവാള ഘട്ടം. ആദ്യ കാല ഗദ്യ രീതികൾ (ശാസനങ്ങൾ, നമ്പ്യാൻ തമിഴ്, ഭാഷാ കൗടിലീയം, മിഷനറി മലയാളം, ആധുനിക മലയാളം, തുടങ്ങിയ കാര്യങ്ങൾ).</p> <p>സാമൂഹിക ഇടപെടലിനും ആശയ വിനിമയത്തിനും ഭാഷയുടെ അനിവാര്യത.</p> <p>സാമൂഹിക വികസനവും ഭാഷാവികസനവും പരസ്പര പൂരകമായി നിലനിൽക്കുന്നു (ജാതി, മതം, സമുദായം, പ്രദേശം, തൊഴിൽ, സാമ്പത്തിക സ്ഥിതി, വിദ്യാഭ്യാസം, സമൂഹത്തിലെ സ്ഥാനം, ആചാരങ്ങൾ, ജീവിതരീതികൾ, എന്നിവ ഭാഷയെയും സാമൂഹിക വളർച്ചയേയും സ്വാധീനിക്കുന്നു).</p>	<p>ദ്രാവിഡഭാഷകൾ -എം.എസ്.ആന്ദ്ര നൊവ്.</p> <p>സാഹിത്യ ചരിത്രം പ്രസ്ഥാനങ്ങളിലൂടെ. പ്രാചീനമലയാളം -പുതുശ്ശേരി രാമചന്ദ്രൻ</p> <p>കേരള ഭാഷയുടെ വികാസപരിണാമങ്ങൾ-ഇളം കുളം. ക്രിസ്ത്യാനികളും മലയാളസാഹിത്യവും-ചർച്ചയും</p> <p>പുരണവും-ഡോ.സ്കറിയ സക്കറിയ നമ്മുടെ ഭാഷ- ഇ.എം.എസ്. നമ്പൂതിരിപ്പാട്.</p> <p>കൈരളിയുടെ കഥ</p> <p>കേരളത്തിന്റെ സംസ്കാരിക ചരിത്രം-പി.കെ. ഗോപാലകൃഷ്ണൻ അധ്യാനം, ഭാഷ, വിമോചനം-പി.ശ്രീകുമാർ.</p>
2	<p>സംസ്കാര രൂപീകരണത്തിൽ മാത്രം ഭാഷയുടെ സ്വാധീനം</p> <p>ജനാധിപത്യ സമൂഹത്തിൽ മാത്രം ഭാഷയുടെ പ്രസക്തി</p> <p>മാത്രം ഭാഷ ബോധന മാധ്യമമെന്ന നിലയിൽ</p> <p>മലയാളഭാഷ ഔദ്യോഗിക ഭാഷ എന്ന നിലയിൽ</p>	<p>ഒരു ജനതയുടെ സംസ്കാരം രൂപപ്പെടുന്നതിലും തലമുറകളിലേക്ക് വിനിമയം ചെയ്യുന്നതിലും മാത്രം ഭാഷ വഹിക്കുന്ന പങ്ക്-പരസ്പര ബന്ധം. ജനാധിപത്യ പ്രക്രിയയിൽ പങ്കെടുക്കുന്നതിലും ജനാധിപത്യം ശക്തിപ്പെടുത്തുന്നതിലും മാത്രം ഭാഷ വഹിക്കുന്ന പങ്ക്.</p> <p>മാത്രം ഭാഷ ബോധന മാധ്യമമാവുമ്പോൾ ആശയ ഗ്രഹണം, വിനിമയം, ചിന്താപ്രക്രിയ എന്നിവയുടെ സാധ്യത വർദ്ധിക്കുന്നു. ആത്മ വിശ്വാസം വളരുന്നു. അതുവഴി അധ്യയനം എളുപ്പമാകുന്നു. വിശദമായി ചർച്ച ചെയ്യണം.</p> <p>മാത്രം ഭാഷ ഔദ്യോഗിക ഭാഷയാവുമ്പോൾ പൗരന്റെ അവകാശങ്ങൾ ഉറപ്പുവരുത്തുന്നതിനും അതുവഴി ജനാധിപത്യ പ്രക്രിയയിൽ പങ്കെടുക്കുന്നതിനും അത് ശക്തിപ്പെടുത്തുന്നതിനും കഴിയുന്നു.</p>	<p>കേരളത്തിന്റെ സാംസ്കാരിക ചരിത്രം.</p> <p>നമ്മുടെ ഭാഷ</p>
3	<p>ഭാഷയിലെ ശൈലികൾ, പഴഞ്ചൊല്ലുകൾ, നാട്ടുറിവുകൾ, നാടോടി കലകൾ എന്നിവക്ക് സാംസ്കാരിക</p>	<p>നാടൻ കലകൾ, നാട്ടുറിവുകൾ, ഭാഷയിലെ ശൈലികൾ, പഴഞ്ചൊല്ലുകൾ, എന്നിവ നമ്മുടെ സംസ്കാരവുമായി ഏതെല്ലാം വിധത്തിൽ ബന്ധപ്പെട്ടുകിടക്കുന്നു.</p>	<p>കേരളത്തിലെ നാടൻ കലകൾ -ഏ.കെ.നമ്പ്യാർ</p> <p>നമ്മുടെ നാടൻ പാട്ടുകളുംകലകളും-പ്രൊഫ. സുസാരഭാഷ തെക്കും വടക്കും- ഫിലിപ്പ് മണിമല.</p> <p>കേരള ഭാഷാഗാനങ്ങൾ-ചിറക്കൽ</p>

	<p>വികസനവുമായുള്ള ബന്ധം.</p> <p>ഭാഷയുടെ വികസനത്തിൽ നാട്ടറിവുകൾ, നാടോടി കലകൾ എന്നിവയ്ക്കുള്ള പങ്ക്.</p>	<p>നാട്ടറിവുകളും നാടോടി കലകളും ഒട്ടേറെ പദങ്ങളും ശൈലികളും പ്രയോഗങ്ങളും നമ്മുടെ ഭാഷയ്ക്ക് സംഭാവന ചെയ്തിട്ടുണ്ട്.</p>	<p>ബാലക്രിഷ്ണൻ നായർ. കേരളത്തിലെ നാടോടി വിജ്ഞാനീയത്തിനൊരു മുഖവുര-വിഷ്ണു നമ്പൂതിരി. ഫോക്ലോർ നിഘണ്ടു-വിഷ്ണു നമ്പൂതിരി</p>
4	<p>സംസ്കൃതം, അറബിക്, ഇംഗ്ലീഷ്, എന്നീ ഭാഷകളുമായുള്ള ബന്ധം വഴി മലയാള ഭാഷയിലും സംസ്കാരത്തിലുമുണ്ടായ മാറ്റം.</p> <p>ഒരു സംസ്കാരിക ഉപകരണം എന്ന നിലയിൽ ഇംഗ്ലീഷ്, സംസ്കൃതം എന്നീ ഭാഷകൾ മലയാള ഭാഷയ്ക്കും സംസ്കാരത്തിനും മേൽ നടത്തിയ അധിനിവേശം.</p>	<p>അറബിക്, സംസ്കൃതം, ഇംഗ്ലീഷ് എന്നീ ഭാഷകളുമായി മലയാള ഭാഷയ്ക്കുണ്ടായ ബന്ധം വഴി ഭാഷാ പദ സമ്പത്തിലും ശൈലിയിലും പ്രയോഗ രീതിയിലും സാഹിത്യ രചനാ രീതിയിലും ആസ്വാദനത്തിലും ജീവിത രീതിയിലും പെരുമാറ്റത്തിലും കലകളിലും മറ്റും വന്ന മാറ്റങ്ങൾ ചർച്ച ചെയ്യണം.</p> <p>സംസ്കൃതം, ഇംഗ്ലീഷ് എന്നീ ഭാഷകളുമായുള്ള നിരന്തര ബന്ധം ആ ഭാഷകൾക്ക് മലയാളത്തിന്റെ മേൽ വലിയ മേൽക്കൈ നേടാൻ ഇടയാക്കി. ഒപ്പം വികസിത ഭാഷകൾ എന്ന നിലയിലും അധികാര ഭാഷ എന്ന നിലയിലും ആ ഭാഷകൾ അധിനിവേശ സ്വഭാവം വെച്ചു പുലർത്തി. സാഹിത്യ സമ്പത്തിലും പ്രസ്തുത ഭാഷകൾക്ക് മേൽക്കൈ ഉണ്ടായിരുന്നു.</p>	<p>കൈരളിയുടെ കഥ</p> <p>കേരളപാണിനീയം.</p> <p>സാഹിത്യചരിത്രം പ്രസ്ഥാനങ്ങളിലൂടെ.</p> <p>മലയാളഭാഷയുടെ വികാസപരിണാമങ്ങൾ</p>
5	<p>ഭാഷാവികസനത്തിൽ അടിസ്ഥാന ഭാഷാശേഷികളുടെ പ്രാധാന്യം .</p> <p>ഓരോ തലത്തിലും നൽകുന്ന പ്രവർത്തനങ്ങളും വിനിമയ തന്ത്രങ്ങളും-അധ്യയന പ്രക്രിയകളും</p>	<p>ഭാഷാവികസന പ്രക്രിയയിൽ ഓരോ അടിസ്ഥാന ഭാഷാശേഷിയുടെയും പ്രാധാന്യവും പരസ്പര ബന്ധവും</p> <p>ഭാഷാശേഷിവികസനവുമായി ബന്ധപ്പെട്ട് പ്രൈമറി തലം മുതൽ ഓരോ ഘട്ടത്തിലും നൽകുന്ന പ്രവർത്തനങ്ങളും വിനിമയ തന്ത്രങ്ങളും-അധ്യയന പ്രക്രിയകൾ - ശേഷി വികസനത്തിനുള്ള തടസ്സങ്ങൾ-കാരണങ്ങൾ-അവ പരിഹരിക്കുന്നതിനുള്ള മാർഗങ്ങൾ-ബോധനോപകരണങ്ങൾ ഉപയോഗപ്പെടുത്തൽ</p>	<p>Key concepts in Language and Linguistics-RL Trask</p> <p>Language and Language Learning.</p> <p>Language Teaching- A Scientific Approach.</p> <p>Language Teaching Games and Contexts.</p> <p>Language and Instruction.</p> <p>Teaching of Indian Languages- Positionpaper-NCF(2005)</p> <p>മാതൃഭാഷാ ബോധനം: പ്രവണതകളും രീതികളും.</p> <p>മലയാളഭാഷാധ്യാപനം. മാതൃഭാഷാ ബോധനം</p>
6	<p>ദൈനംദിന ജീവിതത്തിൽ വ്യവഹാര രൂപങ്ങളുടെ പ്രാധാന്യം.</p> <p>ഫലപ്രദമായ ആശയ വിനിമയത്തിൽ</p>	<p>ആശയ വിനിമയ പ്രക്രിയയിൽ വ്യവഹാര രൂപങ്ങൾക്കുള്ള സ്ഥാനം. ദൈനംദിന ജീവിതത്തിൽ ആശയവിനിമയത്തിനായി ഉപയോഗപ്പെടുത്തുന്ന വ്യവഹാര രൂപങ്ങൾ പട്ടികപ്പെടുത്തൽ</p> <p>ഓരോ വ്യവഹാരരൂപത്തിന്റെയും ജീവിതത്തിലെ ഉപയോഗ സന്ദർഭങ്ങൾ കണ്ടെത്തൽ -</p>	<p>Key concepts in Language and Linguistics-R.L. Trask.</p> <p>The Language Instinct-Sтивен Pinker.</p> <p>Theory of Second Language Acquisition-Sтивен Krashen.</p> <p>Principles and Practice in Second Language Acquisition-Krashen.</p> <p>Second language acquisition and second Language Learning-krashen</p>

	വ്യവഹാര രൂപങ്ങൾ വഹിക്കുന്ന പങ്ക്	ഓരോ വ്യവഹാര രൂപത്തിന്റെയും രൂപ ഘടന- വ്യവഹാര രൂപങ്ങളുടെ രചനാ പരിശീലനം-പാഠഭാഗ സന്ദർഭങ്ങൾ കണ്ടെത്തൽ- രചനകളെ വിലയിരുത്താനുള്ള സൂചകങ്ങൾ രൂപീകരിക്കൽ	Kerala Curriculum Frame work,2007
7	പ്രസംഗ രീതി, പ്രദർശന രീതി, ആഗമ - നിഗമന രീതികൾ, ഡാൾട്ടൻ പ്ലാൻ, പ്രോജക്ട് രീതി, കളി രീതി, അനുകരണ രീതി, സഹകരണ - സഹവർത്തിത രീതികൾ, പ്രശ്ന പരിഹാര രീതി	ഓരോ രീതിയും വിശദമായി പരിചയപ്പെടുത്തണം. ഓരോ രീതിയുടെയും സവിശേഷതകൾ,സമീപനം,ഘട്ടങ്ങൾ , ഓരോ രീതിയും പ്രയോഗിക്കുന്ന സന്ദർഭങ്ങൾ, വിലയിരുത്തൽ സൂചകങ്ങൾ എന്നിവ ചർച്ച ചെയ്യണം.  ഓരോ രീതിയും പ്രയോഗിക്കാവുന്ന പഠന സന്ദർഭങ്ങൾ കണ്ടെത്തി ആസൂത്രണം ചെയ്യണം	Style of Learning and Teaching Language and Instruction. Improving Second Language Education-Bilash. Methods and Strategies of teaching- Jerrin Isac
8	ജ്ഞാന നിർമ്മിതി വാദം (പിയാജെ, ബ്രൗണർ ),  സാമൂഹ്യ ജ്ഞാന നിർമ്മിതി വാദം (വിഗോട്സ്കി ), നോം ചോംസ്കിയുടെ ഭാഷാ വികസന സിദ്ധാന്തം , ബഹുമുഖ ബുദ്ധി സിദ്ധാന്തം, ക്രിട്ടിക്കൽ പെഡഗോഗി, വ്യവഹാര മന:ശാസ്ത്രം,  വിദ്യാലയങ്ങളിൽ നടപ്പാക്കുന്ന പുതിയ മാറ്റങ്ങൾ	ഓരോ രീതിയുടെയും ത്യാതിക അടിസ്ഥാന പരിചയപ്പെടുക -സാധ്യതകളും പരിമിതികളും കണ്ടെത്തുക- പ്രയോഗ രീതികൾ ആവിഷ്കരിക്കുക- ഉചിതമായ പാഠങ്ങൾ കണ്ടെത്തുക- ഉദ്ഗ്രഥന സാധ്യതകൾ കണ്ടെത്തുക-  കേരളത്തിലെ വിദ്യാലയങ്ങളിൽ പ്രയോഗത്തിലിരിക്കുന്ന പഠന രീതികൾ നിരീക്ഷിക്കുക-ചർച്ച ചെയ്യുക-സാധ്യതകളും പരിമിതികളും കണ്ടെത്തുക	Constructivist Approaches to Teaching and Learning-NCERT. Review of Skinners verbal Behavior-chomsky. Knowledge of Language-chomsky. Multiple Intelligencethe Theory and Practice-Gardner. Pedogogical psychology-vygotsky. Thought and language -Vygotsky. The Moral Judgment of the Child- Piaget. Science of Education and the Psychology -Piaget. Acquisition of Syntaxz in Children from 5-10-Chomsky. Language and Mind-Chomsky. Reflections on Language _Chomsky. Chomsky's Universal Grammer- Cooks.v. Child's Talk:Learning to Use Language-Bruner. Process of Education-Bruner. Emotional Intelligence-Goleman,D. Language Acquisition:in foundations of Cogniotive Science- Pinker,S. Thought and language-vygotsky.  വിദ്യാഭ്യാസ പരിവർത്തനത്തിനൊരുമുഖം-ശാസ്ത്ര സാഹിത്യ പരിഷത്. പുരോഗമന വിദ്യാഭ്യാസ

			ചിന്തകർ-പി.വി.പുരുഷോത്തമൻ. വിശ്വാസവും-പി.വി.പുരുഷോത്തമൻ. മർദ്ദിതരുടെ ബോധനശാസ്ത്രം-പാലൊ ഫ്രെയർ. വിദ്യാഭ്യാസത്തിന്റെ രാഷ്ട്രീയം-പാലൊ ഫ്രെയർ.
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PEDAGOGIC PRACTICES IN MALAYALAM			
OB	TOPIC	SCOPE OF CONTENT	REFERENCE
1	ഭാഷാ ബോധന ലക്ഷ്യങ്ങൾ.  സെക്കന്ററി തലത്തിലെ ഭാഷാ ബോധന ഉദ്ദേശ്യങ്ങൾ.  ബെഞ്ചമിൻ ബ്ലൂമിന്റെ ടാക്സോണമി.  വൈജ്ഞാനിക പഠന സിദ്ധാന്തങ്ങളുടെ അടിസ്ഥാനത്തിലുള്ള പഠനോദ്ദേശ്യങ്ങൾ.	ഭാഷാഭ്യാപനത്തിന്റെ പൊതുവായ ലക്ഷ്യങ്ങളും സവിശേഷമായ ലക്ഷ്യങ്ങളും ചർച്ചചെയ്യണം.  സെക്കന്ററി തലത്തിലെ ഭാഷാഭ്യാപന ഉദ്ദേശ്യങ്ങൾ വിശദമായി ചർച്ചചെയ്യണം.  ബെഞ്ചമിൻ ബ്ലൂമിന്റെ ടാക്സോണമിയെ ആധാരമാക്കിയുള്ള ഭാഷാഭ്യാപന ഉദ്ദേശ്യങ്ങൾ (ബൗദ്ധിക-വൈകാരിക-ശാരീരിക ചലനപര മേഖലകൾ ) മുഴുവൻ ചർച്ചചെയ്യണം. പഠനത്തിലെ മാനസിക പ്രക്രിയ ചർച്ച ചെയ്യണം.	Teaching of Indian Languages: Position Paper National Curriculum Frame Work,2005. Taxonomy of Educational objectives-Bloom.s. Kerala Curriculum Frame Work,2007.
2	സൂക്ഷ്മ നിലവാര ബോധനം	സൂക്ഷ്മ നിലവാര ബോധനം-നിർവ്വചനം-തത്വങ്ങൾ  ബോധന പ്രക്രിയയിലെ അടിസ്ഥാന ശേഷികൾ  സൂക്ഷ്മ നിലവാര ബോധന പ്രക്രിയയുടെ ചാക്രികത  സൂക്ഷ്മ നിലവാര ബോധനത്തിന്റെ പരിമിതികൾ  ശേഷികളുടെ ഉദ്ഗ്രഹനം -ആസൂത്രണം	Models of teaching-Joyce,B and Weil.M
3	പാഠഭാഗത്തിന്റെ ബോധന ശാസ്ത്രപരമായ വിശകലനം.  വിശകലനത്തിന്റെ അർത്ഥവും ഘട്ടങ്ങളും.	ബോധന ശാസ്ത്രപരമായ പാഠ വിശകലനം.  പാഠ വിശകലനത്തിന്റെ ആവശ്യകത-വിശകലന ഘട്ടങ്ങൾ	അധ്യാപകന്റെ കൈപ്പുസ്തകം-8,9,10,&11 ക്ലാസുകൾ (SCERT,Kerala)

	<p>പാഠ ഭാഗ വിശകലനം</p> <p>ഏതെങ്കിലും ഒരു പാഠ ഭാഗം പൊതുവായ ചർച്ചയിലൂടെ വിശകലനം ചെയ്യുന്നു (ഭാഷാതലം, ആശയതലം,സാമൂഹികതലം,സർഗാത്മകതലം).</p> <p>നിശ്ചിത ബോധനോദ്ദേശ്യങ്ങളുടെ അടിസ്ഥാനത്തിൽ 8,9,11 ക്ലാസുകളിലെ ഏതെങ്കിലും പാഠപുസ്തകത്തിലും അദ്ധ്യാപക സഹായിയിലും ഉൾപ്പെടുത്തിയിട്ടുള്ള പഠന പ്രവർത്തനങ്ങൾ കുട്ടികൾ പരിശോധിക്കണം.</p>		<p>പാഠപുസ്തകങ്ങൾ (scert,Kerala )</p>
4	<p>കുട്ടിയുടെ ശാരീരിക-മാനസിക-വൈകാരിക-സാമൂഹിക പ്രകൃതം.</p> <p>പഠന പ്രവർത്തനത്തിന്റെ സവിശേഷതകൾ.</p> <p>ഭാഷാ ക്ലാസിന്റെ സവിശേഷത.</p> <p>പഠനത്തിന്റേയും പഠന തന്ത്രത്തിന്റേയും സ്വഭാവം</p> <p>ഭാഷാപഠനക്ലാസിൽ അദ്ധ്യാപകന്റെ സ്ഥാനം.</p> <p>ഭാഷാപഠനക്ലാസിൽ വിദ്യാർഥിയുടെ സ്ഥാനം.</p> <p>ഭാഷാ പഠനത്തിനു ജനാധിപത്യോചിതമായ സാഹചര്യമൊരുക്കുന്നതിനുള്ള തന്ത്രം.</p> <p>നല്ല പഠനപ്രവർത്തനത്തിന്റെ സവിശേഷത (താല്പര്യ ജനകം, ആവശ്യ ബോധമുണർത്തുന്നത്, വെല്ലുവിളി ഉയർത്തുന്നത്, കുട്ടികളുടെ വ്യത്യസ്ത നിലവാരം പരിഗണിക്കുന്നത് )</p>	<p>കുട്ടിയുടെ മാനസിക, വൈകാരിക, ശാരീരിക ,സാമൂഹിക പ്രകൃതം തിരിച്ചറിയുക.</p> <p>പഠന പ്രവർത്തനത്തിന്റെ സവിശേഷതകൾ ചർച്ച ചെയ്യണം</p> <p>മറ്റു ക്ലാസുകളിൽ നിന്നും വ്യത്യസ്തമായി ഭാഷാ ക്ലാസിന്റെ സവിശേഷത.</p> <p>പഠനത്തിന്റേയും പഠന തന്ത്രത്തിന്റേയും സ്വഭാവം ചർച്ച ചെയ്യണം</p> <p>ഭാഷാപഠനക്ലാസിൽ അദ്ധ്യാപകന്റെയും വിദ്യാർഥിയുടെ സ്ഥാനം.</p> <p>സ്വന്തം ക്ലാസുമുറി ഭാവനയിൽ രൂപപ്പെടുത്തുന്നതിലേക്ക് കുട്ടികളെ നയിക്കണം.</p> <p>ജനാധിപത്യ ക്ലാസുമുറിയുടെ സവിശേഷതകൾ ചർച്ചയിലൂടെ രൂപപ്പെട്ടു വരണം.</p> <p>ഭാഷാ പഠനത്തിനു ജനാധിപത്യോചിതമായ സാഹചര്യമൊരുക്കുന്നതിനുള്ള തന്ത്രം രൂപപ്പെടുത്തണം</p> <p>ഒരു പഠന പ്രവർത്തനത്തിനുണ്ടാകേണ്ടുന്ന സവിശേഷത (താല്പര്യ ജനകം, ആവശ്യ ബോധമുണർത്തുന്നത്, വെല്ലുവിളി ഉയർത്തുന്നത്, കുട്ടികളുടെ വ്യത്യസ്ത നിലവാരം പരിഗണിക്കുന്നത്)പരിഗണിച്ചുകൊണ്ട്</p>	<p>A text book of Cognitive psychology,Asch,M.A</p> <p>Social Psychology-Baron.A Robert.</p> <p>Emotional Intelligence.Daniel Goleman.</p> <p>മസ്തിഷ്കവും മനസ്സും-ഡോ.സി.എൻ.പരമേശ്വരൻ.</p> <p>മസ്തിഷ്ക ഭാഷ:പ്രസക്തിയുംപ്രയോഗവും-സുജാ റാണി മാത്യു. മലയാള ഭാഷാപഠനം:വെല്ലുവിളികളും പ്രതിസന്ധികളും-ഡോ.പി.കെ. തിലക്</p> <p>വിദ്യാഭ്യാസം സർഗാത്മക ജീവിതത്തിനു-ത്സുനേസാബുരോ മാകിഗുഷി.</p> <p>തൂറുന്നക്ലാസ്സുമുറി-കെ.ടി. മാർഗരറ്റ്.</p> <p>താങ്ങാവുന്ന വിദ്യാഭ്യാസം-ഗോപാലകൃഷ്ണൻവിജയലക്ഷ്മിയും.</p> <p>അനുയോജ്യ വിദ്യാഭ്യാസം-കെ.ബഷീർ ടോടോചാൻ.</p> <p>ജനായത്ത വിദ്യാലയങ്ങൾ-മൈക്കിൾ ആപ്പിൾ&amp;ജെയിംസ് എ.ബീൻ.</p> <p>ദിവാസ്വപ്നം-ഗിജുബായി</p> <p>National curriculum frame work,2005.</p> <p>Kerala curriculam frame work,2007</p>

		പാഠാസൂത്രണം നടത്തുന്നതെങ്ങനെയെന്നുള്ള ചർച്ച നടക്കണം	
5	<p>ആസൂത്രണത്തിന്റെ പ്രാധാന്യം</p> <p>വാർഷികാസൂത്രണം, യൂണിറ്റ് സമഗ്രാസൂത്രണം, ദൈനംദിനാസൂത്രണം എന്നിവയുടെ സൈദ്ധാന്തികാടിത്തറയും തന്ത്രങ്ങളും.</p> <p>പഠനാനുഭവങ്ങളും മൂല്യനിർണ്ണയവും ആവിഷ്കരിച്ചു നടപ്പിലാക്കുന്നതിനുള്ള തന്ത്രങ്ങൾ.</p> <p>പാഠാസൂത്രണത്തിലെ പ്രതികരണ പേജ് രേഖപ്പെടുത്തുന്നതിന്റെ പ്രസക്തിയും രീതിയും</p> <p>പഠനോപകരണ</p>	<p>വാർഷിക- സമഗ്ര-ദൈനംദിന ആസൂത്രണം എന്ത്, എന്തിന്.</p> <p>യൂണിറ്റ് സമഗ്രാസൂത്രണത്തിന്റെ പ്രസക്തി എന്ത്</p> <p>ആധുനിക പഠന -മന:ശാസ്ത്ര സിദ്ധന്തങ്ങളുടെ(സാമൂഹിക ജ്ഞാന നിർമ്മിതിവാദം, വിമർശനാത്മക ബോധനം, ഭാഷാസമഗ്രതാ ദർശനം, ബഹുമുഖ ബുദ്ധി ഘടകങ്ങൾ, സാർവ ലൗകിക വ്യാകരണ സിദ്ധാന്തം ) അടിസ്ഥാനത്തിൽ യൂണിറ്റിന്റെ പ്രശ്നമേഖല,പഠനപ്രമേയം എന്നിവ പരിഗണിച്ച് ഭാഷാതലം, ആശയതലം, സർഗ്ഗാത്മകതലം എന്നിവയിൽ ഊന്നി നിന്നു കൊണ്ട് സമഗ്രാസൂത്രണവും പാഠാസൂത്രണവും നടത്തുന്ന വിധം ചർച്ച ചെയ്യുകയും വാർഷികാസൂത്രണം, യൂണിറ്റ് സമഗ്രാസൂത്രണം, ദൈനംദിനാസൂത്രണം എന്നിവ തയ്യാറാക്കുകയും വേണം.</p> <p>പഠന പ്രവർത്തനങ്ങളുടെ ഘട്ടം ഘട്ടമായുള്ള അവതരണം. പ്രശ്നാവതരണം. കുട്ടികളുടെ പ്രതികരണം ( പരികല്പനാവതരണം)-കൂട്ടായ പ്രവർത്തനം-ചുമതലകൾ നൽകൽ-പഠന സഹായികൾ നൽകൽ-അധ്യാപികയുടെ സാന്നിദ്ധ്യമായ സഹായം-ആശയരൂപീകരണം-അവതരണം-പൊതുചർച്ച-വിലയിരുത്തൽ-അധ്യാപികയുടെ കാഴ്ചപ്പാട് അവതരിപ്പിക്കൽ-തുടരന്വേഷണം-സമഗ്രമാക്കൽ-പ്രകാശനം. ഓരോഘട്ടത്തിലുമുള്ള കുട്ടികളുടെ പരസ്പരമൂല്യ നിർണ്ണയവും അധ്യാപികയുടെ നിരന്തര മൂല്യ നിർണ്ണയവും രേഖപ്പെടുത്തൽ</p> <p>പ്രതികരണ പേജിന്റെ ധർമ്മം- അഭിപ്രായങ്ങൾ രേഖപ്പെടുത്തുന്നതിന്റെ രീതി എന്നിവ ചർച്ച ചെയ്യണം പഠനോപകരണങ്ങളുടെ പ്രസക്തി-വിദ്യാർത്ഥികളുടെ പങ്കാളിത്തം-ഉപകരണങ്ങളുടെ ലാളിത്യം-പരിസ്ഥിതിക്കിണങ്ങുന്നത്, ചെലവ കുറഞ്ഞത്-</p>	<p>Teachers Hand Book,std 8,9,10,&amp;11,NCERT,Kerala, KCF,2007,SCERT,Kerala.</p> <p>Constructivism:theory,perspective ,and practice-Fosnot,c. Planning the Lesson-Gren,G.H.</p>



	നിർമാണ തന്ത്രങ്ങൾ	ഉപയോഗക്ഷമത- പ്രായോഗികത	
	<p>മൂല്യനിർണ്ണയത്തിന്റെ പ്രാധാന്യം.</p> <p>വിവിധമൂല്യ നിർണ്ണയ രീതികൾ-സാധ്യതകളും പരിമിതികളും.</p> <p>നിരന്തരവും സമഗ്രവുമായ മൂല്യ നിർണ്ണയ മേഖലകൾ.</p> <p>വൈവിധ്യമുള്ള പഠന പ്രവർത്തനങ്ങളെ മൂല്യ നിർണ്ണയം ചെയ്യുന്നതിനുള്ള സൂചകങ്ങൾ.</p> <p>സിദ്ധി ശോധങ്ങളുടെ നിർമ്മാണവും പ്രയോഗവും. മാനസിക പ്രക്രിയകളുടെ മൂല്യ നിർണ്ണയം.</p> <p>ഗ്രേഡിംഗ് സമ്പ്രദായത്തിന്റെ പ്രസക്തിയും നിർവ്വഹണവും</p>	<p>മൂല്യ നിർണ്ണയത്തിന്റെ പ്രസക്തിയും പ്രാധാന്യവും.</p> <p>നിലവിലിരിക്കുന്ന മൂല്യനിർണ്ണയരീതികളുടെ ഗുണദോഷ വിചാരം.</p> <p>നിരന്തരമൂല്യനിർണ്ണയം, പരസ്പര മൂല്യനിർണ്ണയം, സമഗ്ര മൂല്യനിർണ്ണയം- ആത്യന്തിക മൂല്യനിർണ്ണയം.</p> <p>ഓരോ പഠന പ്രവർത്തനത്തിന്റെയും മൂല്യ നിർണ്ണയസൂചകങ്ങൾ രൂപപ്പെടുത്തൽ.</p> <p>സിദ്ധി ശോധകം-നിർവ്വചനം-ധർമ്മം.</p> <p>മാനസിക പ്രക്രിയക്ക് പ്രാധാന്യം കൊടുത്ത് സിദ്ധിശോധകം രൂപപ്പെടുത്തൽ. സിദ്ധിശോധക രൂപകല്പനാ തന്ത്രങ്ങൾ-ഉപയോഗപ്പെടുത്തൽ ഗ്രേഡിംഗ് സമ്പ്രദായത്തിന്റെ പ്രസക്തിയും പ്രാധാന്യവും. ഗ്രേഡിംഗ് സമ്പ്രദായം-നിർവ്വഹണരീതി</p>	Essentials of Educational Measurement-Ebel,L &Frisbie,A

CURRICULUM AND RESOURCES OF MALAYALAM EDUCATION			
O B	TOPIC	SCOPE OF TOPIC	REFERENCE
1	<p>പാഠ്യപദ്ധതി-ആശയം പാഠ്യപദ്ധതിയും സിലബസ്സും</p> <p>പാഠ്യപദ്ധതി രൂപീകരണ തത്വങ്ങൾ</p> <p>ഭാഷാ പാഠ്യ പദ്ധതിയുടെ സ്വഭാവം</p> <p>പാഠ്യപദ്ധതി രൂപീകരണത്തിലെ ആധുനിക പ്രവണത</p>	<p>പാഠ്യപദ്ധതി- നിർവ്വചനം-പ്രസക്തി-ധർമ്മം പാഠ്യപദ്ധതിയും സിലബസ്സും തമ്മിലുള്ള വ്യത്യാസം</p> <p>പാഠ്യപദ്ധതി രൂപീകരണതത്വങ്ങൾ</p> <p>ഭാഷാ പാഠ്യപദ്ധതിക്ക് മറ്റ് പാഠ്യ പദ്ധതികളിൽ നിന്നുമുള്ള വ്യത്യാസം</p> <p>പാഠ്യപദ്ധതി രൂപീകരണത്തിലെ ആധുനിക പ്രവണതകൾ-ഗുണദോഷ വിചാരം-ഉദ്ഗ്രഥന സാധ്യത</p>	<p>Ideology and curriculum-Apple,m.w.</p> <p>Curriculum Development:Programme improvement-charles.</p> <p>Principles of curriculum-V.K.Rao.</p> <p>Curriculum:Teaching the what,how and why of living-Berman,L.M &amp;Roderick,.J.k.</p>
2	<p>പഠന ബോധന പ്രക്രിയയിൽ വിഭവങ്ങളുടെ പ്രാധാന്യം.</p> <p>പഠന വിഭവങ്ങൾ</p>	<p>പഠന ബോധന പ്രക്രിയയിൽ പഠനോപകരണങ്ങളും മറ്റു വിഭവങ്ങളും ഉപയോഗിക്കുന്നതിന്റെ പ്രസക്തിയും പ്രാധാന്യവും.</p> <p>പാഠ്യപദ്ധതി ഉദ്ദേശ്യങ്ങൾ സാക്ഷാത്കരിക്കാനായി പഠന</p>	<p>Handbook using Learning aids-UNESCO.</p> <p>New guide book for development and production of literary materials-UNESCO.</p>

	<p>ഉപയോഗിക്കാനുള്ള തന്ത്രങ്ങൾ</p> <p>പഠനോപകരണങ്ങൾ എന്ന നിലയിൽ പാഠപുസ്തകങ്ങൾ ഉപയോഗപ്പെടുത്തുന്നതിനുള്ള തന്ത്രങ്ങൾ</p>	<p>പ്രവർത്തനങ്ങൾ ആസൂത്രണം ചെയ്യാനും പ്രയോഗിക്കാനും അധ്യാപന സഹായി, മാഗസിനുകൾ, ആനുകാലികങ്ങൾ, മറ്റു പ്രാദേശിക വിഭവങ്ങൾ, എന്നിവ ഉൾപ്പെടെയുള്ള പഠന ഉപകരണങ്ങളും മറ്റും ഉപയോഗപ്പെടുത്തുന്ന സന്ദർഭങ്ങൾ, പ്രയോഗ രീതികൾ, സാധ്യതകൾ എന്നിവ വിശദമായി ചർച്ച ചെയ്യണം. വിഭവ ശേഖരണം നടത്തുന്നതിനുള്ള ഉറവിടങ്ങളും രീതികളും ചർച്ച ചെയ്യണം</p> <p>പാഠപുസ്തകത്തെ ഒരു പഠനോപകരണം എന്ന നിലയിൽ ഉപയോഗിക്കുന്ന തന്ത്രം ക്ലാസ്മുറിയിൽ ചർച്ച ചെയ്യണം</p>	
3	<p>റേഡിയോ, ടിവി, ഒ.എച്ച്.പി, വീഡിയോ, ലാംഗ്വേജ് ലാബ്, ഇന്റർനെറ്റ്, സിഡി, ക്ലിപ്പിംഗ്സ്, ചാർട്ടുകൾ, മാത്രകകൾ, ചിത്രങ്ങൾ തുടങ്ങിയ ഉപകരണങ്ങൾ ഉപയോഗിക്കുക</p>	<p>റേഡിയോ, ടിവി, ഒ.എച്ച്.പി, വീഡിയോ, ലാംഗ്വേജ് ലാബ്, ഇന്റർനെറ്റ്, സിഡി, ക്ലിപ്പിംഗ്സ്, ചാർട്ടുകൾ, മാത്രകകൾ, ചിത്രങ്ങൾ തുടങ്ങിയ ഉപകരണങ്ങൾ ഉപയോഗിക്കുന്നതിനുള്ള സാധ്യത ചർച്ച ചെയ്യുകയും ഉപയോഗ രീതികൾ ശീലിക്കുകയും ചെയ്യുക.</p> <p>പഠനോപകരണങ്ങൾ നിർമ്മിക്കുന്നതിനുള്ള സാധ്യത പരിശോധിക്കുക.</p>	<p>Teaching and learning with visual aids: A resource manual-UNICEF. How to make and use visual aids-UNESCO.</p>
4	<p>ഭാഷാ പഠനത്തിൽ ഗ്രന്ഥ ശാലയുടെ പ്രാധാന്യം.</p> <p>ക്ലാസ്സ് ലൈബ്രറി, സ്കൂൾ ലൈബ്രറി എന്നിവ സംഘടിപ്പിക്കുക.</p> <p>ഭാഷാ പഠനത്തിൽ ഗ്രന്ഥശാല ഉപയോഗിക്കുന്നതിനുള്ള തന്ത്രങ്ങൾ.</p> <p>ലാംഗ്വേജ് ലാബിന്റെ പ്രസക്തി</p>	<p>ഭാഷാ പഠനത്തിൽ ഗ്രന്ഥ ശാലയുടെ ഉപയോഗ സാധ്യത, പ്രാധാന്യം; ക്ലാസ്സ് ലൈബ്രറി, സ്കൂൾ ലൈബ്രറി എന്നിവ തമ്മിലുള്ള വ്യത്യാസം; അവയുടെ സംഘാടനം; ഭാഷാ പഠനത്തിൽ പ്രാദേശിക ഗ്രന്ഥശാലകൾ ഉൾപ്പെടെ ഉപയോഗിക്കുന്നതിനുള്ള തന്ത്രങ്ങൾ; ജ്ഞാന നിർമ്മിതി സിദ്ധാന്തങ്ങളുടെ അടിസ്ഥാനത്തിൽ പഠന പ്രക്രിയ നടക്കുന്ന സാഹചര്യത്തിൽ ലാംഗ്വേജ് ലാബിന്റെ പ്രസക്തി ഉപയോഗ സാധ്യതകൾ, പരിമിതികൾ, എന്നിവ വിശദമായി ചർച്ച ചെയ്യണം</p>	
5	<p>ഭാഷാപഠന ക്ലാസ്സിൽ കവിതകൾ കൂട്ടമായി ചൊല്ലുന്നതിന്റെ പ്രാധാന്യം.</p> <p>കവിതയിലെ പ്രതീകങ്ങൾ, ബിംബങ്ങൾ,</p>	<p>ഭാഷാപഠന ക്ലാസ്സിൽ കവിതകൾ കൂട്ടമായി ചൊല്ലുന്നതിന്റെ ഭാഗമായി കുട്ടികളിൽ വളരുന്ന താല്പര്യവും ആസ്വാദന ശേഷികളും ചർച്ച ചെയ്യണം.</p> <p>കവിതയിലെ പ്രതീകങ്ങൾ, ബിംബങ്ങൾ, പ്രയോഗങ്ങൾ,</p>	

<p>പ്രയോഗങ്ങൾ, സൂചനകൾ എന്നിവ വിശകലനം ചെയ്യുന്നതിന്റെ പ്രാധാന്യം.</p> <p>കഥകളിലെ പ്രതീകങ്ങൾ, ബിംബങ്ങൾ, പ്രയോഗങ്ങൾ, സൂചനകൾ എന്നിവ വിശകലനം ചെയ്യുന്നതിന്റെ പ്രാധാന്യം.</p>	<p>സൂചനകൾ എന്നിവ വിശകലനം ചെയ്യുന്നതിന്റെ പ്രാധാന്യം, രീതി എന്നിവ ചർച്ച ചെയ്യണം. ഒരു കവിത ഉദാഹരണമായി വിശകലനം ചെയ്യണം.</p> <p>കഥകൾ പറഞ്ഞ് ഫലിപ്പിക്കുന്നതിന്റെ പ്രാധാന്യം.</p> <p>കഥകളിലെ പ്രതീകങ്ങൾ, ബിംബങ്ങൾ, പ്രയോഗങ്ങൾ, സൂചനകൾ എന്നിവ വിശകലനം ചെയ്യുന്നതിന്റെ പ്രാധാന്യം, രീതി എന്നിവ ചർച്ച ചെയ്യണം. ഒരു കഥ ഉദാഹരണമായി വിശകലനം ചെയ്യണം. ഓരോ കവിതയ്ക്കും കഥയ്ക്കും ആസ്വാദനക്കുറിപ്പുകൾ തയ്യാറാക്കണം.</p>	
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PROFESSIONALISING MALAYALAM EDUCATION			
O B	TOPIC	SCOPE OF CONTENT	REFERENCE
1	<p>മലയാള ഭാഷയും സമൂഹവും.</p> <p>ഭാഷയും സംസ്കാരവും.</p> <p>മലയാള ഭാഷയും നാടോടി വിജ്ഞാനീയവും (കലകൾ, സാഹിത്യം തുടങ്ങിയവ).</p> <p>പ്രാദേശിക ഭാഷാരീതി.</p> <p>പ്രാദേശിക വിഭവങ്ങളുടെ തരവും ഉപയോഗവും</p>	<p>ഐക്യ കേരള സമൂഹം രൂപപ്പെടുന്നതിൽ മലയാള ഭാഷ വഹിച്ച പങ്ക്- ചരിത്രം.</p> <p>ഒരു പ്രദേശത്തിന്റെ സംസ്കാരം രൂപപ്പെടുന്നതിൽ ആ പ്രദേശത്തെ ജനങ്ങൾ സംസാരിക്കുന്ന ഭാഷയ്ക്കുള്ള സ്ഥാനം. കേരളീയ സംസ്കാരം രൂപപ്പെടുന്നതിൽ മലയാള ഭാഷ വഹിച്ച പങ്ക്-ചരിത്രം.</p> <p>മലയാള നാട്ടിലെ നാടോടി സാഹിത്യം, നാടൻ കലകൾ, നാടോടി വിജ്ഞാനീയം, നാടോടി ഭാഷാ പ്രയോഗ രീതി എന്നിവ മലയാള ഭാഷയുമായി ഏതെല്ലാം വിധത്തിൽ ബന്ധപ്പെട്ടു കിടക്കുന്നു - ഇന്നും നമ്മുടെ നാടോടി സാഹിത്യത്തിൽ പ്രയോഗിക്കുന്ന നാട്ടു ഭാഷാരീതി.</p> <p>കേരളത്തിലെ വിവിധ ദേശങ്ങളിൽ പ്രയോഗിക്കുന്ന ഭാഷാ രീതികൾ അവിടുത്തെ ജീവിതരീതി, തൊഴിൽ, വിദ്യാഭ്യാസം, മതപരമായ കാര്യങ്ങൾ എന്നിവ എങ്ങനെ സ്വാധീനിക്കുന്നു എന്ന് വിശദമായി ചർച്ച ചെയ്യണം.</p> <p>ഒരു വിദ്യാലയം സ്ഥിതിചെയ്യുന്ന പ്രദേശത്തെ വിഭവങ്ങൾ (സാഹിത്യ- സംസ്കാരിക പ്രവർത്തകർ, കലാകാരന്മാർ, സാമൂഹിക പ്രവർത്തകർ, വിദഗ്ദ്ധ തൊഴിലാളികൾ, കർഷകർ, സ്ഥാപനങ്ങൾ, ലൈബ്രറികൾ തുടങ്ങിയവ ) ഭാഷാ പഠനത്തിനായി ഉപയോഗിക്കാവുന്ന സാധ്യതകൾ ചർച്ച ചെയ്യണം.</p>	<p>കേരളം മലയാളികളുടെ മാതൃഭൂമി- ഇ.എം.എസ്. നമ്പൂതിരിപ്പാട്</p>
2	<p>സാഹിത്യ സമാജം, തിയറ്റർ, സിനിമ ക്ലബ്ബ് എന്നിവയുടെ</p>	<p>മലയാളഭാഷാ പഠനവുമായി ബന്ധപ്പെട്ട് സ്കൂൾ സാഹിത്യ സമാജം, ക്യാമ്പസ്</p>	

	സംഘാടനവും പ്രവർത്തനവും	തിയറ്റർ, ഫോക്ലോർ ക്ലബ്ബ്, സിനിമ ക്ലബ്ബ് എന്നിവ സംഘടിപ്പിക്കുന്നതിനുള്ള സാധ്യതയും സംഘാടന രീതികളും ചർച്ചചെയ്യണം. ഓരോന്നിന്റെയും ആഭിമുഖ്യത്തിൽ ഏറ്റെടുക്കാവുന്ന പ്രവർത്തനങ്ങൾ നിർവ്വചിക്കപ്പെടണം.	
3	കുട്ടികളിലെ പഠന വൈഭവവും ഭാഷാപരമായ സർഗ്ഗാത്മകതയും പുഷ്പിപ്പിക്കുവാൻ	പഠന വൈഭവം, സർഗ്ഗാത്മകത എന്നിവ നിർവ്വചിക്കൽ- സവിശേഷതകൾ കണ്ടെത്തൽ- ഇവ പുഷ്പിപ്പിക്കുവാനുള്ള മാർഗ്ഗങ്ങൾ ആരായുക, അതിനുള്ള സാഹചര്യ മൊരുക്കുക.	
4	ഭാഷാ ബോധനത്തിനായി വിവര സാങ്കേതിക വിദ്യയെ ഉപയോഗപ്പെടുത്തൽ.  കമ്പ്യൂട്ടർ ഉപയോഗിച്ചുള്ള ഭാഷാ ബോധനം.  ഇ-ലേർണിംഗ് വിഭവങ്ങൾ ഉപയോഗിച്ചുള്ള ഭാഷാപഠനം.  വീഡിയോ കോൺഫറൻസിംഗ്. E-Content മൊഡ്യൂൾ രൂപപ്പെടുത്തൽ.	വിവര സാങ്കേതിക വിദ്യ എന്നാൽ എന്ത് എന്നതും ഭാഷാ ബോധനത്തിനായി വിവര സാങ്കേതിക വിദ്യയെ എങ്ങനെയെല്ലാം ഉപയോഗപ്പെടുത്താം എന്നതും ചർച്ച ചെയ്യണം. കമ്പ്യൂട്ടർ ഉപയോഗിച്ചുള്ള ഭാഷാ ബോധനം, ഇ-ലേർണിംഗ് വിഭവങ്ങൾ ഉപയോഗിച്ചുള്ള ഭാഷാബോധനം, വീഡിയോ കോൺഫറൻസിംഗിലൂടെയുള്ള ഭാഷാ പഠനം, E-Content ഉപയോഗിച്ചുള്ള ഭാഷാബോധനം എന്നിവയുടെ സാധ്യതകൾ സ്കൂൾ പാഠ്യപദ്ധതി യുമായി ബന്ധപ്പെട്ട് പരിശോധിക്കുകയും പ്രായോഗിക പരിശീലനം കുട്ടികൾക്ക് ലഭിക്കുകയും വേണം. വീഡിയോ കോൺഫറൻസിംഗ്, E-Content മൊഡ്യൂൾ രൂപപ്പെടുത്തൽ എന്നിവ സംബന്ധിച്ച സാങ്കേതിക ധാരണകളും പ്രായോഗിക പരിശീലനവും കുട്ടികൾക്ക് ലഭിക്കണം.	Audio visual methods in teaching-Dale
5	ബോധന മാതൃകകൾ- അർത്ഥവും സാധ്യതകളും. മലയാള ഭാഷാബോധനത്തിനുള്ള ബോധന മാതൃകകൾ. ആശയാധാര മാതൃക (Concept attainment model), സിനെറ്റിക്സ് മാതൃക (Synetics model)	ബോധന മാതൃകകൾ- അർത്ഥവും സാധ്യതകളും. മലയാള ഭാഷാബോധനത്തിന് തക്ക ബോധന മാതൃകകൾ. ആശയാധാര മാതൃക, സിനെറ്റിക്സ് മാതൃക ബോധന മാതൃകകൾ- സിദ്ധാന്തവും പ്രയോഗവും. ഭാഷാ ബോധനത്തിൽ ബോധന മാതൃകകളുടെ സാധ്യതയും പരിമിതികളും. ബോധന മാതൃകകളുടെ അടിസ്ഥാന ഘട്ടങ്ങളും രീതികളും. ആശയാധാരം, സിനെറ്റിക്സ് എന്നീ മാതൃകകൾ വിശദമായി ചർച്ച ചെയ്യുകയും ഭാഷാ ബോധന സാധ്യതകൾ പരിശോധിക്കുകയും ചെയ്യുക.  ഈ മാതൃകകളുടെ അടിസ്ഥാനത്തിൽ വിനിമയം ചെയ്യാൻ കഴിയുന്ന പാഠഭാഗങ്ങൾ കണ്ടെത്തി ആസൂത്രണം ചെയ്യുകയും പ്രായോഗിക പരിചയം നേടുകയും ചെയ്യുക.	Models of teaching – Joyce, B&weil, M
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<p>അധ്യാപനം വൈദഗ്ദ്ധ്യം ആവശ്യമുള്ള ഒരു തൊഴിൽ. തൊഴിൽ പരമായ ധാർമ്മികത.</p> <p>അധ്യാപകനുമായിരിക്കേണ്ട വ്യക്തിപരവും തൊഴിൽ പരവുമായ ഗുണങ്ങൾ.</p> <p>ഭാഷാധ്യാപകനുമായിരിക്കേണ്ട സവിശേഷമായ ഗുണങ്ങൾ.</p> <p>ഭാഷാധ്യാപകരുടെ തൊഴിൽ വൈദഗ്ദ്ധ്യം വികസിപ്പിക്കാനുള്ള മാർഗ്ഗങ്ങൾ.</p> <p>തൊഴിൽ വൈദഗ്ദ്ധ്യത്തിന്റെ സവിശേഷതകൾ (NCERT).</p>		<p>Teacher education for curriculum renewal, position paper: NCF,2007</p>
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# **UNIVERSITY OF CALICUT**

**Re structuring of Curriculum-2012  
Credit Based Semester and Grading System**

## **HANDBOOK FOR TEACHER EDUCATORS (ARABIC)**

**Programme: Bachelor of Education (B Ed)  
With effect from 2012-13 Academic Year**

**B O A R D O F S T U D I E S  
E D U C A T I O N (UG)**

**EDU. 111. METHODOLOGY OF TEACHING ARABIC**  
**Contact Hours: 75 Hours (Instruction) & 15 hours (process)**  
**Marks: 50 (End semester Examination) & 10 (CE)**

Content	Scope of the Content	Nature of the Process	References
<b>MODULE I</b> Arabic Language Significance Need and Significance of Arabic Language Teaching Problems of Learning Foreign Language	Language <ul style="list-style-type: none"> <li>• Meaning &amp; functions</li> </ul> Arabic Language <ul style="list-style-type: none"> <li>• Importance of Arabic</li> <li>• Scope of Arabic</li> <li>• Aims of Teaching Arabic</li> <li>• Purpose of language teaching</li> <li>• Problems of learning foreign language</li> <li>• Problems of teaching Arabic</li> </ul>	1. Prepare a report on different opportunities avail through learning of Arabic Language	Al Muwajjahul Ameli li Muderrisi Luga Al Arabiyya : Abid Thoufeeque Al hasmi, Al Risala Publishing House Bairoot Lebanon
<b>MODULE II</b> Language and Language acquisition a. Language skills- acquisition of skills- listening and reading skills, teaching to attain these skills, different kinds of reading, methods of teaching to read- importance of pronounciati on souds- organisation of speech- training for correct pronounciati on etc. Productive skills- speaking and writing skills. Their	The hierachical order of learning language skills- listening - speaking- reading – writing Listening <ul style="list-style-type: none"> <li>• Significance of listening</li> <li>• Types of listening</li> <li>• Listening techniques</li> </ul> Speaking <ul style="list-style-type: none"> <li>• Importance of speaking</li> <li>• Techniques for developing speaking</li> <li>• Importance of pronunciation sounds</li> <li>• Causes of bad spelling</li> <li>• Training for correct pronunciation</li> </ul> Reading <ul style="list-style-type: none"> <li>• Aims of Teaching reading</li> <li>• Types of Reading               <ul style="list-style-type: none"> <li>- Intensive Reading</li> <li>- Extensive Reading</li> <li>- Loud reading</li> </ul> </li> <li>• Importance of Loud Reading</li> <li>• Qualities of good Loud Reading</li> <li>• Silent Reading               <ul style="list-style-type: none"> <li>- Advantages of Silent Reading                   <ul style="list-style-type: none"> <li>- Limitations of Silent Reading                       <ul style="list-style-type: none"> <li>• Types of Silent Reading</li> </ul> </li> </ul> </li> <li>• Techniques for developing Reading</li> <li>• Methods of Teaching Reading</li> </ul>           Writing           <ul style="list-style-type: none"> <li>- Importance of writing</li> <li>- Types of writing</li> <li>- Techniques for developing writing</li> <li>• Hand writing               <ul style="list-style-type: none"> <li>- Characteristics of good hand writing</li> </ul> </li> </ul> </li></ul>	2. Conduct a debate on any topic in Arabic Language and prepare a report.	Teaching and Learning English, a source book for Teaching and Teacher Training: Orient Longman, Hyderabad. An Introduction to language and Communication : Publisher Prentice hall Active listening building skills : Marc Helgesen and Steven Brown Cambridge

importance , peculiarities- causes of bad spelling- editing process reference and study skills	<ul style="list-style-type: none"> <li>- Legibility, beauty, proper spacing, speed</li> <li>- Techniques to improve hand writing</li> <li>• Dictation</li> <li>- Importance of dictation</li> <li>- Types of dictation</li> </ul>		
<b>MODULE III</b> General Principles and methods of language learning with special reference to Arabic Principles and maximums of language learning- Learning environment - its qualities. Methods of Teaching Arabic. Traditional and modern, Translation method Direct method Structural approach Communicative approach Bilingual approach Discussion Method Role play Play way Dramatization Project method Learning by doing	<p>General Principles</p> <ul style="list-style-type: none"> <li>- General principles of language learning</li> </ul> <p>Methods of teaching Arabic</p> <p>Methods- Advantages-Limitations</p> <ul style="list-style-type: none"> <li>• Traditional and modern method</li> <li>• Translation method</li> <li>• Direct method</li> <li>• Structural method</li> <li>• Communicative approach</li> <li>• Bilingual approach</li> <li>• Discussion method</li> <li>• Role play</li> <li>• Play way method</li> <li>• Dramatization method</li> <li>• Project method</li> <li>• Learning by doing</li> </ul>	3. Preparation of Power point presentation./ Internet browsing	An Introduction to language and Communication : Publisher Prentice hall The Oxford Guide to Writing and : John Seley Reading Improve your communication skills : Alan Barker. The Skills of Communication : Billscott, Mumbai
<b>MODULE IV</b> <b>Language and language learning</b>	approaches:-behaviourism ,proponent ,basic principles - cognitivism-,proponent, basic principles. constructivism-social constructivism –neuro-linguistic theories. importance and significance of universal grammar.	Making multiple lesson plans on a single topic based on different approaches to experience the difference in outlooks.	The teaching of language a practical Approach B.N. Safaya Tuition to Intuition : Dr. K.N Anadan
<b>MODULE V</b> a. Teaching of prose- b. Teaching	aims of teaching prose, methods of reading prose-different types of prose lessons. aims of teaching poetry, methods of teaching poetry	Suggest a way to strengthen vocabulary and prepare a short	An Introduction to language and Communication : Publisher Prentice hall



of poetry- c. Grammar- d. Composition and creative works	place of grammar approaches and methods; functional formal, inductive-deductive. -its types, methods, strategies Vocabulary strengthening teaching of literature	learning material suitable to realize your idea.	The Principle and Methods of Teaching : Bhatia and Bhatia
<b>MODULE VI</b> Critical pedagogy	-issue based learning-discourse oriented and narrative strategies Group learning-co operative learning collaborative learning-multiple level learning	Prepare a list of any five social issues that can be addressed in Arabic class	Tuition to Intuition : Dr. K.N Anadan

<b>EDU 131 PEDAGOGIC PRACTICES IN ARABIC</b> <b>Contact Hours: 75 Hours (Instruction) &amp;15 hours (process)</b> <b>Marks : 50 (End semester Examination)&amp; 10 (CE)</b>			
Content	Scope of the Content	Nature of the Process	References
<b>MODULE I</b> The objective based instruction	Bloom's Taxonomy:- Cognitive, Affective, Psychomotor domains Significance and importance 1.preparation of the lesson plans as per the model. 2 Constructivist and social constructivist models -Preparation of lesson plans -selection of activities.3 Issue based curriculum –Highlighting the Issues,	Prepare a pictorial representation of Instructional Objectives relevant to Arabic Education/ Discussion on issue based curriculum	The teaching of language a practical Approach B.N. Safaya . Essentials of Educational Technology – Teaching Learning Innovations in Education : J.C. Agarwal
<b>MODULE II</b> a. Teaching skills	Micro teaching – Definition, steps ,phases and cycles ;Merit and Demerits. Acquaintance with core skills. (8 core skills related to language), Skill based practice-3different skills and Link practice Prescribed in Practicals	Skill practice, scheduled observations of the practicing, Video recording and comparison with master documents	Active listening building skills : Marc Helgesen and Steven Brown Cambridge Atharbiyathu wa Thuruqu athedrees

<p><b>DULE III</b> Pedagogic Analysis of Lessons-</p>	<p>Meaning and principles of content analysis- purpose of pedagogic analysis. subject matter and language- Learning experiences-Evaluation Acquaintance with subject matter. systematic braking of curriculum- modular approach</p>	<p>Perform content analysis, find out specifications, objectives in behaviourist system. Find out issues, sub issues-modular approach-activities etc in constructivist pattern Find out curricular objectives and activities. Preparation of any five discourses (notice, classical literature, poem, etc.,) and perform it in classroom.</p>	<p>The Principle and Methods of Teaching : Bhatia and Bhatia</p>
<p><b>MODULE IV</b> Lesson Planning</p>	<p>Planning, importance, objectives and levels of planning: Lesson plan, unit plan, year plan. Ways of introducing various topics, effectively developing the productive and receptive skills and study skills note taking note making paraphrasing. How to create language rich environment. Types of learning experiences required for different methods of teaching-</p>	<p>Write discussion lessons in various strategies demonstration, criticism lessons according to constructivist pattern Acquisition of language skills through communicative discourses. Preparation of Year Plan of any Arabic Text Book.</p>	<p>Atharbiyathu wa Thuruqu athedrees Essentials of Educational Technology – Teaching Learning Innovations in Education : J.C. Agarwal</p>
<p><b>MODULE V</b> Evaluation of student achievements</p>	<p>Importance; objectives of evaluation; Tools of evaluation-formative and summative methods- continuous and comprehensive evaluation; achievement test-tools used for CCE – Grading system-The evaluation system existing in Kerala</p>	<p>Make sample question paper for objective based test and new type tests with blue print, value points and question wise analysis OR Make mark list or grade list of students using spread sheet and analyze it (2 marks) Comparison of grading with marking system</p>	<p>Essentials of Educational Technology – Teaching Learning Innovations in Education : J.C. Agarwal Modern trends in teaching technology : Romesh Varma, Suresh Sarma</p>

<b>EDU. 151. CURRICULUM AND RESOURCES OF ARABIC</b> <b>Contact Hours: 75 Hours (Instruction) &amp;15 hours (process)</b> <b>Marks: 50 (End semester Examination)&amp; 10 (CE)</b>			
<b>Content</b>	<b>Scope of the Content</b>	<b>Nature of the Process</b>	<b>References</b>
<b>MODULE I</b> Curriculum	Meaning, definition and types of curriculum. principles of curriculum construction, approaches to curriculum construction- modern trends in curriculum construction- A critical study of Arabic curriculum for all classes from V to XII	A comparison of Arabic text books in Kerala with that of English /Critically evaluate the Arabic curriculum for all classes from V to XII Debate upon present curriculum and report it.	Atharbiyathu wa Thuruqu athedrees
<b>MODULE II</b> Learning aids	Importance and Principles of using learning aids Psychological bases--Teaching-learning material: Test Book importance and principles of construction and its qualities. hand book, local text, magazines, reading corner etc. -AV aids :ICT. language lab, improvised leaning aids, mass media, digital learning recourses etc. Activity aids: club activities, field trips etc.	Select a topic and prepare a learning aid suited to the topic and practice it in the classroom and find out the scope of it./ Formation of language club. Conducting an Arabic quiz programme using LCD/Visit important historical places and report it. /Prepare a manuscript magazine (group work)	Improve your communication skills : Alan Barker.
<b>MODULE III</b> Library	Importance of library –school library-class library- digital library, online library etc. Essential qualities of library.	Making a book review./ Arrange class library. Visit a library and make a brief report in Arabic./ Presentation of Holy Quran through CD and make a discussion on the topic. /Visit the library and translate an article from any English News Paper into Arabic /Present any topic in Arabic using any technological strategy	Atharbiyathu wa Thuruqu athedrees
<b>MODULE IV</b> Models of teaching	Scope and importance of models of teaching. Acquaintance with families of models teaching. some typical model: Concept Attainment, Advance Organizer, Inductive-Deductive models	Prepare a lesson plan on any topic USING Models of Teaching.	Models of Teaching : Bruce Joyce – Mersha Wein

<b>EDU. 171. PROFESSIONALIZING ARABIC EDUCATION</b> <b>Contact Hours: 75 Hours (Instruction) &amp;15 hours (process)</b> <b>Marks: 50 (End semester Examination)&amp; 10 (CE)</b>			
<b>Content</b>	<b>Scope of the Content</b>	<b>Nature of the Process</b>	<b>References</b>
<b>MODULE. I</b> Arabic Language	Arabic language-its significance- historical background-world language-modern and classical language-link with other languages and literature Contribution to other subjects Arabic language and India. Arabic language and Kerala Place of Arabic in the state schools of Kerala.	Preparation a list of 4 classic books in Arabic and prepare short notes on how they reflect social life in them. Discussion on the contributions of Arabic writers in Kerala/Conducting a seminar on the influence of Arabic language in Kerala. /Collect some poem written in Arabic by Kerala Arabic poets	Al Muwajjahul Ameli li Muderrisi Luga Al Arabiyya : Abid Thoufeeqe Al hasmi, Al Risala Publishing House Bairoot Lebanon. An Introduction to language and Communication : Publisher Prentice hall.
<b>MODULE. II</b> Co-curricular activities of Arabic	Programmes included in Arabic Kalolsavam- their rules and regulations- Club and literary activities ,associations-school language broadcasting magazines	Prepare a year plan for an Arabic language club in the school. Formation of literary club and conducting various competitions/ Find out rules and regulations of Arabic kalolsavam /Participate in planning, execution of Arabic kalolsavam and evaluate the merits and demerits	An easy way to commercial and journalistic Arabic : Mohammed Ismail Mujaddidi. Sahara Publications, Markaz complex, Calicut.
<b>MODULE. III</b> Characteristics of talented children	Identification & techniques of nurturing talented children in Arabic.	Prepare an enrichment material in Arabic grammar of Standard 8/ Discussion on the techniques for nurturing talented children	The teaching of language a practical Approach B.N. Safaya
<b>MODULE. IV</b> New aids for Arabic teaching	computer assisted Instruction, CDs, VCD's Internet etc	Arrange a seminar with power point presentation.	The Skills of Communication : Billscott, Mumbai . Al Muwajjahul Ameli li Mudarrisi Luga Al Arabiyya : Abdul Haleem Ibrahim. Daru Maarif Egypt.
<b>MODULE. V</b> Profession	Definition of profession, Teaching as a profession. Professional ethics. Traits of professionalism- competencies listed by NCTE. Soft Skills for a teacher. The Arabic teacher, qualities of a good Arabic teacher, nature of work and duties-Qualifications	Prepare a report on qualities of a good Arabic teacher./ Find out the professional ethics and competencies listed by NCTE	Althaeleema wa nabriyathuhu : Darul Ilmu LilMallayeen Beirut Teaching and Learning English, a source book for Teaching and Teacher Training : Orient Longman, Hyderabad.

# **UNIVERSITY OF CALICUT**

**Re structuring of Curriculum-2012  
Credit Based Semester and Grading System**

## **HANDBOOK FOR TEACHER EDUCATORS (ENGLISH)**

**Programme: Bachelor of Education (B Ed)  
With effect from 2012-13 Academic Year**

**BOARD OF STUDIES  
EDUCATION (UG)**

**EDU. 112.METHODOLOGY OF TEACHING ENGLISH**

Contact Hours:75 (Instruction)&amp;15 Process

Marks:50 (End Semester Examination)&amp;10 (CE)

Module	Scope of Content	Process
<b>Module I</b>  Language- its meaning, characteristics, functions, varieties of language –  First language, second language and foreign language  Learning and acquisition ,Related theories  Position of English in the Language family.  Features of English  Importance of English English as a global language  Status of English in India	Meaning, definition and characteristics of language. Functions as described by Halliday. Varieties of language imply the dialect, sociolect and idiolect. Language Register. (2 Hrs)  Meaning and features of first, second and foreign language. (1 Hr)  Definition and features of learning and acquisition. Points of difference between them. Factors affecting language acquisition and learning. Influence of mother tongue on second language learning. Views of Stephen Krashen, BF.Skinner, Benjamin Lee Whorf and Noam Chomsky on language acquisition. (3 Hrs)  Indo- European family of languages. Language family means a group of languages that share common ancestor. Role of Linguistics in language teaching (2 Hrs)  Unphonetic nature, Illogical spelling and morphological features of English. (1 Hr)  English as the international link language, library language, language of trade and commerce, language of science and technology etc. (1 Hr)  English as the Associate Official Language of India, a national link language, the facilitator of national integration, library language, language of high courts and supreme court, etc. (1 Hr)	Make some items that would help to evaluate the writing skill of the trainees.  Here the students are expected to do some writing tasks that reflect their ability in the selection of words, structure and style and in organizing and sequencing events. Variety of tasks can be preferred.

<p><b>Module II</b></p> <p>English as a skill subject— LSRW skills and the process skills.</p> <p>Techniques to develop LSRW skills</p>	<p>Difference between skill subject and content subject, English as a skill subject, Language skills – listening, speaking, reading and writing – their types and component skills. Classifications of language skills – Active and Passive, Expressive or Productive and Receptive, and Aural – Oral and Graphic motor. (7 Hrs)</p> <p>Activities for developing the skills of listening, speaking, reading and writing in pupils. (3Hrs)</p>	<p>Film review of any two English films.</p> <p>Preparation of review of any two recent English films. Word limit – 500.</p> <p>Preparation and presentation of a minimum of ten Discourses. (Limit one A 4 page each)</p>
<p><b>Module III</b></p> <p>Behaviourism English Constructivism Multiple Intelligence Chomskyan concept of Language Development Stephen Krashen's theory Dr. N.S.Prabhu's CBLT programme</p>	<p>Behaviourism – meaning, view of learning, teacher, learner, procedure of teaching and activities. Limitations of Behaviourism. (3 Hrs)</p> <p>Constructivism – meaning and types. Vygostky's Social constructivism, view of learning, teacher, learner, procedure of teaching and activities. Limitations of constructivism. (5Hrs)</p> <p>Theory of Multiple Intelligences by Howard Gardner. Its implications for language teaching. (3 Hrs)</p> <p>Chomsky's concept of language development – LAD (1 Hr)</p> <p>Stephen Krashen's theory of language acquisition. (2Hrs)</p> <p>Competence Based Language Teaching (CBLT). (1 Hr) CBLT is an application of the principles of Competency-based Education (CBE) to language teaching. It focuses on what learners are expected to achieve with the target language. It sees the outputs more important than the learning process. It emerged in the United States in the 1970s.</p>	<p>4. Preparation of lesson plans – (behaviorist &amp; constructivist) on a single topic based on different approaches to experience the difference in outlooks. (Two each).</p>
<p><b>Module IV</b></p> <p>Method, approach, technique &amp; strategy.</p> <p>Grammar –translation method, Direct Method, Bilingual Method. Structural Approach, Communicative Approach,</p>	<p>Methods, Approaches, Techniques and Strategies – their implications. (1Hr)</p> <p>Characteristics, principles, advantages and limitations of Translation Method, Direct Method, Structural Approach, Communicative Approach, Humanistic Approach and Holistic Approach. (13 Hrs)</p>	

<p>Humanistic Approach, Whole Language Approach.Characteristics, Principles, Advantages&amp;Limitations.</p> <p>Innovative practices in ELT</p> <p>Principles of selection and grading of language materials.</p>	<p>Integration of Approaches. Team teaching. (2 Hrs)</p> <p>Principles of selection and grading of language materials. (3 Hrs)</p>	
<p><b>Module V</b></p> <p>Vocabulary- Types of vocabulary, Kinds of words, Techniques of teaching vocabulary, Enrichment of vocabulary, Language games.</p> <p>Form and function—methods of Teaching grammar.</p> <p>Teaching of pronunciation.</p> <p>Types of prose- intensive and extensive reader , techniques of teaching prose &amp; poetry.</p>	<p>Vocabulary – meaning. Types of vocabulary – active and passive vocabulary. Kind of words – function words and content words. Techniques of teaching vocabulary. Measures for developing pupils’ vocabulary. Language games. (3 Hrs)</p> <p>Importance of teaching grammar, functions and linguistic forms to express them, formal and functional grammar, methods of teaching grammar – deductive and inductive methods. ( 3 Hrs)</p> <p>Importance of teaching pronunciation, methods of teaching pronunciation, techniques to improve pupils’ pronunciation of English. ( 3 Hrs)</p> <p>Prose – intensive and extensive readers and their features and importance. Techniques of teaching prose and poetry. Arguments for and against teaching of poetry in language class rooms. ( 4 Hrs)</p>	<p>Book review on any two literary works published in the last ten years.</p> <p>Word limit: 500 each.</p>
<p><b>Module VI</b></p> <p>Challenges of teaching English in Kerala.</p> <p>Measures for improvement.</p>	<p>Interference of Malayalam on English language learning. Varying positions of English in the state and central school curricula. ( 2 Hrs)</p> <p>Language and culture.(2 Hrs)</p> <p>Measures for overcoming the challenges. ( 2 Hrs)</p>	<p>Get familiarised with the IT sources / packages that are helpful in teaching English.</p> <p>Prepare a brief report showing the IT materials you can profitably use in the English class rooms.</p>



**EDU. 132.PEDAGOGIC PRACTICES IN ENGLISH**

Contact Hours:75 (Instruction) &amp;15 Process

Marks:50 (End Semester Examination) &amp;10 (CE)

Module and Topic	Scope of Content	Process
<b>MODULE I</b>  Aims of teaching English.  Objectives-types of Objectives. Objectives of teaching English at secondary level.  Taxonomy of educational Objectives.  Philosophical, psychological, sociological & technological principles of language teaching.	Aims of teaching English. ( 2 Hrs)  Objective – meaning and definition. Types of objective – Process Objectives and Product Objectives. Objectives of teaching English at secondary level. ( 3 Hrs)  Bloom’s Taxonomy of Educational Objectives. ( 3 Hrs)  Philosophical, psychological, sociological & technological principles of language teaching. ( 6 Hrs)	Make a pictorial representation of taxonomy of educational objectives.
<b>MODULE II</b>  Core skills.  Micro teaching—definition, principles - micro teaching cycle, limitations.	Teaching Skill – definition. Core skills and their components. ( 2 Hrs)  Micro teaching – meaning, definition, characteristics, objectives, principles, steps in teaching, advantages and limitations. Micro teaching Cycle. ( 5 Hrs)  Integration of skills. ( 1 Hr)	Prescribed in practical
<b>MODULE. III</b>  Pedagogy & Androgogy.  Content analysis –Pedagogic analysis—objectives & components.	Pedagogy & Androgogy – meaning and characteristics. ( 2 Hrs) Content analysis – meaning, objectives, components and advantages. ( 5 Hrs)  Pedagogic analysis – meaning, objectives, components and advantages. ( 5 Hrs)	Make a content analysis of any unit of English in standard 8 or 9.
<b>MODULE. IV</b>  Importance of planning—year plan, unit plan, lesson plan.	Planning- meaning and importance. ( 2 Hrs)  Year plan, Unit plan & Lesson plan –	Prepare a year plan or unit plan  (Standard 8 or 9)

Steps of lesson plan.	meaning, importance and challenges. ( 7 Hrs)	
Types of planning— behaviourist, Constructivist---prose & poem.	Herbartian steps – merits and demerits. ( 3 Hrs)  Lesson plans in Behaviourist and Constructivist format for teaching prose and poem. ( 6 Hrs)	
<b>MODULE. V</b>  Evaluation - Different types of test items - merits and demerits.  Construction and administration of Achievement tests.  Continuous and Comprehensive Evaluation, Evaluation Criteria for Assignment, Seminar and Project.  Diagnostic test-importance-process of construction  Error analysis-remedial teaching — meaning. Grading—importance & types.	Evaluation – meaning and definition. Product evaluation and process evaluation. ( 2 Hrs)  Types of test items - Objective type, short answer type and essay type- merits and demerits. Importance of Essay type test in language teaching. ( 4 Hrs)  Achievement test- definition and construction. Qualities of a good achievement test. ( 5 Hrs)  Continuous and comprehensive Evaluation – meaning and features. ( 1 Hr) Evaluation Criteria for Assignment, Seminar and Project – scoring indicators. ( 2 Hrs)  Diagnostic test – definition, characteristics, importance and process of construction. ( 5 Hrs) Error analysis – meaning. Remedial teaching – definition, importance and steps. ( 4 Hrs) Grading – meaning, features and importance. Types of grading – Direct grading and indirect grading. Means of indirect grading – relative grading and absolute grading. ( 2 Hrs)	Prepare a questionbank on a unit of your own choice from 8th or 9th std English TextBook. (Limit: 100 questions. Different types of different may be included)  Preparation of unit test, diagnostic test and remedial lesson plan. (Minimum one each)

**EDU. 152. CURRICULUM AND RESOURCES OF ENGLISH**

Contact Hours:75 (Instruction) &15 Process  
Marks:50 (End Semester Examination) &10 (CE)

Module and Topic	Scope of Content	Process
<b>MODULE I ( 10 hours )</b>  Curriculum—meaning,types. Principles of curriculumconstruction. Nature of language curriculum.  Syllabus—types of syllabus—features and limitations	Curriculum – meaning and definition. Types – Teacher centred curriculum, learner centred curriculum, experience curriculum, undifferentiated curriculum, core curriculum, hidden curriculum and spiral curriculum. Nature of language curriculum. (7 Hrs)  Syllabus – meaning and importance. Types of syllabus – Product oriented syllabus and process oriented syllabus. (3 Hrs)	Compare the styles oforganisation of curriculum development,selecting asingle topic from State and CBSE syllabi. (Limit: 2 A 4 pages)
<b>MODULE II ( 20 hours )</b>  Course books, qualities of a goodcourse book. Source books—work book.  Supplementary reader—types  E-book, CD's etc	Course book – meaning and importance. Qualities of a good course book. Source book – meaning and importance. Qualities of a good Source book Work book - meaning and importance. Features of a good work book. ( 10 Hrs)  Supplementary reader – meaning, importance and qualities of a good supplementary reader. Types of supplementary reader – Plateau type and progressive type. ( 7 Hrs)  E- book, CDs – meaning, advantages and limitations. ( 3 Hrs)	Evaluation of 8 & 9 <sup>th</sup> standard course books. (Limit: 4 A 4 pages)
<b>MODULE. III ( 20 hours )</b>  Audio-visual aids—radio,TV,tape recorder,OHP,computer,language lab,videoclippings,pictures,charts,flashcards, realia, models etc.	Audio Visual Aids –Advantages and limitations of using Audio Visual aids in language class room. Use of radio, tape recorder, OHP, Pictures, charts, flash cards, realia, models, TV and computer in English language classes. Points to be kept in mind while using each of them. ( 16 Hrs)	Prepare flash cards toteach any five words.

	Language lab- meaning, types, components, uses, advantages and limitations. ( 4 Hrs)	
<b>MODULE IV ( 15 hours )</b> Importance of library in language learning.  E-library, infolibnet.  Principles of selecting language books.	Library, Importance of library in language learning, Techniques to inculcate interest in students to use library. ( 9 Hrs)  E-library, infolibnet – meaning, features and advantages. ( 3 Hrs)  Principles of selecting books for a language class library. ( 3 Hrs)	List out 10 storybooks suitable for secondary school students. E Library meaning, advantage & limitation. INFLIBNET.( Minimum 5 journals and prepare brief report of each without exceeding 250 words)  Maintain a class library.
<b>MODULE V ( 10 hours )</b>  Reference skills—use of dictionary. Note-taking, notemaking, summarizing, paragraphing, information transfer.	Reference skills- meaning and importance. Techniques for developing reference skills in pupils. ( 4 Hrs)  Note-taking, notemaking, summarizing, Paragraphing and information transfer. – meaning and features. ( 6 Hrs)	Make a dictionary with 20 words. Include meaning, phonemic transcription and part of speech of the words selected.

<b>EDU. 172. PROFESSIONALISING ENGLISH EDUCATION</b> Contact Hours: 75 (Instruction) & 15 Process Marks: 50 (End Semester Examination) & 10 (CE)		
Module and Topic	Content	Process
<b>MODULE I ( 25 hours )</b>  Professionalization of teaching - meaning, need, challenges and techniques.  In-service & pre-service courses.  Global opportunity	Professionalism – meaning. Professionalisation of teaching, - meaning, need and challenges. (4 Hrs)  In service and pre service courses and programmes – nature, importance and limitations. (4 Hrs)	Prepare a report on any on-line language teaching Programme. (Size : Maximum one page A 4)



<p><b>MODULE II ( 10 hours )</b></p> <p>Online editing, teleconferencing, social networking.</p> <p>Preparation of e-learning materials.</p>	<p>Online editing, teleconferencing, social networking – meaning, characteristics and advantages. (6 Hrs)</p> <p>E – learning materials – meaning and nature. Preparation of e learning materials. (4 Hrs)</p>	<p>Experiencing the making of a multi-media Package/very shortfilm/shortdocumentary/theatre education/puppetry.</p>
<p><b>MODULE. III ( 15 hours )</b></p> <p>Magazine editing, reporting, running commentary</p> <p>Anchoring, face to face communication, interview, event management. Language related co-curricular activities.</p> <p>Principles of organization.</p>	<p>Editing – meaning and levels of editing. Qualities of a good editor. Reporting and running commentary – nature and importance. (5 Hrs)</p> <p>Anchoring – meaning and features. Importance of face to face communication, interview, event management. (4 Hrs)</p> <p>Language related co-curricular activities – activities such as preparation of manuscript magazine, competitions in versification, story writing, essay writing etc. (5 Hrs)</p> <p>Principles of organizing co curricular activities. (1 Hr)</p>	<p>Prepare a manuscript magazine and publish in the class. (group work) - Minimum 20 works of art.</p>
<p><b>MODULE IV (8 hours )</b></p> <p>Concept of multiple intelligences. Characteristics of talented children. Identification &amp; techniques of nurturing talented children in English.</p>	<p>Concept of multiple intelligences. Characteristics of talented children. Identification &amp; techniques of nurturing talented children in English. (8 Hrs)</p>	<p>Prepare an enrichment material on English grammar of Standard 8. ( Maximum 2 a 4 pages)</p>

<p><b>MODULE V ( 17 hours )</b></p> <p>Development of communicationskills, presentation skills &amp; leadership qualities.</p> <p>Qualities of a professionalteacher of English.</p> <p>Ways to inculcateprofessionalism in teaching.</p> <p>Role of teacher-educators indeveloping professionalism inELT. Reflective teaching.</p>	<p>Communication skills and their components. Techniques to develop communication skills. Presentation skills, measures to develop presentation skills. (5 Hrs)</p> <p>Leadership – meaning and types. Qualities of good leadership. (3)</p> <p>Qualities of a professionalteacher of English. (2 Hrs)</p> <p>Ways to inculcateprofessionalism in teaching. (2 Hrs)</p> <p>Role of teacher-educators indeveloping professionalism inELT. (2 Hrs)</p> <p>Reflective teaching – meaning, steps, advantages and limitations. (3 Hrs)</p>	<p>Preparation of a briefreport about 10 recent researches in ELT.</p>
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# **UNIVERSITY OF CALICUT**

**Re structuring of Curriculum-2012  
Credit Based Semester and Grading System**

## **HANDBOOK FOR TEACHER EDUCATORS (MATHEMATICS)**

**Programme: Bachelor of Education (B Ed)  
With effect from 2012-13 Academic Year**

**BOARD OF STUDIES  
EDUCATION (UG)**



**PAPER 1 METHODOLOGY OF TEACHING MATHEMATICS (EDU 120)**

[illegible]

2	Mathematics Education	<p>Development of mathematics education-Historical roots-mentioning mathematics education in America and India(4hrs)</p> <p>Values of teaching mathematics-practical, disciplinary, social, cultural, aesthetic etc. (6 hrs)</p>	<p>Time line to be prepared on the development of mathematics of any century-Major developments in mathematics to be noted together with year and any other available information-better 18<sup>th</sup> century onwards. Time line to be evaluated w.r.t comprehensiveness, neatness, clarity in presentation, originality in presentation and accuracy. (Class work followed by library work) Or Biographies of five mathematicians preferably related to school level mathematics—at least two Indians- variety in presentation - poster presentation recommended. Photographs to be incorporated (if available) . Better if focus on different biographical aspects are given in each case.</p>	<p>Travers, K, J., Pikaart,L., Suydam, M.N., &amp; Runion, G. E. (1977). Mathematics teaching. London: Harper&amp; Row.</p> <p>Ramanujam, R., &amp; Subramannian, K. (2012). Mathematics Education in India: Status and Outlook (Eds). Homi Bhabha Centre for Science Education, TATA Institute of Fundamental Research. Mumbai.</p> <p>Stillwell, J. (1991). Mathematics and its History, New York: Springer-Verlag.</p> <p>Ramakrishnapillai, K. (2010). Ganithasastrathile Athikayanmar. Sasthra Sahitya Parishat, TCR.</p>
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3.	Approaches, methods and techniques of teaching mathematics	<p>Process oriented approach-process abilities in mathematics- ability to detect mathematical regularities (discovery), construct examples (particularization),interpret mathematical descriptions, describe mathematical ideas, make logical inferences and axiomatise. (2hrs)</p> <p>Heuristic approach- basic principles-application in teaching mathematics.(1hr)</p> <p>Realistic Mathematics Education-basic concepts-characteristics-importance (2hrs)</p> <p>Methods: Inductive – deductive method, analytic-synthetic method, problem solving method, laboratory method, project method-major characteristics of each – importance in teaching of mathematics- limitations of each, examples. Seminar- procedure of conducting a seminar-evaluation of a seminar-advantages and limitations. (12hrs)</p> <p>Questioning-importance-characteristics of a good question; brain storming-functions-procedure –limitations; assignment-types-importance-evaluation of an assignment.(3hrs)</p>	Discussion	<p>Individual project plan-selection of topic suitable for a B.Ed student, methodology, analysis and conclusion, references, time schedule.(Class discussion followed by home assignment)</p> <p>Or Laboratory activity-selection of suitable content- arrangement of the materials needed – prescribing the activity-managing the activity-Generalising the result-description of each step. (To be done hypothetically, report to be written as Class work)</p> <p>Or</p> <p>Analytic questions –suitable topic to be selected- analytic questions to be listed one by one (answers may be included) -accuracy, relevance, sequence and grammatical correctness of the questions to be considered while evaluating. (as class work)</p>	<p>Simmons, M. (1993). The effective teaching of mathematics. England: Longman group. <a href="http://www.learner.org/courses/teachingmath/grades68/session_04/section_03_a.html">http://www.learner.org/courses/teachingmath/grades68/session_04/section_03_a.html</a></p> <p>Cooney, T. J., Davis, E.J., &amp; Henderson, K.B. (1975). Dynamics of teaching secondary school mathematics. New York: Houghton Mifflin Company.</p> <p><a href="http://www.fisme.science.uu.nl/en/rme/">http://www.fisme.science.uu.nl/en/rme/</a></p> <p>Any book on methodology of teaching mathematics. Source book on Evaluation by SCERT</p> <p>James, A. (2005). Teaching of Mathematics. New Delhi: Neelkamal Publications Pvt. Ltd.</p> <p>Orlich, D., Harder R.J., Callahan R. C., &amp; Gibson H.W. (2001). Teaching Strategies-A Guide to better Instruction. New York: Houghton Mifflin Company.</p> <p>Borich, G.D. (2012). Effective teaching Methods- Research based Practice. New Delhi: Kindersley India Pvt Ltd.</p>
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4.	Theoretical bases of different approaches	<p>Behaviorism-theoretical outlines- basic idea of s-r learning- reinforcement- concept of learning- role of teacher- (4hrs)</p> <p>Constructivism - social &amp; cognitive – Vygotski, Piaget, Bruner- basic assumptions-characteristics of constructivist learning environment-role of teacher- difference between behaviourist and constructivist classrooms.(6hrs)</p> <p>Co-operative learning- concept-characteristics-types-role of teacher.(4hrs)</p> <p>Peer tutoring-types-importance-role of teacher.(2hrs)</p> <p>Learning as generative process- Basic concept of Wittrock's generative learning theory – knowledge generation, Meaning making, motivation processes and self regulation-a combination of Constructivism, Behaviourism, Cooperative learning. Management of class room environment- group work, individual work. (4hrs)</p>	Any of the Co-operative learning strategy	<p>Analysis of KCF as class room discussion w.r.t mathematics teaching and learning- submission of individual report on the suggestions followed by evaluation of the present system.</p> <p>Or</p> <p>Plan for implementing Cooperative learning strategy including a small mathematical concept, type of the co operative learning strategy selected-its implementation, references or materials to be provided in the group, group management and evaluation.</p>	<p>Any reference book in educational psychology</p> <p>Chambers, P. (2008). Teaching Mathematic-Developing as a reflective secondary teacher. New Delhi: Sage</p> <p>Srivastava, K. (2008). Traditional and Constructivist Educational Perspectives. Indian Journal of teacher Education Anweshika, 5(1), 11-19.</p> <p>Lee, H.W., Linn, K.Y., &amp; Grabowski, B. (n.d). Generative learning: Principles and implications for making meaning. <a href="http://faculty.ksu.edu.sa">http://faculty.ksu.edu.sa</a></p>
5	Trends in teaching mathematics	<p>The current practices in schools- (1hr)</p> <p>Critical pedagogy-concept-applicability in mathematics classroom-(4hrs)</p> <p>issue based approach-significance-applicability in mathematics teaching and learning. (3hrs)</p> <p>edubuntu-practical oriented session for familiarizing with the programme (2 hrs)</p>	<p>Discussion</p> <p>Demonstration followed by discussion</p>	<p>Selection of the suitable topic and programme, preferably of high school level. Individual presentation.(Approximately 5mts; No report needed)</p>	<p>Books by SCERT, DIET, etc.</p> <p>National Curriculum Framework, 2005. NCERT.</p>

**PAPER II PEDAGOGIC PRACTICES IN MATHEMATICS (EDU 140)**

Sl No.	Content	Scope	Transactional Strategies	Process	Suggested Readings
1	Aims and Objectives	<p>Aims and objectives of teaching mathematics at various level with special emphasis to secondary level.(2hrs)</p> <p>Bloom's taxonomy-Meaning-classification and hierarchical arrangement-explanation of each level objective with suitable examples-importance. (4hrs)</p> <p>Revised Bloom's taxonomy –change in terminology, structure and emphasis. (1hr)</p> <p>Major competencies to be developed-ability to compute, logical thinking, inquisitiveness, ability to find cause effect relationship etc</p> <p>Basic mathematical skills-computation, geometrical and drawing and interpretation of graphs.(3 hr)</p>	Discussion	<p>RBT to be compared with other taxonomies like that of Cormack &amp; Yagar with respect to the terminology, classification etc .</p> <p>Report to be submitted after library work and class discussion.</p> <p>comprehensiveness, clarity, accuracy, variety of presentation are to be considered while evaluating</p>	<p><a href="http://www.netskills.ac.uk/content/projects/.../07BloomsTaxonomy.doc">www.netskills.ac.uk/content/projects/.../07BloomsTaxonomy.doc</a></p> <p><a href="http://www.coe.uga.edu/epltt/bloom.htm">www.coe.uga.edu/epltt/bloom.htm</a></p> <p>Bloom,B.S. (1956) Taxonomy of Educational Objectives: Hand book - Cognitive domain.New York: David McKay company Inc.</p> <p>Patel,R.N. (1997). Educational Evaluation-Theory and practice.Mumbai:Himalaya publishing house.</p> <p>Soman, K. (1988).</p> <p>GanithaSasthra Bodhanam. TVM: State Institute of Language.</p>
2	Skills of teaching mathematics	<p>Teaching skill-Meaning- list by NCERT- major skills- Explanation of each.(6hrs)</p> <p>Micro teaching- meaning-importance-procedure-preparation of micro lesson. (7hrs)</p>	<p>Lecture cum demonstration</p> <p>Video presentation</p>		<p>Paintall.(1982). Micro Teaching: A Hand book for teachers. New Delhi: Oxford University Press.</p> <p>Passi, B.K. (1976). Becoming Better Teachers: Micro Teaching Approach. Ahamedabad: Sahithya Mudranalaya.</p>

3	Pedagogical analysis	<p>Pedagogic analysis-meaning-purposes-importance-steps-difference from content analysis (5hrs)</p> <p>Content analysis (of selected topics from different areas like arithmetic, algebra, geometry and trigonometry)- listing of the major and minor concepts, terms, facts, definitions, principles, theorems, -possibility of misconcepts among students-examples &amp; remedial measures(15hrs)</p>	<p>Discussion</p> <p>Discussion in groups followed by presentation in class</p>	<p>A unit( may be of four to five lessons) to be selected from any of the areas – content to be analysed comprehensively and accurately. (class discussion followed by home assignment)</p> <p>Or</p> <p>List minimum three misconcepts-the probable causes/ reasons for such misconcepts - suggestions for rectifying the misconcepts-submission of report by each individual. (Class discussion and home assignment).</p>	<p>Mathematics Text books and hand books of standard 8<sup>th</sup> &amp; 9<sup>th</sup></p> <p>Tanner, H. &amp; Jones, s. (2000). Becoming a successful teacher in Mathematics. New York: Routledge Palmer.</p>
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4	Planning of instruction	<p>Stages of planning-year plan –unit plan- lesson plan – meaning-need-functions of each-steps to be followed in the preparation of each.(3hrs)</p> <p>Lesson planning- objective based instruction-objectives- learning experience- evaluation-explanation of each-their inter relationship. (10hrs)</p> <p>Constructivist format of lesson planning-curricular objectives, process skills, learning activities, evaluation.(7hrs)</p>	Small group discussion	<p>Unit plan to be prepared for a specific unit selected by the individual incorporating the essential components of a unit plan-Content, objective, methods &amp; materials and evaluation procedure are to be included(What, why, how and how far aspects)</p> <p>Submission of unit plan after discussion in the class.</p> <p>Or</p> <p>Prepare either behaviorist or constructivist lesson first and the same should be transformed to the other – To be conducted as supervised study-class work and individual submission</p>	<p>Soman,k.(1972). Uddesyadhishtitha Bodhanam. Tvm: State Institute of Language.</p> <p>Books on teaching Mathematics</p>
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5	Evaluation	<p>Evaluation-meaning-criterion referenced and norm referenced-need for each-test items- types- guidelines for preparation of each- practice in preparation (3hrs)</p> <p>Achievement test in mathematics-steps-functions</p> <p>Diagnostic testing-importance in mathematics-steps</p> <p>Difference between achievement test &amp; diagnostic test (4hrs)</p> <p>CCE-concept-need- procedure-evaluation criteria of collection, seminar, assignment, project, practical, portfolio (3hrs)</p> <p>Non cognitive areas- evaluation of interest, attitude, skill-various techniques &amp; instruments- importance in teaching learning process. (2hrs)</p>	<p>Select an affective outcome of learning mathematics and prepare at least ten items to measure the outcome selected- it may be interest in mathematics/attitude towards mathematics/ motivation in mathematics/ anxiety in mathematics or related.( to be done as supervised study and individual submission needed)</p> <p>Or</p> <p>Diagnostic test-select a small mathematical concept of 8<sup>th</sup>/ 9<sup>th</sup> standard, identify and analyse the learning points/the learning tasks and prepare items covering all learning points/ tasks and arrange the items sequentially with proper instruction. (Class work followed by home assignment)- Individual submission of the diagnostic test needed.</p>	<p>Carey, L.M. (1988). Measuring and evaluating School Learning. Boston: Allyn and Bacon, Inc.</p> <p>Harper, A. E.&amp; Harper. E.S. (1990). Preparing Objective Examinations- A Hand book for Teachers, Students and Examiners. New Delhi: Prentice Hall of India.</p> <p>Source books on Evaluation published by SCERT, DIET etc</p>
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**CURRICULUM AND RESOURCES OF MATHEMATICS EDUCATION (EDU 160)**

<b>Sl No.</b>	<b>Content</b>	<b>Scope</b>	<b>Transactional strategies/ methods</b>	<b>process</b>	<b>Suggested Readings</b>
1	Curriculum in Mathematics	Curriculum-meaning-types: traditional, activity centered, experience centered, life centered, balanced, hidden, undifferentiated, differentiated-brief explanation of each. (5hrs) Curriculum development- basis: social needs, nature of the learner, nature of the subject-principles of curriculum construction, curriculum organization-principles and approaches.(10 hrs). Place of mathematics in school curriculum (1hr) Curricular reforms-need – SMP, SMSG, Nuffield (4hrs)		Correlation of mathematics with other subjects like physical science, biological sciences, humanities, commerce, behavioural sciences etc ( Minimum 5 subjects of different nature recommended), within the subject and with daily life-Discussion in the class and submission of the report. Or Content from algebra/ arithmetic/ geometry/trigonometry- its possible relation with the others-either as application or pedagogical aspect	Sidhu K S. (1995). The Teaching of Mathematics. New Delhi; Sterling Publishers. James, A. (2005). Teaching of Mathematics. New Delhi: Neelkamal Publications Pvt. Ltd  Hoyles, Celia., Morgan, Candia.,& Woodhouse, Geoffrey(1999). Rethinking the Mathematics Education. London: Falmer Press.

2	Resources for mathematics teaching/ learning	<p>Text books: qualities, importance and functions, hand books: importance, work books: purpose, characteristics, procedure of construction, reference books: citation of at least two from each area, journals: importance, at least two journals with its bibliographic details, resource cd's -examples, e-materials-examples (16 hrs)</p> <p>Audio-visual aids-meaning-importance in mathematics teaching-classification-Improvisation of teaching aids-meaning-advantages- steps-objective, design, development, feed back, examples. (5hrs)</p> <p>Recreational activities-role of games, puzzles, riddles- examples for each. (4hrs)</p>	<p>Visit to Library and discussion in class</p>	<p>Identify and list two e-contents, observe them, analyse the content transacted through the materials, and the effectiveness of the e material. (observation of the e materials as group work preferably of 5 members, different materials to be observed by different groups and individual analysis to be done)</p> <p>Or</p> <p>Work book – content to be selected, preferably a composite of 4/5 lessons of a unit –summary of the topic taught in the class-selection of related activity to practice the content taught, application of the learned material and extension of learning –are to be included. (class work followed by home assignment).</p> <p>Or Improvised aid of pedagogical value to be prepared-it should be planned, bring the required materials on the prescribed date announced by the teacher educator- on the spot preparation by the student. Pedagogical importance, - accuracy-neatness-materials used etc to be considered for evaluation.</p>	<p>Any book on Methodology of teaching Mathematics.</p> <p>Foster, Colin., (2010). Resources for teaching Mathematics 14-16. New York: Continuum International Publishing Group</p> <p>Journal articles on importance of games, puzzles, etc</p>
3	Resource room	<p>Mathematics laboratory-functions-equipments needed-importance-how to organize a maths lab. (5 hrs)</p> <p>Mathematics library-functions-nature of materials to be included-how to ensure effective functioning of the library, selection of books, book keeping, preparation of accession register, issuing, encouraging students to use library etc. (5 hrs)</p>	<p>Lecture cum demonstration</p> <p>Formation of a maths library in the class and its functioning</p>	<p>List of five books- better if different types like content based, history, methodology etc. are included.</p> <p>Author/authors; year of publishing; title of the book; edition; publishing company, place; price; and dealers of the book (if possible) are to be mentioned.</p>	<p>Any book on Mathematics teaching.</p>

4	Models of teaching	Meaning and definitions of models of teaching-characteristics-brief explanation of the four families of models-(6hrs) Information processing family-concept attainment model-theoretical overview-preparation of lesson plan.(8hrs ). Inductive thinking model- theoretical overview- lesson planning. (6hrs )		Lesson plans of both models to be encouraged in the class-different concepts to be selected by the students.  Lesson plan to be evaluated w.r.t. suitability of the content, phases followed and accuracy of the content discussed.	Joyce, B.; Weil, M. & Calhoun, E. (2009). Models of Teaching. New Delhi: PHI Learning Pvt. Ltd. Singh, L.C. (1995). Multiple models of Teaching for Educators. Delhi: Vikas Publishing House Pvt. Ltd.
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PAPER IV: PROFESSIONALISING MATHEMATICS EDUCATION (EDU 180)					
Sl No	Content	Scope	Transactional strategies	Process	Suggested readings
1	Mathematics and society	Mathematics in the development of civilization- its role in scientific and technological development, economic development. (5hrs)  Mathematics in social life- areas like astrology, religious observances, architecture, weather forecasting, folk arts etc to be discussed(5hrs)	Small group discussion and presentation.  Project method, assignments, small group discussion	Report on application of mathematics in astrology/ various religious observances like prayer/architecture/ weather forecast/folk arts/ or any related areas of social life. (not exceeding 5 pages).Selected area, its specific features/ role in social life, mathematical concepts/ principles /operations / constructions etc to be included in it.	<a href="http://www.math.nus.edu.sg/aslaksen/projects/kh-urops.pdf">http://www.math.nus.edu.sg/aslaksen/projects/kh-urops.pdf</a> . <a href="http://www.matheon.de/booklet/matheon">www.matheon.de/booklet/matheon</a> booklet eng pdf math. Anzona edu/-atp-mena/-/Thomaskutty Math_civil_Society Restivo, Sal.,(1992). Mathematics in Society and History: Sociological Inquiries. Netherlands: Kulwer Academic Publishers. Sutton, O.G. (1962). Mathematics in Action..London: The English Language Book Society & G Bell and Son

2	Managing co- curricular activities	Co-curricular activities-meaning, importance and objectives-field trip-educational value- its organisation. (4hrs) Mathematics club-importance-functions-activities conducted-maths fair-how to organize, exhibition-organization, evaluation criteria of major items-quiz-organisation of a quiz programme (6 hrs)	Organising a field trip  Conducting such programmes in class	Group wise organization of the quiz programme in the class. Planning, organizing and evaluating the programme (Report not needed).  Or List to be comprehensive and suitable for learners of secondary stage. Item prepared to be original and to be valued against prescribed criteria for evaluating the specific item. (Better if a visit to maths fair is organized before the work). Item preparation to be done in the class room.	Any book on teaching mathematics.  Carnahan ,Walter H.,(1958). Mathematics Clubs in High Schools : National Council of Teachers of Mathematics .
3	Exceptional children in mathematics	Mathematical giftedness-characteristics-identification-special programmes for mathematically gifted: enrichment program to be discussed in detail. (7hrs) Mathematics Olympiad-purpose-details about its execution-syllabi (3hrs) Slow learner-characteristics-causes and remediation. (5hrs)		Remedial measures for slow learner- content analysis at minute level-simplifying the content-appropriate and adequate learning aids-proper organization of the content. or Intensive/ extensive-challenging- relevant to the learner-related to the content selected. ( To be done as class room activity).	Johnsen,Susan K., Kendrick , James(2005). Math Education for Gifted Students.Texas : Prufrock Press Inc .  Methodology of Teaching Mathematics. The ICFAI University 2004.  Ramanujam, R., & Subramannian, K. (2012). Mathematics Education in India: Status and Outlook (Eds). Homi Bhabha Centre for Science Education, TATA Institute of Fundamental Research. Mumbai.

4	Integrating IT in teaching mathematics	<p>Computer aided teaching- Role of computers in Mathematics teaching –(1hr) E-learning-meaning, advantages, systems (Proprietary&amp;open source),(1hr) E-content-Forms(short learning objects, modules) Modules-meaning, Steps of preparation of module – conceptualization, composition ,script writing, correcting the script, collection of needed materials, preparation of story board, preparation for narration, video shooting and editing the video.(13hrs)</p>	Practice oriented sessions	<p>As class room activity script for a module is to be written under the supervision of teacher educator.</p>	<p>Chambers, P. (2008). Teaching Mathematic-Developing as a reflective secondary teacher. New Delhi: Sage</p> <p>Bruck, P.A.; Buchholz, A.; Karssen, Z.; Zeffass, A. (Eds.), (2005), E-content : Technologies and Perspectives for the European Market, Springer</p> <p>Bruck, Peter A. (Ed.), (2009), Multimedia and E-Content Trends : Implications for Academia, Springer <a href="http://www.cec-ugc.org">www.cec-ugc.org</a>  <a href="http://www.sakshat.ac.in">www.sakshat.ac.in</a>.</p>
5	Competencies of a mathematics teacher	<p>Profession-characteristics- teaching as a profession- Professional growth of teacher- Membership in professional associations- Role of NCERT&amp; SCERT- programmes like research, training, dissemination of educational information:, Printed-newspaper, journals, magazines etc. Internet resources- e journals and e magazines, educational websites. (10hrs )</p> <p>Qualities –general, personal &amp; specific (2hrs) Teacher competencies as listed by NCTE. (13 hrs).</p>	Discussion  Seminar	<p>Check list should include major skills, and competencies of a mathematics teacher, not mentioning the name of teacher. Or Discussion on changing role of teacher to be conducted after library period for preparation- news paper cuttings and other articles are recommended for the discussion to be authentic. A class report on the discussion made is to be kept.</p>	<p>Chambers, P. (2008). Teaching Mathematic-Developing as a reflective secondary teacher. New Delhi: Sage <a href="http://www.oct.ca/standards/standards_of_practice.aspx">http://www.oct.ca/standards/standards_of_practice.aspx</a> <a href="http://www.nbpts.org/userfiles/file/what_teachers.pdf">http://www.nbpts.org/userfiles/file/what_teachers.pdf</a> Any book on teaching mathematics Dave, R.H. (1998). Towards EffectiveTeacher Education. New Delhi:NCTE</p>

# **UNIVERSITY OF CALICUT**

**Re structuring of Curriculum-2012  
Credit Based Semester and Grading System**

## **HANDBOOK FOR TEACHER EDUCATORS (SOCIAL SCIENCES)**

**Programme: Bachelor of Education (B Ed)  
With effect from 2012-13 Academic Year**

**B O A R D O F S T U D I E S  
E D U C A T I O N (U G)**

## EDU 123 METHODOLOGY OF TEACHING SOCIAL SCIENCES

Contact Hours: 75 Hours (Instruction) & 15 hours (process)

Marks : 50 (End semester Examination) & 10 (CE)

CONTENT	SCOPE	REFERENCES
<b>MODULE I (15 Hours)</b> <b>Social Sciences – Preliminary Considerations</b> 1.1 Meaning and Definition of Social Sciences 1.2 Classification of Definitions of Social Sciences by John U Michaelis 1.3 Social Studies Vs Social Sciences 1.4 Scope of Social Sciences 1.5 Semi Social Sciences, Social Sciences and Natural Sciences	<b>Social Sciences – Preliminary Considerations</b> <b>Meaning and definition of social Sciences (4 hours)</b> Social sciences Origin meaning different social sciences synonymous usage of social sciences and social studies <b>Classification of definitions by J U Michaelis (2 hours)</b> Citizenship transmission Social science education Reflective thinking Social criticism and action Personal development <b>Social studies V s Social Sciences (2 hours)</b> Similarities and differences <b>Scope of social sciences (2 hours)</b> Relationships Home, neighbourhood, society, nation, world etc <b>Semi social sciences (2 hours)</b> Ethics, education, philosophy, psychology <b>Social sciences (2 hours)</b> history, economics, political science, sociology etc. <b>natural sciences (1 hour)</b> biology, physics etc	Aggarwal, J.C. (2003). <i>Teaching of Social Studies: A Practical Approach</i> . Mumbai: Vikas Publishing House  Kumar, S.P.K & Noushad, P.P. (2009). <i>Social Studies in the Classroom: Trends and Methods</i> . Calicut University: Scorpio Publishers  Michaelis, J.U & Garsia, J. (2000). <i>Social Studies for Children: A guide to Basic Instruction</i> . New York: Allyn & Bacon  Sills, D.L. (1972) <i>International Encyclopedia of Social Sciences</i> . New York: McMillan  Or any other relevant book
Module 2 (8 hours) <b>Evolution of Social Sciences</b> 2.1 History of Teaching Social Sciences in 20th Century 2.2 Vision of Teaching Social Sciences in NCF(2005) and KCF(2007)	<b>Evolution of Social Sciences History of Teaching Social Sciences in 20th Century (4hours)</b> early development post war development development of social sciences as a core subject	Gross, R.E., Messick, R., Chapin, J.R & Sutherland. (1978). <i>Social Studies for our Times</i> . New York: John Wiley  NCERT(2005) <i>National Curriculum Framework</i> . New Delhi: NCERT





<p>Simulations, Explorations, Investigations and Guided Discovery</p>	<p><b>Problem solving</b> – project vs problem solving – steps – methods of problem solving – principles – advantages and limitations  <b>Project</b> – origin – meaning and definition – principles – steps – reporting – merits and demerits  <b>Source</b> – types of sources – effective use – merits and demerits  <b>Techniques of teaching (4 hours)</b>  <b>Questioning</b> – types – effective use  <b>Role play and simulations</b> – stages and distinction between roleplay and simulations  <b>Exploration</b>  Characteristics  stages  <b>investigation</b>  characteristics  stages  difference between exploration and investigation  <b>guided discovery</b>  characteristics  stages</p>	<p>University: Scorpio Publishers</p>
<p><b>Module 4 (25 hours)</b>  <b>Shift from Behaviorism to Constructivism</b>  4.1 Towards Social Construction of Knowledge  4.2 Constructivist Learning Design –  Cooperative Learning, Metacognitive strategies, Concept Mapping, Reflective Practices  4.3 Objective Based Instruction/Behaviourit Approach</p>	<p><b>Towards Social Construction of Knowledge (6 hours)</b>  Cognitive revolution  Social constructivism  <b>Constructivist Learning Design (3 hours)</b> – situation, grouping, bridging, exhibiting, reflecting  <b>Metacognitive strategies(4 hours)</b>  Planning – monitoring – evaluation  <b>Concept mapping(4 hours)</b>  Novak’s theory  Links and nodes  <b>Reflective practices (4 hours)</b>  Attending to the experiences  Returning to experiences  Reexamining experiences  <b>Objective Based Instruction (6 hours)</b>  Furst Paradigm – interrelationship</p>	<p>Kumar, S.P.K &amp; Noushad,P.P.(2009). <i>Social Studies in the Classroom: Trends and Methods</i>. Calicut University: Scorpio Publishers</p> <p>Freier (1972). <i>Pedagogy of oppressed</i>. Harmondsworth:</p>

<p><b>Module 5 (5 hours)</b>  <b>Present Practices in Social Science Teaching</b>            5.1 Critical Pedagogy and Social Sciences – Problem posing education            5.2 Recent changes in social science teaching in the state of kerala.</p>	<p>of objectives learning experiences and evaluation</p> <p><b>Present Practices in Social Science Teaching</b>  <b>Critical pedagogy and social sciences (3 hours)</b>            Critical pedagogy – basic principles, problem posing education, humanization, praxis etc.  <b>Recent changes in social science teaching in the state of kerala. (2 hours)</b>            MI Based, Constructivist learning, Issue based learning</p>	<p>Penguin</p> <p>SCERT(2007) <i>Kerala curriculum framework</i>.            Trivandrum: SCERT</p>
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PROCESS	DESCRIPTION
<ol style="list-style-type: none"> <li>1. Collect any 5 definitions of social studies and classify them</li> <li>2. Conduct a discussion on the vision of Teaching Social Sciences in NCF(2005) and KCF (2007)</li> <li>3. Select a topic from social sciences and prepare a group project Plan/ Prepare a Script for Role play in groups (a group may consist of minimum 5 trainees)</li> <li>4. Prepare a concept map on any one concept in Social Science Subjects/prepare a list of any five Metacognitive strategies/Reflective Practices</li> <li>5. Prepare a list of any five social issues that can be addressed in social science class</li> </ol>	<ol style="list-style-type: none"> <li>1. Each student should collect at least one definition to social studies and submit in groups. Classify the collected definition in groups based on Michaels’s classification and submit the group report.</li> <li>2. Group of 5 – 6 students should bring a brief note about either KCF( or NCF and conduct Discussion in the class. A report of the group work is to be submitted. Ensure that both the documents are explored.</li> <li>3. Select topics relevant to secondary schools prepare either a group project plan or script for a role play. Project plan/script is to be submitted by each group. Random presentation by two groups – one on project plan and other one on role play</li> <li>4. Each student should prepare and submit a concept map either on school social science subject or any relevant topic of B.Ed Programme/list of five Metacognitive/reflective strategies.</li> </ol>

	5. Prepare a list of five issues in groups of five students and submit. Groups may be asked to rank the social issues relevant to kerala society
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<b>EDU 143 PEDAGOGIC PRACTICES OF SOCIAL SCIENCES</b> Contact Hours: 75 Hours (Instruction) & 15 hours (process) Marks : 50 (End semester Examination) & 10 (CE)		
CONTENT	SCOPE	REFERENCES
<b>Module 1 (20 hours)</b> <b>Aims and Objectives of Teaching Social Sciences</b> 1.1 Contributions of Social Sciences to the Goals of Education 1.2 Conceptual, Inquiry, Skill and Affective objectives of social sciences 1.3 Bloom's Taxonomy of Educational Objectives 1.3 Revised Bloom's Taxonomy 1.4 Multiple intelligences as the objectives of social sciences	<b>Aims and Objectives of Teaching Social Sciences</b> <b>Contributions of Social Sciences to the Goals of Education (3 hours)</b> Thinkin ability – human relationships – economic efficiency – civic responsibility – learning how to learn etc. <b>Conceptual objectives 2 hours)</b> To develop understanding of facts, concepts, generalizations etc <b>Inquiry objectives (2hours)</b> To develop competence in using modes, methods, processes of inquiry etc. <b>Skill objectives (2 hours)</b> Social skills Study skills Group work skills Intellectual skills <b>Affective objectives (2 hours)</b> Feelings Attitudes Values <b>Blooms's Taxonomy of Educational Objectives (5 hours)</b> Cognitive Domain Affective Domain Psychomotor Domain <b>Revised Bloom's Taxonomy (2 hours)</b> Differences from Original Taxonomy Knowledge Dimension Cognitive Process Dimension Taxonomy Table <b>Multiple intelligences as the objectives of social sciences (2 hours)</b> how each intelligence can be an	Bining, A.C & Bining, D.H. (1952) Teaching Social Studies in Secondary Schools. New York: McGraw Hill  Kumar, S.P.K & Noushad, P.P. (2009). <i>Social Studies in the Classroom: Trends and Methods</i> . Calicut University: Scorpio Publishers  Michaelis, J.U & Garsia, J. (2000). <i>Social Studies for Children: A guide to Basic Instruction</i> . New York: Allyn & Bacon  Noushad, P.P & Musthafa, M.N. (2010). Taxonomy Reframed: Educational Objectives for the 21st Century, <i>Edutracks</i> , 9, 16-22  Passi, B.K (1976). <i>Becoming a Better Teacher: A Micro Teaching Approach</i> . Ahamadabad: Sahithya Mundranalya

<p><b>Module 2 (15 hours)</b>  <b>Teaching Skills and Micro Teaching</b>  2.1 Maxims of Teaching  2.2 Core Teaching skills  2.3 Micro Teaching Procedure</p> <p><b>Module 3 (10 hours)</b>  <b>Pedagogic Analysis</b>  3.1 Pedagogic analysis – Meaning and definition  3.2 Analysis of relevant content of social science textbook of Std 8th and 9th</p> <p>Module 4 (15 hours)  <b>Planning of Instruction</b>  4.1 Need and Importance of Planning  4.2 Levels of Planning – Year plan, Unit Plan, Lesson Plan</p>	<p>objective of Social Sciences</p> <p><b>Teaching Skills and Micro Teaching Maxims of Teaching (2 hours)</b>  Simple to complex  Concrete to abstract  Near to far etc.</p> <p><b>Core Teaching skills (4 hours)</b>  Questioning  Explaining  Illustrating with examples  Skill of Black board etc.</p> <p><b>Micro Teaching Procedure (9 hours)</b>  Procedure in micro teaching  Micro teaching Cycle  Preparing micro lesson plans</p> <p><b>Pedagogic Analysis (4 hours)</b>  content analysis - statement of objectives - deciding prerequisites - determining inputs – assignments - activities and evaluation procedures</p> <p><b>Content analysis (6 hours)</b>  In terms of terms, facts, concepts, principles, processes, and generalizations – analysis of a sample content</p> <p><b>Planning of Instruction Needs and importance of Planning(2 hours)</b>  Needs for planning  Needs for lesson planning</p> <p><b>Levels of planning (13 hours)</b>  3 levels and steps  Format of Year plan, Unit plan and lesson plan produced in the SCERT hand Books may be adopted. Sample year plan, Unit plan and lesson plan are to be prepared</p>	<p>Kenworthy, L.S.(1962). <i>Guide to Social Studies Teaching</i>. California: Wordsworth Publishing</p> <p>Green, G.H. (1987). <i>Planning the Lesson</i>. London: Longman</p> <p>Hand books of SCERT</p> <p>Kumar, S.P.K &amp; Noushad,P.P.(2009). <i>Social Studies in the Classroom: Trends and Methods</i>. Calicut University: Scorpio Publishers</p> <p>Or any other releavant book on educational evaluation</p>
<p><b>Evaluation in Social Sciences</b>  5.1 Process Evaluation and Product Evaluation  5.2 Construction of Achievement test and Diagnostic Test</p>	<p>Evaluation of the process and product of projects, seminars, assignment etc</p> <p><b>Construction of Achievement Test – teacher made and standardized tests</b>  Steps  Design – blue print – item writing – question wise analysis – scoring key –</p>	

5.3 Continuous and Comprehensive Evaluation Evaluation of Non-cognitive Domain	marking scheme <b>Diagnostic tests</b> Stages of preparation Difference between AT & DT <b>Continuous and Comprehensive Evaluation</b> <b>Continuous Evaluation</b> Seminars Assignments Collections Projects Internal test etc <b>Comprehensive Evaluation</b> Scholastic Co-Scholastic Personal <b>Evaluation of Non-cognitive Domain</b> Measurement of interests, attitudes, skills etc.	
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PROCESS	DESCRIPTION
1. Prepare Conceptual, inquiry. Skill and Affective objectives of a Topic in Social Sciences  2. Prepare a sample Content analysis /Prepare instructional objectives/Learning Activity/Learning Experience of a Topic from standard 8th or 9 <sup>th</sup>  3. Prepare a Year Plan for a subject in Social Science/Unit Plan for a Unit  4. Prepare a sample of Different Types of Test items on different objectives/ Select a concept in Social Science prepare a diagnostic test	1. A group work of 5 – 6 students. Ensure that different groups work on different topics and submit a group report.  2. Students work in groups of 5 – 6 students for content analysis of a sample topic/ prepare instructional objectives based on NCERT Classification of instructional objectives/ learning experience/ learning activity. Ensure that different groups work on different categories and topics. A group report is to be submitted.  3. A group 5 students should prepare either a unit plan or year plan. Hand books of SCERT for Secondary school social sciences can be used as a guideline.  4. Each student should prepare a minimum of one different forms of test items of students choice and consolidate in groups of five students and submit/ each student should prepare at least two simple question for a diagnostic test on a particular topic and consolidate in groups of 5 – 6 students and submit to the teacher educator

## EDU 163 CURRICULUM & RESOURCES IN SOCIAL SCIENCES

Contact Hours: 75 Hours (Instruction) & 15 hours (process)

Marks : 50 (End semester Examination) & 10 (CE)

Content	Scope	References
<b>MODULE I (15 Hours)</b> <b>Social Science Curriculum</b> 1.1 Principles of Curriculum Construction 1.2 Organizing Social Science Curriculum – Topical, Spiral and Unit Approaches	<b>Social Science Curriculum</b> Meaning and definition of curriculum ( 2 hours) <b>Principles of Curriculum Construction (4 hours)</b>  <b>Organizing Social Science Curriculum – Topical, Spiral and Unit Approaches ( 9 hours)</b> Their relative merits and demerits must be emphasized	Zais, R.M(1977) Curriculum. New York: John Wiley Aggarwal, J.C. (2003). <i>Teaching of Social Studies: A Practical Approach</i> . Mumbai: Vikas Publishing House Yajnik, K.S. (1966). <i>Teaching Social Studies in India</i> . Bombay: Orient Longman  Kochhar, S.K. (2002). <i>The Teaching of Social Studies</i> . New Delhi: Sterling Kumar, S.P.K & Noushad,P.P.(2009). <i>Social Studies in the Classroom: Trends and Methods</i> . Calicut University: Scorpio Publishers
<b>MODULE II (15 Hours)</b> <b>Social Science as a core subject</b> 2.1 Reasons for considering social science as a core subject 2.2 Relationship of Social Sciences with other core subjects 2.3 Fusion, integration and correlation in social sciences	<b>Social Science as a core subject (4 hours)</b> Definition of core subjects Core subjects suggested Secondary Education Commission <b>Relationship with other core subjects ( 6 hours)</b> General science Language Mathematics <b>Fusion, integration and correlation in social sciences ( 5 hours)</b> Fusion, Integration and correlation and their distinction	Bining, A.C & Bining, D.H. (1952) <i>Teaching Social Studies in Secondary Schools</i> . New York: McGraw Hill  Joyce,B & Weil, M. (2003). <i>Models of Teaching</i> (5th Ed.) New Delhi: Prentice Hall
<b>MODULE III (15 Hours)</b> <b>Resources for Teaching/Learning Social Sciences</b> 3.1 Models of Teaching – Concept Attainment, Jurisprudential Inquiry 3.2 Social Science Laboratory 3.3 Social Science museum 3.4 Maps and Globes 3.5 Timelines	<b>Resources for Teaching/Learning Social Sciences</b> <b>Models of Teaching (5 hours)</b> Meaning and Definition Families Elements Description of Concept Attainment and Jurisprudential Inquiry Models <b>Social Science Laboratory ( 2 hours)</b>	Kochhar, S.K. (2002). <i>The Teaching of Social Studies</i> . New Delhi: Sterling Kumar, S.P.K & Noushad,P.P.(2009). <i>Social Studies in the Classroom: Trends and Methods</i> . Calicut University: Scorpio Publishers Aggarwal, J.C. (2003). <i>Teaching of Social Studies: A Practical Approach</i> . Mumbai: Vikas Publishing House

<p><b>MODULE IV (15 Hours)</b>  <b>Social Science Library and other</b>  <b>Reference Materials</b>  4.1 Social Science Library  4.2 Social Science Text Book  4.2 Workbooks, handbooks and reference materials  4.3 Educational websites  4.4 Uses of INFLIBNET  4.5 Edubundu</p> <p><b>MODULE. V (15 Hours)</b>  <b>Selecting and Sequencing Learning activities</b></p>	<p>Objectives  Resources  Uses  <b>Social Science museum ( 2 hours)</b>  Purposes  Classification of materials  Effective utilization  <b>Maps ( 2 hours)</b>  Types  Elements  Uses  <b>Globes (n2 hours)</b>  Types  Advantages  <b>Time lines (2 hours)</b>  Time senses  Devices for developing time sense  Different types of timelines</p> <p><b>Social Science Library and other</b>  <b>Reference Materials</b>  <b>Social Science Library ( 3 hours)</b>  Purposes of library  Types of library materials  How to utilize  Classroom library  <b>Social Science Text Book ( 3 hours)</b>  purposes  Qualities  Advantages  <b>Workbooks, handbooks and reference materials (3 hours)</b>  Uses and advantages of work books  Elements of handbooks uses of handbooks  <b>Educational websites ( 2 hours)</b>  Eric, eduref, funderstanding etc  <b>Uses of Inflibnet ( 2 hours)</b>  Familiarise the INFLIBNET Facility  <b>Edubundu ( 2 hours)</b>  Advantages of using</p>	<p>Clark, L.H.(1973). <i>Teaching Social Studies in Secondary Schools</i>. (2nd Ed.)New York: McMillan.</p> <p>Kumar, S.P.K &amp; Noushad,P.P.(2009). <i>Social Studies in the Classroom: Trends and Methods</i>. Calicut University: Scorpio Publishers  Aggarwal, J.C. (2003). <i>Teaching of Social Studies: A Practical Approach</i>. Mumbai: Vikas Publishing House</p> <p><a href="http://www.eric.ed.gov/">www.eric.ed.gov/</a>  <a href="http://www.funderstanding.com/">www.funderstanding.com/</a>  <a href="http://www.eduref.org">www.eduref.org</a>  <a href="http://www.inflibnet.ac.in/">www.inflibnet.ac.in/</a>  <a href="http://www.edubuntu.org/">www.edubuntu.org/</a></p> <p>Michaelis, J.U. (1976). <i>Social Studies for Children in a Democracy: Recent Trends and Development</i> (5th Edition)New Jersey: Prentice Hall  Kumar, S.P.K &amp; Noushad,P.P.(2009). <i>Social Studies in the Classroom: Trends and Methods</i>. Calicut University: Scorpio Publishers</p>
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5.1 Introductory Activities 5.2 Data Gathering activities 5.3 Organizing and summarizing activities 5.4 Applicative activities 5.5 Creative activities	<b>Selecting and Sequencing Learning activities</b> Prepare activities relevant social sciences at school <b>Introductory Activities ( 3 hours)</b> provide a list of different activities that can be used as introductory activities suitable to the level ask students to prepare <b>Data Gathering activities ( 3 hours)</b> Activities list some activities to collect data from various sources <b>Organizing and summarizing activities ( 3 hours)</b> List of different activities under this category <b>Applicative activities ( 3 hours)</b> List of different activities <b>Creative activities</b> List of activities under this category (Needed to prepare activities suitable for planning instruction)	
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PROCESS	DESCRIPTION
1. Compare the styles of organization of curriculum in 9th standard text books of state and CBSE school syllabus.  2. Identify and List Examples for Fusion, Integration and Correlation in Social Sciences  3. Draw different types of maps of World, India, Kerala and locality /Create a comparative timeline of events in India and world of Modern age/prepare a plan based on any one Model of Teaching 4. Prepare a list 10 of books/Journals in social sciences with all bibliographic details for purchasing to the classroom library/Prepare a Text book Material for a Particular Topic	1. Select a Unit of the Text books of NCERT and SCERT having common content area and compare the unit based on focus and organization of subject matter. The process is to carried out in groups of 5 – 6 students 2. Identify a list of 2-3 examples for fusion, integration and correlation in groups and present randomly to the whole class. The list is to be submitted by the group. 3. Draw a historical/political/physical/economic map of india/ world/ locality by each student and consolidate in to a map book/ prepare a comparative time line the events in India and world by each student and submit. 4. Prepare a list of 10 books with all bibliographic details on history, economics, political science and



5. List any five Applicative/creative/Data Gathering/ Organizing/Summarising activities that can be used in social science teaching	<p>geography in groups / prepare a text book content for a particular theme to secondary school students in groups of 5 -6 students. The text book content should reflect modern pedagogic practices/facilitate process based learning.</p> <p>5. Each student should prepare a list of activities on any one type of activity and finalize them in groups of 5-6 students and submit.</p>
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### EDU 183 PROFESSIONALIZING SOCIAL SCIENCE EDUCATION

Contact Hours: 75 Hours (Instruction) & 15 hours (process)

Marks : 50 (End semester Examination)& 10 (CE)

CONTENT	SCOPE	REFERENCES
<b>MODULE I (10 Hours)</b> <b>Community Resources In Social Sciences</b> 1.1 Important Community resources 1.2 Utilising Community resources in Social Sciences 1.3 Ways of Utilising Community resources	<b>Community Resources In Social Sciences ( 2 hours)</b> What are community resources Importance of community resources <b>Important community resources ( 4 hours)</b> Places of historical interests Places of civic interests Places of scientific interests etc. <b>Utilizing community resources ( 4 hours)</b> – ways of utilizing – bringing school to the community, bringing community to schools	Aggarwal, J.C. (2003). <i>Teaching of Social Studies: A Practical Approach</i> . Mumbai: Vikas Publishing House  Kumar, S.P.K & Noushad,P.P.(2009). <i>Social Studies in the Classroom: Trends and Methods</i> . Calicut University: Scorpio Publishers
<b>MODULE II (10 Hours)</b> <b>Co-curricular Activities in Social Science</b> 2.1 Club activities 2.2 Exhibitions 2.3 Field Trips 2.4 Quiz Competitions	<b>Co-curricular Activities in Social Science( 2 hours)</b> Importance of co-curricular activities <b>Organizing club activities (2 hours)</b> – procedure in organizing <b>How to conduct an exhibition( 2 hours)</b> <b>Field trips ( 2 hours)</b> Types Planning the trip Conducting the trip Evaluating the trip <b>Quiz completions ( 2 hours)</b> Types Steps in organizing	Kumar, S.P.K & Noushad,P.P.(2009). <i>Social Studies in the Classroom: Trends and Methods</i> . Calicut University: Scorpio Publishers  Or any other relevant book

<p><b>MODULE III (10 Hours)</b>  <b>3.Fostering Giftedness and Creativity in Social Sciences</b>  3.1 Higher order thinking skills  3.2 Characteristics of Gifted and creative children  3.3 Fostering giftedness and creativity</p> <p><b>MODULE IV (25 Hours)</b>  <b>IT inputs in Social Science Teaching</b>  4.1 Computer aided teaching  4.2 Using Presentation softwares  4.3 Module Preparation for E content  4.4 Videoconferencing  4.5 learning objects, Free Softwares in  Social Science, IHMC C Map Tools</p>	<p><b>Fostering Giftedness and Creativity in Social Sciences</b>  Meaning and Definition of Gifted and creative children ( 2 hours)  <b>Higher order thinking skills ( 2 hours)</b>  Critical thinking  Problems solving  Logical thinking etc.  <b>Characteristics of Gifted and Creative Children (2 hours)</b>  <b>Fostering giftedness and creativity ( 4 hours)</b>  Learning experiences and special techniques  <b>IT inputs in Social Science Teaching</b>  <b>Computer aided teaching</b>  Uses of computer in planning, instruction and evaluation  <b>Using Presentation software</b>  MS Office - Power point presentation  Linux - Impress  <b>Module preparation for E Content</b>  Objectives  Module  Glossary  Quiz  FAQ  Summary  <b>Video conferencing</b>  Advantages  <b>Learning Objects</b>  A learning object is a collection of content items, practice items, and assessment items that are combined based on a single learning objective.  Learning objects offer a new conceptualization of the learning process: rather than the traditional several hour chunk, they provide smaller, self-contained, re-usable units of learning</p>	<p>Mangal, S.K (1997). <i>Advanced Educational Psychology</i>. New Delhi Prentica Hall of India</p> <p>Or any other relevant book</p> <p><a href="http://cmap.ihmc.us/">http://cmap.ihmc.us/</a>  <a href="http://www.ndlrn.edu.au/">www.ndlrn.edu.au/</a>  <a href="http://www.learningobjects.com/">www.learningobjects.com/</a>  <a href="http://www.edubuntu.org/">www.edubuntu.org/</a>  <a href="http://www.cec-ugc.org/">www.cec-ugc.org/</a></p>
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<b>MODULE. V (20 Hours)</b> <b>Becoming a Professional Social Science Teacher</b> 5.1 Teaching as a profession 5.2 Professional Ethics 5.3 Personal and professional qualities of a Social science teacher 5.4 Ways and means of improving Professionalism.	<b>Free soft wares</b> IHMC Concept Map Tools concept and use <b>Becoming a Professional Social Science Teacher</b> <b>Teaching as a profession</b> Characteristics of a profession Why teaching is considered as a profession <b>Professional ethics</b> Suggested by NCTE can be used <b>Personal qualities</b> Human qualities Integrity etc <b>Professional qualities</b> Subject competence Knowledge of methodology etc	Kumar, S.P.K & Noushad,P.P.(2009). <i>Social Studies in the Classroom: Trends and Methods</i> . Calicut University: Scorpio Publishers <a href="http://www.ncte.org.in">www.ncte.org.in</a>
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PROCESS	DESCRIPTION
1. Make an Observation of a place of historical interest/monument nearer to your residence and prepare a report on it/ Prepare a List of Places of Cultural/Historical// Geographical/Economic/ political/scientific interest of your locality 2. Conduct a quiz competition in the class on a day of national importance/Prepare questions for a quiz programme/Prepare an action plan for social science club 3. Suggest any four learning activities for a creative/gifted child 4. Write a Script for developing an e content for a concept/Make of a multimedia package/short film/very short documentary/ puppetry/prepare a C Map using IHMC CMap Tool on topic relevant to social Sciences 5. Prepare a scholarly article on current issues in education/review a book or journal article/Conduct a discuss on changing role of teacher	1. Students should individually prepare either a report on a place of historical interest near to the locality of the residence or a list consisting of minimum 3 places of cultural/historical/geographical/economic/political/scientific interest. Ensure that different students prepare list on different types of community resources 2. 5 questions may be prepared by each group of 5-6 students and distribute the questions to other groups for answers for conducting quiz competition/ each group of 5-6 students should prepare 5 questions on different areas of the theme of the quiz/ prepare an action plan in group of 5-6 students for a club activity and submit. 3. Individual student should prepare a list of 4 activities and submit 4. Each group of 5 -6 students should complete any one activity and submit the product through written/electronic form. 5. A common topic may be provided for students to prepare an essay/article on the issue by each individual student/review a relevant book/journal article by a group of 5-6 students/ conduct a discussion changing role of teachers

