Syllabus Template (Effective from the Academic Year 2025–2026)

After Approval of the Board of Studies

Sri Ramakrishna Mission Vidyalaya College of Education (Autonomous)

Programme: B.Ed.

A PROFILE

Sri Ramakrishna Mission Vidyalaya College of Education started in 1950, is a premier institution of higher education located near the city of Coimbatore. It is a unit of Ramakrishna Mission Vidyalaya, Coimbatore, which is spread over an area of 300 acres. This institution was the first Autonomous College of Education in India and is affiliated to Tamil Nadu Teachers Education University, Chennai and Reaccredited with A+ Grade by NAAC. The programmes offered by the College are recognised by the National Council for Teacher Education. The College aims at man-making and character-building education as advocated by Sri Ramakrishna, Swami Vivekananda and Mahatma Gandhi.

PROGRAMMES

The College offers a wide range of programmes in education. The details of the programmes are as follows:

- Bachelor Degree in Education (B.Ed.)
- Master Degree in Education (M.Ed.)
- Doctor of Philosophy in Education (Ph.D.)

The B.Ed. programme was started in the year 1950. From 2015 onwards, the one year B.Ed. programme of the college has been restructured as a two year programme consisting of four semesters as per the norms of NCTE and TNTEU.

The programme comprises of three broad curricular areas

1. Perspectives in Education: This theory part (12 courses) consists of core course (11 courses) and one Elective course (select any one from eight).
2. Curriculum and Pedagogical Studies: The course is designed to enable the students to specialize in their school subjects (Pedagogy 1 and Pedagogy 2).
3. Engagement with field – this includes school internship, tasks and assignments, and course on Enhancing Professional Capacities.

Pedagogy I courses offered in the B.Ed. Programme are: Commerce, Computer Science and General English.

Pedagogy II courses offered in the B.Ed. Programme are: Biological Science (Botany and Zoology), Commerce, History, Mathematics, Physical Science (Physics and Chemistry) and Special English.

Master Degree in Education (M.Ed.)

The M.Ed. Programme was started in the year 1964. Till the academic year 2014-2015, the programme was of one year duration. From 2015 onwards, the duration has been increased to two years which spreads over four semesters as per the norms of NCTE and TNTEU. The programme has twelve theory courses, practical aspects classified as Competence Enhancement Practical (CEP) and Performance Enhancement Practical (PEP), internship and dissertation.

Ph.D. Programmes

The College offer Ph.D. (Doctor of Philosophy in Education) degree programme on full-time and part- time basis. The Ph.D. programme were started in the years 1966.

IGNOU Programmes

The college is one of the study centres of IGNOU's distance education programme for B.Ed., M.A. (Edn.)., PGDEMA, PGDPPED, PGDET, PGDSLM and PGCIATIVI.

VALUE ADDED COURSES

The College offers the following Value Added Courses for the benefit of the B.Ed., students. The descriptions of the courses are as follows:

1. Proficiency Course on Spoken English

A compulsory course on Phonetics and Spoken English has been arranged for all the students of the college thrice a week. They are trained with different sub- skills of speaking with varied topics

and situations to use the language. All the modern gadgets are employed meticulously to provide high-tech English climate.

2. Certificate Course in Dynamics of Healthy Child Development

Child Education is the primary field in which the human resource of a nation is built upon. The plurality of Indian way of life and the influence of scientific and western thoughts play their respective role in imparting knowledge and skills of the children. Hence the certificate course in Dynamics of Healthy Child Development has been designed with an idea of equipping teachers in dealing with young children.

3. Certificate Course in Cultural Heritage of India

The course is an earnest attempt to inspire our young people with the ideals of patriotism, love of service, shraddha, dedication and integrity in personal and public life, and to bring out tremendous strength which comes out of purity, character and sustained effort. This certificate course, offered in collaboration with Swami Vivekananda Cultural and Heritage Centre, Coimbatore, is tailored to meet the needs of student teachers who are in pursuit of the glorious cultural heritage of India.

Self-Study Courses

1. Information and Communication Technology

ICT is widely used in our everyday life, and its need is ever-growing in the education sector. Today's classrooms are full of young minds who are technologically conscious. It is necessary that, every teacher should have the awareness and skill in application innovative ICT tools. Hence a self-study course on Information and Communication Technology has been designed to increase learner motivation and engagement by facilitating the acquisition of basic skills, and by enhancing teacher training.

2. Mathematical Reasoning and Aptitude

Mathematics is a critical skill that inculcate logical reasoning and out of the box analytical abilities. Studying Mathematics enable students to get much better at abstract reasoning. Mathematical knowledge and the ability to solve quantifiable problems and utilize critical thinking skills enhance the abilities of students to think and make decisions. Hence a self-study course on Mathematical Reasoning and Aptitude has been designed to prepare the students for competitive examinations and give them insights in analysing, evaluating and creating skills that provide a pathway to new discoveries.

Multidisciplinary Course

A Certificate Course in Physical Activities and Strategies for Inclusive Classroom offered by Faculty of General & Adapted Physical Education and Yoga (GAPEY), Ramakrishna Mission Vivekananda Educational and Research Institute (RKMVERI), Coimbatore, is provided to enhance students' knowledge and practical skills in incorporating physical activities into classroom settings, promoting inclusivity and catering to diverse learning needs of all students.

Scout Masters Training Course

The modern trend in Education spells out various extracurricular development of the learner. The compulsory Scout Masters' training course is provided to all students to bring out their hidden talents and to run Scout troops in their future career as teachers.

Introduction of Internship Certificate Programmes

The Council approved the introduction of TWO Internship certificate Programmes for B.Ed Programme of Sixty-hour duration each, from the forthcoming Academic Year 2025-2026. The list of Internship programmes are as follows

1. Vidyalaya Library Engagement Program (VLEP)

Vidyalaya Library Engagement Program (VLEP) focuses on developing essential skill in Information organization, retrieval and dissemination. The program also emphasizes the promotion of strong reading habits, effective referencing techniques and the cultivation of a research - oriented mindset among students. Furthermore, with the increasing integration of technology in education, VLEP introduces participants to digital resources, library automation, and e-library services, preparing them to navigate and utilize contemporary information systems efficiently.

No.of Hours: 60

Internship Syllabus Components

- Orientation & Induction
- Basic concepts of Academic Library System

- Library Operations and Services
- Academic Resource Print and e- resources
- Applications of library management Software
- Digital Library and ICT Tools
- Hands-on with digitization tools

Evaluation

Upon completion of 60 hours, students receive certificate under Vidyalaya Library Engagement Programme. Course-end tests and assignments become a part of evaluation.

2. ADHYAPANA – Coaching Classes for Economically Weaker Students

The aim of this programme is to provide supplementary education to children from less-privileged rural background to achieve a meaningful level of academic attainment and eventually Progress to further education. The student teachers who are studying Bachelor of Education Programme (B.Ed) in College of Education are assigned to handle the school subjects to students who come for tuition classes, providing them assistance in completing their homework, clarifying their doubts in their subjects, paying more attention to weaker subjects and to provide the children with some educational supplement. This not only helps school children to improve their academic performance but also contribute to the incremental growth of teaching proficiency of student teachers.

No of Hours: 60

Beneficiaries: VI Std- X Std students from economically weaker section / orphans

Number of Days of Implementation : 45 Days

Evaluation:

Upon completion of 60 hours, students receive certificate under Adhyapana – Coaching Classes for Economically Weaker Students Programme.

COMMON FACILITIES AND LABORATORIES

Library and Information Centre

The College library has about 17,000 volumes. In addition to these, hundreds of theses and research reports are available for reference. The college subscribes to about 42 journals and magazines. A collection of educational materials in CD is also available. The facilities offered by the library include Lending, Reference Service, Internet and e-mail Service, Current Awareness Service, and Career Guidance.

Educational Psychology Laboratory

The college has a well-equipped psychology laboratory, which provides practical training to the student teachers and also gives guidance and counselling to children and parents in need. The laboratory has more than 100 tests to assess intelligence, aptitude, creativity and many other personality traits of individuals besides audio and videocassettes on personality development.

Educational Technology Laboratory

The educational technology laboratory of the college has a good collection of educational video films and provides training to students in using multimedia facilities. From its inception, our college has been a pioneer in integrating technology into education, establishing itself as a frontrunner in leveraging technological advancements to enhance learning experiences. Since the early days, our institution has curated a diverse collection of cutting-edge devices, ranging from vintage televisions to state-of-the-art projectors. Embracing innovation, we have utilized cameras, VCD, and VCR players to enrich our educational methods, fostering an environment where students can engage with content in dynamic and interactive ways.

Computer Laboratory

The centralized computer laboratory, with adequate number of computers is used in teaching various computer application. The students are given basic skills in computer operation theoretically and practically with the help of this laboratory.

Work Experience Laboratory

The students have the opportunity to develop socially useful productive work with different materials available here. It also provides exposure to notebook and envelope making skills.

STEM Laboratory

STEM Laboratory established in the College is an educational space that encourage active learning and problem solving. In this laboratory, students develop their Science, Technology, Engineering and Mathematics skills by using technology to create, collaborate and complete

projects - learning and applying knowledge to find new solutions.

Educational Studio

Sri Ramakrishna Mission Vidyalaya College of Education has an educational studio dedicated to crafting high-quality video content. Here, student teachers harness contemporary digital technologies to create immersive e-learning materials for classroom use. The studio is furnished with state-of-the-art cameras, audio-video editing tools, and smart panel boards, alongside essential software. Its purpose extends beyond student education, serving as a training ground for both student-teachers and faculty from the parent institution and neighboring establishments. This resource enriches teaching practices by fostering proficiency in digital tools and enhancing instructional experiences through innovative multimedia content.

Smart Class

Smart class is a technology leveraged to improve the teaching – learning system which has evoked a new environment, new emotion in the classrooms. It is an environment where the teacher is empowered to teach better and student is inspired to learn better than before. Smart class can boast about multimedia, mapped to CBSE, ICSE, State board curriculums, and explains the most difficult concept with easy clarity, bridging the learning gaps between the two stakeholders. It is equipped with exhaustive repository of well researched, digital modules of lessons (consisting of audio-video, 2D and 3D animations and graphics) on almost every subject from KG to class XII.

SUBJECT SPECIFIC LABORATORIES

Language Laboratory

The language laboratory of the college has a good collection of language development materials and tests. A spoken English course is also offered to the students through this laboratory. I1t has electronic materials for listening and speaking, and provides language development training through multimedia.

Computer Laboratory

The college has a separate computer laboratory with appropriate hardware and software to provide training to the students in Pedagogy of Computer Science as well as in-service education to teachers and administrators.

Biological Science Laboratory

The laboratory has all equipment and materials for teaching Botany and Zoology up to class XII. It also provides practical experience to students and staff of nearby schools. The department prepares indigenous teaching kits to be used by the trainees and staff of nearby schools.

Physical Science Laboratory

The laboratory has all equipment and materials for teaching Physics and Chemistry up to class XII. It also provides practical experience to students and staff of nearby schools. The department prepares and distributes low-cost Science kits to schools.

Mathematics Laboratory

The Laboratory has indigenous kit to teach all mathematical concepts to students of primary to higher secondary levels. It also has number of video lessons on various topics on Mathematics and Mathematical puzzles.

History Resource Centre

All kinds of maps to teach History and Geography, pictures of historical places and information on national leaders are available in the resource centre. It also has various models.

Commerce Resource Centre

The Commerce Resource Centre has a collection of gadgets dealing with model bank, management, e -commerce and e -banking, international trade etc., besides video and audio cassettes.

EXTENSION SERVICES DEPARTMENT

This department conducts in-service courses on various topics to update the knowledge of teachers in schools. The department offers subjects and need-based in-service courses for teachers at various levels working in and around Coimbatore district. The department develops a close interaction between the college and the neighbouring schools, which is very vital for the overall development of education. The department organizes various extension services to the society.

PHYSICAL EDUCATION DEPARTMENT

The college has spacious playgrounds for sports and games. Facilities for indoor games are also available in the campus. The department provides information on health, and provides training on officiating and conducting tournaments. The staff recreational activities and indigenous activities for students are the special features of the department. The department also organises a certificate course in Yoga Education and other recreational activities periodically.

HIGHLIGHTS OF STUDENT ACTIVITIES

The student governed parliamentary system is adopted, and different ministers for a term of two months look after the respective activities. They are asked to organise seminars, workshops, educational exhibitions and student association activities. They are encouraged to take part in state and national level seminars, workshops and educational competitions. They help in maintaining the library and laboratories. They donate blood in case of emergency and render service as scribe and readers to blind students. Participation in community work, campus cleaning, cultural programmes and field trips are other activities of our students.

CAMPUS INTERVIEW FOR STUDENTS

The college arranges campus interview for the students every year. Most of the students get employment before completing the programme.

PUBLICATION DIVISION

The publication division of the college publishes a leading quarterly journal, Journal of Educational Research and Extension (JERE), since 1964. This is a notified journal by the Directorate of Collegiate Education and the Director of Public Libraries. The journal is subscribed by more than 200 Universities/Institutes/ members across India and abroad.

RESIDENTIAL FACILITIES

Residential facilities are available for all the B.Ed. students of the college. The hostel in the campus provides decent boarding and lodging facilities for about 140 students and the participants of in-service programmes are accommodated in a separate hostel. Prayer hall, recreation room, reading room, first-aid kit and health care facilities are available for our students. Sufficient quarters are available for all staff provided they wish to stay in campus.

CONSULTANCY SERVICES

Besides teaching, the staffs of the college are also actively engaged in providing consultancy services to schools, and national and international agencies involved in education and special education.

MODEL SCHOOLS

The college uses the following four schools present in the campus as its model schools for the student teachers:

1. Sri Ramakrishna Mission Vidyalaya High School (1930)
2. T A T Kalanilayam Middle School (1940)
3. Swami Shivananda Higher Secondary School (Tamil Medium) (1960)
4. Swami Shivananda Higher Secondary School (English Medium) 1989)

Besides these schools, more than 30 schools in Coimbatore are cooperating with the college in organising practice teaching for the B.Ed. Students.

OTHER INSTITUTES IN THE VIDYALAYA

The Vidyalaya is a huge educational complex spread over an area of 300 acres. In addition to the college and the model schools, the Vidyalaya has several other institutes. They are:

1. Industrial Training Institute (1951)
2. Institute of Agriculture and Rural Development (1956)
3. Polytechnic College (Autonomous) (1956)
4. Maruthi College of Physical Education (Autonomous) (1956)
5. College of Arts and Science (Autonomous) (1964)
6. Ramakrishna Mission Vivekananda Educational and Research Institute(RKMVERI) – Coimbatore Campus
    i. Faculty of Disability Management and Special Education (FDMSE) (2005)
    ii. Faculty of General & Adapted Physical Education and Yoga (GAPEY) (2007)

iii. Faculty Centre for Agricultural Education and Research (FAR) (2014)
iv. Department of Mathematical Science - Department of Computer Science (DCS) (2014)

7. Integrated Rural Development Scheme
8. Swami Vivekananda Cultural and Heritage Centre (2019)

Support Services

1. **Book stall:** A bookstore / sales section disseminates the message of the Holy Trinity through display and sale of Ramakrishna-Vivekananda literatures.

2. **Printing Press:** A modern computerized printing press takes care of almost all the printing needs of Vidyalaya.

3. **Digital Technology Centre:** It takes care of the maintenance and repairs of all computers, printers, scanners, and photography, videography coverage in various institutions of the Vidyalaya.

4. **Maintenance and Repairs Department:** It takes care of practically all the requirements of Vidyalaya, including the construction of new buildings etc.

5. **Dairy and Goatery:** About 30 milch animals are maintained to serve hands-on training to our students of the Institute of Agriculture and Rural Development.

6. **Disabled Trainees' Vocational Production and Rehabilitation Centre:** A Notebook Section has been in operation on the Vidyalaya campus since 1992. Besides catering to the needs of notebooks of our various institutions within the campus, the section takes orders on a selective basis from other institutions as well with the primary objective of providing employment to the economically backward and the physically challenged persons. Notebooks are priced at bare minimum.

7. **Ramakrishna Mission Vidyalaya Charitable Dispensary:** The Charitable Dispensary of Vidyalaya caters to a population of around 8000 students and 800 staff members and their families besides a large number of underprivileged people residing in the surrounding areas. In addition to regular general consultation, the dispensary also offers consultation by specialists in the areas of orthopaedics, neurology, paediatrics, cardiology, gynaecology, diabetes, skin, asthma, dental, ENT, general surgery, etc. On an average, around 150 patients visit the dispensary for consultation every day. As part of the medical services, many free medical camps are organised for the benefit of the underprivileged.

8. **Ramayana Park based on Indian Epic - A Project to Promote Indian Values:** The Ramayana Park has been set up with the aim of taking our ancestors' individual, family, social, ethical, and moral values to the general public. It is structured around the images of twenty-one important personalities of the Ramayana with their respective characteristics. The Park is an innovative and eye-catching attempt, therefore children can have facilities for exercise and recreation, and at the same time cultivate a mind to appreciate the Ramayana's subtle power of developing character, art, and culture. Ramayana with their respective characteristics. The Park is an innovative and eye-catching attempt, therefore children can have facilities for exercise and recreation, and at the same time cultivate a mind to appreciate the Ramayana's subtle power of developing character, art, and culture.

The above facilities are used by the College of Education whenever necessary. In general, the College of Education strives for EXCELLENCE in EDUCATION and INCULCATES VALUES in the students for becoming ideal teachers.

REGULATIONS OF THE B.Ed., DEGREE PROGRAMME

1. Eligibility for Admission

Candidates, with the following marks in the UG Degree are eligible for admission to B.Ed degree programme in the subjects – English, Computer Science, Mathematics, Physics and Biological Science and History. The marks obtained in the UG Degree alone shall be taken to arrive at the eligibility even if they possess PG degree in the same subject.

Community/Category	Minimum Marks
OC	50%
BC/BCM	45%
MBC/DNC	43%
SC/SCA/ST	40%

For Commerce, PG degree with not less than 50% marks is mandatory and the subject in UG and PG shall be one and the same.

The selection and admission procedure is conducted by the Government of Tamil Nadu, through Directorate of Collegiate Education under the single window counselling system.

2. Duration of the Programme

The B.Ed degree programme shall be for a duration of four semesters. Total Number of Working days per semester : 100 days

3. Programme of Study

The programme shall comprise of three broad curricular areas:

1. Perspectives in Education
2. Curricular and Pedagogic Studies
3. Engagement with field

i) **Perspectives in Education:** This theory part (12 courses) consists of core course (11 courses) and one Elective course (select any one from eight).

ii) **Curricular and Pedagogic Studies:** The course is designed to enable the students to specialise in their school subjects (Pedagogy 1 and Pedagogy 2).

iii) **Engagement with field:** This includes school internship, tasks and assignments and course on Enhancing Professional Capacities.

STRUCTURE OF THE TWO YEAR B.Ed., PROGRAMME

Theory and Practical Components

SEMESTER - I										
Course Code	**Course**	**Hours**	**Credits**	**Marks**						
				Theory			**Practical**			**G Total (T+P)**
				Int	**Ext**	**Total**	**Int**	**Ext**	**Total**	
Group A - Perspectives in Education										
B1 CC 01	Educational Philosophy in Indian Context	45	3	50	50	100				100
B1 CC 02	Learner and Learning –I	45	3	50	50	100				100
B1 CC 03	School Organization and Institutional Planning	45	3	50	50	100				100
B1 CC 04	Evaluation, Elements of Statistics and Research	60	4	50	50	100				100
Group B : Curriculum and Pedagogical Studies										
Pedagogy I (Any One)										
B1 P1 11	Pedagogy of English – Paper I	60	4	50	50	100				100
B1 P1 21	Pedagogy of Computer Science – Paper I									
B1 P1 31	Principles of Commerce and Accountancy Education – Paper I									
Pedagogy II (Any One)										
B1 P2 11	Pedagogy of Biological Science – Paper I	60	4	50	50	100				100
B1 P2 21	Pedagogy of Commerce and Accountancy – Paper I									
B1 P2 31	Pedagogy of Special English – Paper I									
B1 P2 41	Pedagogy of History – Paper I									
B1 P2 51	Pedagogy of Mathematics – Paper I									
B1 P2 61	Pedagogy of Physical Science – Paper I									
	Total (Theory)	**315**	**21**	**300**	**300**	**600**				**600**
B1 EPC 1	Utilizing Library and Digital Learning Resources	30	1				50		50	50
	Orientation	15								
	Preparation to School Internship, Record Works and Other Activities	180	6							
	Micro Teaching Record - Pedagogy Course I						20		20	20
	Micro Teaching Record - Pedagogy Course II						20		20	20
	Digital Proficiency Record						20		20	20
	Identifying and Analysing the Diverse Needs of Learners						20		20	20
	Socially Useful Productive Work (SUPW)						20		20	20
	Total (Practical)	**225**	**7**				**150**		**150**	**150**
	G – Total (Theory +Practical)	**540**	**28**	**300**	**300**	**600**	**150**		**150**	**750**

SEMESTER - II										
Course Code	**Course**	**Hours**	**Credits**	**Marks**						
				Theory			**Practical**			
				Int	**Ext**	**Total**	**Int**	**Ext**	**Total**	**G Total (T+P)**
Group A - Perspectives in Education										
B2 CC 05	Emerging Challenges in Indian Education	60	4	50	50	100				
B2 CC 06	Learner and Learning –II	60	4	50	50	100				
B2 CC 07	Educational Technology	60	4	50	50	100				
B2 CC 08	Peace Education	60	4	50	50	100				
Group B: Curriculum and Pedagogical Studies										
Pedagogy I (Any One)										
B2 P1 12	Pedagogy of English – Paper II	60	4	50	50	100				
B2 P1 22	Pedagogy of Computer Science – Paper II									
B2 P1 32	Principles of Commerce and Accountancy Education – Paper II									
Pedagogy II (Any One)										
B2 P2 12	Pedagogy of Biological Science – Paper II	60	4	50	50	100				
B2 P2 22	Pedagogy of Commerce and Accountancy - Paper II									
B2 P2 32	Pedagogy of Special English – Paper II									
B2 P2 42	Pedagogy of History – Paper II									
B2 P2 52	Pedagogy of Mathematics – Paper II									
B2 P2 62	Pedagogy of Physical Science – Paper II									
	Total (Theory)	**360**	**24**	**300**	**300**	**600**				**600**
B2 EPC 2	Drama and Art in Education	30	1				50		50	**50**
B2 EPC 3	Health, Physical Education and Yoga	30	1				50		50	**50**
	School Internship-Phase I, Record Works and Other Activities	180	6							
	Observation Record - Pedagogy Course I						25		25	**25**
	Observation Record - Pedagogy Course I						25		25	**25**
	Innovative School Visit Record						25		25	**25**
	Techno Pedagogical Competency Record						25		25	**25**
	Total (Practical)	**240**	**8**				**200**		**200**	**200**
	G – Total (Theory +Practical)	**600**	**32**	**300**	**300**	**600**	**200**		**200**	**800**

SEMESTER - III										
Course Code	**Course**	**Hours**	**Credits**	**Marks**						
				Theory			**Practical**			
				Int	**Ext**	**Total**	**Int**	**Ext**	**Total**	**G Total (T+P)**
Group B: Curriculum and Pedagogical Studies										
Pedagogy I (Any One)										
B3 P1 13	Pedagogy of English – Paper III	60	4	50	50	100				100
B3 P1 23	Pedagogy of Computer Science – Paper III									
B3 P1 33	Principles of Commerce and Accountancy Education – Paper III									
Pedagogy II (Any One)										
B3 P2 13	Pedagogy of Biological Science - Paper III	60	4	50	50	100				100
B3 P2 23	Pedagogy of Commerce and Accountancy – Paper III									
B3 P2 33	Pedagogy of Special English – Paper III									
B3 P2 43	Pedagogy of History – Paper III									
B3 P2 53	Pedagogy of Mathematics – Paper III									
B3 P2 63	Pedagogy of Physical Science – Paper III									
	Total (Theory)	**120**	**8**	**100**	**100**	**200**				**200**
	School Internship – Phase II, Record Works and Other Activities	420	14							
	Teaching Competency - Pedagogy Course I						100		100	
	Lesson Plan Record - Pedagogy Course I						20		20	
	Instructional Aids - Pedagogy Course I						20		20	
	Mentor Assessment in Internship School Record - Pedagogy Course I						10		10	
	Teaching Competency - Pedagogy Course II						100		100	
	Lesson Plan Record - Pedagogy Course II						20		20	
	Instructional Aids - Pedagogy Course II						20		20	
	Mentor Assessment in Internship School Record - Pedagogy Course II						10		10	
	Total (Practical)	**420**	**14**				**300**		**300**	**300**
	G – Total (Theory + Practical)	**540**	**22**	**100**	**100**	**200**	**300**		**300**	**500**

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SEMESTER - IV										
Course Code	Course	Hours	Credits	Marks						
				Theory			Practical			
				Int	Ext	Total	Int	Ext	Total	G Total (T+P)
Group A - Perspectives in Education										
B4 CC 09	Curriculum Development and Instruction	60	4	50	50	100				100
B4 CC 10	Educational Management	60	4	50	50	100				100
B4 CC 11	Development of Moral and Social Values	60	4	50	50	100				100
Group B : Curriculum and Pedagogical Studies										
Pedagogy I (Any One)										
B4 P1 14	Pedagogy of English – Paper IV	60	4	50	50	100				100
B4 P1 24	Pedagogy of Computer Science–Paper IV									
B4 P1 34	Principles of Commerce and Accountancy Education – Paper IV									
Pedagogy II (Any One)										
B4 P2 14	Pedagogy of Biological Science – Paper IV	60	4	50	50	100				100
B4 P2 24	Pedagogy of Commerce and Accountancy – Paper IV									
B4 P2 34	Pedagogy of Special English – Paper IV									
B4 P2 44	Pedagogy of History – Paper IV									
B4 P2 54	Pedagogy of Mathematics – Paper IV									
B4 P2 64	Pedagogy of Physical Science– Paper IV									
Electives (Select any one)										
B4 EL GC	Guidance and counselling	60	4	50	50	100				100
B4 EL SE	Introduction to Special Education									
B4 EL DM	Disaster Management									
B4 EL CS	Communication Skills									
B4 EL DR	Diagnostic and Remedial Teaching									
B4 EL EE	Environmental Education									
B4 EL PE	Physical Education									
B4 EL EL	E-Learning Technology									
	Total (Theory)	**360**	**24**	**300**	**300**	**600**				**600**
B4 EPC 4	Development of Inner Self and Professional Identity (DISPI)	30	1				50		50	50
	Record Works and Other Activities	90	3							
	Yoga and Physical Education Record						25		25	25

	Library Use Record						25		25	25
	Psychology Experiment Record						25		25	25
	Case Study Record						25		25	25
	Test and Measurement Record						25		25	25
	Organising Cultural and Student Association Activities Record						25		25	25
	CCE and EMIS Record						20		20	20
	Experiential Learning with Special Needs Children Record						20		20	20
	Camp Record						20		20	20
	Working with Community Record						20		20	20
	Massive Open Online Courses (MOOC) Record						20		20	20
	Practical (External)							50	50	50
	Total (Practical)	**120**	**4**				**300**	**50**	**350**	**350**
	G – Total (Theory +Practical)	**480**	**28**	**300**	**300**	**600**	**300**	**50**	**300**	**950**

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After Approval of the Board of Studies

Sri Ramakrishna Mission Vidyalaya College of Education (Autonomous)

Programme: B.Ed.

ABSTRACT

Subject	Hours	Credit	Internal	External	Total
Orientation	15				
Theory	1155	77	1000	1000	2000
Practical 1	120	4	200		200
Practical 2	870	29	750	50	800
Total	**2160**	**110**	**1950**	**1050**	**3000**

* Value Added and Self Study courses are non-credit courses.

PRACTICALS

Practical activities are an integral part of the Bachelor of Education (B.Ed) programme. These are aimed at developing competency in student teachers. Through these practical activities, they acquire skills and develop favourable attitude towards the teaching profession.

The practical activities for the two-year B.Ed programme of the college have been classified as Practical I and Practical II. The following practical activities are carried out in the four semesters of the B.Ed programme of Sri Ramakrishna Mission Vidyalaya College of Education.

Practical I

The practical of the following four courses constitute Practical I. Theory for these courses are also dealt in detail in the class.

- Utilizing Library and Digital Learning Resources
- Drama and Art in Education
- Health, Physical Education and Yoga
- Development of Inner Self and Professional Identity (DISPI)

Practical II

i) School Internship

ii) Records to be prepared during the programme of study:

1. Micro Teaching Record - Pedagogy Course I
2. Micro Teaching Record - Pedagogy Course II
3. Digital Proficiency Record
4. Identifying and Analysing the Diverse Needs of Learners
5. Socially Useful Productive Work (SUPW)
6. Observation Record - Pedagogy Course I
7. Observation Record - Pedagogy Course II
8. Innovative School Visit Record
9. Techno Pedagogical Competency Record
10. Massive Open Online Courses (MOOC) SWAYAM - Record
6. Teaching Competency - Pedagogy Course I
7. Teaching Competency - Pedagogy Course II
8. Lesson Plan Record - Pedagogy Course I
9. Lesson Plan Record - Pedagogy Course II
10. Instructional Aids - Pedagogy Course I
11. Instructional Aids - Pedagogy Course II
12. Mentor Assessment in Internship School Record - Pedagogy Course I
13. Mentor Assessment in Internship School Record - Pedagogy Course II
14. Yoga and Physical Education Record
15. Library Use Record
16. Instructional Aids - Pedagogy Course II
17. Mentor Assessment in Internship School Record - Pedagogy Course I
18. Mentor Assessment in Internship School Record - Pedagogy Course II

19. Yoga and Physical Education Record
20. Library Use Record
21. Psychology Experiment Record
22. Case Study Record
23. Test and Measurement Record
24. Organising Cultural and Student Association Activities Record
25. CCE and EMIS Record
26. Experiential Learning with Special Needs Children Record
27. Camp Record
28. Working with Community Record
29. Massive Open Online Courses (MOOC) Record

4. Scheme of Examination

There will be a total of 12 theory courses (11 core courses and 1 elective course) spread over four semesters under the area 'Perspectives in Education' and 8 theory courses in Pedagogy subjects under the area 'Curriculum and Pedagogic Studies'. Each theory course consists of 50 marks for internal and 50 marks for external assessment.

The various items of practical will run continuously during four semesters and will be assessed continuously, internally and externally. At the end of the programme, there will be an external examination for each candidate by a suitably constituted board of supervising examiners to increase credibility.

5. Criteria for the Award of Internal Marks

The internal marks of 50 for each course will be awarded as per the following classification:

a.	Continuous Internal Assessment Test – 1	10 marks
b.	Continuous Internal Assessment Test – 2	10 marks
c.	Model Examination	10 marks
d.	Assignments	10 marks
e.	Seminar/Quiz/Pedagogy based activities	10 marks

6. Passing Minimum

The Grades for each course would be decided on the basis of the percentage marks obtained at the end-semester external and internal examinations as per following table:

Percentage	Grade Point	Letter Grade	Description	Classification of Final Result
85 & above	8.5-10.0	O	Outstanding	First class with Distinction
70-84.99	7.0-8.49	A+	Excellent	
60-69.99	6.0-6.99	A	Very Good	First Class
55-59.99	5.5-5.99	B+	Good	High Second Class
50-54.99	5.0-5.49	B	Average	Second Class
Below 50	0.0	RA	Re-Appearance	Re-Appear
	0	AB	Absent	

The Semester Grade Point Average (SGPA) is calculated as:

SGPA = Sum of Credit Grade Points of all courses of the semester) / total credit of the semester.

A candidate shall be declared to have passed the B.Ed degree examination if he passes in all the theory courses and the practical.

A candidate who fails in one or more of the written course may present himself at subsequent examination in such courses only in which he has failed.

7. Improvement of Marks

Those who desire to improve their marks in the external assessment may do so by reappearing for the courses. They may apply to the college in the prescribed form and pay the prescribed fees. If they score more marks than what they had already scored, a new mark sheet will be issued stating the improvement. Otherwise the old mark sheet will continue to be valid.

a. Those who desire to improve their marks in the internal assessment may be permitted to do so by rejoining the college that semester and by taking the prescribed tests etc. They will have to apply in the prescribed form and pay the prescribed fees. In the case of candidates who show improvement, a new mark sheet will be issued showing the improved marks. Otherwise the old mark sheet will continue to be valid.

b. Those who desire to improve their marks in the internal assessment may be permitted to do so by rejoining the college that semester and by taking the prescribed tests etc. They will have to apply in the prescribed form and pay the prescribed fees. In the case of candidates who show improvement, a new mark sheet will be issued showing the improved marks. Otherwise the old mark sheet will continue to be valid.

DETAILS OF PRACTICAL ACTIVITIES

A. PRACTICAL I: ENHANCING PROFESSIONAL CAPACITIES (EPC)

Throughout the B.Ed., programme several specialised courses are offered to enhance the professional capacities of a student-teacher. The EPC courses are internally assessed and the practicals of the following four courses constitute Practical I. Theory for these courses are also dealt in detail in the class.

- Utilizing Library and Digital Learning Resources
- Drama and Art in Education
- Health, Physical Education and Yoga
- Development of Inner Self and Professional Identity (DISPI)

Utilizing Library and Digital Learning Resources

This course is designed to enable student teachers understand various information sources and their uses in teaching- learning process and to know various library services for effective access to library resources.

Drama and Art in Education

Drama and art can play a significant role in moulding one's personality. This course equips the student teachers with the theory and practicals in vocal music and drama.

Health, Physical Education and Yoga

This course is designed to enable student teachers learn good health habits and health services; Learn basic skills, rules and regulations of few games; have awareness of the need and importance of physical education and to understand the benefits of Yoga in one's life.

Development of Inner Self and Professional Identity (DISPI)

This course is designed to enable student teachers develop skills for professional identity, acquire social-relational sensitivity and understand about human self and personality.

B. PRACTICAL II: SCHOOL INTERNSHIP AND OTHER PRACTICAL ACTIVITIES

I. School Internship

School Internship is an important part of the B.Ed., curriculum. School Internship is designed to lead to development of a broad repertoire of perspectives, professional capacities, teacher sensibilities and skills. It is an opportunity for the practising teachers to develop the required skills and methods of teaching. Before the commencement of the practice teaching for the student teachers, the faculty/ experts in subject areas arrange at least two demonstration lessons for each of the two pedagogy subjects offered by the college. All student teachers should attend these preparatory demonstration classes without fail.

Internship will be for a minimum duration of 20 weeks (4 weeks in the first year and 16 weeks in the second year). This includes, observing a regular classroom with a regular teacher and peer observation for a duration of 4 weeks during the first year of the programme.

The student teachers start teaching lessons under the direct supervision of the guide teachers for a duration of 16 weeks during the second year of the programme. They are expected to teach a minimum of two periods per day covering a maximum of forty lesson plans for each pedagogical course. The mentor of each pedagogy course and the teacher educators for the pedagogy courses concerned will observe the practice sessions of student teachers.

Every student teacher is expected to serve as one of the teachers of the concerned school and integrate himself with the school system during the teaching practice. Besides playing the role of the subject teacher, the student teacher may also have to serve as a substitute teacher, organiser of functions in the school, teacher aide in the laboratories, during tests and examinations, etc. These experiences contribute to the overall development as a teacher rather than just possessing teaching competencies. The faculty members concerned visit the student teachers from time to time and guide them solve problems, if any.

The supervising faculty members of the college check the following aspects during the practice teaching of the student teachers.

1. Lesson Plans
2. Classroom Teaching
3. Observation Notes/Records
4. Teaching Aids Prepared by the Student Teachers
5. Diary of Events of Student Teachers, and
6. Overall Performance of the Student Teachers

II. OTHER PRACTICAL ACTIVITIES / RECORDS

1. Micro Teaching Record – Pedagogy Course I and II

Micro teaching skills are demonstrated by the faculty and then practised by the student teachers during the first semester. Each student teacher must attend the demonstration classes without fail. Eight micro-teaching skills are practised by the college for demonstration and practice. The student teachers have to write one lesson plan for each of the eight micro teaching skills. They must prepare micro teaching record before they go for (macro) teaching practice in second phase of internship.

2. Digital Proficiency Record

All student teachers are exposed to computer applications and contemporary digital tools to be used in curriculum transaction. They are expected to prepare a record on various learning experiences in this aspect. They should describe how the different digital tools and software mastered by them could be used in schools to promote digital literacy among students.

The content of the programme include the proficient usage of

i. Google Products and Services such as Google Classroom, Google Meet, Google Docs, Google Sheets, Google Slides, Google Forms, etc.
ii. Blogs and Google Sites
iii. Kahoot and Padlet

3. Identifying and Analysing the Diverse Needs of Learners (IADL) Record

The purpose of this record is to make student teachers aware of identifying and analysing the diverse needs of learners. Identifying and analysing learner needs is a powerful facilitation skill that can assist student teachers at the start of any learning journey. The insights gained can be used to customize instructional strategies that enable learners to reach and exceed personal as well as curricular objectives. While it is easier to elicit and reconcile cognitive and psychomotor learner needs, outstanding facilitation also weaves social and affective needs into instruction. All the student teachers are expected to submit a record on various methods/strategies applied to identifying the different learning needs of students, application of various strategies and suitable remedial measures to fulfil the needs of students.

4. Socially Useful Productive Work (SUPW) Record

The purpose of this activity is that the student teacher must develop a sense of responsibility by rendering any productive service that is useful to the society. All student teachers are expected to participate in at least six activities including community work and produce any materials that are useful to the society. The student teachers have to prepare a record on these activities in addition to produce them in minimum quantity.

5. Observation Record – Pedagogy Course I and II

During the First Phase of 4-week School Internship in the first year of B.Ed., programme the student teachers have to observe the classes handled by the subject teachers of the school concerned till the end of the first phase of internship. Therefore, a total of 20 observations for each pedagogy course should be made during the first phase of internship.

During the Second Phase of 16-week school internship (teaching practice), an initial phase of one week is allotted for observing a regular classroom with a regular teacher and would also include peer observations, teacher observations and faculty observation of practice lessons.

Besides the observations made by the student teachers for the specified first week, they have to observe the classes handled by the teachers of the schools concerned till the end of the practice teaching. Each student teacher has to observe ten sessions/ classes handled by the regular teachers of the schools concerned and ten sessions/ classes handled by the fellow student teachers and therefore a total of 20 observations for each pedagogy course should be made during the first phase of internship. The observations made by the student teachers should properly be recorded in the format given by the college.

6. Innovative School Visit Record

As part of curriculum all student teachers have to visit innovative schools to develop an understanding of what an innovative school is, by observation, interview and field visit methods of enquiry. All students are expected to visit Five innovative schools following different curriculum (minimum three schools) to observe the innovative practices followed in curriculum, methods of instruction, infrastructure administration, and assessment and evaluation techniques. The observations made by the student teachers should properly be recorded in the prescribed format.

The Innovative School Visit Record shall contain the following content.

i. Introduction
ii. Definition of Innovation
iii. Types of Schools
iv. Need of Innovative School Visit
v. Components in Innovative School Visit
vi. Innovative School-1
vii. Innovative School-2
viii. Innovative School-3
ix. Discussion
x. References

7. Techno Pedagogical Competency Record

The purpose of this record is to enhance the professional capacities of a student teachers in integrating modern digital tools for effective teaching and learning in technology enhanced classroom. Student teachers should know about the advanced techno pedagogy tools that can be used in the classroom teaching learning process. Detailed instruction on the different digital technological tools and its applications in teaching is given by the faculty member concerned and the pedagogy teachers. Some of the Techno Pedagogy Tools and techniques that can be explained in the record may be as follows.

i. Preparation of Digital Lesson Plan
ii. Screen Recording
iii. Simulation Software
iv. Subject Specific Video Content creation using Augmented Reality (AR) & Mixed Reality (MR)

8. Massive Open Online Courses (MOOC) SWAYAM Record

All the student teachers are expected to complete One (1) Massive Open Online Courses (MOOC) that provide an affordable and flexible way to learn new subjects, enhance their skills and advance their academic career during the B.Ed., programme. The course should be related to the areas of their pedagogical subjects/Education and should be completed from any standardised organisation like SWAYAM/ NPTEL/ Coursera/ Commonwealth of Learning and UDEMY etc., (before the commencement of External Practical examinations). The course completion certificates for both the first and second year need to be submitted along with the record prescribed by the concerned faculty member on the specified time.

9. Teaching Competency – Pedagogy Course I and II

The teaching competence of the student teachers are assessed by observing their teaching and marks will be awarded based on the following metrics.

i. Lesson Plan
ii. Subject Competence
iii. Explanation, Illustration, Question and Answers
iv. Communication
v. Method of Teaching
vi. Utilisation of Instructional Aids
vii. Classroom Management
viii. Personality and Attitude

10. Lesson Plan Record - Pedagogy Course I and II

The student teachers are exposed to different approaches being followed in writing the lesson plans. Though the college encourages variety and creativity in writing lesson plans, the following areas must be emphasised in each lesson plan.

i. Objective of the Lesson to be Taught
ii. Motivation / Introduction
iii. Presentation of the Content/Teaching Points
iv. Learning Experiences (Teacher Activities and Student Activities)
v. Instructional Aids and Devices to be used
vi. Expected Outcome of Each Learning Activity
vii. Evaluation of Each Learning Activity
viii. Recapitulation
ix. Follow up

All the student teachers should prepare a minimum of 40 lesson plans for each pedagogy course in the whole period of second phase of internship programme.

11. Instructional Aids – Pedagogy Course I and II

Instructional aids are vital tools to enhance the learning of basic concepts. They play a significant role in the teaching and learning of pupils. The difficulties encountered by the pupils in understanding a concept can be overcome by the correct use of instructional aids. These aids are prepared by the student teachers in the light of specific nature and requirement of the subjects concerned. The student teachers should present the following instructional aids at the time of Practical Examination.

a. Charts

Charts usually depict the gist of a theme/lesson/ topic. It should be used by the student teacher to supplement his teaching. The standard size of the chart should be 70 cm (length) x 55 cm (breadth). The charts may contain the following:

i. Diagrams
ii. Match stick drawings
iii. Substitution table
iv. Pictures
v. Teaching points

Student teachers are expected to prepare the charts during the school internship. They have to create a minimum of 40 charts (20 in each pedagogical course) on their own and should get them signed by the guide teacher.

b. Three Dimensional Aids

The main objective of three dimensional aids is to provide concrete learning experiences to be taught. These aids are of immense use when the two dimensional picture or the drawings do not give a clear idea to the pupils. The student teachers are expected to prepare a minimum of Four 3D models (Two in each pedagogical course).

c. Working Model

This is an action oriented teaching aid. It increases the curiosity of the learners and helps them learn better in an interactive way. The student teachers are expected to prepare at least Four working models (Two in each pedagogical course).

d. Flannel Board and Cutouts

Flannel board provides a unique basis for presentation of ideas and facts. The main purpose of preparing this aid is to have quick rearrangement of small units to be taught to the pupils. When the cut outs of pictures, drawings, signs, symbols are backed with strips of sandpaper, they will adhere to the board. The student teachers have to prepare Two cut outs of this type in pedagogy I and II to work on the flannel board.

e. Flash Cards

Flash cards are also used to present information in small pieces that will lead to the comprehensive understanding of a particular subject/theme. They are used to teach vocabulary /structure, etc. Information may be given to the pupils as per the requirement and nature of the subject. The student teachers are expected to prepare at least 20 Flash cards irrespective of the pedagogical courses.

f. Album

Album may be of thematic type. It means a series of pictures helping the learner to develop an overall idea or concept. The student teacher has to collect at least 30 pictures/ photos/sayings/newspaper cuttings etc., to give holistic idea of the theme selected by the student teachers. The themes may be one or two depending on the nature of the subject. The student teachers can have discussion with the staff concerned for selecting a theme for preparing albums in pedagogy I and II.

g. Pedagogy Specific Teaching Aids

i. Phonetic Script (for student teachers of English – Pedagogy I): The objective of phonetic script is to develop the efficiency of transcribing (writing the phonetic symbols) among the student teachers. Every student teacher is expected to prepare the phonetic script of any passage from the English Reader of either IX or X standard.

ii. Flow Chart (for student teachers of Computer Science – Pedagogy I): The objective of preparing a Flow chart is to develop the efficiency of the student teachers to prepare schemata for programmes developed by them. Each student teacher is expected to prepare at least 10 programmes and develop flowcharts for each one of them.

iii. E-Commerce Collections (for students of Commerce – Pedagogy I): The students of Commerce Pedagogy subject are expected to collect a minimum of 5 materials regarding e-commerce that can be used with commerce students in school.

iv. Similarly, Pedagogy specific Teaching Aids may include Herbarium and aquarium for Bio-Science, Measurements for Physical Science, 3D Shapes and Geoboard for Mathematics and Maps and Globes for History. Real objects can also be effectively used to teach related ideas/ concepts in all Pedagogic Subjects.

Mentor Assessment in Internship School Record - Pedagogy Course I and II The mentorship makes the feedback more effective in modelling the intern student teachers into a professional. A mentor teacher in internship school is capable of creating a more transparent environment, where the student teacher can freely approach them and for their guidance and assistance in teaching learning process. It helps in creating a sense of belonging. This is crucial, as it boosts the student teaching performance in teaching. The mentor is supposed to assess the student teachers' competency, skills, teaching aids used, classroom behaviour, participation of pupils etc., and provides assessment marks. The student teachers have to submit the mentor assessment and feedback in the prescribed format from the mentor concerned of Pedagogy course I and Pedagogy course II from the internship schools.

12. Yoga and Physical Education Record

This record should contain descriptions of the history and concept of Yoga, Astanga Yoga, procedures and benefits of Suryanamaskar, Asanas (5 Asanas in each positions) and Pranayamas. Also, at least five value based games and two major games are to be described. The Description of each game should include the theory, rules and ground lay out of the game. The pictures, diagrams, cut outs, etc., depicting the health education activities should be given in the record. Preparation of an album on health and physical education is desirable.

13. Library Use Record

A good use of the Library makes the learner up-to-date with information explosion. The student teachers' use of library references, following library procedures etc., will be given credit at the end of the year.

14. Psychology Experiments Record

The primary objective of psychology record is to expose the student teachers to the procedures of conducting various experiments in Psychology directed towards the study of behavioural changes of the pupils. Each student teacher is expected to do at least 10 experiments and the maximum may be 12. The following are the experiments to be done by the student teachers.

Attention

- Span of attention
- Distraction of attention
- Division of attention (Physical activities)
- Division of attention (Mental activities)

Memory

- Immediate Memory span
- Memory for meaningful and meaningless stimuli
- Span of Memory- Auditory Stimuli.
- Power of recall for meaningful and Meaning less stimuli

Learning

- Transfer of Training
- Influence of Knowledge of results on learning

Intelligence

- Assessment of Intelligence using Alexander Pass along Test

Habit Formation

- Habit Interference

Concept Formation

- Concept Formation

Attitude

- Measuring Attitude for Value Development

Aptitude

- Differential Aptitude Test (DAT)
- Teacher Aptitude Test (TAT)

Creativity

- Assessment of Creativity
- Study of Creativity

Assessment of Reasoning Ability Measuring

Emotional Maturity

Measure of Teacher Values

Effect of Feedback

15. Case Study Record

Case study is considered as a diagnostic technique. During the teaching practice programme, each student teacher should do three case studies of those who have notable problems either in learning or in their adjustment to the environment.

Case study of a pupil should include information on family background, aspirations of parents, aspirations of the pupil, academic potentiality, social adjustment, emotional adjustment, reaction of the regular teacher, attitude of the peers and predictions of the student teacher. The information for the case study should be collected in such a way that it will suggest an intervention programme for the pupil to overcome his/her problems. The guide teacher should approve of and the student teacher should submit this record at the end of the II phase of the teaching practice programme.

16. Test and Measurement Record

The student teachers are expected to prepare One Test and Measurement Record for Pedagogy course I and Pedagogy course II. The record should contain information on constructing test items, blue prints of the question papers used for tests, interpreting the results of the test/examination, principles of testing and evaluation, etc. This record should contain the following.

i. Definitions of Test and Measurement
ii. Characteristics of a Good Test
iii. Different Types of Tests
iv. Construction of a Test - Blue Print
v. Question Paper
vi. Scoring and Answer Key
vii. Frequency Table
viii. Histogram, Bar Diagram and Frequency Polygon
ix. Range, Mean, Median, Mode
x. Quartile Deviation, Standard Deviation
xi. Score Sheet
xii. Rank Correlation
xiii. Conclusion

All the student teachers are expected to collect the answer sheets of the students and submit them along with the question papers of both Pedagogy Course I and Pedagogy Course II prepared by him to the staff in charge after the internship is completed. This should be submitted along with the record.

17. Organising Cultural and Student Association Activities Record

The student teachers are expected to actively participate in at least 10 cultural events and /or in student association activities during the academic year. The record should contain information on a) how the activities are organised, b) how actively they engaged in cultural and other activities and c) what educational values are derived.

18. CCE and EMIS Record

The student teachers are expected to prepare CCE & EMIS Record. The record should contain information on the components of Continuous and Comprehensive Evaluation (CCE), list of Formative Assessment [FA(a)] activities for each pedagogy subject, model question papers for FA(b) and Summative Assessment [SA], CCE data's collected from practiced school, components of Educational Management Information System (EMIS) system followed in school education, etc. This record should contain the following:

i. Introduction of CCE
ii. Components of CCE
iii. List of FA(a) Activities
iv. FA(b) – Model Question Paper
v. SA – Model Question Paper
vi. Grading Calculation
vii. Subject Teacher Evaluation Format (Data for minimum 10 students should be collected from the school)

viii. Class Teacher Evaluation Format (Data for minimum 10 students should be collected from the school)
ix. Co-scholastic Evaluation Format (Data for minimum 10 students should be collected from the school)
x. Introduction of EMIS
xi. EMIS School Portal
xii. EMIS Teacher Portal
xiii. EMIS Students Exam Portal
xiv. TNSED App

19. Experiential Learning with Special Needs Children Record

The purpose of this record is to make student teachers to identify and assess students with special needs and provide them appropriate remedial measures in teaching learning process. They have to share their experience gained by engaging students with special needs. The student teachers are expected to collect the profile of special children observed their learning and special needs during their internship. To present their experience all the student teachers are expected to prepare a record writing their experience with Special Needs Children. The record shall contain the following contents.

i. Introduction
ii. Types of Differently Abled Children
iii. Teaching Strategies for Students with Special Needs
iv. Importance of Daily Living Skill
v. Importance of Assistive Devices in Learning
vi. Agencies Supporting Children with Special Needs
vii. Profile of the Special Children
viii. Suggestion and Discussion

20. Camp Record

This college conducts a Scout Master Training Camp for a period of ten days. This is compulsory for all student teachers. Each of them is expected to record various activities of the camp and get the approval of the Scout Master Trainers. This camp record should be submitted to the faculty in charge concerned at the end of the camp.

21. Working with Community Record

Community work is a part of the teacher education programme. The involvement of the student teachers in self-help skills, community development, Swachh Bharat, Swachh Vidyalaya activities, literacy and numeracy promotion programmes, other community services etc., will be valued and rewarded at the end of the year.

The College hopes that developing these practical skills would enable the student teachers to become efficient and competent teachers. The practical activities would be reviewed from time to time to meet the growing needs of classroom.

Programme Outcomes of B.Ed., Programme

On the successful completion of the programme, the student teachers will be able to

PO1	**Professional Development:** professionally equip with teaching skills and competencies for changing needs and global concerns.
PO2	**Technical Expertise:** develop scientific temperament, technical knowledge and blended learning approaches in tune with globalization and international competitiveness.
PO3	**The Teacher and Society:** review the contemporary issues in education and society in general, and the development of our nation in particular.
PO4	**Contextual Knowledge: g**ain deeper understanding of contextual knowledge and apply them in Teaching-Learning situations.
PO5	**Diverse Needs of Students:** adopt and apply various teaching strategies to handle students with diverse needs and be meticulous in creating adequate support to them.
PO6	**Ethics:** emerge as responsible citizens and accountable teachers with clear conviction to practice spiritual, moral and social values and inculcate them to learners.
PO7	**Well-being:** promote physical, mental and emotional well-being of self and thereby disseminate the same to their learners.
PO8	**National Integrity:** organise events of educational and national importance accommodating different stakeholders of education.
PO9	**21st Century Skills:** enhance their 21st century skills and apply those skills for entrepreneurship and employability.
PO10	**Life-long Learning:** recognize the need for, and have the preparation and ability to engage in independent, self-directed and life-long learning.

SEMESTER - I

Group A : Perspectives in Education	
B1 CC 01	Educational Philosophy in Indian Context
B1 CC 02	Learner and Learning –I
B1 CC 03	School Organization and Institutional Planning
B1 CC 04	Evaluation, Elements of Statistics and Research
Group B: Curriculum and Pedagogical Studies	
Pedagogy 1	
B1 P1 11	Pedagogy of English – Paper I
B1 P1 21	Pedagogy of Computer Science – Paper I
B1 P1 31	Principles of Commerce and Accountancy Education – Paper I
Pedagogy 2	
B1 P2 11	Pedagogy of Biological Science – Paper I
B1 P2 21	Pedagogy of Commerce and Accountancy – Paper I
B1 P2 31	Pedagogy of Special English – Paper I
B1 P2 41	Pedagogy of History – Paper I
B1 P2 51	Pedagogy of Mathematics – Paper I
B1 P2 61	Pedagogy of Physical Science – Paper I
Enhancing Professional Capacities (EPC)	
B1 EPC 1	Utilizing Library and Digital Learning Resources

Syllabus Template (Effective from the Academic Year 2025–2026)

After Approval of the Board of Studies

Sri Ramakrishna Mission Vidyalaya College of Education (Autonomous)

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B1 CC 01	EDUCATIONAL PHILOSOPHY IN INDIAN CONTEXT	3

Preamble

The aim of this course is to enable the student teachers to understand the Indian culture, values, philosophical thoughts, social harmony and scientific outlook to achieve the national goals through education.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	appreciate the traditional values and ancient Indian culture
CO2	describe the divergent philosophies and their implications in education
CO3	realise the relationship between education and society
CO4	identify the teacher's role in Indian society
CO5	illustrate the contribution of education to national development

Unit – I: Education for Changing Indian Society	**(9 Hours)**
1.1	Meaning and scope of philosophy - Inter-dependence of philosophy and education.
1.2	Religious philosophies and their educational implications in a secular society.
1.3	Culture - definition - salient features in Indian culture - Ancient Indian values like spirituality, simplicity, purity of truth, dignity of labour, universal tolerance and acceptance.
1.4	Impact of Indian Culture on Education in ancient India as exemplified by the Gurukula system of Education, Educational Philosophy in Sangam literature.
1.5	Changing values in modern India - Tradition and modernity, the role of education as conserving the best of the past and as an instrument of social change and development.
Unit – II: Educational Philosophies	**(9 Hours)**
2.1	Educational philosophies of Swami Vivekananda, Sri Aurobindo, Tagore, Mahatma Gandhi.
2.2	Educational thoughts of Dr. S. Radhakrishnan and Sri. J. Krishnamurthy.
2.3	Comparison of the Indian philosophy with western Idealism, Realism, Naturalism and Pragmatism - Vedanta, Nyaya and Buddhism.
2.4	Other Educational Philosophies - Existentialism and analytical philosophy.
2.5	Humanism and its educational implications.
Unit – III: Education and Society	**(9 Hours)**
3.1	Role of family, community, and society in promoting education.
3.2	Concept of social system and education as a sub-system.
3.3	Role of education in social change and social mobility.
3.4	Education for the 21st Century - futuristic perspective - concerns and issues.
3.5	Principles of education - four pillars as envisioned by Delor's Commission.
Unit – IV: Teachers Role in Indian Society	**(9 Hours)**
4.1	Indian society in transition - Impact of globalization and privatization – educational planning in India.
4.2	Modernization of Indian Society – Redefined traditional and modern values.
4.3	Teacher as a social worker - Teachers' role in pupils' development, community welfare, national integration, and international understanding.
4.4	Sociological determinants of education - Teachers' role in strengthening integrated and cohesive forces.
4.5	Educational implications of philosophy in conserving social harmony.

Unit – V: Contribution of Education to National Development	**(12 Hours)**
5.1	Promotion of scientific outlook and positive attitude among students.
5.2	Religious and caste system - Role of Education in promoting communal and religious harmony.
5.3	Equal educational opportunities: socially disadvantaged, economically backward and children with special needs.
5.4	Curriculum construction - Principles - flexibility - sensitivity to pupil needs and differences – Curricular adaptations for children with special needs.
5.5	Curriculum and national goals - involvement of teachers in curriculum planning and implementation.

References

1.	Anand. (1993). The teacher & education in emerging Indian society. New Delhi: NCERT.
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	2	2	3	2	3	2	2		2
CO2	2	2	3	3	2	2	2	2		2
CO3	3	2	3	3	2	2	2	2		2
CO4	2		2	3		3	2	2	2	2
CO5	2		3	3	2			2		2

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B1 CC 02	LEARNER AND LEARNING – I	3

Preamble

The aim of the course is four folded. First to know the individual development in socio-cultural context. Second to acquire theoretical perspectives of learning and to understand the dimensions, stages of human development. Third to understand a range of cognitive capabilities and affective process. Finally aware of different context of learning and school context as a positive environment for learning.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	remember individual development in socio-cultural context. Apply it to deal the issues of cohesiveness and diversity in teaching and learning process.
CO2	analysis different dimensions and stages of human development to deal the problems of childhood and adolescent learners.
CO3	evaluate the cognitive capabilities and affective competencies among learners.
CO4	develop and utilize digital resources to understand the nature of learning and guide the learner's learning.
CO5	measure the quality of learning in different school context. Synthesis different school context to develop positive and progressive learning among learners.

Unit – I: Introduction		**(9 Hours)**
1.1	Understanding learner as individual – Learner behaviour	
1.2	Behaviour - definition - educational social behaviour.	
1.3	Teaching – teacher behaviour to facilitate learning.	
1.4	Important methods to study Educational behaviour – introspection, observation, case study, experimental, psycho-analysis and developmental method.	
1.5	Learner behaviour in school context – teachers to develop holistic understanding of learner in school context.	
Unit – II:	**Learner as Developing Individual**	**(9 Hours)**
2.1	Stages of development – developmental tasks - growth and development – emphasis on concerns of adolescence.	
2.2	Nature and nurture, continuity and discontinuity issues, growth and maturation.	
2.3	Dimensions of learner development - Cognitive development (Piaget)	
2.4	Affective development – Emotional development (Schachter – Singer) - Cognitive theory of emotion.	
2.5	Factors of Psycho-social development – Social competence, Social Maturity.	
Unit – III: Cognitive Processes		**(9 Hours)**
3.1	Sensation, perception, concept formation	
3.2	Attention, division of attention, distraction of attention	
3.3	Thinking – definition – Processes: imagination, language	
3.4	Reasoning and Problem solving.	
3.5	Cognitive processes – influence on learner development - applications in classroom teaching.	
Unit – IV: Theoretical Perspectives on Learning		**(9 Hours)**
4.1	Implicit knowledge and beliefs about learning(misconceptions)	
4.2	Perspectives on human learning: Stimulus Response – Associationist type of theories (E L Thorndike, E P Pavlov and B F Skinner) - Gestalt field theories – W G Kohler	
4.3	Relevance and applicability of various theories of learning for different kinds of learning situations.	
4.4	Learning curve: positively and negatively accelerated curves.	
4.5	Transfer of learning – positive, negative and zero transfer.	

Unit – V: Memory and Forgetting	**(12 Hours)**
5.1	Memory – definition – types – its importance as a cognitive process.
5.2	Forgetting - definition – kinds - factors contributing to memory and forgetting – stages of memory (registration – retention – recall).
5.3	Causes of forgetting and types of forgetting- Forgetting curve (Ebbinghaus)
5.4	Measurement of memory – learning method, saving method and prompting method.
5.5	Influence of memory and forgetting on learning and development of learner.

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1					3					
CO2					3					
CO3							3			
CO4									3	
CO5				3						

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B1 CC 03	SCHOOL ORGANISATION AND INSTITUTIONAL PLANNING	3

Preamble

The aim of this course is to understand educational administration, school administration, School plant, School authorities and rules and regulations in the school's organization.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	summarize the rules and regulations of Educational Administration.
CO2	identify the role of School Administration and instructional strategies.
CO3	develop sound knowledge about the School Administration.
CO4	enumerate the special qualities of school authorities and maintenance of records.
CO5	construct the rules and regulations of the School Administration.

Unit – I: Introduction	**(9 Hours)**
1.1	Educational Administration: meaning, nature, purpose and scope.
1.2	Aims and objectives of educational administration.
1.3	Problems in school administration.
1.4	Changing concept of school administration.
1.5	Present hierarchical structure of administration in Tamil Nadu school education department: state, district and school.

Unit – II: Various types of school administration and Instructional Strategies	**(9 Hours)**
2.1	Classroom management: rhythmic, class culture, students' self-supportive services.
2.2	Teaching strategies and methods: brain-storming, questioning, quiz, demonstration, projects, assignment, laboratory practical, using ICT in teaching, skill oriented Teaching; ABL, ALM, AALM.
2.3	Various types of schools and their administration: State Board, CBSE, ICSE, Kendriya Vidyalaya Sangathan, Navodaya Vidyalaya Samithi and Sainik School.
2.4	Curriculum: Equitable Standard of Education, CBSE, ICSE – academic calendar and time-table .
2.5	Resources: Infrastructure with basic amenities, laboratories, library, games and sports facilities.

Unit – III: Factors Influencing Effective School Administration	**(9 Hours)**
3.1	School plant – meaning, importance, and principles - Essentials of good school plant.
3.2	Internal administration – meaning, areas and hierarchy.
3.3	School and community: meaning, importance, community engagement by school, community involvement for school development, PTA.
3.4	Co-curricular activities: importance, types and methods.
3.5	Discipline - meaning, need, principle, method of imparting discipline, disciplinary issues and remedial measures.

Unit – IV: Role of School Authorities	**(9 Hours)**
4.1	Role of CEO, IMS, DEO and BEO: Inspection, Authority, Service matters and Budget.
4.2	Role of Head masters in school administration.
4.3	School office: Physical facilities and material resources – maintenance.
4.4	School office personnel: Distribution of responsibilities - calendar – maintenance of records and accounts - Education Management Information System (Students) – Service Record (Staff)
4.5	Registers and records: needs, kinds of records, arrangement of records to be maintained at school office.

Unit – V: Rules and Regulations in school administration	**(9 Hours)**
5.1	Establishment of new schools – Rules and regulations - Government and private schools.
5.2	Departmental test – types – procedure for appearance – access to relevant source materials.
5.3	Selective service and leave rules as approved by Government.
5.4	Rules and regulations for the maintenance of records, registers and files at school office.
5.5	Code of conduct for teachers and students at school level.

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	1		3		2			2		
CO2	3		3							1
CO3				2	3		1	1		
CO4		2				2			1	
CO5	3					2		2		1

4 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B1 CC 04	EVALUATION, ELEMENTS OF STATISTICS AND RESEARCH	4

Preamble

The aim of this course is to acquire basic knowledge and comprehension of different techniques and approaches in evaluation, basic quantitative measures and educational research.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	apply the basic statistical concepts in testing and evaluation.
CO2	understand the taxonomy of educational objectives and create various types of test items.
CO3	compare different quantitative measures and apply in testing and evaluation.
CO4	evaluate the current trends in examination system.
CO5	classify the different types of research applicable to education.

Unit – I: Techniques and Approaches of Evaluation (12 Hours)

1.1	Evaluation: Meaning – measurement, assessment and evaluation – purpose and significance of tests in education.
1.2	Relationship among Educational Objectives, Learning experiences and Evaluation.
1.3	Types of Evaluation – formal and informal, oral and written, formative and summative.
1.4	Tools of Evaluation – observation schedules, interviews, tests, rating scales and questionnaires.
1.5	Different types of tests - Diagnostic, Prognostic, Achievement and Psychological tests; Norm-referenced and Criterion-referenced tests.

Unit – II: Educational Objectives and Test Construction (12 Hours)

2.1	Bloom's taxonomy of Educational Objectives – Cognitive, affective and psychomotor domains – classifications.
2.2	Revised Taxonomy of educational objectives (Anderson and Krathwohl)
2.3	Educational implications of evaluation related to Delor's four pillars of Education.
2.4	Characteristics of quality test items – objectivity, reliability, validity and feasibility of measurements.
2.5	Steps in test construction: blue print – table of specifications, writing and editing – pretesting – items analysis – scoring – interpretation.

Unit – III: Basic Quantitative Measures (12 Hours)

3.1	Tabulation – frequency table, graphical representation of data and its uses – bar diagram, histogram, frequency polygon and pie diagram
3.2	Measures of central tendency – mean, median, mode and their uses.
3.3	Measures of variability – range, quartiles, quantiles, deciles and percentiles
3.4	Normal distribution, Normal curve, its structure and properties.
3.5	Correlation – definition, meaning, types and uses, computing the co-efficient of correlation by the rank difference method.

Unit – IV: Theoretical Perspectives on Learning (9 Hours)

4.1	Continuous and Comprehensive Evaluation (CCE) in Schools - Grading system.
4.2	Continuous assessment in higher education and teacher education, semester and trimester systems – choice-based credit system - role of National Testing Service Centre and NAAC
4.3	Role of ICT in evaluation – on-line examination - self evaluation by teacher and students– peer evaluation.
4.4	Open book examination – preparation of question bank and its uses.
4.5	Evaluation system practiced in different types of schools – State Board - CBSE – ICSE – Kendriya Vidyalaya – Navodaya Vidyalaya – Sainik schools – National Open School.

Unit – V: Introduction to Educational Research	**(12 Hours)**
5.1	Need and scope for research in education.
5.2	Qualities of a good researcher – role of a teacher as a researcher.
5.3	Introduction to types of research – basic, applied and action research – steps in action research.
5.4	Outline of Research Report.
5.5	Research funding agencies in India.

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2		3						
CO2	3	3		3	3					3
CO3	3	2		3					3	2
CO4	2	3	3		2				2	3
CO5	2	3		2	2	2				2

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B1 P1 11**	**PEDAGOGY OF ENGLISH – PAPER I**	**4**

Preamble

The aim of this course is to offer conceptual knowledge and application of language learning skills, micro teaching skills, formulation of instructional objectives and to familiarize with content of VI standard English text book.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	acquaint the contextual knowledge on nature, role and principles of teaching- learning English language.
CO2	explore the influence of mother tongue in English language learning and apply skill based teaching-learning in classrooms.
CO3	recognise and apply micro teaching skills in teaching learning process.
CO4	formulate instructional objectives based on Bloom's Taxonomy and apply them in classroom transaction.
CO5	analyse the language elements used in VI Standard English text book and apply their knowledge in language teaching.

Unit – I: Principles of Language Learning	**(12 Hours)**
1.1	Status of English - Before and After Independence
1.2	The Role of English in India today
1.3	Need and value of English in the contemporary age
1.4	Functions of English Language
1.5	English in Indian classroom

Unit – II:Learning Language as a Skill	**(12 Hours)**
2.1	The Teaching and Learning of Mother Tongue and English
2.2	Role of Mother Tongue in English class
2.3	Language learning as a Skill rather than a Knowledge subject
2.4	Skill-based Teaching and Learning
2.5	The Linguistic Principles of Teaching English

Unit – III: Introduction to Micro Teaching	**(12 Hours)**
3.1	Teaching and Training – Training Techniques
3.2	Micro teaching – Meaning and Significance
3.3	Micro teaching Cycle and Procedure
3.4	Micro teaching Skills and Components
3.5	Difference between Micro teaching and Macro teaching

Unit – IV: Aims and Objectives of Teaching English	**(9 Hours)**
4.1	Instructional Objectives – Meaning and Significance.
4.2	Formulation of Instructional Objectives based on different domains of Bloom's Taxonomy
4.3	Formulation of Instructional Objectives based on Language skills
4.4	General Instructional Objectives and Specific Instructional Objectives
4.5	The Aims and Objectives of Teaching English at Secondary level

Unit – V: Analysis of Reader in English	**(12 Hours)**
5.1	Elements of Language from the Content of the VI Standard English Reader of Tamil Nadu Textbook and Educational Services Corporation. www. textbooksonline.tn.nic.in.

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2			3					2	2
CO2	2	2	2	3			2	2	2	2
CO3	3	2		3	2				2	2
CO4	2	1		3		2	1		2	2
CO5	3	2	1	3	2	2	1		3	2

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B1 P1 21	PEDAGOGY OF COMPUTER SCIENCE: PAPER I	4

Preamble

The aim of this course is to make students familiarize and utilize computers, Develop skills for teaching computer science and get acquainted with different approaches in imparting computer science.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	practice the parts of computer and its working aspects.
CO2	recognise the development and growth of computers.
CO3	familiarize with the utilities of computers in various fields.
CO4	implement and execute skills for teaching computer science concepts.
CO5	familiarize with different approaches in imparting Computer Science concepts.

Unit – I:	**Introduction**	**(12 Hours)**
1.1	Devices used for calculation and allied operations in the modern world	
1.2	Computers - Meaning – Characteristics – Uniqueness –Need	
1.3	Basic structure of computers – Block diagram – main parts and their role	
1.4	Computers and Human - Similarities and Dissimilarities in structure and functions	
1.5	Peripheral devices of computers – Need and Types	
Unit – II:	**Development of Computer**	**(12 Hours)**
2.1	Brief History of the development of computers	
2.2	Evolution of computer generations	
2.3	Classifications of computers under different criteria	
2.4	Computer configuration – Development and Advantages	
2.5	Data Digitization – Concept, Advantages	
Unit – III:	**Impact of Computers and ICT on Various Fields and on Society**	**(12 Hours)**
3.1	Computers on various fields – Trade, Research, Transport, Medical, Defence etc.	
3.2	ICT on Communication – Internet, email, face book, SMS, WhatsApp	
3.3	e-Governance – Importance and Impact on Society	
3.4	Single and multiple purpose computers – nature and utilities	
3.5	Role of Computers on Education – Academic, Non-Academic	
Unit – IV:	**Teaching Computer Science in Schools**	**(12 Hours)**
4.1	The Aims and Objectives of teaching computer science with reference to the taxonomy of educational objectives	
4.2	The need and importance of teaching computer concepts at different levels – Primary, Secondary and Higher Secondary.	
4.3	Micro Teaching – Meaning, Cycle, Skills and Usefulness in teaching computer science	
4.4	Lesson Plan – Importance, Steps and Preparation of Model Lesson plan	
4.5	Unit Plan and Year Plan – Need and importance in teaching computer science	

Unit – V: Imparting Computer Concepts – Various Approaches (12 Hours)	
5.1	Inquiry and Problem solving Approach– Need and importance in teaching computer science
5.2	Inductive and Deductive Approach – Usefulness in teaching Computer Science
5.3	Teaching through Projects – Need and Importance in computer science
5.4	Hands-on-Training – Advantages in teaching programs
5.5	Procedures adopted to select suitable techniques for teaching computer concepts
Practical	
1.	Collection and Preparation of various devices used for calculation.
2.	Preparing and Maintaining Record on Micro Teaching Skills
3.	Preparing Lesson Plan on Teaching Computer science concepts
4.	Creating e-mail ID and utilising internet
References	

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14.	Xavier, C. (1996). *Introduction to Computers and BASIC Programming*. New Delhi: New Age Int.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	2		3	1				2	
CO2		3			1				2	2
CO3	2	3		3						
CO4			2	3		3			2	2
CO5	3	2		3					2	2

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B1 P1 31**	**PRINCIPLES OF COMMERCE AND ACCOUNTANCY EDUCATION - PAPER I**	**4**

Preamble

The aim of this course is to make the students understand, familiarize with Commerce education, acquaint with principles and maxims of teaching Commerce and Accountancy.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	describe the nature, scope and values of Commerce education.
CO2	enumerate the aims and objectives of teaching Commerce and Accountancy.
CO3	apply different learning strategies and approaches in teaching Commerce and Accountancy.
CO4	classify the instructional materials in teaching Commerce and Accountancy.
CO5	apply the principles of Maxims in teaching Commerce and Accountancy.

Unit – I: Commerce Education - An Introduction	**(12 Hours)**
1.1	Commerce education - meaning - characteristics - brief survey and historical development of commerce education-its present status.
1.2	Nature and Scope of Commerce and Accountancy with special reference to higher secondary school curriculum.
1.3	Need for Commerce and Accountancy Education - importance and impact of commerce education on society-major areas of commerce.
1.4	Values of teaching Commerce and Accountancy - Practical, Social, Cultural, Moral, Disciplinary and Vocational values.
1.5	Correlation of Commerce and Accountancy with reference to Economics, Mathematics, Commercial Geography, Business Management, Statistics and International relations.
Unit – II: Aims and Objectives of Teaching Commerce	**(12 Hours)**
2.1	Aims and Objectives - meaning and definition - difference between aims and objectives – educational objectives of teaching commerce and accountancy.
2.2	General Instructional Objectives (GIOs) – principles – writing of instructional objectives
2.3	Bloom's Taxonomy of educational objectives - cognitive, affective and psycho motor domains in teaching commerce and accountancy.
2.4	Specifications (SIOs) – meaning and principles - writing of specifications -objective based instruction.
2.5	Class room objectives and specifications of commerce teaching-criteria for the selection of objectives.
Unit – III: Learning Strategies in Commerce Education	**(12 Hours)**
3.1	Learning strategies-oral-written-training-home work-independent study- interpretation of graphs.
3.2	Non-personal presentations-advertisement- press release and public relation materials-analysis of budgets and balance sheets-case studies.
3.3	Assignments - working out assignment - characteristics - types - purpose - guidelines for preparing assignments.
3.4	Approaches-journal approach-ledger approach-balance sheet approach- equation approach-spiral development approach-complete cycle approach- single entry approach.
3.5	Learner centred approach-characteristics-activity based approach-small group activity-large group activity

Unit – IV: Instructional Materials in Commerce Teaching	**(12 Hours)**
4.1	Instructional materials/teaching aids-meaning-importance-significance of teaching aids in Commerce & Accountancy.
4.2	Guiding principles for the effective use of teaching materials-types of teaching aids-selection of teaching aids.
4.3	Audio-visual aids-classification of audio-visual aids-the first approach- second modified approach-technological approach-Edger Dale's classification.
4.4	Audio and visual perception-projected aids-non-projected aids-activity aids.
4.5	Instructional materials/teaching aids employed in Commerce and Accountancy teaching-problems in the use of teaching aids.
Unit – V: Principles and Maxims of Teaching	**(12 Hours)**
5.1	Maxims of teaching-meaning-significance-importance of maxims of teaching.
5.2	Maxims-simple to complex-particular to general-empirical to rational- known to unknown-actual to representative.
5.3	Principles of teaching-meaning-importance-various principles of effective teaching.
5.4	Introducing topics- maxims for introducing topics in Commerce and Accountancy- learners skill for learning.
5.5	Learning environment-school, home and psychological environment of the teacher and the learner-requirements for learning.
References	

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2.	Bhattia., & Bhattia. (2006). *Principles and methods of teaching*. New Delhi: Dobba House.
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1				2		3			2	
CO2	2			2			2	2	2	3
CO3	2	3			3			2		
CO4				3				2		
CO5	2			3		2				2

3 - High Correlation2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B1 P2 11	PEDAGOGY OF BIOLOGICAL SCIENCE – PAPER I	4

Preamble

The aim of this course is to develop an understanding of the nature and scope of biological science, aims, objectives, history and development of biology and teaching content in biological science at standard VI.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	describe the need, nature and scope of Biological Science.
CO2	design the aims and objectives and values of Biological Science.
CO3	formulate the development of Biological Science with recent trends.
CO4	summarize various methods of teaching Biology using modern methodology.
CO5	apply the important concepts of Biological Science at VI standard level.

Unit – I: Nature and Scope of Bio-science	**(12 Hours)**
1.1	Meaning, Nature and scope of Bio-science.
1.2	**Introduction to STEM in Bio -Science**
1.3	Inter disciplinary approaches of Biology.
1.4	Biology as a subject of study at School level - various branches.
1.5	Biology and society: Agriculture Medicine, Food resources, Population Control, Pollution control, Industry, Veterinary and animal husbandry.
Unit – II: Aims and Objectives of Teaching of Biology	**(12 Hours)**
2.1	Aims and Objectives of Teaching Biology at Primary, Secondary, and Higher Secondary Levels.
2.2	Integrating Biology with Natural and Human-Made Environments.
2.3	Educational Values of Biology – Intellectual, Utilitarian, Aesthetic, Cultural, and Moral.
2.4	Bloom's Taxonomy and Bloom's Revised Taxonomy - Cognitive, Affective, and Psychomotor domains.
2.5	Scientific Attitude – Definition, characteristics, and methods to foster it.
Unit – III: Learning of Biology	**(12 Hours)**
3.1	Contributions of Biologists – Key Discoveries and their impact on Biological Sciences (Indian Biologists: Jagadish Chandra Bose, Janaki Ammal, Birbal Sahni and Western Biologists: Darwin, Mendel, Watson & Crick).
3.2	Major Developments in Biology Classification - Physiology, Embryology, and Genetics (Past to Present).
3.3	Bio-Science Projects – Types, Planning, Execution, and Educational Significance
3.4	Biological Learning Resources – Museums, science exhibitions, laboratories, botanical gardens, and zoos for enhancing experiential and contextual learning in Biology.
3.5	Introduction to contemporary fields - Biotechnology, Bioinformatics, Genomics and Environmental Biology - Applications in real life and career opportunities.
Unit – IV: Micro Teaching	**(12 Hours)**
4.1	Micro teaching - Definitions, Meaning and Background.
4.2	Principles of micro teaching objectives.
4.3	Various steps in micro teaching.
4.4	Various skills - skill of questioning, explaining, stimulus variation, reinforcement, black board writing illustrating the concept with suitable examples.
4.5	Micro teaching cycle - merits and demerits.

Unit – V:Teaching of content of Biology at Standard VI Level (12 Hours)	
5.1	The living world of plants – root system – shoot system.
5.2	Types of habitats.
5.3	Living world of animals – unicellular and multicellular organism.
5.4	Adaptation in animals.
5.5	Health and Hygiene.
Practical	
1.	Collection of Biographies of Biologists and milestone of Biological discoveries.
2.	Micro teaching skills – Practice
References	
1.	Aggarwal, S. (2009). *Teaching of biological science.* Vikas Publishing House.
2.	Ameeta, P. (2009). *Methods of teaching of biological science*. Hyderabad: Neelkamal.
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Web Resources	
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19.	https://www.nationalstem centre.org.uk
20.	https://www.stem.uk
21.	https://www.stemteachersnyc.org

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		2							3	2
CO2	2	2		1					1	1
CO3		2	2		1				1	
CO4	3	2		3	3					
CO5	1	1		3	2				2	

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B1 P2 21**	**PEDAGOGY OF COMMERCE AND ACCOUNTANCY– PAPER I**	**4**

Preamble

The aim of this course is to develop an understanding of the different types of curriculum and techniques in and of education to teach commerce and accountancy, develop competency in methods and techniques of teaching, understand about instructional approaches and enhance their skills.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	classify the different types of curriculum.
CO2	develop micro teaching skills in Commerce.
CO3	apply competency in methods and techniques of teaching Commerce.
CO4	practice the instructional approaches in teaching Commerce.
CO5	identify the types of training programme and realise the qualities of a Commerce and Accountancy teacher.

Unit – I: Commerce Curriculum - An Introduction	**(12 Hours)**
1.1	Curriculum – meaning and definition – curriculum vs. syllabus
1.2	Bases of curriculum development – principles of curriculum construction.
1.3	Types of curriculum – activity centered and subject centered – Approaches of curriculum organization – spiral and concentric approaches.
1.4	Commerce and accountancy syllabi – academic and vocational curriculum – vocational areas identified in the Tamil Nadu Higher Secondary Curriculum
1.5	Comparison of CBSE and State Board commerce and accountancy syllabus.
Unit – II: Micro Teaching Skills in Commerce	**(12 Hours)**
2.1	Micro teaching- Historical development
2.2	Meaning-Definition-Objectives- Characteristics of micro teaching.
2.3	Steps and procedure of microteaching
2.4	Micro teaching cycle- advantages and disadvantages of micro teaching.
2.5	Major micro teaching skills- skill of explaining, stimulus variation, black board writing, reinforcement, illustrating with example.
Unit – III: Methods of Teaching	**(12 Hours)**
3.1	Methods of teaching - meaning and need
3.2	Characteristics of good teaching methods
3.3	Classification of methods of teaching – lecture method, descriptive method, Problem solving method
3.4	Approaches of teaching - Inductive and Deductive method – case study
3.5	Techniques of teaching – role playing, brainstorming, buzz session, stimulation, seminar, symposium, group discussion, workshop and team teaching
Unit – IV: Instructional Approaches in Commerce	**(12 Hours)**
4.1	Individualised Instruction- principles of individualized instruction
4.2	Programmed Instruction- Types- Branched and Linear
4.3	Personalised System Instruction-Computer Aided Instruction-Computer Assisted Learning-Computer Managed Learning
4.4	Multimedia Packages, learning objects etc.
4.5	Module preparation for e-content development

Unit – V: Commerce Teacher and Professional Development (12 Hours)	
5.1	Commerce and Accountancy teacher – academic and professional qualification – professional growth of a teacher.
5.2	Pre service and in service programme- need and its importance of attending various training programmes
5.3	Duties and responsibilities of a commerce and accountancy teacher – social and environmental responsibilities of a commerce teacher – problems faced by the commerce teachers.
5.4	Preparation and the importance of Teacher's Diary, Time-table, proper maintenance of registers and records.
5.5	Qualities of a good commerce and accountancy teacher.

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1				2		2	2		2	3
CO2	3	1		3	2				2	2
CO3	2	2			3					
CO4	2	3			3				2	2
CO5				2		2	2	2	2	

3 - High Correlation2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B1 P2 31	PEDAGOGY OF SPECIAL ENGLISH – PAPER I	4

Preamble

The aim of this course is to enlighten the prospective teachers on teaching materials, strategies, reading and phonetics in addition to the relevant contents at secondary level, and help them develop into effective teachers at secondary level.

Course Outcomes (COs)

On the successful completion of the course, student teachers will be able to

CO1	acquaint with teaching materials and modern teaching strategies appropriate to advanced students of English Language at Secondary level.
CO2	understand the nature and values of Reading and use different methods of teaching Reading.
CO3	familiarize with the Phonology of English, give them ear training, speech training and make them transcribe a passage in English.
CO4	improve their working knowledge of the Verbs in English and apply them while teaching Modern English Grammar and Usage to the students at Secondary level.
CO5	master the Language Elements used in the IX Standard English Course Book of Tamil Nadu Textbook and Educational Services Corporation.

Unit – I: Study Skills and Reference Skills		**(12 Hours)**
1.1	Study and Reference Skills - Meaning, Need and Significance of the Skills	
1.2	Practice in the efficient use of Dictionary and Textbooks	
1.3	The Study technique – SQ3R – Significance of Study technique	
1.4	Practice in use of Library Resources	
1.5	Preparation of Annotated Bibliography on different aspects of ELT	
Unit – II: Introduction to Reading		**(12 Hours)**
2.1	Reading – Meaning and Purposes of Reading	
2.2	Psychological Process of Reading	
2.3	Types of Reading	
2.4	Methods of Teaching Reading	
2.5	Reading and its Surrender value	
Unit – III: Teaching of Phonetics and Spoken English		**(12 Hours)**
3.1	The English Language: Spoken English in India	
3.2	The Speech Mechanism - Speech Organs - Mobile and Immobile Organs of Speech	
3.3	The description of Speech Sounds – Vowels and Consonants: Phonetic Symbols – RP and GIE	
3.4	Features of connected Speech: Strong and Weak forms, Accent, Rhythm and Intonation	
3.5	Phonetic Transcription	
Unit – IV: Modern English Grammar and Usage – I		**(12 Hours)**
4.1	Auxiliaries in English	
4.2	Finite and Non-finite form of Verbs	
4.3	Strong and Weak forms of Verbs	
4.4	Tense and Voice	
4.5	Phrasal Verbs and Prepositional Verbs	
Unit – V: Analysis of Reader in English		**(12 Hours)**
5.1	Language Components of the Content of IX Standard English Reader of Tamil Nadu Textbook and Educational Services Corporation. www.*textbooksonline.tn.nic.in*	

References	
1.	Arnold, G.F. (1973). *English pronunciation practice*. London: Oxford University Press.
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8.	Sarah, F. (1984). *Written communication in english*. London: Orient Longman.
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11.	State Council of Educational Research and Training. (2018). *English course book*, IX Standard. Chennai: Tamil Nadu Textbook and Educational Services Corporation. *www.textbooksonline.tn.nic.in*

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	3		3		2	3		2	3
CO2	2	2	3	3			3			2
CO3	3	3		3	3				2	3
CO4	3		2	3	3					3
CO5	3		2	3		3			2	3

3 - High Correlation2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B1 P2 41	PEDAGOGY OF HISTORY - PAPER I	4

Preamble

The aim of this course is to enable the student teachers as good teaching professional in History by providing knowledge of teaching methods and techniques in teaching and learning and effective practices in teaching skills.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	examine the nature and scope of History.
CO2	compare the need for correlation of History with other subjects.
CO3	enumerate the aims, objectives and values of teaching History.
CO4	develop the teaching skills in History.
CO5	acquire knowledge of various methods and techniques of teaching History.

Unit – I: History – Nature and Scope	**(12 Hours)**
1.1	Definition, Meaning, Nature and Scope of History
1.2	Structure, Forms and Dimensions of History - Time, Space, Continuity and Development.
1.3	History of History - Greeks, Romans, British, The Age of Intellectualism
1.4	Different Conceptions of History - Record of the Past, Biographical Conception and Evolutionary Conception.
1.5	History - a Science or an Art?
Unit – II: Interdisciplinary Nature of History	**(12 Hours)**
2.1	Correlation – Meaning, Concept, Need and Importance
2.2	Views of Some Eminent Scholars on Correlation of History
2.3	Classification and Types of Correlation
2.4	Correlation with other subjects – Civics, Geography, Literature, Economics, Politics, Sociology, Science and Mathematics
2.5	Geographical Foundations of History.
Unit – III: Aims, Objectives and Values of Teaching History	**(12 Hours)**
3.1	General Aims and objectives of teaching History
3.2	Aims and Objectives of teaching History at Primary, Secondary, Higher Secondary level
3.3	General and Specific objective of teaching History.
3.4	Instructional Objectives - Bloom's Taxonomy of Objectives – Cognitive, Affective and Psycho-Motor Domains.
3.5	Values of teaching History – Practical, Cultural, Ethical, Intellectual, Political and Educational.
Unit – IV: Microteaching	**(12 Hours)**
4.1	Meaning, Definition and objectives of Microteaching.
4.2	Phases and steps in Microteaching
4.3	Micro Cycle, Merits and Demerits
4.4	Relevant Skills–Skill of Stimulus Variation, Skill of Reinforcement, Skill of Probing Questions, Skill of Explaining and Skill of Blackboard Writing.
4.5	Organization and Implementation of Microteaching – Micro lesson and Link Lesson

Unit – V: Methods and Techniques of Teaching History	**(12 Hours)**
5.1	Methods – Lecture method, Textbook method, Biographical method and Source method
5.2	Inductive and Deductive methods
5.3	Activity methods – Problem solving, Project method and Dramatization
5.4	Activity Based Learning (ABL) – Active Learning Method (ALM), Advanced Active Learning Method (AALM) – Its application to History.
5.5	Techniques – Assignment, Seminar, Symposium, Panel Discussion, Team teaching, Supervised Study, Group study and Workshop.

References

1.	Aggarwal, J.C (2004). *Teaching of history*. New Delhi: Vikas.
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2			3				2	2	2
CO2	2	2	2	3		2			2	2
CO3	2		2	3	2	3	2	2		
CO4	3	2		3	2				2	2
CO5	2	2		3	2			2		

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B1 P2 51	PEDAGOGY OF MATHEMATICS - PAPER I	4

Preamble

The aim of this course is to recognize the importance of teaching Mathematics in relation to other disciplines, as well as to write instructional objectives, lesson plans, micro- teaching, various methods and approaches.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	explain the meaning of Mathematics, its development, and the necessity and importance of teaching Mathematics in relation to other disciplines.
CO2	formulate instructional objectives in behavioural terms using Bloom's Taxonomy and apply in classroom transactions.
CO3	attain and implement micro-teaching techniques in the teaching and learning process.
CO4	design and develop year plan, unit plan and traditional and digital lesson plans by applying knowledge of planning.
CO5	apply various methods and approaches used in mathematics and experiment the instructional process.

Unit – I: Introduction to Teaching Mathematics	**(12 Hours)**
1.1	Meaning of Mathematics – Nature and Scope of Pure and Applied Mathematics – Application of Mathematics in everyday life.
1.2	Need and importance of teaching Mathematics at primary, secondary and higher secondary school level.
1.3	Mathematics and its relationship with other disciplines: Biology, Physics, Chemistry, Computer Science, Economics and Psychology - Uses of multi-disciplinary approach in teaching Mathematics.
1.4	Development of Mathematics – Contributions of Indian Mathematicians: Aryabhata, Brahmagupta, Bhaskaracharya, Srinivasa Ramanujan and Shakuntala Devi – Foreign Mathematicians: Phythagoras, Eulid, Rene Descartes, Gauss and Hypatia.
1.5	Need and Importance of Indian Mathematics knowledge System – Ways of incorporating history of Indian Mathematics into classroom teaching.
Unit – II: Aims and Objectives of Teaching Mathematics	**(12 Hours)**
2.1	Aims of teaching mathematics - practical, social, disciplinary, and cultural aims - need and importance.
2.2	General Instructional Objectives (GIOs) – principles – writing of instructional objectives.
2.3	Specifications (SIOs) – meaning and principles - writing of specifications - objective based instruction.
2.4	Relationship between objectives, learning experience and evaluation - classroom objectives of teaching mathematics.
2.5	Bloom's Taxonomy of Educational objectives related to cognitive, affective and psychomotor domains.
Unit – III: Micro teaching and Macro teaching	**(12 Hours)**
3.1	Micro teaching - historical development – need and importance
3.2	Meaning – Definition – Objectives - Characteristics of micro teaching.
3.3	Steps and procedure of micro teaching - micro teaching cycle - advantages and disadvantages of micro teaching.
3.4	Major micro teaching skills - skill of explaining, stimulus variation, black board writing, reinforcement, illustrating with example.
3.5	Macro teaching - Meaning - Nature - its importance in teaching.

Unit – IV: Planning – Year plan, Unit plan and Lesson plan	**(12 Hours)**
4.1	Planning – concept – nature - need and importance of planning
4.2	Year plan – meaning – importance - steps in year planning - year planning in new approach of curriculum transaction.
4.3	Unit plan – meaning - importance – principles and steps - unit planning in new approach.
4.4	Lesson Plan - need - components – steps in preparing lesson plan
4.5	Comparing year plan, unit plan and lesson plan - advantages and limitations.
Unit – V:Methods and Approaches of Teaching Mathematics	**(12 Hours)**
5.1	Learner centered approaches - inductive, deductive, analytic, synthetic, laboratory method.
5.2	Activity centered approaches - Heuristic approach, project method, programmed instruction.
5.3	Activity Based Learning (ABL), Active Learning Method (ALM), Advanced Active Learning Method (AALM) - its applications in mathematics.
5.4	Devices in teaching Mathematics - oral work, written work, drill work and review.
5.5	Models of teaching – Concept attainment model, Advance organiser Model, Inquiry Training Model
Practical	
1.	Collection of biographies of different mathematicians and history of symbols.
2.	Preparation of unit plan and lesson plan.
3.	Practice of skills in Micro teaching
4.	Preparation of no-cost teaching aids
5.	Preparation of instructional material.
6.	Collection of rural based mathematical anecdotes.
7.	Preparing teaching aids using Paper folding and Paper cutting
8.	Collection of mathematical puzzles, riddles, etc.,
References	
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17.	Pirie, S. (1987). *Mathematics investigations in your classroom*. London: Macmillan.
18.	Siddiqui, M.H. (2009). *Techniques of teaching*. New Delhi: APH.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		2	1	3	1	1			1	2
CO2	3	1		2			2		1	1
CO3	3			2	1		1			
CO4	1	2		1		2				3
CO5	1	2	1	3					1	2

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B1 P2 61	PEDAGOGY OF PHYSICAL SCIENCE – PAPER I	4

Preamble

The aim of this course is to develop an understanding of the introduction of physical science, objectives, micro-teaching skills, unit plan, lesson plan and teaching content in physical science.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	explain the nature of Physical Science and correlate Science with other subjects and summarize the contribution of scientists.
CO2	describe the aims and objectives of teaching Physical Science based on Blooms taxonomy of instructional objectives.
CO3	define different stages of the micro teaching cycle and demonstrate various micro teaching skills.
CO4	select suitable methods for teaching various topics in Physical Science.
CO5	describe Science concepts in VIII Standard textbook and prepare relevant teaching aids.

Unit – I: Introduction to the Physical Science Education	**(12 Hours)**
1.1	Meaning and Concept of Physical Science Education.
1.2	Nature and Scope of Physical Science.
1.3	Importance and Place of Physical Science in the School Curriculum
1.4	Inter disciplinary approach in the Teaching of Physical Sciences.
1.5	Contribution of scientists towards development of Physical sciences. **Indian Scientists:** Aryabhata, C.V.Raman, J.C. Bose, Satyendra Nath Bose, S Chandrasekar, Vikram Sarabhai, APJ Abdul Kalam, R Venkataraman and Nambi Narayana. **Western Scientists:** Albert Einstein, Ernest Rutherford, Isaac Newton, Marie curie, Michael Faraday and Stephen Hawking.
Unit – II: Aims and Objectives of Teaching Physical Science	**(12 Hours)**
2.1	Aims of Teaching Physical Science.
2.2	Aims of teaching Physical Science at Different Stages of school Education.
2.3	General and Specific Objectives of teaching Physical Sciences
2.4	Bloom's Taxonomy of Educational Objectives (Cognitive, Affective and Psychomotor) in teaching Physical Science, Modified Bloom's Taxonomy
2.5	Aims and objectives of Teaching Science as Suggested by Various Committees and Commission of India.
Unit – III: Micro Teaching Skills	**(12 Hours)**
3.1	Meaning, definition and characteristics of Micro-teaching.
3.2	Principles and Steps in Micro-teaching.
3.3	Micro teaching cycle - Merits and Demerits of Micro teaching
3.4	Link practice: Need for link lessons (Integration of teaching skills) - Identification of Teaching Skills
3.5	Relevant skills in Micro teaching-Skill of Introduction, Skill of Explaining, Skill of Stimulus Variation, Skill of Reinforcement, Skill of Questioning, Skill of using Blackboard, Skill of Demonstration, Skill of Achieving Closure
Unit – IV: Methods and Techniques of Teaching Physical Science	**(12 Hours)**
4.1	Methods of Teaching Physical Science – introduction and definition.
4.2	Teacher centred method - Lecture method, Lecture - cum - demonstration Method, Project Method and Heuristic method.
4.3	Student centred methods – Inquiry based learning – Problem based learning – Role plays and simulations – Assignment.
4.4	Activity Based Learning (ABL) - Active Learning Method (ALM), Advanced Active Learning Method (AALM) - its applications in Physical science at secondary level.

4.5	Techniques - Individualized Instruction - Programmed Instruction(PI) – CAI – Digital Resource based on Apps – Laboratory method – Experiential learning.
Unit – V: Teaching of Content in Physical Science at Standard VI & VII (12 Hours)	
5.1	Measurement- SI units, measurement of time, measuring liquids, Motion- circular motion, rotational motion, periodic motion, speed, distance, velocity
5.2	Types of energy: mechanical energy, chemical energy, electrical energy, heat energy, solar energy and its uses
5.3	Light, Sources of light, Propagation of light, Transparent, Translucent and Opaque objects, heat: sources of heat, friction, heat and temperature, light, Mirror
5.4	Periodic and Non-Periodic Changes – separation of Substances - Methods of separation of insoluble solids from liquids Cement and its uses - Uses of cement
5.5	Plastics- Types and uses of plastics -Plastics and environment - Glass and its uses-Soap - preparation and uses- Types of fibres and uses- Natural fibres - Synthetic fibres
5.6	Matter in our surroundings, effect of temperature on solid, liquid and gas, acids, bases and salts used in our daily life - fire control
Practical:	
1.	Collecting materials related to contribution of Eminent Scientists.
2.	Preparation of life history in physical science scientist.
3.	Preparing material for Activity Based Instruction.
References	
1.	Bhatnagar, A.D. (2004). *Teaching of science*. Meerut: Surya.
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14.	Sonika, R. (2012). *Methodology of teaching scienc*e. New Delhi: Dorling Kindersley.
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16	Yadav, M.S. (2003). *Teaching of science*. New Delhi: Anmol.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3			1		2			1	
CO2		2	3					1		
CO3				1			2			3
CO4	3	2	1	1	2	2		2		
CO5	3	2		1		2		2		2

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B1 EPC 1	UTILIZING LIBRARY AND DIGITAL LEARNING RESOURCES	1

Preamble

The aim of this course is to develop an understanding of the concepts of Library and important learning resources, different methods and types of reading resources, enable easy access to reading resource and develop skills.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	know the basic concepts of Library and important learning resources.
CO2	analyse various electronic and digital educational resources and apply them in teaching-learning.
CO3	identify various reading resources and adopt them in life- long learning.
CO4	familiar with important library services and develop Library Ethics for the Professional Development.
CO5	recognize Information Literacy Skills and Develop Library ethics.

Unit – I: Introduction to Use of Library		**(6 Hours)**
1.1	Hierarchy of Information - Data, Information, Knowledge and wisdom	
1.2	Library-meaning, definition, types, sections, functions and objectives of the library	
1.3	Laws of Library Science – its applications in libraries	
1.4	User Education - educating the learners – ways of optimal utilisation of library	
1.5	Academic Support of the Library in Learning, Teaching and Research.	
Unit – II: Information Sources and their Uses in learning and teaching		**(12 Hours)**
2.1	Books - Structure, parts, ways of handling, methods of using books/Journals - ISBN, ISSN	
2.2	Sources of Information - Types of reference sources - Primary and Secondary sources and their uses.	
2.3	Electronic resources - e-books, e-journals, e-learning resources	
2.4	Web learning resources: Web portals, subject gateways in teacher education	
2.5	Library Consortia and Databases: DELNET, INFLIBNET's N-LIST, One India One Subscription, Teaplus, Web of Science and Scopus.	
Unit – III: Types of Reading Resources		**(12 Hours)**
3.1	Types of reading resources - Reading for task-oriented and pleasure.	
3.2	General reading resources: newspaper, magazines, novels and fictions	
3.3	Task-oriented reading resources - text books, reference books, journals, biographies	
3.4	Ways and means of utilizing reading resources: Print, ICT	
3.5	Library Services for Special need users	
Unit – IV: Enabling Easy Access to Reading Resources		**(6 Hours)**
4.1	Library services - Library orientation – Book bank and its uses - Reference service	
4.2	Current awareness service - selective dissemination of information	
4.3	Translation service, Bibliographic service	
4.4	Indexing and abstracting services – online service	
4.5	Preservation & Conservation of documents	
Unit – V: Reading and Reflections		**(6 Hours)**
5.1	Guided Reading – Concepts, essential elements, Four kinds of reading : Reading aloud, Shared Reading, Guide Reading, and Independent Reading	
5.2	Information Literacy: Library resources for classroom teaching and learning	
5.3	Ways and Strategies to build a reading habit	
5.4	Methods of Review of articles in newspapers, magazines and journal	
5.5	Process of review of books	

References	
1.	Fountas, I. C., & Pinnell, G. S. (2016). *Guided reading: Good first teaching for all children.* Portsmouth: Heinemann.
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2						3			
CO2	1	3	1	2						
CO3	2									3
CO4	3			2		3				
CO5	2					3			3	

3 - High Correlation2 - Moderate Correlation 1 - Low Correlation

SEMESTER II

Group A: Perspectives in Education	
B2 CC 05	Emerging Challenges in Indian Education
B2 CC 06	Learner and Learning –II
B2 CC 07	Educational Technology
B2 CC 08	Peace Education
Group B: Curriculum and Pedagogical Studies	
Pedagogy 1	
B2 P1 12	Pedagogy of English – Paper II
B2 P1 22	Pedagogy of Computer Science – Paper II
B2 P1 32	Principles of Commerce and Accountancy Education – Paper II
Pedagogy 2	
B2 P2 12	Pedagogy of Biological Science – Paper II
B2 P2 22	Pedagogy of Commerce and Accountancy – Paper II
B2 P2 32	Pedagogy of Special English – Paper II
B2 P2 42	Pedagogy of History – Paper II
B2 P2 52	Pedagogy of Mathematics – Paper II
B2 P2 62	Pedagogy of Physical Science – Paper II
Enhancing Professional Capacities (EPC)	
B2 EPC 2	Drama and art in Education
B2 EPC 3	Health, Physical Education and Yoga

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B2 CC 05	EMERGING CHALLENGES IN INDIAN EDUCATION	4

Preamble

The aim of this course is to develop capability of formulating possible good solutions to the challenges and issues in Indian education by realizing the salient features of emerging trends in education.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	elucidate the salient features of emerging trends and special problems of pre-primary education.
CO2	describe the salient features of emerging trends in education, issues and challenges at primary level.
CO3	identify the emerging trends in secondary, higher secondary and higher education.
CO4	realise the importance of teacher education in India.
CO5	provide the solutions to the challenges in Indian education.

Unit – I: Pre – Primary Education: Issues and Challenges	**(12 Hours)**
1.1	Pre-Primary: Meaning, Aims, Objectives, Need and Importance.
1.2	Pre – Primary Schools: Types, objectives – Curriculum and Methods of instruction
1.3	Recommendations of Commission: Sergeant, Secondary Education, Education Commission (1966).
1.4	Problem: Objectives, Curriculum, trained staff methods and Instructional Methods and awareness, Free Education compulsory priority, eligibility.
1.5	Roles of ICDS, TINP, and chief ministers Nutritious Meal scheme in Child welfare program.
Unit – II: Primary Education: Issues and Challenges	**(12 Hours)**
2.1	Primary: Meaning, Aims, Objectives, Need and Importance.
2.2	Providing Educational Opportunities: Endeavours.
2.3	New Education Policy on primary Education.
2.4	Implementation of compulsory Primary Education impediment.
2.5	Roles of National and international Programme in implementation of Compulsory Primary Education.
Unit – III: Secondary, Higher Secondary and Higher Education	**(12 Hours)**
3.1	Secondary, Higher Secondary and Higher Education: Meaning, Aims, Objectives, Need and Importance
3.2	Problem of quality in Secondary and higher secondary Schools.
3.3	National and international commissions reports on higher Secondary Education, Vocationalization –emphasis on the development – Role of NCERT.
3.4	Higher Education – Meaning, concept and importance commissions reports – Problems and issues.
3.5	Process of improving quality of curriculum, Methods and research in higher Education.
Unit – IV: Teacher Education	**(12 Hours)**
4.1	Teacher Education: Meaning, Aims, Objectives, Need and Importance.
4.2	Selection for Training, Professional Preparation at different Levels, improvement and Expected outcomes (NCTE).
4.3	Enhancing Professional efficiency – agents of teacher education at State and Central level
4.4	Problems in Teacher Education and remedial measures.
4.5	In-service Education – Definition, Meaning, Concept, Need important Problems and Suggestions.

Unit – V: Aspects of Challenges in Education	**(12 Hours)**
5.1	Women Education: Meaning, objectives and importance. Significant Problems of Women, Place of women in economic and national development, practical activities for women development.
5.2	Population Education: Meaning, Objectives, and importance. Introducing contents of Population Education at Primary, Secondary and higher education level, Present status – Factors affecting – remedial Measures for Controlling Population, small family norms, advantages.
5.3	Language Problems: Need, Meaning, Forms, different facets, Link Language of Minorities, Place of English - Recommendations of Eswar Patel Committee and Classical Languages.
5.4	Health Education: Need, Importance, Objectives and scope - Problems in School health Programme remedial Measures.
5.5	Environmental Education: Definition, Meaning, Need, Importance and Scope. Role of Teacher in Meeting the Challenges of air water, Land and Noise Pollution - effects on human, animals and Plants - constitutional Provisions to Environmental Protection – role of individual, Public and Government – Recent Trends in Environmental Education.

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9.	C.P.R. Environmental Education Center. *Water a book*. Madras: Aiyar Foundations.
10.	Gleick, H.P. (2006). *Water in developmental environment and securicts*. Indian Institute of Ecology and Environmental occasional Monograph.
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20.	Shrivastaa, K.K. (2004). *Environmental education principles, concepts and management*. New Delhi: Kaniska.
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2		2	3	2		2			2
CO2	2		2	3	2		2		2	2
CO3		2	2	3	2		2	2	2	2
CO4	2	2	2	3		2	2		2	2
CO5	2		2	3					2	2

3 - High Correlation2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B2 CC 06**	**LEARNER AND LEARNING II**	**4**

Preamble

The significant aims of this course are two folded. First it enables the student teachers to understand the adolescence, post adolescence characteristics problems and help the to acquire a clear concept of competence (motivation). Secondly it enables them to gain knowledge about personality, adjustment and mental health.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	remember adolescent, post adolescent characteristics and their problems. Develop discipline and character among adolescent learners.
CO2	analysis and Synthesis sources of learner's motivation and apply it properly in the classroom to enhance pupil participation and their academic achievement.
CO3	remember self-efficacy theory and achievement motivation theory to create the conditions favourable for achievement motivation.
CO4	understand various psychological attributes responsible for individual difference among learners and apply Multiple Intelligences approach for enhanced teaching.
CO5	assess learner's personality, understand the sources which create conflict frustration among learners.

Unit – I: Adolescence and Group Behaviour		**(12 Hours)**
1.1	Stages of development – Erickson's theory - Adolescence – Characteristics.	
1.2	Problems of adolescence – psychological, emotional and educational.	
1.3	Discipline and character development.	
1.4	Leadership and group behaviour.	
1.5	Social groups – meaning and characteristics – types – school and classroom as a social group.	
Unit – II: Motivation		**(12 Hours)**
2.1	Biological and psychological needs as determinants of behaviour.	
2.2	Motives and their kinds: Innate motives, acquired motives, social motives and personal motives.	
2.3	Theories of motivation - Maslow's self-actualization theory.	
2.4	Principles of motivation - achievement motivation.	
2.5	Techniques of motivating learners – arousal of motives.	
Unit – III: Individual Differences among Learners		**(12 Hours)**
3.1	Psychological attributes – Interest, aptitude, attitude, intelligence and creativity.	
3.2	Intelligence (Spearman, Thurstone, Thorndike and Guilford)	
3.3	Multiple intelligences (Gardner) – Emotional Intelligence(Goleman)	
3.4	Creativity – types of creativity	
3.5	Measures of intelligence and creativity – implications for teaching – learning in the light of changing concepts.	
Unit – IV: Individual Differences among Learners		**(12 Hours)**
4.1	Personality – Definition – meaning - influencing factors.	
4.2	Theories of personality: Psychoanalytic theory and socio psychological theory.	
4.3	Assessment of personality – Integrated personality – Development of Personality.	
4.4	Adjustment – definition – adjustment as achievement or process.	
4.5	Areas of adjustment - characteristics of a well-adjusted person.	

Unit – V: Mental Health and Hygiene	**(12 Hours)**
5.1	Meaning of mental health and mental hygiene - ways to preserve mental health.
5.2	Characteristics of a mentally healthy individual – Foundations of mental health.
5.3	Frustration and types of conflicts – Defence or Adjustment mechanisms.
5.4	Need for guidance and counselling – identification of children with counselling needs
5.5	Types of counselling (directive, client-centered, behavioural, gestalt and eclectic)

References

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1						3				
CO2	3									
CO3	3									
CO4					3					
CO5							3			

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B2 CC 07	EDUCATIONAL TECHNOLOGY	4

Preamble

To stimulate prospective teachers in effective usage of educational technology and its concepts in real time classrooms.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	explain the meaning, nature, scope, objectives, and evolution of Educational Technology, including pedagogical and instructional technology in teaching-learning processes.
CO2	demonstrate effective classroom communication skills by applying principles, theories, modes, and strategies of communication to enhance teaching effectiveness
CO3	utilize appropriate hardware and software teaching aids, digital resources, and educational media for effective classroom instruction.
CO4	demonstrate knowledge of computer operations, networking, virtual classrooms, smart classrooms, and web conferencing tools in educational settings
CO5	integrate multimedia resources, computer-assisted instructional methods, and educational technologies for improving teaching-learning outcomes.

Unit – 1: Foundations of Educational Technology	**(12 Hours)**
1.1	Educational Technology – Meaning, nature, objectives, and scope in modern education.
1.2	Pedagogical and Instructional Technology – Principles, characteristics, and distinctions.
1.3	Setting instructional objectives – Criteria for selecting materials, media, and methods; introduction to Instructional Design Models ADDIE and ASSURE models.
1.4	Evolution and development of educational technology – Traditional to digital transformation.
1.5	Introduction to Education 4.0 and AI in instructional design for learner-centered, and adaptive learning.
Unit - 2: Communication Technology	**(12 Hours)**
2.1	Communication – Definition, characteristics, process & sources.
2.2	Communication cycle, major theories, and principles.
2.3	Classroom communication – verbal and non-verbal modes, teacher's role, and communication planning.
2.4	Communication barriers – internal and external, and strategies to overcome them.
2.5	Interactive communication – objectives and use of tools like interactive media, audio and video conferencing.
Unit - 3: Hardware and Software Teaching Aids	**(12 Hours)**
3.1	Definition and principles of using hardware and software teaching tools in the classroom.
3.2	Practical applications of teaching hardware (Smartboards and Interactive Flat Panels) and software (Educational apps, simulations) in lesson delivery.
3.3	Effective use of hardware tools to support personalized learning and collaborative group activities.
3.4	Role of educational broadcast media (Kalvi TV and SWAYAMPRABHA) and use of Open Educational Resources (OER) for accessible and flexible learning.
3.5	Use of computers, screencasts, podcasts, digital lesson plans, e-portfolios, and animations.

Unit - 4: Computer Operation and Networking	**(12 Hours)**
4.1	Computer - uses and its importance – important parts of computer and their specific applications – Input and output devices.
4.2	Storage devices – primary and secondary – functional uses – classification.
4.3	Networking – concept, types and advantages.
4.4	Virtual Classroom & Smart Classrooms - concept, elements, advantages and limitations
4.5	Web conferencing tools - Virtual Reality and Augmented Reality in Education
Unit - 5: Applications of Multimedia in Classroom	**(12 Hours)**
5.1	Multimedia – meaning- characteristics -features - components - application of multimedia
5.2	Programmed Instruction - Computer Assisted Instruction (CAI) - Computer Based Training (CBT) -Web-Based Training (WBT)
5.3	Media selection and integration process - need of media selection – factors affecting media selection - procedure for selecting media.
5.4	Major institutions of educational technology in India – CIET, EMMRC (AVRC, EMRC and MCRC), IGNOU, SIET, Consortium for Educational Communication (CEC), UGC, their role in education.
5.5	Video content production – Application ofEducational Studio – Software and Hardware requirements – Steps from Script Writing to Video Rendering.
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	3		3					1	
CO2	1	2		3	3				2	
CO3		3		3	1		2			2
CO4		2		3					2	3
CO5	2	3		3	2				2	2

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B2 CC 08	PEACE EDUCATION	4

Preamble

The aim of this course is to inculcate the knowledge of peace education and apply the best practices of non-violence, tolerance, equality and social justice in everyday life.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	recognise the meaning, need, aim and objectives of Peace Education and relate the status of Peace Education in curriculum and organisation for global peace.
CO2	justify the non-violence for peace and educational setting to promote peace.
CO3	participate creatively in all aspects of peace studies, peace-building in conflict and their resolutions.
CO4	criticize the Gandhian Philosophy of Peace and Non-Violence and comprehend the Indian context views and perceptions of peace.
CO5	promote the culture of peace and apply the best practices in life.

Unit – 1: Introduction	**(12 Hours)**
1.1	Introduction to Peace Education - Meaning and concept of Peace
1.2	Need for peace education- Aims and Objectives of Peace Education
1.3	Status of Peace education in the curriculum
1.4	Organizations for Global Peace.
1.5	The role of Peace education in developed and developing countries - Adoption of peace education in curriculum at various level.
Unit – 2: Non Violence for Peace and educational setting	**(12 Hours)**
2.1	Relationship between peace and non-violence.
2.2	Role of violence and in our lives and the lives of others
2.3	Exposure to non violence through media- Consequences-Crisis and the management.
2.4	Psychological factor affecting non violence – strategies to bring about non violence in schools.
2.5	Individuals and long term solutions to maintain non - violence.
Unit - 3: Peace and Conflict Resolution	**(12 Hours)**
3.1	Bases of conflicts - Positive and negative aspects of conflicts
3.2	Types of conflict -Learning of conflict management and conflict resolution
3.3	Conflict management and conflict resolution.
3.4	Role of Peace Education in resolving conflict
3.5	Reducing conflicts among students
Unit – 4: Peace in Indian Context	**(12 Hours)**
4.1	Peace in Ancient Indian Literature – Thirukkural
4.2	Emperor Asoka's Kalinga War, Conversion
4.3	Propagation of peace – Jainism and Buddhism
4.4	Gandhian Philosophy of Peace and Non-Violence Techniques of Non- Violence Resistance.
4.5	India: Peace-Loving Country, Policy of Panch Sheel and role of Non- Alignment Movement.

Unit – 5: Educating for Culture of Peace	**(12 Hours)**
5.1	Ecological Thinking and respect for life (ages 8-12)
5.2	Tolerance and respect for human rights (ages 11 to 16)
5.3	Critical thinking and active non-violence (ages 12+) - knowledge, attitude and skills to be learnt at classroom activities
5.4	Social justice and civic responsibility (ages 14+)
5.5	Leadership and global citizenship (ages -16+) - knowledge, attitude and skills to be learnt - classroom activities

References

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1			1	3		1	1	1		
CO2	1					3	1	1		
CO3			3			1	1	2		1
CO4			1			2	2	3		1
CO5			1			2	1	2		3

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B2 P1 12**	**PEDAGOGY OF ENGLISH – PAPER II**	**4**

Preamble

The aim of this course is to provide foundation for enhancing second language learning skills especially reading and writing, and reflect on the current practices in English language teaching.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	design and develop traditional and digital lesson plans and learning materials.
CO2	gain mastery in intensive reading skill in English.
CO3	develop their extensive reading skill in English.
CO4	examine various methods in teaching English grammar and apply in classroom transaction.
CO5	enhance their language mastery in writing skill and apply in everyday communication.

Unit – 1: Lesson Planning and Preparation of Materials	**(12 Hours)**
1.1	Planning in English Language Classrooms
1.2	Outline of a Unit Plan
1.3	Lesson Plan – Meaning and Significance
1.4	Components and Format of a Traditional and Digital Lesson Plan
1.5	Preparation of other materials for teaching learning – traditional and digital materials.
Unit – 2: Teaching of Intensive Reading	**(12 Hours)**
2.1	Teaching of Prose – Objectives – Steps and procedure involved in Teaching of Prose
2.2	Types of Vocabulary – Techniques of Teaching Vocabulary
2.3	Teaching of Structures – Techniques of Teaching Structures
2.4	Teaching of Poetry - Objectives– Steps and procedure involved in Teaching Poetry
2.5	Difference between Teaching of Prose and Teaching of Poetry
Unit – 3: Teaching of Extensive Reading	**(12 Hours)**
3.1	Teaching of Supplementary Reading - Objectives– Steps and procedure involved in Teaching Supplementary Reading
3.2	Organizing Classroom Library
3.3	Reading resources: Library- Digital library: e-Newspapers, e- Books, e- Journals.
3.4	Strengthening reading skill using print media, mass media and digital media.
3.5	Audio-visual Aids used in the English Class – Aural Aids, Visual Aids and Audio-visual Aids.
Unit – 4: Teaching of Grammar	**(12 Hours)**
4.1	Teaching of Grammar – Problems in Teaching Grammar
4.2	Types of Grammar – Formal and Functional
4.3	Procedure involved in Teaching Grammar
4.4	Methods of Teaching Grammar: Deductive Method, Inductive Method and Deductive-inductive Method
4.5	Language Activities used during English Classes
Unit – 5: Teaching of Writing	**(12 Hours)**
5.1	Teaching of Composition as Teaching of Writing
5.2	Principles of Composition
5.3	Types of Composition – Guided and Free Composition
5.4	Procedure involved in teaching Composition
5.5	Importance of Composition correction – Symbols used in composition correction

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	3		3	3	2	2		2	2
CO2	3	2	2	3			2		2	3
CO3	3	2		3					2	3
CO4	2	2	2	3	2	2	2		2	2
CO5	3	3	2	2		2	2		3	3

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B2 P1 22**	**PEDAGOGY OF COMPUTER SCIENCE: PAPER II**	**4**

Preamble

The aim of this course is to provide foundation for operating systems and their applications, the application software and its utilities and the elementary ideas on various learning strategies.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	interpret with different number systems and their uses in the functioning of computers.
CO2	organise and acquire knowledge on the operating systems and their applications.
CO3	familiarize with the application software and its utilities.
CO4	understand the concept of 'C' programming.
CO5	integrate the elementary ideas on various learning strategies.

Unit – 1: Functioning of Computer – An Insight	**(12 Hours)**
1.1	Concept of number systems – Decimal, Binary, Octal and Hexa-decimal numbers
1.2	Conversion of numbers from one number system to another
1.3	Binary Integer – Addition, Subtraction and Multiplication
1.4	Logic Gates – Importance – Types
1.5	Computer Arithmetic – Pitfalls in computing
Unit – 2: Operating System and its Applications	**(12 Hours)**
2.1	Operating System – Functions, development and Types
2.2	Concept of Interpreters and Compilers –Utilities
2.3	Windows – Importance and Applications
2.4	Linux and its applications
2.5	Software – Types and Utilities
Unit – 3: Application Software – Utilities in Education	**(12 Hours)**
3.1	Application Software – Introduction, Utilities, Types
3.2	Programming languages – Concepts, Types, Importance
3.3	User-Friendly Software (Packages) – Meaning, Types, Utilities
3.4	Educational Uses of MS-Word and MS-Excel
3.5	Power Point and its Applications in Teaching and Learning
Unit – 4: Fundamentals of "C" Programming	**(12 Hours)**
4.1	"C" Language – Introduction and Utilities
4.2	Basic elements of "C" Language – Constants, Identifiers, Operators and Key Words
4.3	Statements in "C" Language
4.4	Programming – Concept on Problem Analysis, Algorithms and Flowcharts
4.5	Simple Programme Development in "C"
Unit – 5: Learning Styles and Computer Science	**(12 Hours)**
5.1	Co-Operative Learning – Concept and advantages in learning computer science
5.2	E-Learning – Meaning, Importance and Limitations
5.3	M-Learning – Meaning and its applications in learning
5.4	Blended Learning – an orientation
5.5	Shadow Learning – Concept and its advantages at school level

Practical	
1.	Creating text files using MS-Word
2.	Preparing worksheet with the help of MS-Excel
3.	Preparing slides using MS-PowerPoint
4.	Simple programme development in 'C'
5.	Creating text files using MS-Word

References

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	1	3		3					2	
CO2		2	3	3						1
CO3		2		3	2				2	2
CO4	3	2		3					3	2
CO5	2	3		3	3		2			

3- High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B2 P1 32**	**PRINCIPLES OF COMMERCE AND ACCOUNTANCY EDUCATION – PAPER II**	**4**

Preamble

The aim of this course is to provide different strategies, skills and evaluation techniques for the students of Commerce and Accountancy.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	develop classroom communication skills for Commerce and Accountancy teaching.
CO2	Identify and demonstrate Computer Applications for teaching Commerce and Accountancy.
CO3	design unit plan and year plan in teaching Commerce and Accountancy.
CO4	prepare lesson plan based on new approaches.
CO5	construct the achievement test in teaching Commerce and Accountancy.

Unit – 1: Communication Techniques	**(12 Hours)**
1.1	Communication – meaning-process of Communication – types of Communication.
1.2	Principles of Communication – various Stages in modern Communication-communication techniques.
1.3	Barriers of Communication – semantic, psychological/personal and institutional barriers.
1.4	Classroom Communication – interaction analysis – important of communication skills required for commerce and accountancy teachers.
1.5	Factors influencing classroom communication- classroom discipline.
Unit – 2: Computer Applications in Commerce	**(12 Hours)**
2.1	Generation of Computers – input/output devices – hardware and software.
2.2	World Wide Web – concepts and applications –search engines-its uses in business.
2.3	Networking and its uses – internet and intranet – internet Banking, Mobile- banking, e-statement.
2.4	Tally 9.1 (New version) – company creation – journal, daily report, profit and loss account and balance sheet preparation – VAT (Value Added Tax).
2.5	e-Commerce – impact of information technology – EDI (Electronic Data Interchange): order processing, invoicing.
Unit – 3: Unit Plan and Year Plan	**(10 Hours)**
3.1	Planning - concept - nature - need and importance of planning
3.2	Year plan - meaning - importance - steps in year planning - year planning in new approach of curriculum transaction.
3.3	Unit plan - meaning - importance – principles and steps - unit planning in new approach.
3.4	Preparation of year plan and unit plan in Commerce and Accountancy - unit formation - procedures.
3.5	Advantages of unit planning, year planning-demerits and limitations of unit plan and year plan.
Unit – 4: Lesson Planning	**(12 Hours)**
4.1	Lesson plan – meaning-origin-need for lesson planning-types of lessons.
4.2	Principles of lesson planning – requirements in preparing lesson plan – steps in lesson planning.
4.3	Behaviourist approaches in lesson planning- Herbartian - gloverian - evaluation-unit and RCEM approaches.
4.4	Lesson plan under new approach-constructivist approach-curriculum objectives.
4.5	Script for a lesson plan -writing lesson plan for both Commerce and Accountancy.

Unit – 5: Evaluation	**(14 Hours)**
5.1	Evaluation-concept-characteristics-need-importance-evaluation tools.
5.2	Criterion of an effective tool of evaluation-reliability-validity-types-factors influencing the reliability and validity-item analysis.
5.3	Construction of Achievement test – design, blueprint, marking scheme – question wise analysis.
5.4	Types of questions –objective type, short answers and essay type questions – criterion for a good test.
5.5	Administration of an achievement test – scoring and recording of test results.

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	2			2		2			
CO2	2	3			2				2	2
CO3	2			3	2				1	2
CO4	3	2		3					2	
CO5	2	2		3						

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B2 P2 12**	**PEDAGOGY OF BIOLOGICAL SCIENCE – PAPER II**	**4**

Preamble

The aim of this course is to provide the foundation for teaching and planning, preparation of lesson plans, achieve competency in micro teaching skills and preparation of Teaching aids.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	implement the plan and prepare lesson plan effectively.
CO2	generate Computer Assisted Instruction in Classroom.
CO3	adopt and apply Various techniques of Teaching Biological Science.
CO4	recognize the importance of audio-visual aids to enhance the Teaching Biological Science.
CO5	apply the important concept of Biological Science at VIII Standard level.

Unit – 1: Planning of Instruction		**(12 Hours)**
1.1	Lesson plan Definitions, Meaning, Need and Importance.	
1.2	Writing Instructional Objectives.	
1.3	Herbartian Lesson plan - Various types, Pros and cons.	
1.4	Unit Plan: Definitions, Meaning, and importance.	
1.5	Preparation - various steps - advantages and disadvantages.	
Unit – 2: Methods of Teaching		**(12 Hours)**
2.1	Teaching - Concept and Meaning.	
2.2	Relation between approaches, Method and Technique of Teaching.	
2.3	Teacher centered approaches - Lecture, types of lecture Demonstration, Team teaching, Historical Method - Merits and demerits	
2.4	Pupil centered approaches - Laboratory method, Project method, assignment, Heuristic Method- Merits and demerits	
2.5	Computer Assisted Instruction – Smart board and Mobile apps.	
Unit – 3: Techniques of Teaching of Bioscience		**(12 Hours)**
3.1	Seminar, Symposium, Study circle, Discussion.	
3.2	Team Teaching and Brain storming.	
3.3	Inductive - deductive approach – Meaning, Comparison of Examples, Pros and cons.	
3.4	Scientific approach, Inquiry approach.	
3.5	Activity approach, idealistic approach.	
Unit – 4: Instructional Aids in Biology		**(12 Hours)**
4.1	Audio – Visual aids – Needs and importance	
4.2	Mnemonic aids – Activities aids – Uses	
4.3	Real objects – Microscope, Skeletons, specimens of plant and animals	
4.4	Representational aids – Charts, Pictures, Photographs diagrams, Models, display boards, Insect box, herbarium – Uses	
4.5	Electronic aids – PPTs, Videos and Simulators.	
Unit – 5: Teaching of Content of Biology at Standard VII		**(12 Hours)**
5.1	Reproduction and Modification in Plants	
5.2	Health and Hygiene	
5.3	Cell Biology	
5.4	Basis of Classification	
5.5	Animals in Daily Life.	

Practical	
1.	Preparation of Unit plan and Lesson plan.
2.	Preparation of Working and Non-working models for class VI to XII.
3.	Preparation of e-content using Educational Studio.
4.	Video Production using AR and VR.

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	2	1		3	3	2			2	2
CO2	3	3		2	2				3	
CO3	3	2	1	3	3	1		2	3	2
CO4	2	2		3	2		1		2	1
CO5	3	2		3	3	1		1	2	1

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B2 P2 22**	**PEDAGOGY OF COMMERCE AND ACCOUNTANCY- PAPER II**	**4**

Preamble

To train the Commerce teachers to acquaint with knowing different sources of Commerce Education, methods and trends in Commerce and Accountancy.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	design lifelong education to learners according to their needs, aptitude and convenience.
CO2	apply the theories of motivation and provide rationale for the students in the classroom.
CO3	organize an effective classroom management system for a better climate.
CO4	identify different types of learning resources in Commerce education.
CO5	apply educational statistics in teaching Commerce and Accountancy.

Unit - 1 : Learning Process and Lifelong Learning	**(12 Hours)**
1.1	Concept of learning-nature and characteristics of learning-domains of learning.
1.2	Variables in learning-Individual variable-task variable-method variable
1.3	Lifelong learning- meaning- importance- current scenario
1.4	Approach- focus on lifelong learning- university specific programmes- developing lifelong learning as a discipline of study and field of practice.
1.5	Creation of centres of excellence- role and functions of departments of lifelong learning –UGC support to lifelong learning programmes.
Unit – 2 : Motivation Techniques in Commerce	**(12 Hours)**
2.1	Motivating – meaning and definition-importance of motivation.
2.2	Kinds of motivation- intrinsic and extrinsic motivation- Motivation techniques.
2.3	Rewards and punishment as motives in learning-Merits and demerits- praise and blame as motives in learning.
2.4	Hierarchy of motives- Maslow's Hierarchy of needs- Application of Maslow's theory in commerce classroom.
2.5	Achievement motivation- characteristics- achievement motivation and learning.
Unit – 3 : Classroom Management in Commerce	**(12 Hours)**
3.1	Classroom management- concept-principles of classroom management.
3.2	Factors influencing classroom management- techniques of classroom management- time management.
3.3	System approach- input – process- output and feedback- aspects in commerce and accountancy teaching
3.4	Classroom climate- factors influencing or creating a better classroom climate- teacher role.
3.5	Educational management - management theories in educational administration.
Unit – 4 : Resources Used in Commerce Education	**(12 Hours)**
4.1	Commerce department- plan for the department- factors to be considered for establishing a department.
4.2	Commerce laboratory- Creating-Furnishing and equipping.
4.3	Commerce library- print and on line resources- commerce journals, reports and other related items.
4.4	Commerce club- organization- office bearers.
4.5	Maintenance of registers and records – its importance and equipping the department- teachers diary- time table- principles of timetable.

Unit – 5: Interpretation and Recent Trends in Evaluation	**(12 Hours)**
5.1	Interpretation of test results-Educational Statistics – graphical representation of a score
5.2	Measures of central tendency – mean, median and mode-its classroom situation.
5.3	Measures of Dispersion and its uses in classroom situation – correlation - rank correlation.
5.4	Recent trends in evaluation- formative and summative evaluation.
5.5	Internal and External Examination- Diagnostic and Prognostic Test in Commerce.
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	2					2			2	3
CO2				3	2		2			2
CO3	3	2		2	3	2	2		2	
CO4			2	2				2	2	
CO5	2	2		3		2			2	

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B2 P2 32**	**PEDAGOGY OF SPECIAL ENGLISH – PAPER II**	**4**

Preamble

To train the Prospective Teachers to master the relevant contents at Secondary level and help them develop into effective teachers at Secondary level.

Course Outcomes (COs)

On the successful completion of the course, student teachers will be able to

CO1	plan effective means and methods of achieving goals in teaching Intensive Reading namely Teaching of Prose and Teaching of Poetry.
CO2	achieve goals in teaching Supplementary Reading besides strengthening the Extensive Reading of the Trainee Teachers.
CO3	familiarize with the grammatical terminology and working knowledge in select grammatical units.
CO4	improve the writing ability of the student teachers in English and help them teach composition to advanced students of English Language.
CO5	master the Language Elements used in the X Standard English Course Book of Tamil Nadu Textbook and Educational Services Corporation.

Unit – 1: Intensive Reading	**(12 Hours)**
1.1	Aims and Objectives of Teaching English at Higher Secondary Level
1.2	Intensive Reading
1.3	Teaching of Prose – Objectives – Steps and Procedures involved in Teaching of Prose at Higher Secondary level
1.4	Teaching of Poetry – Objectives – Steps and Procedures involved Teaching of Poetry at Higher Secondary level
1.5	Audio-visual Aids and Digital applications used in the English Classroom at Secondary level.
Unit – 2: Extensive Reading	**(12 Hours)**
2.1	Problems in Reading comprehension
2.2	Steps and Procedures involved in Teaching of Supplementary Reading at Higher Secondary level
2.3	Problems in Reading comprehension
2.4	Library Resources used in Extensive Reading
2.5	Developing Reading using Apps in Smartphone, Digital Library, Blogs and E-readers.
Unit – 3: Teaching of Grammar and Usage	**(12 Hours)**
3.1	Labels of Grammatical analysis
3.2	Limitations of Indian learners in Learning Grammar
3.3	Types of Grammar – Descriptive and Prescriptive Grammar
3.4	Steps and Procedures involved in Teaching of Grammar
3.5	Methods of Teaching Grammar
Unit – 4: Teaching of Writing - I	**(12 Hours)**
4.1	Letter Writing
4.2	Paragraph Writing
4.3	Essay Writing
4.4	Teaching of Composition – Objectives – Types of Composition
4.5	Steps and Procedures involved in Teaching of Composition at Higher Secondary level

Unit – 5: Analysis of Reader in English	**(12 Hours)**
5.1	Language Components of the Content of X Standard English Reader of Textbook and Educational Services Corporation. *www.textbooksonline. tn.nic.in*

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	2		3	2		3			2
CO2	3	3		2	3					3
CO3	3	2		3	3					2
CO4	3	2		3	3		3			3
CO5	3		2	3		3			2	3

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B2 P2 42**	**PEDAGOGY OF HISTORY - PAPER II**	**4**

Preamble

The aim of this course is to enable student teachers to become good teaching professional in history by providing knowledge of curriculum development and optimal utilization of resources.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	analyse the meaning and concept of curriculum development.
CO2	explore the ways and means of organisation of History curriculum.
CO3	prepare lesson plan, unit plan, year plan and individualized instruction materials.
CO4	acquire skills and competency to plan various resources and equipments in History.
CO5	describe the various types of evaluation and tests in teaching History.

Unit – 1: Curriculum Development	**(12 Hours)**
1.1	Meaning, Definition and Concept of Curriculum, Principles of Curriculum construction
1.2	History syllabus – on the basis of geographical boundaries – World History, National History, Regional and Local History
1.3	On the basis of Chronology – Ancient History, Medieval History and Modern History.
1.4	On the basis of Circumstances – Political History, Economic History and Social History.
1.5	Curriculum in Social Science – UNESCO Planning Mission, Indian Education Commission.
Unit – 2: Organization of History Curriculum	**(12 Hours)**
2.1	Theories Influencing Selection of Subject Matters – Cultural Epoch Theory, Biographical Approach, Psychological Theory
2.2	Chronological and Genealogical Plan
2.3	Concentric and Spiral Plan
2.4	Regressive and Progressive Plan
2.5	Unit Plan and Topical Plan.
Unit – 3: Planning for Instruction and Individualised Instruction	**(12 Hours)**
3.1	Lesson Planning – specific instructional objectives (knowledge, understanding, application, analysis and skills), Need, Principles, Herbartian Steps – Unit Plan
3.2	Year plan, Term plan, Monthly plan and Weekly plan
3.3	Programmed Instruction
3.4	Computer Assisted Instruction
3.5	Personalised System of Instruction
Unit – 4: Resources and Equipments	**(12 Hours)**
4.1	Instructional Resources – Textbook, Work book, Supplementary Reading Material, Audio Visual Aids
4.2	Historical Resources – Palace, Museum, Fort, Archives, Excavated Archaeological Sites
4.3	Community Resources – Guest Lectures, Community Survey, Mass Media
4.4	History Class Room – Need and Essential Equipments
4.5	History Library – Significance and Essential Equipments.
Unit – 5: Evaluation in History	**(12 Hours)**
5.1	Meaning, Concept, Purpose, Characteristics and Types of Evaluation
5.2	Different Types of Test – Achievement Test, Diagnostic Test and Prognostic Test.
5.3	Construction of Achievement Test
5.4	Types of Questions and Administration of an Achievement Test
5.5	Educational Statistics: Meaning and Need - Measures of Central Tendency, Measures of Dispersion and Correlation

References	
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	2		2	3		2	2			2
CO2	2	2	2	3	2	2	2	2	2	2
CO3	3	2		3	2				2	
CO4	3	2		3				2	2	
CO5				3	2				2	2

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B2 P2 52**	**PEDAGOGY OF MATHEMATICS - PAPER II**	**4**

Preamble

The aim of this course is to focus on teaching Mathematics effectively using mathematical resources.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	analyse different aspects of curriculum development in Mathematics.
CO2	organize Mathematics teaching learning resources through Math Lab, Math Club, Math Library and Math Expo to enhance Mathematics learning.
CO3	classify and propose various teaching learning activities and programmes focused at individual learners to develop Mathematics skill.
CO4	reflect the virtues and expertise of professional enrichment for Mathematics teachers on a global scale.
CO5	construct various types of tests and employ the adequate statistical tools to assess the learners.

Unit – 1 : Curriculum Development in Mathematics	**(12 Hours)**
1.1	Definition of curriculum – Principles of curriculum construction – Mathematics curriculum – Need and importance of curriculum development in mathematics.
1.2	Types of Curriculum development and strategies to be employed.
1.3	The stages of curriculum development in Mathematics.
1.4	Current trends in Mathematics curriculum – Need and importance of Integrating STEM and STEAM curriculum.
1.5	Different approaches followed in curriculum development in Mathematics.
Unit - 2 : Organisation of Mathematical learning resources	**(12 Hours)**
2.1	Conducive classroom conditions for learning Mathematics - role of mathematics teacher in the classroom
2.2	Mathematics Laboratory – need, importance and functions
2.3	Mathematics Library – need, importance – organisation and maintenance of records, list of books
2.4	Mathematics club – formation and functions
2.5	Math – EXPO - Organisation, need and importance.
Unit- 3: Characteristics of Individual Learners	**(12 Hours)**
3.1	Identifying individual differences - slow learners and gifted
3.2	Diagnosis and remediation of student difficulties in learning mathematics.
3.3	Enrichment programmes for the gifted to enhance learning mathematics.
3.4	Organising group work - dealing with homogeneous and heterogeneous groups
3.5	Talent Examinations - State, National, and International levels.
Unit - 4 : Mathematics Teacher and Professional Enrichment	**(12 Hours)**
4.1	Mathematics teacher - academic and professional qualification - professional growth of a teacher.
4.2	Pre-service and in-service programme- need and importance of attending various training programmes - enrichment course and membership of professional association.
4.3	Duties and responsibilities of a mathematics teacher - social and environmental responsibilities - problems faced by mathematics teachers.
4.4	Preparation and the importance of Teacher's Diary, Time-table, maintenance of registers and records.
4.5	Special qualities required for mathematics teachers.

Unit - 5: Evaluation	**(12 Hours)**
5.1	Construction of Achievement test - design, blueprint, marking scheme - question wise analysis.
5.2	Types of questions - short answers, objective type question - criterion for a good test.
5.3	Administration of an achievement test - scoring and recording of test results.
5.4	Diagnostic and Prognostic test - Remedial teaching in mathematics.
5.5	Educational Statistics - graphical representation of a score - measures of central tendency - mean, median and mode - Measures of Dispersion and its uses in classroom situation - correlation and rank correlation.

References

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2		2	3		1			3	2
CO2	1	3		1	2	1				2
CO3	1	1			3	1	2		2	
CO4	3	2		1	2				2	1
CO5		2		2	2				3	1

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B2 P2 62**	**PEDAGOGY OF PHYSICAL SCIENCE – PAPER II**	**4**

Preamble

The aim of this of this course is to develop an understanding of Physical Science, Methods of Teaching, Evaluation, Curriculum Projects, Preparation of Teaching aids in Physical Science.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	differentiate between unit plan and lesson plan, prepare digital lesson plan following Herbartian steps.
CO2	explain the different types of test items used in Achievement test and Diagnostic test in Physical Science.
CO3	explain the steps and principles in curriculum development and approaches to curriculum organization.
CO4	describe the uses of various teaching aids in teaching different units of Physical Science.
CO5	analyse the role of Science reader and evaluate the Science content in VI to VII standard science text books of Tamil Nadu Textbook corporation.

Unit - 1 : Plan and Lesson Planning		**(12 Hours)**
1.1	Unit Plan –Meaning –steps and characteristics – unit formation in Physical Science	
1.2	Importance and advantages - Demerits and limitations of unit planning.	
1.3	Lesson Planning – Definition - developing a lesson plan and its importance.	
1.4	Steps involved in Lesson Planning- Herbartian steps and Preparing Lesson Plans and digital lesson plan	
1.5	Comparison of lesson plan and unit plan – tips for lesson preparation and presentation.	

Unit - 2: Evaluation in Physical Science		**(12 Hours)**
2.1	Introduction, concept of test - Measurement and Evaluation	
2.2	Levels of Evaluation, Types of Evaluation and Evaluation Process.	
2.3	Techniques and Devices of Evaluation in Physical Science.	
2.4	Selection of the Appropriative Evaluation Technique.	
2.5	Constructions and use of tests – Achievement and Diagnostic tests in Physical Science.	

Unit – 3: Curriculum in Physical Science		**(12 Hours)**
3.1	Definition of curriculum- Principles of curriculum formation – science curriculum	
3.2	Approaches to Curriculum formation- curriculum styles – various curricula projects	
3.3	Curriculum in Physical Science – UNESCO Planning Mission, Indian Education Commission, Ishwar Bhai Patel Committee	
3.4	Curriculum Improvement Projects -NPE, NCERT and PSSC (Physical Science Study Committee), Nuffield science teaching projects	
3.5	Curriculum in science for different stages, Curriculum models	

Unit- 4 : Preparation of Teaching Aids in Physical Science		**(12 Hours)**
4.1	Meaning and Classification of Teaching Aids	
4.2	Need for the Preparation of Teaching Aids	
4.3	Preparation of Graphic Aids in Physical Science	
4.4	Preparation of Models with Different Types of Materials (Clay and Paper- Made Models)	
4.5	Selection of teaching aids - Handling aids for effective teaching.	

Unit – 5 : Content in Science Reader - VIII Standard	**(12 Hours)**
5.1	Heat: Effect of heat- Expansion - Rise in Temperature- change of state, Transfer of Heat, Conduction, Convection, Radiation, Temperature, Unit of heat, Heat capacity, Specific heat capacity, Calorimeter, Thermostat and Thermos flask.
5.2	Electricity: Atom, Charges, Transfer of charges, Flow of Charges, Electroscope, Lightning and Thunder, Electric circuits and Effect of Current.
5.3	Magnetism: Classification of Magnets, magnetic properties, Magnetic field, Magnetic materials, Earth's magnetism and use of magnets.
5.4	Acids and Bases: Properties – Differentiating – Uses – Neutralization – Indicators.
5.5	Hydrocarbons: Natural Gas- other Gases- Coal – Petroleum – Fuel – Alternative Fuel – Solar Energy.
Practical:	
1.	Preparation of Unit plan and two digital Lesson plans from the Physical Science text books at Secondary level published by Tamil Nadu Text book and Educational Services Corporations.
2.	Preparing a lesson plan using Power Point presentation.
3.	Preparing a Physical Science album using internet.
4.	Conducting a few experiments from the prescribed textbooks.

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	1	2	3				1			
CO2			3	2		3				
CO3	1	2			2		3	3		
CO4	3	2		1	2					
CO5		2		1		3		2		3

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B2 EPC 2**	**DRAMA AND ART IN EDUCATION**	**1**

Preamble

The aim of this course is to understand the importance of Art, Music and Drama in education and enhance the skills in performing arts.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	analyse of the importance of Indian Music in their life.
CO2	develop mastery in performing arts of our cultural.
CO3	realise the significant relationship between drama and education.
CO4	explore the skills in drawing and painting to used creatively for social welfare and development.
CO5	create art equipments that facilitate art education.

Unit – 1: Indian Music and Educational Implications		**(6 Hours)**
1.1	Introduction to Drama - Types – Tragedy, Comedy, Historical & Modern.	
1.2	Drama as a tool for learning - Process & benefits - Enhancing learning through Drama - Mono acting, Mime, Role play, Skit, Koothu, Puppet show	
1.3	Pioneers of Tamil drama - Shankar Das Swamigal - Pammal Sammantha Muthaliyar - Parithimar Kalaignar.	
1.4	Folk Music - Folk Music Genres: Lullaby, Sinthu, Kummy, Ballad (Songs during Cultivation and Harvest) and Boat Song.	
1.5	Value Education from Vidyalaya Bhajan Songs : Teaching of Sri Ramakrishna Paramahamsa, Holi Mother Sri Saratha Devi and Swami Vivekananda - Devotional and Patriotic songs.	
Unit – 2: Music in Education		**(6 Hours)**
2.1	Introduction to Indian Music - Shruti – Saptaswaras - Nadham - Thalam – Ragam - Hindustani Music, Carnatic Music & Tamil Music.	
2.2	Musical instruments: String, Wind, Percussion & Modern Electronic Instruments.	
2.3	Value Education through Vidyalaya bhajans - Songs expressing the teaching of Sri Ramakrishna Paramahamsa, Holy Mother Sri Sarada Devi and Swami Vivekananda – Indian Patriotic Songs.	
2.4	Traditional Dances of India - Bangra, Dhandiya Garbha and Baduga	
2.5	Folk Dances of Tamil Nadu - Karakam, Kavadi, Oyil, Mayil and Poikal kuthirai.	
Unit – 3: Dance in Education		**(6 Hours)**
3.1	History of Indian Dance - Natya Sastram.	
3.2	Types of Indian Dances - Bharatanatyam – Bavam (Expression) - Mudras in Bharatanatyam.	
3.3	Folk Dances of Tamil Nadu – Karakattam, Kavadi, Oyil, Mayil & Poikal kuthirai	
3.4	Talents and Cohesion: Skit, Dumb Charade and One-act play	
3.5	Street Theatre: Koothu, Puppet Show and Harikatha - Role of a teacher in encouraging creative expression	
Unit – 4: Drawing and Painting in Education		**(6 Hours)**
4.1	Colours - Types & Symbolic uses	
4.2	Drawing - Types - Pencil drawing, Charcoal drawing, Poster drawing, and Cartoons.	
4.3	Painting - Types – History of Tanjore paintings & Ajanta paintings - Worli art - Glass painting.	
4.4	Thanjavur Painting - History of Thanjavur Painting - Technology in Thanjavur Paintings	
4.5	Variety Painting - Vegetable Print Art, Stick Art, Rangoli and Glass Painting	

Unit – 5: Creative Art	**(6 Hours)**
5.1	Wealth from waste – Decorative items, Models and Utility objects.
5.2	Creative artifacts - Artifacts of music instruments - Veena – Nadhaswaram – Mridangam - Violin - Harp - Damaru.
5.3	Album Song Composing – Social Awareness Songs.
5.4	Video Making with Photos – Tools for Video Making suitable to School Children
5.5	Production of Artifacts - Artifacts of Music Instruments: Thampura, Harp, Nagaswaram and Harmonium.
Practical (any three)	
1.	Enact a drama - School subject / social awareness.
2.	Vocal Performance - Devotional / Patriotic songs.
3.	Preparation - Worli art.
4.	Cultural/Folk dances of Tamil Nadu.
5.	Creative Preparation of Teaching Aids and Learning Artifacts.
References	
1.	Aniruddha Mukherjee. (2019). *Drama and Arts in Education*. Kolkata: Rita Book House.
2.	Leela, S. V. (2013). *Bharathi Isai Iyal Payirchinool* – 2. Chennai: The Karnatic Music Book Centre.
3.	Munesh Kumar. (2016). *Drama and Art in Education.* Patna: Foundation Publishing House.
4.	*Vidyalaya Bhajanai Padalgal*. (2018). Ramakrishna Mission Vidyalaya. Coimbatore.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3					3	3			
CO2	3					2				
CO3	3		3		2					
CO4	3			1			3			
CO5	3				3				3	3

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B2 EPC 3	HEALTH, PHYSICAL EDUCATION AND YOGA	1

Preamble

The aim of this course is to practice and enhance the knowledge on health, fitness and balanced diet through yogic practices.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	gain knowledge in the aspect of Health and Balanced Diet.
CO2	understand the various aspects of Physical Education and Adapted Physical Education.
CO3	enumerate the fitness components and explain the fitness assessment test.
CO4	understand the basic concepts of Yoga.
CO5	grasp the concepts of Asanas and Pranayama and Yogic diet.

Unit - 1: Health Education and Nutrition	**(6 Hours)**
1.1	Definition of Health, Health Education, Health Supervision.
1.2	Aim, Objective and Principles of Health Education and School Health Services
1.3	Factors affecting Health, Health Supervision.
1.4	Personal and Environmental Hygiene in School.
1.5	Meaning of Balanced Diet, Components of food and their role (Macro- nutrients: Carbohydrates, Protein and Fat Micro-nutrients: Vitamins, Minerals).

Unit – 2: Physical Education	**(6 Hours)**
2.1	Meaning, Definition and Scope of Physical Education
2.2	Aim and Objectives of Physical Education
2.3	Importance of Physical Education
2.4	Relationship between Physical Education and General Education.
2.5	Adapted Physical Education (Differently abled persons)

Unit – 3: Physical Fitness	**(6 Hours)**
3.1	Definition of Physical Fitness, Components of Physical Fitness (Speed, Endurance, Agility, Strength, Coordination, Flexibility, Power, Balance, Reaction Time and Accuracy)
3.2	Need and Importance of Physical Fitness
3.3	Factors affecting Fitness (Age, Gender, Heredity, Habits, Environment, Stress, Sleeplessness)
3.4	Body Mass Index(BMI)- Calculation
3.5	Exercise to improve fitness – Value - added recreational games

Unit – 4: Astanga Yoga and Pranayama	**(6 Hours)**
4.1	Meaning and Definition of Yoga
4.2	Difference between the Physical Education andYoga
4.3	Paths of Yoga (Karma Yoga, Raja Yoga, Jnana Yoga and Bhakti Yoga) – Swami Vivekananda
4.4	Astanga Yoga (Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi),
4.5	Define asana, types of Asanas and Benefits of Asanas

Unit – 5: Pranayama & Yogic Diet	**(6 Hours)**
5.1	Pranayama: Definition and types of Pranayama (Surya Bhedana, Chandra Bhedana, Nadi Sudhi, Nadi Shodana, Bhastrika, Kapalapathi, Seetali, Setkari, Bharamari, Ujjai)
5.2	Swami Vivekananda: Pranayama Benefits of Pranayama.
5.3	Shart Kriyas (Neti, Dhouthi, Basti, Kapalapathi, Nauli and Trataka)
5.4	Yogic Diet (Sattvic, Tamasic and Rajasic)
5.5	Meditation- Benefits of Pranayama.

References	
1.	Baljit Singh. (2009). *Principles of Physical Education*. New Delhi: Sports Publication.
2.	Bucher, C.A. *Foundation of Physical Education*. Saint Louis: The C.V. Mosby Company.
3.	Frank, H. & Walter, H., (1976). *Turners School Health Education*. Saint Louis: The C.V. Mosby Company.
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5.	Moorthy A.M & Alagesan. S (2004). *Yoga Therapy*. Coimbatore: Teachers Publication House.
6.	Srimath Swami Asuthoshananda (10th Edition -2017). *Srimath Bhagavad Gita*. Chennai (Mylapur): Sri Ramakrishna Math Press.
7.	Srimath Swami Chidbhavananda (26th Impression -2015). *Srimath Bhagavad Gita*. Trichy (Tirupparaitturai): Sri Ramakrishna Tapovanam.
8.	Swami Vivekananda (4th Edition-2018). *Patanjali Yoga Sutras*. Chennai (Mylapur): Sri Ramakrishna Math Press.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1				3			3			
CO2				3		2				
CO3							3		3	
CO4							3	3		
CO5							3	3		

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

SEMESTER III

Group B : Curriculum and Pedagogical Studies	
Pedagogy 1	
B3 P1 13	Pedagogy of English – Paper III
B3 P1 23	Pedagogy of Computer Science – Paper III
B3 P1 33	Principles of Commerce and Accountancy Education – Paper III
Pedagogy 2	
B3 P2 13	Pedagogy of Biological Science – Paper III
B3 P2 23	Pedagogy of Commerce and Accountancy – Paper III
B3 P2 33	Pedagogy of Special English – Paper III
B3 P2 43	Pedagogy of History – Paper III
B3 P2 53	Pedagogy of Mathematics – Paper III
B3 P2 63	Pedagogy of Physical Science – Paper III

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B3 P1 13	PEDAGOGY OF ENGLISH – PAPER III	4

Preamble

The aim of this course is to develop an in-depth understanding and application of different methods, approaches in teaching learning process, and to utilize the resources available in English Language learning.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	explore and experience various traditional and digital resources available in English language learning and utilize them effectively.
CO2	review and use appropriately different methods in teaching of English language.
CO3	compare and employ different approaches in teaching of English language.
CO4	recognise and apply various assessment and evaluation techniques in teaching of English language at secondary school level.
CO5	get mastery in language elements used in the VII Standard English course book and employ their knowledge in classroom interaction.

Unit – 1 : Resources in Teaching English	**(12 Hours)**
1.1	Principles involved in the selection of Language materials
1.2	English Course Book
1.3	Work books and Question banks
1.4	Reference Materials used in Language Teaching
1.5	Standardized Resource Materials – BBC and VOA Cassettes and Handouts
Unit – 2: Methods of Teaching English Language	**(12 Hours)**
2.1	Methods, Approaches and Techniques in Teaching English
2.2	Grammar-translation Method – Principles - Merits and Demerits of the Method
2.3	Direct Method – Principles - Merits and Demerits of the Method
2.4	Bilingual Method – Principles - Merits and Demerits of the Method
2.5	Dr. West's New Method – Principles - Merits and Demerits of the Method
Unit – 3: Approaches in Teaching English at Secondary Level	**(12 Hours)**
3.1	The Structural Approach – Principles – Types of Structure
3.2	Criteria for the selection of Structures
3.3	The Situational Approach - Principles – Types of Situations
3.4	Teaching of Language Elements using Situations
3.5	The Communicative Approach – Principles – Activities employed in Communicative Approach
Unit – 4: Assessment and Evaluation at School	**(12 Hours)**
4.1	Continuous and Comprehensive Evaluation
4.2	Book back Exercises
4.3	Activities and Projects in English
4.4	Oral tests – Internal Assessment
4.5	Feedback and Backwash effect – Remedial Measures
Unit – 5: Analysis of Reader in English	**(12 Hours)**
5.1	Elements of Language from the Content of the VII Standard English Reader of Tamil Nadu Textbook and Educational Services Corporation. *www.textbooksonline.tn.nic.in*

References	
1.	Allen, H.B., & Campbell, R.N. (1972). *Teaching english as a second language*. New Delhi: Tata Mc Graw Hill.
2.	Anuradha, R. V., Girija Raman., & Hemamalini, H. C. (2015). *Methods of teaching English.* Hyderabad: Neelkamal
3.	Bright. J.A., & Mc Gregor, G. P. (1978). *Teaching english as a second language*. Singapore: Longman.
4.	Carroll.V (1997). *Interactive approach to second language reading*. London: Cambridge University Press.
5.	Geetha, N. (2000). *English language teaching: Approaches, methods and techniques*. Calcutta: Orient Longman.
6.	Harmer, J. (1990). *The practice of english language teaching*. Hong Kong: Longman.
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11.	O'Malley., & Chamot. (1997). *Learning Strategies & Second Language Acquisition*. London: Cambridge University Press.
12.	Prabhu, N.S. (1997). *Second Language Pedagogy*. New Delhi: Oxford University Press.
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14.	Robert, L. (1964). *Language teaching: A scientific approach*. New Delhi: Tata Mc Graw Hill.
15.	Rosalind Percy. (2015). *Teaching of English.* Hyderabad: Neelkamal.
16.	Saraswathi, V. (2005). *English language teaching – Principles and practice*. Hyderabad: Orient Longman.
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19.	State Council of Educational Research and Training. (2019). *English Course Book*, VII Standard. Chennai : Tamil Nadu Textbook and Educational Services Corporation. www. textbooksonline.tn.nic.in.
20.	Tickoo, M.L. (2003). *Teaching and learning english*. New Delhi: Orient Longman.
21.	Tiwari, S.R. (2006). *Teaching of english*. New Delhi: Ajay.
22.	Thompson, M.S.H. (2003). *Teaching of english*. New Delhi: DPH.
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24.	Vallabi, J. E. (2015). *Methods and techniques of teaching English – Principles and practices.* Hyderabad: Neelkamal
25.	Venkateswaran. P. (1997). *Principles of teaching english*. Bangalore: Vikas.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	3		3	2	2			3	2
CO2	3	2	2	3	2		2		2	2
CO3		2	2							
CO4	2	2	3	3	3					
CO5	3			3	2		2		3	3

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B3 P1 23**	**PEDAGOGY OF COMPUTER SCIENCE: PAPER III**	**4**

Preamble

The aim of this course is to develop an in-depth understanding of curriculum construction, methods of teaching computer science, application computer networking and enhance practical skills.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	familiarize the concept and construction of curriculum.
CO2	interpret with the different methods in imparting computer science concepts.
CO3	experiment the fundamentals of 'C++' and develop simple programs in C++.
CO4	plan and manage computer laboratory.
CO5	practice practical training in programme entry, editing and debugging.

Unit – 1: Curriculum in Computer Science		**(12 Hours)**
1.1	Curriculum – Meaning, Principles and Need	
1.2	Construction of Curriculum for Computer Science – Importance and Steps	
1.3	Evaluation of State Board Higher Secondary Computer Science Syllabus of Tamil Nadu	
1.4	Place of Computer concepts in Primary, Secondary and Higher Secondary level	
1.5	Computer Science and its Correlation with other school subjects	
Unit – 2: Methods of Teaching and Learning Computer Science		**(12 Hours)**
2.1	Methods of Teaching – Introduction, Need and Available methods	
2.2	Large Group Methods – Lecture, Seminar, Symposium -Importance	
2.3	Small group Methods–Discussion, Debate, Demonstration-Concept, Importance	
2.4	Experiential Learning – Field Experience, Experiments, Field Trip, Visit - Advantages	
2.5	Individualized Instruction – Meaning, Need, Types and Principles	
Unit – 3: Fundamentals of "C++" Language		**(12 Hours)**
3.1	Introduction to "C++" Language	
3.2	Basic Elements of "C++" Language – Constants, Identifiers, Operators and Keywords	
3.3	Statements – Kinds and Syntax	
3.4	Simple Programme Development	
3.5	Validation of Programme and Documentation	
Unit – 4: Courseware and its Significance in Teaching and Learning		**(12 Hours)**
4.1	Courseware – Concept, Importance in teaching and Learning	
4.2	Courseware through electronic media and non-electronic media	
4.3	Courseware Preparation – Principles and Steps	
4.4	Preparation of Courseware through electronic media – CAI Preparation	
4.5	Validation and Evaluation of Courseware	
Unit – 5 : Computer Networking and its Applications		**(12 Hours)**
5.1	Networking – Meaning, importance and Types	
5.2	Role of Networking in teaching and learning - Advantages and Limitations	
5.3	Tele-Teaching and Tele-Conferencing – Meaning, Importance and Uses in Education	
5.4	Introduction to Global Positioning System (GPS) and its advantages	
5.5	Computer Ethics – Data Security – Computer Crime application	

Practical:	
1.	Study the syllabus prescribed for higher secondary classes
2.	Simple programme development in 'C++'
3.	Preparation of CAI material for teaching

References

1.	Aggarwal, J.C. (2009). *Principles, methods and techniques of teaching*. New Delhi: Vikas.
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9.	Krishnamacharyulu, V. (2008). *Classroom dynamics*. Hyderabad: Neelkamal.
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	2		3	1	3				
CO2	3	2		3	1					
CO3	1	2		3					3	2
CO4		2		3	1				2	3
CO5	2	3		3					3	2

3 - High Correlation2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B3 P1 33**	**PRINCIPLES OF COMMERCE AND ACCOUNTANCY EDUCATION – PAPER III**	**4**

Preamble

The aim of this course is to develop an understanding of international trade in business, application in different forms of organizations, and familiarize with the social framework of consumer rights and legal framework of protecting consumer rights.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	describe the various types of trade and international trade in business.
CO2	apply the aids to trade; transport, warehousing, banking and its applications in Commerce.
CO3	analyse the concept of insurance and advertising, and how it affects the business.
CO4	explain the various types of business and their application into different forms of organizations.
CO5	familiarize the social framework of consumer rights and legal framework of protecting consumer rights.

Unit – 1: Economic Activity, Trade and Commerce	**(12 Hours)**
1.1	Barter system - economic activity - business activity - trade - commerce - meaning - branches of commerce.
1.2	Internal trade - small scale organisations - types - home trade - street stall - second hand goods dealers - speciality shops - wholesale and retail trade.
1.3	Internal trade - large scale retail organisations - types - departmental stores
1.4	multiple shops - co-operative stores - hire purchase and instalment system
1.5	mail order business - web marketing - e-commerce - teleshopping.

Unit – 2: Aids to Trade – Transport, Warehousing, Banking	**(12 Hours)**
2.1	Transport: meaning - importance - functions - types - public and private carrier - containerization - documents used in transport - bill of lading-way bills.
2.2	Warehousing: meaning - need - functions - kinds - private - public - co-operative - bonded - advantages and limitations.
2.3	Warehousing documents: warehouse warrant - dock warrant - receipt - delivery order - warehouse keepers receipt - warehousing in India and in Tamil Nadu.
2.4	Banking: need - kinds of banks - commercial banks - central bank - functions of commercial bank - cheque - MICR cheques - crossing - kinds - endorsement - dishonour of cheque - ATM card - credit card.
2.5	Reserve Bank of India: functions - quantitative and qualitative credit control rural banking - co-operative banks - ombudsman scheme - development banking - indigenous bankers - State Financial Corporations - e-banking- internet banking and EFT (Electronic Fund Transfer)

Unit – 3: Aids to Trade-Insurance, Advertising	**(12 Hours)**
3.1	Insurance: concept of risk - types - sources and measurement of risk - risk evaluation and prediction - disaster risk management - risk retention and transfer.
3.2	Nature of insurance contract: principles - types of insurance - life insurance - kinds - surrender value and nomination - fire and motor insurance - marine insurance - health insurance - burglary insurance - automobile insurance.
3.3	Legal aspect of insurance contract - control of malpractices - loss assessment and loss control - IRDA - role, power and functions - privatisation of insurance - globalization - reinsurance - co-insurance.
3.4	Advertising: meaning - objectives - kinds of advertising - benefits - media selection - scheduling - direct and indirect media - promotional advertising
3.5	Advertisement copy - audience selection - advertising creativity - legal aspects of advertising in India - recent developments and issues.

Unit – 4 : Types of Business Organisations	**(14 Hours)**
4.1	Organisation: meaning - types of organisations - sole trader - special features - business philosophy and behavioural orientations - role and functions - one man control.
4.2	Partnership: meaning - nature - types - kinds of partners - rights - duties - liabilities of partners - partners express and implied authority - partnership deed - registration - dissolution.
4.3	Companies - meaning - features - kinds of companies - formation of a company - Memorandum of Association - Articles of Association - Prospectus - shares - types - allotment of shares - debentures - kinds of debentures.
4.4	Hindu undivided family - features - co-operatives - special features - types of co-operatives - Government companies - types - departmental undertaking- public corporations - private sector - multinational companies.
4.5	Company management - meaning - appointment of directors - qualifications - powers - liabilities - managing director - company secretary - functions - meeting - kinds - proxy - quorum - agenda - resolution - voting minutes.
Unit – 5: Consumerism and Consumer Protection	**(10 Hours)**
5.1	Concept of consumers - concept of price in retail and whole sale - MRP and local taxes - fair price - unfair trade practices - restrictive trade practices.
5.2	Salesmanship - meaning - importance - consumerism - consumer exploitation misleading advertisements - deceptive advertising.
5.3	Experiencing dissatisfaction - complaining behaviour - procedure - Corporate Redress System - Conciliation and Intermediation for out-of-court redressal.
5.4	Consumer Protection Council - national - state and district level - basic consumer rights - adjudicatory bodies - district forum - role of Government in protecting the interest of consumer.
5.5	Quality and standardization - national standards - licensing and surveillance - international standards (ISO) certification - recent developments in consumer protection in India.

References

1.	Aggarwal, V. K. (2003). *Consumer protection: Law and practice*. New Delhi: Bharat Law House.
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1			2	3		2				2
CO2		2		3	2	2	2		2	
CO3				3		2			2	2
CO4	2			3	2			2		2
CO5	2		2	3		2			2	2

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B3 P2 13**	**PEDAGOGY OF BIOLOGICAL SCIENCE – PAPER III**	**4**

Preamble

The aim of this course is to provide the practical knowledge about the maintenance and usage of science laboratory and giving various aspects and methods of evaluation.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	develop the concepts of crop production, bio-diversity and pollution.
CO2	classify the structure of animal kingdom and organ systems of human being.
CO3	attribute the importance of evolution and functions of life process.
CO4	organize the different components of living world and physiology of living organisms.
CO5	Apply the STEM approach in Biology teaching to foster interdisciplinary learning, innovation, and critical thinking.

Unit – 1: Teaching of content of Biology at Standard VIII Level		**(12 Hours)**
1.1	Crop protection and Management.	
1.2	Reaching of Age of adolescence – Body Movements.	
1.3	Pictorial features of plant kingdom – Micro organisms Diversity in Living organism.	
1.4	Conservation of plant and animals.	
1.5	Pollution of Air, Water and soil.	
Unit – 2: Teaching of content of Biology at Standard IX Level		**(12 Hours)**
2.1	Improvement of food resources – Addiction and health life style	
2.2	Human Body – organ System	
2.3	Structural and Physical Functions of plants – Animals Kingdom	
2.4	Cell and tissues.	
2.5	Bio – Geochemical cycle – Pollution and ozone depletion	
Unit – 3: Teaching of content of Biology at Standard X Level		**(12 Hours)**
3.1	Heredity and Evolution.	
3.2	Immune system – Structure and Functions of the Human body – organ system	
3.3	Reproduction in plants.	
3.4	A Refreshment of type study of mammals – life Process	
3.5	Conservation of Environment – Waste Water Management	
Unit – 4: Teaching of content of Biology at Standard XI Level		**(12 Hours)**
4.1	Diversity of living world – plant kingdom and animal kingdom	
4.2	Cell Biology, Biomolecules and Physiology Process	
4.3	Human Physiology – Circulatory, excretory and digestive systems.	
4.4	Environmental Science – applied Biology – Theories of Evolution	
4.5	Economic Zoology – Sericulture and aquaculture.	
Unit – 5: The STEM Approach to Teaching Biology		**(12 Hours)**
5.1	Frameworks of STEM Integration in Biological Science	
5.2	Interdisciplinary Learning in Biological Science through STEM	
5.3	Pedagogical Strategies for Teaching Biological Science with STEM	
5.4	Applications of STEM principles in Teaching Biological Science	
5.5	Assessing and Reflecting on STEM – based Learning in Biological Science	

References	
1.	State Council of Educational Research and Training. (2019). *Textbook of Science*, VIII Standard. Chennai: Tamil Nadu Textbook and Educational Services Corporation. www.textbooksonline.tn.nic.in.
2.	State Council of Educational Research and Training. (2019). *Textbook of Science*, VIII Standard. Chennai: Tamil Nadu Textbook and Educational Services Corporation. www.textbooksonline.tn.nic.in.
3.	State Council of Educational Research and Training. (2019). *Textbook of Science*, VIII Standard. Chennai: Tamil Nadu Textbook and Educational Services Corporation. www.textbooksonline.tn.nic.in.
4.	State Council of Educational Research and Training. (2019). *Textbook of Biology – Botany & Zoology* first and second year. Chennai: Tamil Nadu Textbook and Educational Services Corporation. www.textbooksonline.tn.nic.in.
5.	State Council of Educational Research and Training. (2019). *Textbook of Science*, XI Standard, Chennai: Tamil Nadu Textbook and Educational Services Corporation. www.textbooksonline.tn.nic.in.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	2	3		2				1	1	
CO2	1	2	2	3					2	1
CO3	1	2		3				1	2	1
CO4	2	2		3					1	2
CO5	2	3		1	2				3	2

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B3 P2 23**	**PEDAGOGY OF COMMERCE AND ACCOUNTANCY– PAPER III**	**4**

Preamble

The aim of this course is to develop the understanding of accounting and application of different accounting, understand about partnership and company accounts and computerised accounting.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	Apply the innovative approaches and strategies in the teaching of Commerce and accountancy.
CO2	classify the branches of accounting and practice the maintenance of ledger and trial balance.
CO3	design the final accounts and financial statement analysis reports.
CO4	prepare partnership and company accounts in Commerce and Accountancy.
CO5	design computerized accounting and prepare different types of ledgers.

Unit – 1: Innovative Approaches and Strategies in Teaching of Commerce and Accountancy (12 Hours)

1.1	Interdisciplinary Approaches: STEAM Education
1.2	Blended Learning approaches
1.3	Flipped Classroom
1.4	Digital Resources: Khan Academy and Investopedia
1.5	Immersive Technologies: Augmented Reality (AR) and Virtual Reality (VR)

Unit – 2: Introduction to Accounting and Books of Original Entry (12 Hours)

2.1	Introduction to Accounting - Meaning of Accounting, Accountancy, Book – Keeping. Users for Accounting information - Accounting Cycle - Branches of Accounting.
2.2	Accounting Principles and Concepts – Single Entry and Double Entry System – Accounting Standards in India and International.
2.3	Books of Original Entry – Journal, Ledger, Posting, Subsidiary Books – Recording of Non cash Transactions.
2.4	Trial Balance-Meaning-Definition-Uses-Limitations-Errors and their Rectification- Meaning-Types-Errors disclosed by Trial Balance-Errors not disclosed by Trial Balance-Suspense Account
2.5	Bank Reconciliation Statement-Meaning-Need- Distinction between Cash Book and Pass Book-Procedure for preparing Bank Reconciliation Statement

Unit – 3 : Final Accounts, Accounts from Incomplete Records (12 Hours)

3.1	Final Accounts-Introduction-Trading Account- Format of Trading Account- Profit & Loss Account- Balance Sheet- Distinction between Trial Balance and Balance Sheet
3.2	Final Accounts – Adjustments- Closing Stock- Outstanding Expenses- Prepaid Expenses-Accrued Incomes-Incomes received in Advance-Interest on Capital- Interest on Drawings-Interest on Loan- Interest on Investment- Depreciation- Bad Debts-Provision for Bad and Doubtful Debts-Provision for Discount on Debtors- Provision for Discount on Creditors
3.3	Depreciation-Meaning-Need-Causes of Depreciation- Methods of Depreciation- Straight Line method-Written Down Value method
3.4	Accounts from Incomplete Records (Single Entry)- Meaning, Definition- Features- Limitations of Single Entry- Methods of ascertaining Profit or Loss-Statement of Affairs Method-Conversion Method
3.5	Financial Statement Analysis - -Significance of Financial Statement Analysis - Limitation Ratio Analysis -Objectives - Classification of Ratios - Liquidity Ratios - Solvency Ratios - Profitability Ratio-Activity Ratios

Unit – 4 : Partnership and Company Accounts	**(12 Hours)**
4.1	Accounting for Partnership Firm- Fundamentals-Meaning- Definition- Features- Partner's Capital Account- Fixed Capital-Fluctuating Capital- Methods of Valuation of Goodwill-Factors affecting the value of Goodwill
4.2	Reconstitution of a firm-Admission-Calculation of New ratio and sacrificing Ratio- Revaluation of Assets and Liabilities-Recording the Capital of a new Partner – Retirement and death-Calculation of new ratio and gaining ratio - Settlement of the retiring Partner's Claim
4.3	Dissolution of a firm-situation in which dissolution of a firm.
4.4	Company Accounts-Introduction - Characteristics - Types of Share Capital - Kinds of Shares-Debentures-types of debentures.
4.5	Issue of Shares- Forfeiture of Shares-Re-issue of forfeited Shares-Disclosure of Share Capital in Company Balance Sheet- Latest Techniques for issue of Shares
Unit – 5 : Computerised Accounting – Basic Concepts	**(12 Hours)**
5.1	Computer-Introduction-Components of Computer-Advantages of Computer - Importance and Capabilities of Computer
5.2	Computerised Accounting- Meaning-Significance of Computerised Accounting- advantages and limitations
5.3	Creating a company-configure and features settings –creating accounting ledgers and groups -creating stock items and groups –voucher entry.
5.4	Groups-Ledger-Creating a Ledger- Display of individual Ledger- Alternation of Group Account- Creating Multiple Ledger
5.5	Reports-Alter Report-Display of Trading, Profit and Loss and Balance-cash book- ledger accounts-fund flow statement-cash flow statement.
References	

1.	Ahmed, N., Khan,N.A., & Gupta, M.L. (2008). *Fundamentals of financial accounting*. New Delhi: Ane Books.
2.	Jain., & Narang. (2004). *Financial accounting*. New Delhi: Kalyan.
3.	Maheshwari, S.N., Maheshwari, S.K., & Maheshwari, S.K. (2012). *A text book of accounting for management*. New Delhi: Vikas.
4.	Radhaswamy., & Gupta, R.L. (1990). *Advanced accounting*. New Delhi: Sultan Chand & Sons.
5.	Raiyani, J. R., & Lodha, G. (2012). *International financial reporting standard (IFRS) and Indian accounting practices*. New Delhi: New Century.
6.	Romney, M. B., & Steinbart, P. J. (2014). *Accounting information systems* (13th ed.). London: Prentice Hall.
7.	Sehgal, A., & Sehgal, D. (2008). *Advanced accounting*, Vol I. Taxmann Allied Services.
8.	Shukla, M.C., T.S. Grewal., & S.C.Gupta. (2010). *Advanced accounts- Volume 1*. New Delhi: S.Chand.
9.	Shukla, M.C., T.S. Grewal., & S.C.Gupta. (2010). *Advanced accounts- Volume 2*. New Delhi: S.Chand & Co.
10.	Tulasian, P.C. (2002). *Introduction to accounting*. New Delhi: Pearson Education.
11.	Singh R.K (2008). *Virtual reality in education*. New Delhi Tata McGraw Hill.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	**2**	2			2				2	1
CO2	**2**			3					3	
CO3	**2**	2		3			2		2	
CO4		2		3		2	2		2	1
CO5		3		3					2	

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B3 P2 33**	**PEDAGOGY OF SPECIAL ENGLISH – PAPER III**	**4**

Preamble

The aim of this course is to train the student teachers to master the methods and techniques in addition to the content at secondary level and help them develop into effective teachers at secondary level.

Course Outcomes (COs)

On the successful completion of the course, student teachers will be able to

CO1	acquire a working knowledge of the select language components and apply them while teaching Modern English Grammar and Usage at secondary level.
CO2	familiarize with the Phonology of English and improve the fluency and expression of student teachers in English.
CO3	strengthen the writing skill of student teachers in English to write correct English themselves and be able to teach the same at Secondary level.
CO4	acquaint with modern methods and techniques of Teaching English and Evaluation at Secondary level.
CO5	master the Language Elements used in the XI Standard English Course Book of Tamil Nadu Textbook and Educational Services Corporation.

Unit – 1 : Modern English Grammar and Usage – II	**(12 Hours)**
1.1	Phoneme and Syllable
1.2	Morpheme and Coinages
1.3	Compounds in English
1.4	Phrases and Clauses
1.5	Utterance and Sentence
Unit – 2 : Enhancing the Oral Fluency	**(12 Hours)**
2.1	Describing and Interpreting pictures
2.2	Using AV aids to develop fluency
2.3	Storytelling, Narrating incidents, Role play and Play reading
2.4	Extempore, Arguing in debates, Dramatization and Interview
2.5	Short speech and Giving Lectures
Unit – 3 : Teaching of Writing - II	**(12 Hours)**
3.1	Precis Writing
3.2	Note taking and Note making
3.3	Summary Writing – Ability to select and express concisely the points of importance
3.4	Interpreting Graphic Representations
3.5	Reporting – Formal and Informal

Unit – 4 : Techniques and Evaluation in ELT	**(12 Hours)**
4.1	Individualized Instruction – Computer Assisted Instruction, Programmed Learning Material, Assignment and Project.
4.2	Small Group Teaching Techniques
4.3	Questioning – Pre – reading and post- reading and Exercises – Lexis, Grammar and Skills
4.4	Tasks, Performances and competence in Language Testing
4.5	Problems in the Evaluation of Language Skills
Unit – 5 : Analysis of Reader in English	**(12 Hours)**
5.1	Language Components of the Content of XI Standard English Reader of Tamil Nadu Textbook and Educational Services Corporation. www.textbooksonline.tn.nic.in

References

1.	Champa, T., & Sasikumar. J. (1996). *Writing with the purpose*. New Delhi: Oxford University Press.
2.	Connor, J.D.O. (1997). *Better english pronunciation*. London: Cambridge University Press.
3.	Geoffrey, L., & Stratbike, J. (1975). *A communicative grammar of english*. London: Cambridge University Press
4.	Gunasekar, P. (1997). *Enrich your english*. New Delhi: Oxford University Press.
5.	Narayanasamy, V.R. (1987). *Strengthen your writing*. New Delhi: Longman
6.	Randolph, Q., & Sydneybaum. (1973). *A university grammar of english*. London: Longman
7.	Sarah, F. (1984). *Written communication in english*. London: Orient Longman
8.	Saraswathi, V. (1987). *Organised writing*. New Delhi: Longman.
9.	Stannard, A.W. (1981). *Living english speech*. London: Orient Longman.
10.	State Council of Educational Research and Training. (2018). *English course boo*k, XI Standard. Chennai: Tamil Nadu Text book and Educational Services Corporation. www.textbookonline. tn.nic.in
11.	Widdowson. (1978). *Teaching english as communication*. London: Oxford University Press.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	3		3	2					3
CO2	3	2		3	2					3
CO3	3	2		2	3		3			3
CO4	3	3	2	3	2	2	3		1	3
CO5	3		2	3		3			2	3

3 - High Correlation2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B3 P2 43	PEDAGOGY OF HISTORY - PAPER III	4

Preamble

The aim of this course is to enable the student teachers to understand the content knowledge of the Indian History, Tamil Nadu History and the World History and equip themselves as masters in their subject.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	Apply the innovative approaches and strategies in teaching History.
CO2	Perceive the socio-economic and political conditions of Ancient and Medieval India.
CO3	elaborate the advent of Europeans and the freedom movement in India.
CO4	develop the values of cultural heritage of Tamil Nadu.
CO5	assess the role of the UNO with the background knowledge of political history of the world.

Unit – 1 : Innovative Approaches and Strategies in Teaching History		**(12 Hours)**
1.1	Interdisciplinary Approaches: STEAM Education – Flipped Classroom	
1.2	Multimodal Learning: Videos, Comics, infographics, Podcasts, Interactive Timelines, Virtual fieldtrips.	
1.3	Digital Resources : Digital tools (Olabs, Khan Academy) Educational apps (Historia, Stellarium, Google Earth) Online Archives	
1.4	Simulation and Gamification in Social Studies	
1.5	Immersive Technologies: Augmented Reality (AR),Virtual Reality (VR) and Mixed Reality(MR)	
Unit – 2 : Ancient and Medieval Indian History		**(12 Hours)**
2.1	Prehistoric Period and Indus Valley Civilization	
2.2	The Vedic Period, Jainism and Buddhism	
2.3	North Indian kingdoms and the kingdoms of Deccan	
2.4	Arab and Turkish Invasions	
2.5	Sultanate of Delhi and the Great Mughals	
Unit – 3 : Advent of the Europeans and the Freedom Movement		**(12 Hours)**
3.1	Advent of the Europeans- Anglo-French Struggle	
3.2	Rule of the English East Indian Company (From AD 1773 - AD 1857)	
3.3	The Great Revolution of AD 1857	
3.4	Freedom Movement in India (AD 1885 –1947)	
3.5	India after Independence	
Unit – 4 : Tamil Nadu History		**(12 Hours)**
4.1	Age of Sangam	
4.2	Imperial Cholas, Pandyas, Cheras, Pallavas	
4.3	Cultural Heritage of Tamil Nadu	
4.4	Role of Tamil Nadu in the Freedom Movement	
4.5	The Justice Party	
Unit – 5 : World History		**(12 Hours)**
5.1	Fascism and Nazism	
5.2	First World War (AD 1914 – 1918)	
5.3	World between the wars (AD 1919 - 1939) – Economic Depression	

5.4	Second World War (AD 1939-1945)
5.5	The United Nations Organisation – European Union

References

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2.	Department of School Education. *Text books – Social Science*- VI to X. Tamil Nadu Textbook and Educational Services Corporation. Chennai: SCERT.
3.	National Council of Educational Research and Training. *Text books – Social Studies* -VI to X. New Delhi: NCERT.
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5.	Singh. R.K. (2008). *Virtual reality in education*. New Delhi: Tata McGraw-Hill Education.
6.	Sharma. R.C. (2013). *Digital resources for History teachers*. New Delhi: Vikas Publishing House
7.	David J. Shernoff (2024). *Integrative STEM and STEAM Education for Real-Life Learning*. New York: Springer International Publishing.
8.	https://www.mdpi.com/2073-431X/10/11/146
9.	https://sde.uoc.ac.in/sites/default/files/sde_videos/DIGITAL%20HISTORY.pdf

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	2			2				2	1
CO2			2	3		2		1		2
CO3	2			3	2			2		
CO4			2	3		2		2		2
CO5	2	2	2	3		2		2		2

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B3 P2 53	PEDAGOGY OF MATHEMATICS - PAPER III	4

Preamble

The aim of this course is to enable the student teachers to understand the content knowledge of the Indian History, Tamil Nadu History and the World History and equip themselves as masters in their subject.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	compute the set language and functions, algebra, and matrices.
CO2	analyse the number system, patterns and Mathematical shapes.
CO3	develop problem-solving abilities in the fields of theorem-based geometry and coordinate system problems.
CO4	examine the trigonometry formulae and concepts in their everyday routines.
CO5	apply the integrated approaches and strategies in Mathematics learning and teaching.

Unit - 1: Set Language and Algebra	**(12 Hours)**
1.1	Set Language - Introduction -Representation of a Set - Kinds of Sets -Set operations and Properties -Representation of Set Venn Diagram -De Morgan's Laws- Application of Cardinality of Sets.
1.2	Relations and Functions - Cartesian Product - Representation of Functions - Composition of Functions
1.3	Algebra - Introduction - Algebraic Expressions - Polynomials - Remainder and Factor Theorem -Algebraic Identities.
1.4	Simultaneous Linear Equation in Three Variables Synthetic Division GCD and LCM of Polynomials - Rational Expressions - Square Root of polynomials - Quadratic Equations.
1.5	Matrices - Types of Matrices, Operations on Matrices- Properties of Addition and Multiplication of Matrix.
Unit - 2 : Numbers and Measurements	**(12 Hours)**
2.1	Real Number System - Properties of Numbers -Operations of numbers Square and Cube numbers - Radical Notations.
2.2	Sequences and Series - Arithmetic Progression and Geometric Progression, Special Series.
2.3	Area and perimeter of 2D shapes - Combined Shapes. Application of Heron's formula in finding area of quadrilaterals.
2.4	Surface Area and Volume of 3D Shapes - Properties of 2D and 3D shapes.
2.5	Volume of surface area of combined solids -conversion of solids from one shape to another with no change in volume
Unit- 3: Geometry and Co-ordinate Geometry	**(12 Hours)**
3.1	Geometry Basics - Types and Properties of Angles - Parallel lines and Transversal - Types and of properties Triangles- Similar and congruent triangles - Pythagoras Theorem.
3.2	Quadrilaterals - Family of Quadrilaterals and its properties - Circles and Tangents - Thales Theorem and Angle Bisector Theorems - related problems
3.3	Cartesian Coordinate System - Introduction - Distance between any two points - Applications of distance and section formula

3.4	Midpoint - Centroid of a triangle - Area of a triangle - Collinearity of three points - Area of the Quadrilateral.
3.5	Straight Lines - Inclination and Slope of a straight line - Condition for parallel lines and perpendicular lines - Equation of straight lines and its applications.
Unit – 4: Trigonometry	**(12 Hours)**
4.1	Introduction - Angle - Pythagoras Theorem - Trigonometric Ratios - Reciprocal Relations
4.2	Trigonometric Ratios of Some Special Angles - angles 0°, 30°, 45°, 60°, 90°.
4.3	Trigonometric Ratios for Complementary Angles - Method of using Trigonometric Table
4.4	Trigonometric identities - related problems
4.5	Heights and Distances - Line of sight - Angle of depression and angle of elevation - related problems.
Unit - 5: Integrated Approaches and Strategies in Teaching Mathematics	**(12 Hours)**
5.1	Art Integration towards Creative and Joyful Experiential Learning - Strategies incorporating art into math lessons (e.g. geometry through art, math-inspired art projects)
5.2	Competency focused learning - Competency based math projects and activities
5.3	Integrating Mathematics into STEM - Pedagogical model for innovative STEM learning and teaching - Characteristics of learn STEM model (Complex, Process-oriented, Holistic Practical, Social)
5.4	Cooperative Learning Strategies: Jigsaw, Think pair-Share Team-pair- solo- Inside-outside circles.
5.5	Gamifing learning - Designing Gamified Mathematics lesson - Assessing through PBL (Points, Badges and Leader board).

References

1.	State Council of Educational Research and Training (2024). *Textbook of Mathematics*, VIII, IX, and X standard. Chennai: Tamil Nadu Text book and Educational Services Corporation.
2.	Central Board of School Education (2019). *Art Integration towards Experiential learning*, New Delhi
3.	Guidelines for Innovative Pedagogical Approaches & Evaluation Reforms (2020). Ministry of Human resources Development, Govt. of India
4.	Roma Ralhan, (2019) *Modern approach to Pedagogy of Mathematics*, Tandon publication. Ludhiyana.
5.	Suarez, Y. (2024). *Mathematical innovation*. Our Knowledge Publishing.
6.	http://learnstem.org/wpcontent/uploads/model/Learn_STEM_Pedagogical_Model_v11.pdf

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	1	2		3					1	
CO2		2		2					3	1
CO3		3		2						1
CO4		2		2					1	3
CO5	2	2		2	2				3	2

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B3 P2 63	PEDAGOGY OF PHYSICAL SCIENCE – PAPER III	4

Preamble

The aim of this course is to develop an understanding of measurement and motion, liquid, solid and heat, gravitation electricity and magnetic field, matter, atomic structure, chemical equation and bonds, atoms and molecules in physics and chemistry.

Course Outcomes (Cos)

On the successful completion of the course, student teachers will be able to

CO1	demonstrate knowledge of the liquid, solid, gas, heat, electricity and magnetic field.
CO2	recognise the concept of science related to various natural phenomena (such as Air, Water, Acids and Bases).
CO3	understand the meaning of chemistry in daily life.
CO4	gain knowledge of basic concepts of elements, atoms and molecules their applications.
CO5	Explain the need and scope of TPCK and analyse physical science based on TPCK

Unit - 1 : Liquids, Sound and Heat		**(12 Hours)**
1.1	Pressure in a liquid, relative density, buoyant force or upthrust.	
1.2	Archimedes' principle, some applications of Archimedes' principle, hydrometer.	
1.3	Importance of sound, reflection of sound waves, range of hearing applications of ultrasound, Doppler Effect.	
1.4	Energy-obtaining energy, mechanical energy-kinetic energy-potential energy.	
1.5	Heat and gas laws, calculating the quantity of heat transferred, change of state, the gas laws, Charles' law	
Unit - 2 : Gravitation, Electricity and Magnetic Field		**(12 Hours)**
2.1	Balanced and unbalanced forces, first law of motion, inertia and mass, momentum, second law of motion, third law of motion, conservation of momentum, moment of force	
2.2	Electric current and circuit, electric potential and potential difference, circuit diagram, ohm's law, resistance of a conductor, system of resistors.	
2.3	Heating effect of electric current, joule's law of heating, role of fuse, domestic electric circuits, electric power	
2.4	Chemical effect of electric current, electrolysis- electro chemical cells, primary and secondary cells, sources of energy, science today, magnetic effect of electric current and light	
2.5	Magnetic field and magnetic lines of force, magnetic field due to current carrying conductor, force on a current carrying conductor in a magnetic field, electric motor, electromagnetic induction, electric generator.	
Unit - 3: Matter, Atomic Structure		**(12 Hours)**
3.1	Classification of Matter, Physical States of Matter, Purity of Matter, Elements, Compounds	
3.2	Mixtures characteristics of mixtures, types of mixtures, separation of different components of a mixture	
3.3	Discovery of the nucleus, Rutherford's experiment, Rutherford's model of atom, Bohr's model of atom.	
3.4	Discovery of neutrons, characteristics of fundamental particles, composition of nucleus - Atomic number and mass number, isotopes, electronic configuration of atoms	

3.5	Periodic classification of elements - Modern periodic law, modern periodic table, characteristics of modern periodic table, metallurgy, occurrence of metals.
Unit - 4 : Chemical Equation and Chemical Bonds	**(12 Hours)**
4.1	Types of ions, ions and valency, chemical formula, introduction for writing chemical equations, balancing the chemical equation.
4.2	Periodic classification of elements, early attempts at classification of elements, Mendeleev's periodic table Mendeleev's classification of elements, metals and non- metals.
4.3	Chemical bonds -types of chemical bond, formation of ionic and covalent bonds.
4.4	Formation of water molecule, soluble in water, differences between ionic and covalent compounds.
4.5	Solute and solvent, types of solutions, solubility, factors affecting solubility.
Unit - 5 :Techno–pedagogy in Physical Science	**(12 Hours)**
5.1	Techno- pedagogy in Physical Science teaching.
5.2	Role of a teacher as a techno-pedagogy.
5.3	Technological Pedagogical and Content Knowledge (TPACK).
5.4	Tools for creating and sharing content: Prezi, Canva and Microsoft Sway.
5.5	Various to use interactive board to analyse school textbook units.
References	
1.	State Council of Educational Research and Training. (2019). *Textbook of Science*, VIII Standard. Chennai: Tamil Nadu Text book and Educational Services Corporation.
2.	State Council of Educational Research and Training. (2019). *Textbook of Science*, IX Standard. Chennai: Tamil Nadu Text book and Educational Services Corporation.
3.	State Council of Educational Research and Training. (2019). *Textbook of Science*, X Standard. Chennai: Tamil Nadu Text book and Educational Services Corporation.
4.	State Council of Educational Research and Training. (2019). *Textbook of Physics –First and Second year.* Chennai: Tamil Nadu Text book and Educational Services Corporation.
5.	State Council of Educational Research and Training. (2019). *Textbook of Chemistry* – First and Second year. Chennai: Tamil Nadu Text book and Educational Services Corporation. https:// textbookcorp.tn.gov.in.
6	National Curriculum framework, New Delhi: National Council of Educational Research and Training, 2005.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1		2		3	2				3	2
CO2	1	2	3			2	2	2	2	2
CO3				2	3		1	3		
CO4	3	2			3		2	1	2	2
CO5	2		2	1						2

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

SEMESTER IV

Group A : Perspectives in Education	
B4 CC 09	Curriculum Development and Instruction
B4 CC 10	Educational Management
B4 CC 11	Development of Moral and Social Values
Group B : Curriculum and Pedagogical Studies	
Pedagogy 1	
B4 P1 14	Pedagogy of English – Paper IV
B4 P1 24	Pedagogy of Computer Science – Paper IV
B4 P1 34	Principles of Commerce and Accountancy Education – Paper IV
Pedagogy 2	
B4 P2 14	Pedagogy of Biological Science – Paper IV
B4 P2 24	Pedagogy of Commerce and Accountancy – Paper IV
B4 P2 34	Pedagogy of Special English – Paper IV
B4 P2 44	Pedagogy of History – Paper IV
B4 P2 54	Pedagogy of Mathematics – Paper IV
B4 P2 64	Pedagogy of Physical Science – Paper IV
Electives	
B4 EL GC	Guidance and Counselling
B4 EL SE	Introduction to Special Education
B4 EL DM	Disaster Management
B4 EL CS	Communication Skills
B4 EL DR	Diagnostic and Remedial Teaching
B4 EL EE	Environmental Education
B4 EL PE	Physical Education
B4 EL EL	E-Learning Technology
Enhancing Professional Capacities (EPC)	
B4 EPC 4	Development of Inner Self and Professional Identity (DISPI)

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B4 CC 09	CURRICULUM DEVELOPMENT AND INSTRUCTION	4

Preamble

The aim of this course is to understand the determinants of curriculum concepts and conceptualize the process of curriculum planning, development and evaluation.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	understand the basic principles of curriculum construction.
CO2	summarise the elementary ideas of curriculum planning.
CO3	evaluate the processes involved in curriculum development.
CO4	analyse the different Models of Curriculum and Curriculum Evaluation.
CO5	evaluate the different approaches in the instructional tasks.

Unit – I Introduction to Curriculum	**(12 Hours)**
1.1	Curriculum: meaning - definition – scope
1.2	Bases of curriculum development: human development - social development- nature of learning - nature of knowledge and cognition
1.3	Educational objectives and curriculum development.
1.4	Role of curriculum in effective teaching-learning process - need for value based curriculum
1.5	Salient features of NCFTE – 2010 and National Educational Policy 2020 – School Education and Higher Education.
Unit – II Elementary Ideas of Curriculum Planning	**(12 Hours)**
2.1	Curriculum planning: meaning and concept.
2.2	Nature of discipline and curriculum planning.
2.3	Basic considerations in curriculum planning: developmental – nature of discipline – social need – teacher related – institutional – environmental and economical
2.4	Curriculum planning in the 21st century: liberal education – global education – secular education – interdisciplinary studies
2.5	Possible future trends in curriculum planning: distance education – open education – lifelong education – mass education – vocational and career education – on-line learning – virtual learning
Unit – III Process of Curriculum Development	**(12 Hours)**
3.1	Meaning and concept of curriculum development– steps involved in the curriculum development process
3.2	Philosophical foundations and curriculum development: Major schools of thought in philosophy and curriculum
3.3	Sociological foundations and curriculum development: need of the society, social change, social harmony and curriculum
3.4	Psychological
3.5	Challenges and issues in curriculum development
Unit – IV Models of Curriculum and Curriculum Evaluation	**(12 Hours)**
4.1	Curriculum evaluation – meaning, concept, need and importance.
4.2	Important aspects involved in curriculum evaluation.
4.3	Introduction to Models of curriculum.
4.4	Role of national level bodies in curriculum development and evaluation
5.5	Evaluation Techniques- self-appraisal, peer evaluation, reflective journals, portfolio assessment. Evaluating Classroom Processes (including internship)

Unit – V Introduction to Instructional System	**(12 Hours)**
5.1	Systems approach in instruction
5.2	Role of teachers in instructional system.
5.3	Teacher controlled instruction.
5.4	Learner controlled instruction.
5.5	Group controlled instruction

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	2	2	3	3	2		3	2	3
CO2	2	3	3	2	2	3		2	3	2
CO3	3	2	2	3	3	3		2	3	2
CO4	3	2	2	3	3	2		3	2	3
CO5	3	2	2	3	3	2		3	2	3

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 CC 10**	**EDUCATIONAL MANAGEMENT**	**4**

Preamble

The aim of this course is to develop knowledge about the Educational Management, Educational planning, Finance, Classroom Management Functions and contemporary management needs.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	recognise the changing concepts of management and administration at various levels of school.
CO2	explain the functions of educational planning and educational finance.
CO3	discuss the challenges and issues related to classroom management.
CO4	describe the types, traits and styles of leadership.
CO5	Create awareness of the quality management practices in Education.

Unit – 1: Introduction to Educational Management	**(12 Hours)**
1.1	Management - meaning, objectives, scope and functions.
1.2	Administration and Management – traditional and modern management.
1.3	Educational management: meaning, definition, scope and types.
1.4	Management at different levels – elementary, secondary and higher secondary.
1.5	Basic functions – planning, organizing, directing and controlling, co- ordination and evaluation.
Unit – 2: Educational Planning and Finance	**(12 Hours)**
2.1	Planning – meaning, nature and types.
2.2	Institutional planning – objectives, characteristics, procedure and techniques.
2.3	Educational planning – principles, kinds and approaches to educational planning.
2.4	Educational finance – factors influencing educational finance – sources of income and educational expenditure.
2.5	Budget: meaning, concept and types - preparation of educational budget.
Unit – 3: Classroom Management	**(12 Hours)**
3.1	Classroom climate – meaning and managing tasks - factors influencing classroom climate – classroom discipline
3.2	Role of communication in classroom management – structuring classroom communication strategies.
3.3	Classroom designs – learner centered; problem centered - managing group work
3.4	Classroom management– principles and techniques of classroom management – role of teacher.
3.5	Time management - effective utilization of available time.
Unit – 4: Functions of Educational Management	**(12 Hours)**
4.1	Inspection and supervision – nature, scope, objectives and comparison.
4.2	Leadership – need, functions, types – duties and qualities of a leader.
4.3	Directing – meaning - its systematic process.
4.4	Decision making – providing guidance – staff morale – functions of teachers – maintenance of discipline.
5.5	Coordination – controlling - conflict management – crisis management.
Unit – 5: Modern Management Practices	**(12 Hours)**
5.1	Quality in education – meaning and importance.
5.2	Quality issues in teacher education - system analysis for quality sustenance.
5.3	Total Quality Management in Education – concept and principles –its application.
5.4	Accreditation - concept – meaning and parameters.
5.5	Role of UMIS, UGC and NAAC in Educational Planning and Management.

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3		2		2		2			
CO2				3	3					1
CO3			2		3				2	
CO4	3		2				3	2	2	
CO5	1				2					2

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B4 CC 11	DEVELOPMENT OF MORAL AND SOCIAL VALUES	4

Preamble

The aim of this course is to develop moral and social values among student teachers.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	describe the need and importance of moral and social values.
CO2	develop the values propagated by the national leaders.
CO3	explain the man making education of Swami Vivekananda.
CO4	identify various methods of teaching values.
CO5	elucidate the impact of technology development on value system.

Unit – 1: Introduction to Moral and Social Values		**(12 Hours)**
1.1	Values – meaning, concept, need, importance, objectives and types.	
1.2	Theories of values – Psychological views of value development.	
1.3	Value Education and post independent attempts - classification ofvalues	
1.4	Need for value education in 21stcentury	
1.5	Historical perspectives of social, religious and moral education in India.	
Unit – 2: Inculcation of Values		**(12 Hours)**
2.1	Role of family, society, peer group, mass media, eminent personalities, government, non-government organisation and educational institutions in value development.	
2.2	Role of value oriented curriculum, moral instruction, cultural, recreational dignity of manual work. Health, cleanliness, tolerance, hospitality and community prayers.	
2.3	Socio-economic status and values – attitude towards life and relationship between values and life	
2.4	Role of teachers in promoting value education.	
2.5	Moral and social values as promulgated by Mahatma Gandhi, Rabindranath Tagore, Sri Aurobindo.	
Unit – 3: Swami Vivekananda's Message for Value Development		**(12 Hours)**
3.1	Practice of values from his early life	
3.2	Early experiences of imbibing spiritual values from his guru Sri Ramakrishna.	
3.3	Value education and service activities of Ramakrishna Math and Mission.	
3.4	Swamiji's educational philosophy: Man making – character building education -concentration as method of education – Women's education – Education of Masses in India – Universal Brotherhood	
3.5	Swamiji's Humanism and its educational implication.	
Unit – 4: Methods of Teaching Values		**(10 Hours)**
4.1	Experiential learning: case method – role play – simulations – games – structural experiences.	
4.2	Method of attitudinal change: story telling – precept–ideal method – psycho– drama, socio-drama – identification method – ventilation method – interview method.	
4.3	Spiritual therapy: meditation – prayer –yoga.	
4.4	Integrating social and moral values through school subjects.	
5.5	Teachers as role models: professional ethics – adjusting to individual differences – character development and sound human relations.	
Unit – 5: Evaluation and Value Development		**(10 Hours)**
5.1	Introspection techniques for value development.	
5.2	Role of national level institutions for value development.	
5.3	Impact of technology development on moral and social values.	
5.4	Assessment of values using different types of tests.	
5.5	Research perspectives on value education and research studies conducted on value development.	

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1			1	2	2	3	3	2	2	2
CO2	2		2	2	1	3	3	3	1	1
CO3	1	1	2		2	3	3	2	2	3
CO4	3		1	1		2	2		1	1
CO5	1	3			2		2	1	3	2

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 P1 14**	**PEDAGOGY OF ENGLISH – PAPER IV**	**4**

Preamble

The aim of this course is to offer conceptual knowledge and effective application of technology in learning English language, language speech mechanism and methods of testing language skills.

Course Outcomes (COs)

On the successful completion of the course, student teacher educators will be able to

CO1	adapt and apply technology in teaching and learning of English language.
CO2	grasp and utilize English language speech mechanism in communication.
CO3	organise their supra segmental features in speaking English language.
CO4	apply various strategies in testing language elements and skills.
CO5	analyse the English reader and evaluate the language elements in VIII Standard English text book.
Unit – 1 : Technology in Language Teaching and Learning	**(12 Hours)**
1.1	Digital Resources: Electronic Dictionary and Thesaurus, Online Encyclopedias and Reference Tools.
1.2	Language Laboratory and Virtual Laboratory
1.3	Technology in English Language Teaching – CALL, Educational videos, e-Content, Interactive White Board, Blogs, Website and Smart Phone Apps, Augmented Reality (AR), Virtual Reality (VR) and Artificial Intelligence (AI).
1.4	Multimedia Courseware and AI- Integrated Authoring Tools.
1.5	Online learning and Social Media - Community Radio, Gyan Vani, BBC Radio, Kalvi TV, SWAYAMPRABHA, Gyan Darshan, Diksha, e-Pathshala, SAKSHAT, MOOC.
Unit – 2 : Phonetics and Elements of Spoken English	**(12 Hours)**
2.1	English Speech Mechanism
2.2	Speech Organs - Mobile Organs and Immobile Organs
2.3	Classification of English Vowels – Articulation of English Vowels
2.4	Classification of English Consonants - Manner and Place of Articulation of English Consonants
2.5	Phonemic Transcription of Passages from VIII Standard English Course Book (Tamil Nadu Textbook and Educational Services Corporation.)
Unit – 3 : Supra-Segmental Units in English	**(12 Hours)**
3.1	Stress in English – Word Stress and Sentence Stres
3.2	Strong and Weak forms of Stress
3.3	Pause in English
3.4	Juncture in connected speech
3.5	Basic Patterns of Intonation in English – Falling Tone, Rising Tone, Falling- rising Tone
Unit – 4 : Testing Language Skills	**(12 Hours)**
4.1	Tests and Examinations – Characteristics of a good Test – Types of tests
4.2	Testing Vocabulary
4.3	Testing Grammar and Usage
4.4	Testing Reading Comprehension
4.5	Testing Writing skills
Unit – 5 : Analysis of Reader in English	**(12 Hours)**
5.1	Elements of Language from the Content of the VIII Standard English Reader of Tamil Nadu Textbook and Educational Services Corporation. www.textbooksonline.tn.nic.in

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31.	http://swayam.gov.in
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34.	www.britishcouncil.org
35.	www.education.gov.in

Mapping of Course Outcomes (Cos) with Programme Outcomes (Pos)

Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	3	2	3		3	2	3		2
CO2	2	2	2	3			3		3	
CO3	2	3		3					3	
CO4	2			3	2					
CO5	2			3						2

3 .- High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B4 P1 24	PEDAGOGY OF COMPUTER SCIENCE: PAPER IV	4

Preamble

The aim of this course is to offer conceptual knowledge and effective application of educational technology in teaching learning process, acquaint the students with the computer language, networking and its educational applications.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	demonstrate the utilities of educational technology in teaching and learning.
CO2	operate with the co-curricular activities and teaching aids those are enhancing learning Computer Science.
CO3	construct and utilizing CAI packages for teaching.
CO4	familiarize with the fundamentals of 'BASIC' language.
CO5	choose, notify and use the Networking concept and its educational applications.

Unit– 1: Educational Technology in Teaching and Learning Computer Science	**(12 Hours)**
1.1	Educational Technology – Meaning, Importance and its role in Learning Comp. Science
1.2	Mass Media – Need and Importance in learning Computer Science
1.3	ET in Distance and Open Learning
1.4	Role of EDUSAT in Teaching and Learning Computer Science
1.5	Models of Teaching – Concept; Introduction to 'Concept Attainment Model'
Unit – 2: Co-curricular Activities and Teaching Aids	**(12 Hours)**
2.1	Co-Curricular Activities – Meaning, Role and Advantages in Computer Science
2.2	Teaching Aids – Concepts, Importance and Types
2.3	Audio-Visual Aids – Concepts and Advantages in teaching computer science
2.4	Multimedia – Concept and its Elements such as visuals, sounds, animation
2.5	Role of Multimedia Packages in Teaching and Learning Computer Science
Unit – 3: Computer Laboratory Planning and Management	**(12 Hours)**
3.1	Computer laboratory – Need and Planning for computer laboratory.
3.2	Special features of Computer laboratory.
3.3	Setting up a computer laboratory – Essential infrastructure.
3.4	Laboratory Management – Laboratory routine for pupils – arranging practical for pupils.
3.5	Maintenance of records and its importance.
Unit – 4: Hands-on-training in Teaching Computer Programming	**(12 Hours)**
4.1	Hands-on-Training – Meaning and importance
4.2	Organising Hands-on-Training for pupils.
4.3	Programme entry, editing, debugging and execution.
4.4	Diagnostic and Remedial teaching computer program.
4.5	Organising practical and evaluation of practical
Unit – 5: WWW and its Rationale in Education – An Orientation	**(12 Hours)**
5.1	Internet and www – concept and applications
5.2	HTML – introduction, elements and uses
5.3	Simple web page development
5.4	Educational implications of www – WBI and its advantages in information dissemination
5.5	www in question banking and e-examination

Practical:	
1.	Preparing teaching material using 'Concept Attainment Model'
2.	Preparation of Teaching aids in computer science
3.	Developing simple web page
4.	Hands-on-Training in operating computers
5.	Maintain a record book containing at least 15 programs
References	
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	2		3	1				2	3
CO2	2	3		3					2	2
CO3		2		3		3			2	2
CO4	2	2		3					3	2
CO5		3		3	2				2	2

ROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 P1 34**	**PRINCIPLES OF COMMERCE AND ACCOUNTANCY EDUCATION – PAPER IV**	**4**

Preamble

The aim of this course is to develop competency in teaching Commerce and Accountancy and to instigate research attitude among students.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	identify the individual differences and choose appropriate pedagogy.
CO2	provide educational and vocational guidance and capable of selecting tests.
CO3	develop competency based instruction in teaching of Commerce.
CO4	evaluate the quality of Commerce text book, supplementary materials and websites.
CO5	develop research attitude in Commerce education.

Unit – 1: Exploring Learners of Commerce (12 Hours)

1.1	Learner-meaning-categories of learner-significance-learners characteristics.
1.2	Concept of individual differences-nature-types of differences: inter Vs intra individual differences.
1.3	Factors affecting individual differences-dealing with individual differences- educational significance.
1.4	Areas of individual differences-aptitude, attitude, intelligence, interest, creativity and social characteristics of commerce learner.
1.5	Identification of gifted and slow learner-catering to individual differences- enrichment and remedial methods of teaching.

Unit – 2: Career Guidance for Commerce (12 Hours)

2.1	Educational guidance - purpose - factors - educational guidance programme complementary role of teacher counsellor-parental collaboration in educational guidance.
2.2	Managing the guidance service-setting up of educational cell/unit- monitoring and evaluation-networking with community agencies.
2.3	Vocational guidance and counselling-nature-need-theories-process of vocational counselling-occupational information-discovering individual abilities and interests.
2.4	Measurement in guidance-need for psychological tests-different types of test- intelligence test-achievement test-aptitude test-personality inventories- projective techniques.
2.5	Techniques and skills in guidance-understanding the individual-case study- cumulative records-anecdotal records-interviews-follow-up.

Unit – 3: Competency Based Instruction in Teaching of Commerce (12 Hours)

3.1	Competency based instruction-meaning –features of competency based instruction.
3.2	Steps in competency based instruction-identifying-analysing-explaining- imparting-conducting evaluation
3.3	Basic competencies of commerce teacher-contextual-content- transactional- co-curricular-instructional materials-competencies related to evaluation.
3.4	Social competencies-management competencies - competencies related to working with parents-competencies related to work with community- leadership competencies.
3.5	Inter disciplinary approach-enriched curriculum-homogeneous grouping- role of teacher.

Unit - 4: Critical Evaluation of Commerce Text Book (10 Hours)

4.1	Text book of commerce-content-advantages-traits of a good textbook.
4.2	Criterion for selecting a good text book-proper use of text book-text book for commerce subjects.
4.3	Critical evaluation of different types of text books - CBSE - Samacheer Kalvi
4.4	Supplementary materials in commerce and accountancy-reference materials- technical documents-journals-reports and newspaper.
4.5	Evaluation of websites in commerce - online resources - blog - e-book - e-journals and official websites.

Unit – 5: Research in Commerce Education	**(14 Hours)**
5.1	Research-meaning-characteristics-classification of research.
5.2	Research needs in education-historical developments-classification of research methods-tools and techniques-analysis and interpretation of data.
5.3	Research in commerce education-qualities of good researcher-areas of research.
5.4	Review of research in commerce education-problems faced by the researcher in commerce education.
5.5	Current trends in commerce education-action research and case studies- research reporting.

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1		2			3				2	
CO2	2				2	2	3			2
CO3	3	2		2	2				2	
CO4		2	2	3				2	2	
CO5	2	2		2	2	2			2	

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 P2 14**	**PEDAGOGY OF BIOLOGICAL SCIENCE – PAPER IV**	**4**

Preamble

The aim of this course is to provide the practical knowledge about the maintenance and usage of Science laboratory and giving various aspects and methods of evaluation.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	implement the skills of making teaching learning process experiential and joyful.
CO2	design the skill of preparing appropriate instructional aids and using them.
CO3	create the ability to plan and organize the Bio-Science laboratory.
CO4	recognise and use various resources of Biology Library.
CO5	integrate the importance of evaluation in teaching Biological Science.
Unit – 1 : Principles of Designing of curriculum	**(12 Hours)**
1.1	Curriculum – Definition and Meaning
1.2	Differences between Curriculum and Syllabus.
1.3	Various principles involved in curriculum Construction, Approaches – Topical, Logical, Psychological, Activity Centered and integrated.
1.4	B.S.C.S, Nuffield foundation NCERT Syllabus at upper primary, secondary and higher secondary
1.5	Print and non print medium in construction of Curriculum.
Unit – 2 : Effective Teacher and Classroom Transaction	**(12 Hours)**
2.1	Science teacher- Academic and Professional qualification, qualities of a good science teacher
2.2	Pre-Service Training- Professional Development, Need for In-service Training
2.3	Role model for good science learner.
2.4	Classroom climate: Autocratic, Democratic and Laisez faire pattern.
2.5	Flanders' System of Interaction Analysis.
Unit – 3 : Biology Laboratory organization	**(12 Hours)**
3.1	Laboratory – Meaning and Need
3.2	Planning and Layout of Laboratory – Secondary, Higher secondary
3.3	Bio – Science kit, advantages, types, kits at various level
3.4	First aid box – Medicine, Chemicals safety management Accidents and remedial measures
3.5	Maintenance and care – Stock resisters, Lab assistant, Equipments, Charts, Specimens, models, slides, skeletons
Unit – 4: Learning resources in Biology – Library	**(12 Hours)**
4.1	Science Library – Objectives and importance.
4.2	Role of the Library in schools
4.3	Organizations -Accommodation -Finance, Selection of Books at various levels – arrangements.
4.4	Defects of the Existing School Libraries
4.5	Use of internet, Website for the collection of information (Like ERIC, INFLIBNET, EBSCO)
Unit – 5 : Evaluation	**(12 Hours)**
5.1	Evaluation - Definition, meaning, need and importance.
5.2	Relative between assessment, measurement and evaluation.
5.3	Purpose and Process of Evaluation – Characteristics and Types.

5.4	Educational Research – Meaning and Characteristics – Classification of Research.
5.5	Need of Research in Biological Science – Variables – Independent, Dependent and Moderator.
Practical	
1.	Preparing Laboratory Manuals with first aid procedures.
2.	Preparation of Model Stock Register of Biology Laboratory.

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	2		2	1		3		3	
CO2	1	3		2	2				1	1
CO3	2	3	1	2	3				2	1
CO4	2	2	1	2	2				2	3
CO5	3	2		2	2				1	2

3 - High Correlation2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 P2 24**	**PEDAGOGY OF COMMERCE AND ACCOUNTANCY – PAPER IV**	**4**

Preamble

The aim of this course is to make students acquaint with different models of teaching and understand the concepts of teaching Commerce and Accountancy.

Course Outcomes (COs)

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	conduct an action research in Commerce education.
CO2	apply the models of teaching in Commerce.
CO3	compare the functioning of different educational organizations.
CO4	utilize the community resources and co-curricular activities in teaching of Commerce.
CO5	analyze the controversial issues related to commerce and accountancy.

Unit – 1 : Action Research in Commerce Education	**(12 Hours)**
1.1	Action Research- meaning- its types.
1.2	Similarities and difference- action research and formal quantitative and qualitative research.
1.3	Hypothetical examples of practical action research.
1.4	Research topics from commerce and accountancy.
1.5	Research reporting.
Unit – 2 : Models of Teaching	**(12 Hours)**
2.1	Models of teaching - meaning and function.
2.2	Families of models of teaching and assumptions - types
2.3	Advanced organiser model
2.4	Jurisprudential inquiry model
2.5	Concept attainment model
Unit – 3 : Role of Educational Organisations	**(12 Hours)**
3.1	Educational organisations- MHRD, NCERT, SCERT,SRC.
3.2	**Department of school education in promoting quality of school curriculum.**
3.3	**Functions of organisation- concurrent functions of the government.**
3.4	**Programmes organised to achieve the target under Article 45- RMSA.**
3.5	**School leadership and development programme- capacity building – school effectiveness.**
Unit – 4: Community Resources and Co-curricular Activities in Commerce	**(12 Hours)**
4.1	**Community resources in commerce- developing link between school and community- interdependence of school and community.**
4.2	**Commerce club-organization - office bearers**
4.3	**Commerce magazine- Commerce laboratory**
4.4	**Running of school bank and cooperative store.**
4.5	**Planning for special visits to commercial markets, banks, LIC, stock exchange markets.**
Unit – 5 : Commercial Issues	**(12 Hours)**
5.1	**Issues related to the teaching of commerce and accountancy education**
5.2	**Teaching controversial issues in commerce and accountancy – WTO, GATT, GATS, Liberalisation, Privatisation and Globalisation.**
5.3	**Inflation, Disinvestment, e-commerce – environmental issues – consumer protection.**
5.4	**Online Trading – merits and demerits for the economical development**
5.5	**ISO 9000; 2000 Certification – need, procedure and importance for trading.**

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2		2	3	2				2	
CO2		2		3	2				2	
CO3				3				2		2
CO4	2			3		2	2	2		2
CO5		2	2	3					2	2

3 - High Correlation2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B4 P2 34	PEDAGOGY OF SPECIAL ENGLISH – PAPER IV	4

Preamble

The aim of this course is to train the prospective teachers to master the philology, technology based resources and introductory Linguistics and help them develop an effective teachers at secondary level.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	acquaint with the philological and semantic structure of English and use them while they speak and write.
CO2	enhance working knowledge in certain grammatical units and apply them while solving problems in teaching learning the same units.
CO3	familiarize with different contents of ELT elements in computer based media and use them effectively while teaching English at different levels.
CO4	acquire the knowledge of Linguistics and improve their competency as teachers of English.
CO5	master the Language Elements used in the XII Standard English Course Book of Tamil Nadu Textbook and Educational Services Corporation.

Unit – 1 : Teaching of Philology and Semantics		**(12 Hours)**
1.1	Word Formation	
1.2	Syntax in English	
1.3	Semantics in English	
1.4	Borrowings from other Languages	
1.5	Language Variations	
Unit – 2 : Modern English Grammar and Usage - III		**(12 Hours)**
2.1	Basic Patterns of English	
2.2	Tag Questions	
2.3	Degrees of Comparison	
2.4	Types of Sentences	
2.5	Reported Speech	
Unit – 3 : Technology in Teaching Language at Higher Level		**(12 Hours)**
3.1	Computers in English Language Teaching	
3.2	Multimedia and Authoring Packages	
3.3	Social Media in Teaching Language Skills	
3.4	e- Content – Meaning and Significance	
3.5	Digital Library, Blogs, Google forms and Net-forums	
Unit – 4: Introduction to Linguistics		**(12 Hours)**
4.1	Linguistics – Scope of Linguistics	
4.2	Branches of Linguistics	
4.3	Types of Linguistics	
4.4	Transformational Generative Grammar	
4.5	Immediate Constituent Analysis	
Unit – 5 : Analysis of Reader in English		**(12 Hours)**
5.1	Language Components of the Content of XII Standard English Course Book – Tamil Nadu Textbook and Educational Services Corporation. www.textbooksonline.tn.nic.in	

References	
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	2		3	2					3
CO2	3	3		3	3					3
CO3	3	3		2	2					3
CO4	3		3	3					3	3
CO5	3		2	3		3			2	3

4 - High Correlation2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 P2 44**	**PEDAGOGY OF HISTORY - PAPER IV**	**4**

Preamble

The aim of this course is to develop the technological skills that empower to evaluate effectively the content with co-curricular activities to have enriched attempts in History research.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	acquire the skills of content analysis in History.
CO2	apply the application of innovative technology in History.
CO3	realise the qualities of an effective History teacher.
CO4	enumerate various important co-curricular activities in History.
CO5	assimilate the different types of research in History.
Unit - 1: Content Analysis	**(12 Hours)**
1.1	Definition and purpose of Content analysis
1.2	Content analysis of History textbook at Primary level
1.3	Content analysis of History textbook at Secondary level.
1.4	Content analysis of History textbook at Higher Secondary level
1.5	Finalizing units of analysis
Unit – 2: Application of Innovative Technology	**(12 Hours)**
2.1	Role of Multimedia and Internet in Teaching and Learning History
2.2	e-learning and m-learning
2.3	Interactive White Board, Teleconferencing and Virtual Classroom
2.4	Remote Sensing – Definition and its Importance in Teaching and Learning
2.5	Method of e-Content Preparation
Unit – 3: History Teacher	**(12 Hours)**
3.1	Qualities of a History teacher - personal and professional qualities.
3.2	Professional development of a teacher.
3.3	Fostering giftedness and creativity among the students.
3.4	Relationship with pupils, colleagues and community.
3.5	Classroom Interaction analysis – Modification of teacher behaviour with special reference to History teacher
Unit – 4: Co-curricular Activities in History	**(12 Hours)**
4.1	Co-curricular activities examples, meaning and definitions
4.2	Need and importance of Co-curricular activities in history
4.3	History Club, Museum and Exhibition
4.4	Field Trips, Excursions and Competitions
4.5	Role of a Teacher in Organizing Co-curricular Activities.
Unit – 5: Research in History	**(12 Hours)**
5.1	Research – meaning and characteristics.
5.2	Variables – Independent, Dependent, and Moderator.
5.3	Types of Research - pure, applied and action research.
5.4	Procedure to conduct Action Research
5.5	Need and Importance for Research in History - Historical Journals – Role of Archaeological Survey of India - Problems faced by a History Researcher

References	
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3			3					2	
CO2	2	3		3	2				2	2
CO3	2	2		3	2	3	2	2	2	
CO4	2	2		3	2	3	2	3		2
CO5	2	2	2	3		2	2		2	2

4 - High Correlation2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 P2 54**	**PEDAGOGY OF MATHEMATICS - PAPER IV**	**4**

Preamble

The aim of this course is to teach mathematics effectively in psychological and technological aspects.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	apply the psychological concept while learning Mathematics.
CO2	design the special instructional approaches in teaching Mathematics.
CO3	create and use instructional aids for teaching Mathematics.
CO4	use various approaches to manage the classroom and develop leadership skills.
CO5	identify various gadgets and prepare e-content to equip the necessary skills to teach Mathematics in current trends.

Unit - 1: Psychological Aspects of Learning Mathematics		**(12 Hours)**
1.1	Formation of mathematical concepts - ideas of Piaget and Bruner.	
1.2	Factors influencing the learning of mathematics - motivation, maturation, perception, special abilities, attitude and aptitude.	
1.3	Behaviourism, humanism, constructivism learning mathematics.	
1.4	Classroom interaction analysis and its implications in learning mathematics (FIACS)	
1.5	Developing creativity in Mathematics classroom.	
Unit- 2: Special Instructional Approaches		**(12 Hours)**
2.1	Teaching mathematical concepts through Buzz session and mathematical games	
2.2	Teaching mathematical generalisations by exposition and guided discovery	
2.3	Instructional	
2.4	Individualised instruction - Programmed Learning - Linear Programming and Branching Programming.	
2.5	Recreational activities – number patterns, magic squares; puzzles, paradoxes, rapid calculation, simple multiplication and test of divisibility.	
Unit 3 : Teaching Aids in Mathematics		**(12 Hours)**
3.1	Instructional Aids - need, uses and kinds of teaching aids - importance of teaching aids and their merits.	
3.2	Projected and non-projected aids - improvised aids - its specific uses in teaching Mathematics.	
3.3	Criterion for the selection of effective instruction materials.	
3.4	Use of various Virtual Aids – Manipulatives, Simulations and Digital resources (Phet, Geogebra, Desmos, Transum Math, Augmented reality and Virtual reality) in teaching and learning of Mathematics.	
3.5	Organising Field-trips, excursion - need and importance, important places to visit (related to mathematics).	
Unit 4: Classroom Management		**(12 Hours)**
4.1	Classroom management - concept, principles of classroom management.	
4.2	Factors influencing classroom management - techniques of classroom management - Time management	
4.3	Systems approach - input- process - output and feedback - aspects in teaching learning process.	
4.4	Classroom climate - factors influencing for creating a better classroom climate.	
4.5	Leadership - types of teachers based on the leadership styles - teacher dominated pattern, laissez faire pattern and democratically planned pattern	

Unit - 5: ICT in Mathematics	**(12 Hours)**
5.1	The influence of computers in teaching and learning of Mathematics.
5.2	Preparation of flow charts and fundamental ideas for writing programs.
5.3	The use of application software packages - MS office word, excel and Power Point presentation.
5.4	The uses of multimedia and internet and their applications to learning mathematics
5.5	E-learning, e-content - its applications in Mathematics. Interactive white board, smart classrooms, applications of Geogebra.

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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	1				1		3	2		
CO2	2	3			1		1			1
CO3	1	3		3						2
CO4	2	1			1				3	1
CO5	1	3		3		1			2	1

3 - High Correlation ***2 - Moderate Correlation*** ***1 - Low Correlation***

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 P2 64**	**PEDAGOGY OF PHYSICAL SCIENCE – PAPER IV**	**4**

Preamble

The aim of this course is to teach mathematics effectively in psychological and technological aspects. The aim of this course is to develop an understanding of Educational Technology and ICT skills, Co-Curricular Activities, Qualities of a good Teacher, Science laboratory and Learning resource in Physical Science.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	list the Instructional aids and ICT tools for teaching Physical Science.
CO2	justify the need for various Co-curricular activities in Physical Science.
CO3	discuss the special qualities needed for Physical Science teachers and explain the need for professional growth.
CO4	plan a Physical Science laboratory and be familiar with the maintenance of Registers and Apparatus.
CO5	use the learning resources to enhance interactive learning on Science concepts.

Unit - 1: Educational Technology and ICT in Physical Science		**(12 Hours)**
1.1	Instructional Aids – Need, Uses and Kinds – importance of Audio visual aids and their merits.	
1.2	Instructional material in physical science: Need and importance	
1.3	Classification of instructional material (Projected material and non-projected material).	
1.4	Role of Internet in Physical Science teaching-e-Learning, e-Content, Studio usage and Video Content Preparation.	
1.5	Using Video Conferencing, Interactive White Board, Virtual Classroom, Simulator -PhET, Algodoo in teaching Physical Science.	
Unit - 2 : Co-Curricular Activities in Physical Science		**(12 Hours)**
2.1	Introduction, Meaning and Definition of Co-Curricular Activities	
2.2	Need and Importance of Co-Curricular Activities in physical sciences	
2.3	Advantages of Co-Curricular Activities, Guidelines governing Conduct of Co-Curricular Activities.	
2.4	Organisation of Excursions, Field trips and Science Museum	
2.5	Organisation of Science Club, Science Fairs and Science Project	
Unit - 3 : A Good Science Teacher		**(12 Hours)**
3.1	Science teacher- Academic and Professional qualification, qualities of a good physical science teacher	
3.2	Pre-Service Training- Professional Development, Need for In-service Training,	
3.3	Role model for good science learner.	
3.4	Classroom climate: Autocratic, Democratic and Laisez faire pattern.	
3.5	Flanders' System of Interaction Analysis.	
Unit 4: Physical Science Laboratory and its Uses		**(12 Hours)**
4.1	Need and Utility of Laboratory, Physical Science Laboratory- Structure and Design.	
4.2	Organization of practical work: Administration, Grouping of Pupils, Individual Vs. Grouping.	
4.3	Maintenance of Physical Science Laboratory- Registers storage of Chemicals and Apparatus.	
4.4	Laboratory rules and Regulation for teachers and students.	
4.5	Safety in the Laboratory, Accidents and First Aids, Essential Safety Measures for Possible Accidents.	

Unit – 5 : Learning Resources in Physical Science	**(12 Hours)**
5.1	Science Library – Objectives and importance.
5.2	Role of the Library in schools
5.3	Selection of Books at various levels – arrangements.
5.4	Defects of the Existing School Libraries.
5.5	Science journals, websites and blogs related science.
Practicals:	
1.	Evaluating reports of three websites in Physical Science.
2.	Preparing laboratory instructional cards.
3.	Collecting and analyzing question papers in science an achievement test in Physical Science based on blue print given in the text book.
4.	Preparing working and non-working models related to the IX and X- std Syllabus.
References	
1.	Arulselvi, E. (2007). *Teaching of science*. Chennai: Saradha.
2.	Dhand, H. (2009). *Techniques of teaching*. New Delhi: APH.
3.	Edgar Dale. (2012). *Audio - visual methods in teaching*. New York: The Dryden.
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	2	3	1		2	2			
CO2			3		3			2		1
CO3	3				2	3			2	
CO4	3	2				1	3			1
CO5	3			2		3		2		1

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 EL GC**	**GUIDANCE AND COUNSELLING**	**4**

Preamble

The aim of this course is to develop an understanding of principles, types and approaches in guidance and counselling, and its applications in the process of education.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	explain the basic principles and types of guidance.
CO2	familiar with various approaches of counselling.
CO3	identify the psychological tests and diagnosis process in counselling.
CO4	justify the need and importance of educational and vocational guidance in schools.
CO5	identify the counselling strategies of exceptional and disabled students.

Unit – 1 : Basic Concepts in Guidance		**(12 Hours)**
1.1	Guidance – concept, definition and principles.	
1.2	Tracing guidance movement in India.	
1.3	Important types of Guidance: Educational Guidance, Vocational Guidance, Personal Guidance.	
1.4	Guidance needs related to education.	
1.5	Guidance at the elementary, secondary and higher secondary levels.	
Unit – 2 : Basic Concepts in Counselling		**(12 Hours)**
2.1	Counselling – concept, definition - goals – Guidance versus Counselling.	
2.2	Approaches to counselling - directive or authoritarian (Psychoanalytic)	
2.3	Humanistic approach – Carl Roger's self–theory.	
2.4	Behaviouristic approach to counselling – eclectic approach	
2.5	Factors influencing the counselling process – specific skills of a Counsellor.	
Unit – 3 : Psychological Testing and Diagnosis		**(12 Hours)**
3.1	Types of psychological tests – its uses in counselling.	
3.2	Interview schedules, questionnaire, health records, autobiography, case study, cumulative record and anecdotal records.	
3.3	Developmental Screening test – Study habit Inventory – Personality Questionnaire	
3.4	Adjustment Inventory – DAT - Group Intelligence Test	
3.5	Creativity test – Problem solving inventory – Achievement Motivation Scale	
Unit – 4 : Educational and Vocational Guidance		**(12 Hours)**
4.1	Educational Guidance – definition, objectives and importance.	
4.2	Basic principles of Educational Guidance.	
4.3	Existing educational opportunities – challenges and issues.	
4.4	Vocational Guidance – definition and aims	
4.5	Vocational Guidance – implementation strategies.	
Unit – 5 : Counselling for Exceptional and Professional Preparation		**(12 Hours)**
5.1	Exceptional Learners: Learners with disabilities –Gifted learners	
5.2	Learners with disabilities: Learning disabilities, Attention deficit hyperactivity disorder, Mental retardation, Physical disorders, Sensory disorders, speech and Language disorders, Emotional and Behavioural disorders.	
5.3	Counselling strategies for Regular Teachers to work with learning disorder learners.	
5.4	Counselling preparation and professional issues – academic preparation – practical skills – Ethical standards.	
5.5	Selection and training of counsellors – conception of a professional worker.	

Practicals:	
1.	Evaluating reports of three websites in Physical Science.
2.	Preparing laboratory instructional cards.
3.	Collecting and analyzing question papers in science an achievement test in Physical Science based on blue print given in the text book.
4.	Preparing working and non-working models related to the IX and X- std Syllabus.

References

1.	Adams, J. F. (1995). *Problems in counselling*. New York: Academic Press.
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	1	2			3	2	3	1	2	1
CO2	2	2		2	3		2		2	1
CO3	1	3			2	2	3		2	2
CO4		1		1	2		2	1	2	3
CO5	2	1	1		3	2	2		1	1

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B4 EL SE	INTRODUCTION TO SPECIAL EDUCATION	4

Preamble

The aim of this course is to understand the characteristics, strategies and special needs of the students.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	familiar with the concept of special education and its classification.
CO2	develop the intervention strategies of gifted and mentally retarded.
CO3	design the meaning, classification, characteristics, need and importance of intervention strategies for various disabilities.
CO4	predict the characteristics and types of disorders.
CO5	Integrate elaborate service delivery model in education and rehabilitation.

Unit - 1 : Basic Concepts of Special Education	**(12 Hours)**
1.1	Special Education - meaning, need and classification - Early Intervention-Daily Living Skills
1.2	Objectives and functions of Rehabilitation Council of India (RCI).
1.3	Need and Importance of Inclusive Education, Individualized Education Plan, Universal Design for Learning- Assistive Technology for Children with special needs.
1.4	Salient Features of PWD Act 1995, NTA 1999, RCI 2000 (A), RPWD Act, 2016.
1.5	Role of Government and Non-Government Agencies in Special Education.
Unit – 2 : Fundamentals of Gifted and Mentally Retarded	**(12 Hours)**
2.1	Gifted – definition, meaning and characteristics.
2.2	Gifted - Need and importance of intervention strategies.
2.3	Mentally retarded - definition, meaning, characteristics and classification.
2.4	Mentally retarded - Need and importance of intervention strategies.
2.5	Identification process of gifted and mentally challenged
Unit – 3 : Basics of Physical Disabilities and Learning Disabled	**(12 Hours)**
3.1	Meaning, characteristics, classification, need and importance of intervention strategies of orthopaedic impairment.
3.2	Meaning, characteristics, classification, need and importance of intervention strategies of hearing impairment.
3.3	Meaning, characteristics, classification, need and importance of intervention strategies of visual impairment.
3.4	Meaning, characteristics and types of learning disabled.
3.5	Need and importance of intervention strategies for learning disabled.
Unit – 4 : Introduction to other disabilities	**(12 Hours)**
4.1	Meaning and characteristics of attention deficit disorder.
4.2	Meaning and characteristics of attention deficit hyperactive disorder.
4.3	Meaning and characteristics of emotionally disturbed children.
4.4	Meaning and characteristics of Autism Spectrum disorders.
4.5	Meaning and classification of multiple disabilities.
Unit – 5 : Service delivery Models in Education, Rehabilitation, Role of Family and Miscellaneous Items	**(12 Hours)**
5.1	Service delivery models in special education.
5.2	Service delivery models in rehabilitation.
5.3	Role of family involvement in special education
5.4	Concessions, scholarships pertaining to special education.
5.5	Concessions pertaining to rehabilitation.

References	
1.	Lokanandha Reddy, G., Santhakumari, P., Kusuma, A. & Shyamala, V. (2005). *Behaviour disorders in children: Identification, assessment and intervention strategies.* New Delhi: Discovery.
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3.	Longman,J. (2003). *Listening to sounds and signs*. Germany: CBM International.
4.	Mangal, S. K. (2009). *Educating Exceptional Children – An Introduction to Special Education.* New Delhi: PHI Learning.
5.	Margaret, G., Werts., Richard, A. Culatta., & James, R. Tompkins. (2011). *Fundamentals of special education: What every teacher needs to know*. New Delhi: PHI.
6.	Richard L. Simpson (2005). *Autism spectrum disorders: Interventions and treatments for children and youth*. New Delhi. Sage.
7.	Yesseldyke, E.J. (1998). *Special education - A practical approach for teachers*. New Delhi: Kaniska.
8.	Lokanandha Reddy, G., Santhakumari, P., Kusuma, A. & Shyamala, V. (2005). *Behaviour disorders in children: Identification, assessment and intervention strategies.* New Delhi: Discovery.
9.	Lewis, R.B., & Dorskey. D.H. (1988). *Teaching special children in the mainstream* (3rd ed.). Columbia: Englewood.
10.	Longman,J. (2003). *Listening to sounds and signs*. Germany: CBM International.
11.	Mangal, S. K. (2009). *Educating Exceptional Children – An Introduction to Special Education.* New Delhi: PHI Learning.
12.	Margaret, G., Werts., Richard, A. Culatta., & James, R. Tompkins. (2011). *Fundamentals of special education: What every teacher needs to know*. New Delhi: PHI.
13.	Richard L. Simpson (2005). *Autism spectrum disorders: Interventions and treatments for children and youth*. New Delhi. Sage.
14.	Yesseldyke, E.J. (1998). *Special education - A practical approach for teachers*. New Delhi: Kaniska.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	2	2	1	2	3	1	1	1	2	1
CO2	2	2	1	2	3	1	3	1	2	1
CO3	2	2	2	2	3		3	2	2	1
CO4	1	2	1	2	3	1	3	2	2	1
CO5	2	3	2	2	3			1	3	1

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 EL DM**	**DISASTER MANAGEMENT**	**4**

Preamble

The aim of this course is to develop the awareness on various disaster management strategies that helps to serve as a responsible citizen to respond in the needed situations with the extended hands of government and private organizations that scatters the values of a real human being.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	explore the concept of disaster management.
CO2	assimilate the types of degradation and disaster hazards.
CO3	assess the role of disaster management authorities at national and state level.
CO4	identify the role of government and private agencies in disaster management.
CO5	realise the role of educational institutions and technologies in disaster management.

Unit – 1: Introduction of Disaster Management	**(12 Hours)**
1.1	Disaster – definition, meaning and types.
1.2	Disaster profile in India and states at various levels.
1.3	Creating awareness of disaster management.
1.4	Reducing the effects of disaster – New approach.
1.5	Disaster management – functions.
Unit – 2: Degradation and Disaster Hazards	**(12 Hours)**
2.1	Degradation: Definitions, meaning and types.
2.2	Environmental hazards: Definitions, meaning and types.
2.3	Difference between pollution and hazards.
2.4	Endogenous and Exogenous disasters. Definitions, meaning and types.
2.5	Natural disaster and man-made disaster – effects and response.
Unit - 3 : Authorities of Disaster Management	**(12 Hours)**
3.1	Hierarchical Structure of Authorities of Disaster Management.
3.2	Disaster Management Authorities – NDMA and SDMA
3.3	National Executive Council – Structure and Functions.
3.4	State Executive Council – Structure and Functions.
3.5	Local, District and Regional Level Executive Council – Structure and Functions
Unit – 4 : Roles of Government, Public and Private Sectors in Disaster Management	**(12 Hours)**
4.1	Pre-disaster, disaster and Post disaster. Operations – Government Public and Private sector.
4.2	Creation of NDRF and SDRF in disaster management.
4.3	Disaster Response Mechanisms – Role of Social Media.
4.4	District emergency operation center – Functions
4.5	Role of NIDM and SIDM - Training programs to the personnel's: Rehearsal, Classroom exercise, functional exercise field exercise.
Unit – 5 : Roles of Educational Institutions, Technologies and Recent Acts in Disaster Management	**(12 Hours)**
5.1	Role of Teachers and Students in Disaster Management
5.2	Role of Technology – Remote Sensing System, Ham Radio, IT - Functions.
5.3	INCOIS – Functions in Disaster Management
5.4	GIS, GPS and other Emerging Technologies – Application and Uses
5.5	Disaster Management Act (2005), Disaster Management Policy (2009) and National Green Tribunal Act (2010)

References	
1.	Chakraborty, U.K. (2007). *Industrial disaster management and emergency response*. New Delhi: Asian.
2.	Disaster Management Act. (2005). New Delhi: Ministry of Home Affairs, Government of India.
3.	Disaster Management in India. (2011). New Delhi: Ministry of Home Affairs, Government of India.
4.	*Good practices in community based disaster risk management*. GoI-UNDP Disaster Risk Management Programme (2002 – 09).
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11.	United Nations Development Programme. (2004). *A global report – Reducing disaster risk: A challenge for development*. New York: UNDP.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	2		3	2	2				2
CO2	2	2	2	3		2	2	2	2	2
CO3	2		2	3	2			2		2
CO4	2	2	2	3				2	2	2
CO5	2	2	2	3	2	2	2	2	2	2

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 EL DM**	**DISASTER MANAGEMENT**	**4**

Preamble

The aim of this course is to develop the awareness on various disaster management strategies that helps to serve as a responsible citizen to respond in the needed situations with the extended hands of government and private organizations that scatters the values of a real human being.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	explore the concept of disaster management.
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CO3	assess the role of disaster management authorities at national and state level.
CO4	identify the role of government and private agencies in disaster management.
CO5	realise the role of educational institutions and technologies in disaster management.

Unit – 1: Introduction of Disaster Management	**(12 Hours)**
1.1	Disaster – definition, meaning and types.
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2.3	Difference between pollution and hazards.
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5.5	Disaster Management Act (2005), Disaster Management Policy (2009) and National Green Tribunal Act (2010)

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1.	Chakraborty, U.K. (2007). *Industrial disaster management and emergency response*. New Delhi: Asian.
2.	Disaster Management Act. (2005). New Delhi: Ministry of Home Affairs, Government of India.
3.	Disaster Management in India. (2011). New Delhi: Ministry of Home Affairs, Government of India.
4.	*Good practices in community based disaster risk management*. GoI-UNDP Disaster Risk Management Programme (2002 – 09).
5.	Goudie, A. (1990). *Geomorphological techniques*. London, UK: Academic Division of Unwin Hyman Ltd.
6.	Murthy, D.B.N. (2012). *Disaster management*. New Delhi : Deep and Deep.
7.	National Disaster Management Authority. (2009). *National policy on disaster management*. New Delhi: NDMA.
8.	National Institute of Disaster Management. (2005). *District disaster management plan- model template.* New Delhi: NIDM.
9.	Parasuraman, S., & Unnikrishnan, P.V (Ed.). (2000). *India disaster report: Towards a policy initiative*. New Delhi: Oxford & IBH.
10.	Sahni,P., Dhameja, A., & Medury, U. (2001). *Disaster mitigation*. New Delhi: PHI Learning.
11.	United Nations Development Programme. (2004). *A global report – Reducing disaster risk: A challenge for development*. New York: UNDP.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	2	2		3	2	2				2
CO2	2	2	2	3		2	2	2	2	2
CO3	2		2	3	2			2		2
CO4	2	2	2	3				2	2	2
CO5	2	2	2	3	2	2	2	2	2	2

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 EL CS**	**COMMUNICATION SKILLS**	**4**

Preamble

The aim of this course is to develop the awareness of fundamentals of language skills and to train them to master in language skills Listening, Speaking, Reading and Writing and also to apply those skills in day to day life.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	explain the concept, principles of communication and its application in teaching learning process.
CO2	familiarize with components of listening skill that are useful in the classroom transaction.
CO3	get trained in the skill of speaking and the components of this skill.
CO4	familiarize with the skill of reading, its methods of teaching and evaluation.
CO5	develop the skill of writing and evaluation techniques of writing skill.

Unit – 1 : Principles of Communication		**(12 Hours)**
1.1	Communication - Definition and concept - Theories of communication - communication cycle.	
1.2	Barriers to communication - causes of barriers to communication and ways of overcoming them.	
1.3	A four-fold analysis of Communication skills - Skill of Listening, Speaking, Reading and writing.	
1.4	Values of Communication skills in the modern context - Visual and Multimedia Communication.	
1.5	Importance of Communication skills for teachers - Communication in the classroom - Teaching as communication.	
Unit – 2: Skill of Listening		**(12 Hours)**
2.1	Listening as a receptive skill.	
2.2	Rules for effective listening.	
2.3	Components of listening.	
2.4	Evaluation of listening - Immediate recall, recognizing transitions, recognizing word meaning and Listening comprehension.	
2.5	Teacher's Role in the development of Listening skill among the students.	
Unit – 3 : Skill of Speaking		**(12 Hours)**
3.1	Speaking as a productive skill.	
3.2	Characteristics of effective speaking.	
3.3	Components of the skill of speaking.	
3.4	Evaluation of speaking - Hitchman Rating Scale, Role play Technique - Walter Bartz scale for role play - Schulz communicative competence scale - Oral interview or Live conversation.	
3.5	Teacher's role in the development of speaking skill among the students.	
Unit – 4: Skill of Reading		**(12 Hours)**
4.1	Reading as the first of the three R's - Values of Reading.	
4.2	Psychology of reading - perceptual process - the eye movement, the eye voice; eye- memory span.	
4.3	Factors affecting reading ability - reading readiness.	
4.4	Methods of teaching reading.	
4.5	Evaluation of reading - reading scales and inventory.	
Unit – 5: Skill of Writing		**(12 Hours)**
5.1	Writing as a complex skill - Difference between Oral and Written communication.	
5.2	Components of Effective written communication.	
5.3	Role of language - style, content and presentation, effective use of vocabulary.	
5.4	Writing for mass media and Journalism.	
5.5	Evaluation of writing skill- Assessment Techniques- Teacher's Role in the development of writing skill.	

References	
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Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	2		2	3	2	2				
CO2	2		2	3						
CO3	2	2		3	2	2	2		3	2
CO4	2	2		3			2		3	2
CO5	2			3			2		3	2

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 EL DR**	**DIAGNOSTIC AND REMEDIAL TEACHING**	**4**

Preamble

The aim of this course is to make student teachers to familiarize with learning difficulties, diagnosing different learning disabilities and application of appropriate tools and remedial measures to overcome the learning difficulties.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	diagnose individual differences in learning and adopt suitable teaching strategies to handle students with individual differences.
CO2	identify various learning difficulties among students and provide appropriate remedial teaching to the students.
CO3	familiarize with test and tools of diagnosing students' learning difficulties and adopt suitable approaches to overcome learning difficulties.
CO4	identify the students with reading and writing disabilities and apply suitable teaching techniques to reduce the difficulties.
CO5	recognize students with arithmetic difficulties and employ suitable teaching techniques to reduce the difficulties.

Unit – 1 : Introduction of Diagnostic and Remedial Teaching	**(12 Hours)**
1.1	Meaning and concept of Diagnostic and Remedial Teaching.
1.2	Purpose of Diagnostic and Remedial Teaching.
1.3	Importance of Early Diagnostic and remediation.
1.4	Different areas of Diagnostic: Spoken, written, arithmetic, social and psychological.
1.5	Understanding individual difference in learning.
Unit – 2 : Learning Difficulties	**(12 Hours)**
2.1	Definitions and concept of Learning Difficulties.
2.2	Types of Learning Difficulties.
2.3	Causes of Learning Difficulties.
2.4	Characteristics of Learning difficulties.
2.5	Identification of students with Learning Difficulties.
Unit – 3 : Assessment Tools of Diagnosis	**(12 Hours)**
3.1	Informal Assessment: Curriculum based – Criterian referenced - observations – interviews – questionnaires – check lists.
3.2	Formal Assessment: Intelligence – Academic – Sensory functioning - perceptual functioning – language functioning.
3.3	Understanding the learning styles: Visual – Auditory – Tactile and Kinesthetic Learners.
3.4	Social, emotional and environmental aspects for learning.
3.5	Interpreting the assessment and test scores.
Unit – 4 : Reading and Writing Difficulties	**(12 Hours)**
4.1	Meaning and concept of Reading and writing difficulties.
4.2	Diagnosing reading and writing difficulties: observation – informal – reading inventory – Error analysis – Johnson and Myklebust approach - Gestalt approach.
4.3	Causes of reading and writing difficulties.
4.4	Characteristics of reading and writing difficulties.
4.5	Teaching approaches and remedial methods.

Unit – 5 : Arithmetic Difficulties	**(12 Hours)**
5.1	Meaning and concept of Arithmetic Difficulties.
5.2	Characteristics of Arithmetic difficulties.
5.3	Causes of Arithmetic difficulties.
5.4	Diagnosing arithmetic difficulties: Content and skill areas – psychomotor abilities – Cognitive factors – Emotional factors.
5.5	Teaching approaches and remedial methods.
References	
1.	Gargiulo, R.M. (2003). *Special education in contemporary society*. Singapore: Wadsworth.
2.	Krishna Babu & et.al. (2004). *Reading disabilities*. New Delhi: Sonali.
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Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**		**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	2				3	2		2			
CO2	2	2			3	2					
CO3	2			2	3	2		2			
CO4	2				3	2	2				2
CO5	2				3	2					2

3- High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B4 EL EE	ENVIRONMENTAL EDUCATION	4

Preamble

The aim of this course is to provide the practical knowledge current scenario about our environment, issues in environmental management and importance of biodiversity and its conservation

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	recognise the basic principles and practices of the Environmental Education at secondary and higher secondary level.
CO2	categorise the importance of natural resources, role of individual and associated problems.
CO3	determine the role of ecosystem and biodiversity in Environmental Education.
CO4	experiment, inspect and examine the basic concepts of environmental pollution and preventing measures.
CO5	forecast the social issues and reflects acts applicable for preventing and control of pollution.

Unit – 1 : Introduction		**(12 Hours)**
1.1	Definition and Need for the study.	
1.2	Environmental Education – Basic principles.	
1.3	Nature, Meaning and Scope of Environmental Education.	
1.4	Aims and objectives of teaching Environmental Education.	
1.5	Meaning and definition of Ecology –E.E and School Curriculum.	
Unit – 2 : Natural Resources and Associated Problems		**(12 Hours)**
2.1	Natural resources – definition, meaning, importance and types	
2.2	Forest resources – importance, types, functions, uses of forest conservation – afforestation, causes of deforestation.	
2.3	Water resources – Source – Types – Properties of water – Management of water resource.	
2.4	Mineral resources – types – classification – environmental impact of mineral extraction and use. Energy resources – need, importance, sources and management. Land resources - Land resources in India – land degradation.	
2.5	Role of an individual in conservation of natural resources.	
Unit – 3 : Ecosystems and Biodiversity		**(12 Hours)**
3.1	Ecosystem - Meaning and definition.	
3.2	Types of ecosystem – components of Ecosystem.	
3.3	Energy flow in ecosystem - Food chains – Types - food web – Land of thermodynamics (I and II) - Ecological pyramids.	
3.4	Biodiversity – meaning and definition - Hot Spots – Conservation.	
3.5	India as a mega diversity nation.	
Unit – 4 : Environmental Pollution		**(12 Hours)**
4.1	Pollution – definition and meaning	
4.2	Degradable and non – degradable Pollutions – cause and prevention	
4.3	Air pollution – definition, sources – effects on man, animals and plants - greenhouse effect - acid rain – primary and secondary pollution control measures.	
4.4	Water pollution - definition – source - water born diseases – control measures – thermal pollution – sources – effects –control.	
4.5	Land pollution- definition – source – effects – control measures – Noise pollution – definition – source, effects – recommendations of Noise Exposure Limit (W.H.O 1980)	

Unit – 5 : Education for Sustainable Development (ESD)	**(12 Hours)**
5.1	Definition, Meaning and Scope of Sustainable Development.
5.2	Issues and challenges to Sustainable Development.
5.3	Concept of Education for Sustainable Development.
5.4	Significances of visiting to a local Environmental Assests – Wetland / Forest/ Grassland/ Hill/ Mountain.
5.5	Significance of visiting to a local polluted site – Air/ Water/ Solid Waste
References	
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10.	Shrivastava, K.K. (2004). *Environment education*. New Delhi: Kaniska.

Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**		**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	2		3				2	2	2	3
CO2	1			3	3	2			2	2	1
CO3	2	1	3	3		2		2		2	2
CO4	2			3		2			3	1	2
CO5	1			3	3	2				2	1

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B4 EL PE	**PHYSICAL EDUCATION**	4

Preamble

To provide adequate knowledge on communicable diseases, methods of organising tournaments, yogic practices and fundamental skills of select major games.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	recognise the basic principles and practices of the Environmental Education at secondary and higher secondary level.
CO2	categorise the importance of natural resources, role of individual and associated problems.
CO3	determine the role of ecosystem and biodiversity in Environmental Education.
CO4	experiment, inspect and examine the basic concepts of environmental pollution and preventing measures.
CO5	forecast the social issues and reflects acts applicable for preventing and control of pollution.

Unit – 1 : Health Education	**(12 Hours)**
1.1	School Health services: Objectives - Role of health education in schools.
1.2	Common Communicable Diseases: Meaning – Causes, Symptoms & Preventions of: Malaria – Typhoid – Cholera – Diarrhea – Smallpox – Whooping Cough - "SARS Covid Pandemic".
1.3	Food and Nutrition: Nutritional needs of body - under nutrition – malnutrition – calorie requirements for different age and gender - Ergogenic aids in Sports.
1.4	Common Sports injuries and their first-aid treatment: Sprain, Strain, Contusion, Fracture, Dislocation and Skin injuries
1.5	Therapeutic Approaches: PRICE therapy -Hydrotherapy: Cry therapy, Thermotherapy-Electrotherapy.
Unit – 2: Methods, Organization & Administration in Physical Education	**(12 Hours)**
2.1	Lesson plan – Parts and preparation of general lesson.
2.2	Methods of teaching Physical Activities.
2.3	Organization of Intramural and Extramural Competitions, athletic meets.
2.4	Minor games & Major games (Team): Basic skills and rules of the following games: a) Indigenous Games: Kabaddi (or) Kho-Kho b) Ball Games: Volleyball (or) Ball Badminton
2.5	Test Administration: Assessment of Physical Fitness – AAHPERD Youth fitness test – AAHPERD Health Related Physical Fitness test - Cooper's Run and Walk test (12 minutes – Men, 8 Minutes – Women)
Unit – 3: Various Tournaments, Organizations and Awards	**(12 Hours)**
3.1	Modern Olympics
3.2	Asian games and Commonwealth games
3.3	Role of national Organizations viz. SAI, NSNIS, IOC, IOA, SDAT, SGFI and LNIPE in Promoting Physical Education and Sports in India.
3.4	Bharathiar Day Sports, Republic Day Sports
3.5	Awards: Arjuna, Dronacharya, and Rajiv Gandhi Khel Rathna award.
Unit – 4: Yogic Therapy-I	**(12 Hours)**
Symptoms, causes and therapeutic values of yoga in the following diseases	
4.1	Arthritis
4.2	Back pain
4.3	Constipation
4.4	Blood pressure
4.5	Stress and Asthma

Unit – 5: Yogic Therapy-II	**(12 Hours)**
Symptoms, causes and therapeutic values of yoga in the following diseases	
5.1	Diabetes
5.2	Obesity
5.3	Insomnia & Covid - 19
5.4	Depression
5.5	Heart diseases & Healthy life
References	
1.	Anderson Bob. (1997). *Stretch yourself for health and fitness*. USA: Shelfot.
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7.	Hedge. (1997). *How to maintain good health*. New Delhi: UBPSD.
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Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**		**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1				3			3				
CO2	3									2	3
CO3	3							3			3
CO4		3					3	2			
CO5		3					3	2			

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	B4 EL EL	**E-Learning Technology**	4

Preamble

To provide necessary knowledge on the fundamental ideas of e-learning technology and integrating the same in teaching learning process.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	understand evolution of e-learning technology, Models of E-learning and apply Open Educational Resources.
CO2	categorize Web 2.0 tools, Social Media, Mobile learning, Blended learning and appraise them at Secondary Education.
CO3	analyse Various Learning Management Systemand Content Management System and to compare different Content management systems.
CO4	examine MOODLE and to develop courseware by using MOODLE.
CO5	understand about the MOOC and to sketch future of e-learning technology.

Unit – 1 : Fundamentals of E-Leaning		**(12 Hours)**
1.1	Evolution of E-Learning: Meaning, Types, Significance, Strengths and Limitations	
1.2	Elements and dimensions of E-Learning Technologies	
1.3	Internet in Education, Audio and Video conferencing tools : Advantages & disadvantages, Modes of Learning	
1.4	Models of E-Learning – Identifying and organizing E-Learning course content: Needs Analysis –Analyzing the learning outcome	
1.5	Open Educational Resources: Concept, Meaning, Scope and Limitations.	
Unit – 2: Tools of e-Learning		**(12 Hours)**
2.1	Web 2.0 Tools: Nature and Characteristics – Blogs and Wikis. Applications and their relevance for academic purposes	
2.2	Social Media: Over View of Face book, Youtube, Twitter and WhatsApp: Uses, Opportunities and challenges at Secondary Level.	
2.3	Mobile Learning: Needs, Scope and Characteristics, Opportunities and Challenges, Difference between E-Learning and Mobile learning.	
2.4	Web-based learning objects: Forms, Benefits and Key aspects.	
2.5	Blended Learning and Embedded E-Learning: Meaning and Scope, Application, Strengths and Limitations.	
Unit – 3: Learning Management Systems		**(12 Hours)**
3.1	Learning Platforms – Proprietary and Open Learning Management Systems: Purpose, Tools and Functions.	
3.2	Content Management System: Purpose, Tools and Functions, Difference between LMS and CMS.	
3.3	Open Source Content Management System : Introduction and applications of Joomla & WordPress	
3.4	Google Class Room: Creation, Implementation and Features.	
3.5	Mobile Apps : Introduction, Scope, Characteristics, Application, Strengths and Limitations	
Unit – 4: MOODLE and Its Application		**(12 Hours)**
4.1	MOODLE: History and Principles of MOODLE – Prerequisites: Hardware and Software.	
4.2	MOODLE: File Management – Overview of Courses, Users and Roles – Course Management, Course Categories, Creating Courses – User Management: User Profiles, Cohorts – Enrolment of Users in Courses.	
4.3	Aligning the course objectives, Assessments and evaluation methods of Courseware in MOODLE	
4.4	Process in Creation: Instructor led Courses and Self-Learning Courses in MOODLE	
4.5	Implementation of various Evaluation Strategies of Courseware in MOODLE.	

Unit – 5: MOOC and Its Application	**(12 Hours)**
5.1	Massive Open Online Courses: Concept, Meaning, Features and functions of MOOCs platforms, Best MOOCs platforms: Coursera, EDX, Khan Academy, Udemy and Unacademy.
5.2	MOOC - Indian Initiatives : NPTEL, SWAYAM, e-PG Pathshala, IIT Spoken Tutorials - MOOC Technology - Open MOOC platform – Open edX, Course Builder - Create Instructor led courses, degree programs, and self paced courses
5.3	Current Technologies in E - learning: Introduction and Application of Augmented Reality and Virtual Reality, AI Tools for Teaching and Learning: Claude.ai, Cucard, Script.ai, NotebookLM.ai, Scite.ai, Iris.ai.
5.4	Internet of Things, Cloud Computing: Introduction and Application.
5.5	Gaming Environments for Education: Range and Scope.
References	
1.	Allan, Barbara. (2002). *E-learning and teaching in library and information services*. London: Facet.
2.	Cole, Jason., & Foster, Helen. (2010). *Using moodle: Teaching with popular open source course management system*. USA: OReilly
	Piskurich, G. M. (2011). *AMA Handbook of E-Learning.* New Delhi: Pentagon Press
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6.	Underwood Jean, D.M., & Farrington- Flint, Lee. (2015). *Learning and the e-generation*. West Sunsex: Wiley Blackwell.

Course Outcomes (COs) with Programme Outcomes (POs)

COs	**PO1**	**PO2**		**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	3	2			2						3
CO2	2	3									2
CO3	2	3									2
CO4	2	2							3		2
CO5	2	2			2					3	2

3 - High Correlation 2 - Moderate Correlation 1 - Low Correlation

PROGRAMME	COURSE CODE	COURSE TITLE	CREDITS
B.Ed.	**B4 EPC 4**	**DEVELOPMENT OF INNER SELF AND PROFESSIONAL IDENTITY (DISPI)**	1

Preamble

The Course Development of Inner Self and Professional Identity (DISPI) is unique in its nature. It aims to develop the Inner Self (Psychological Self) of the trainees and to promote their Professional Identity through five different workshop activities.

Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	explain their Life stories, Dreams, Aspirations through various forms of self-expression and understand their own positive psychological attribute that facilitate learning.
CO2	analyse their own childhood and adolescent experiences, trainees modify their present behaviour.
CO3	synthesis and evaluate the case studies of different children who -where raised in different circumstances. Understand the harmful situation affect their sense of self and Identity formation.
CO4	develop school reflective journal by encouraging learner's originality and talents in creative writing, Drawing and painting etc.
CO5	desirable behavior to become change agent and capable of designing and leading change in School or Community.

Workshop Activity – 1: Development of Inner Self (6 Hours)

Personal narratives, Life stories, Dreams, Aspirations, concerns through varied forms of self-expression – Poetry, Humour, Creative movement, aesthetic representations.

Workshop Activity – 2: Childhood and Adolescence Experiences (6 Hours)

Web 2.0 Tools: Nature and Characteristics – Blogs and Wikis. Applications and their relevance for academic purposes

Social media: Over View of Face book, Youtube, Twitter and WhatsApp: Uses, Opportunities and challenges at Secondary Level.

Workshop Activity – 3: Professional Identity - Classroom Issues (6 Hours)

Sharing Case studies, stories of different children /students who are raised in different circumstances and how this affected their sense of self and identity formation.

Workshop Activity – 4: Developing Reflective Journals (6 Hours)

Exercise for developing reflective journals – Reviewing the previous year reflective journals in the college and schools.

Feedback on previous year reflective journals.

Workshop Activity – 5: Connecting – Self – Society: Social Interface (6 Hours)

Understanding social structures (stereotypes/ diversity/ gender) and role of the individual.

Becoming the change agent – designing and leading change / social action

Participate or lead in real life intervention within college / school / community

References

1.	Arnold, C. (2020). *Learning from the unconscious: Psychanalytic approach in educational psychology*. California: Confer Books.
2.	Hopkins, D. (2020). *Educational and developmental psychology: A strategic approach* (First Edition). Boston: Clanrye International.
3.	National Council for Teacher Education. Curriculum Framework: Two-Year B.Ed. Programme. New Delhi: NCTE.
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6.	Hopkins, D. (2020). *Educational and developmental psychology: A strategic approach* (First Edition). Boston: Clanrye International.

Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2		PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1										3	
CO2						3					
CO3					3						
CO4								3			
CO5			3								

3 - High Correlation2 - Moderate Correlation 1 - Low Correlation