PROGRAMME AND COURSE OUTCOME (2018-19)

INDEX

PROGRAMME-1:B A ARABIC

- Understand the structure of Arabic language and its grammar.
- Understand the geography of Arabian Peninsula, and social, cultural, and political history of jahiliyya period and Islamic period.
- Understand the communication through Arabic language.
- To familiar with the structure of Arabic language and grammar in application level
- Aware the students on the cultural and historical and social aspects of Arabic literature in pre Islamic period
- Understand different genres of Arabic Prose literature with a critical overview
- To familiarize students on the important social , cultural and political features of Abbasids and ottoman empire
- To understand modern Arabic poem and verses of difference schools with a critical overview
- Aware the students on the history of the Islam in Spain and India and on Important rulers and Kingdom
- To familiarize the Arabic major Novels and novelists
- Acquaint with some notable authors in prose and poetry of Abbasid Period
- To understand simple translation practice of basic sentence structure from Arabic to English and verse versa
- To understand the tools of information and communication technology
- Understand Arabic language in different filed of work such as commercial and business fields
- To make understand the concepts of Islam in all walk of life
- give a general view on literary criticism especially in Arabic
- to train students to speak and write effectively
- prepare the use of Arabic language in the field of journalism
- to familiarize the Indian writers in Arabic

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Semester	Course	Course Outcome
1	Elementary Arabic Grammar	Understand the fundamentals of Arabic grammar, enable students to speak and write Arabic without mistake.
	Thareekul islam al siyasi wa thaqafi -1	Understand the geography of Arabiya, situations and life of Arab.
	Communicative skills in Arabic	Understand the use of Arabic language in various situations.
2	Applied Arabic grammar Thareekul Adabul Arabic	Familiar with the advance level of Arabic grammar To make understand the literary traditions of the Arabs in Pre Islamic period
	Reading Arabic Literature	To understand Arabic language through stories, drama and poems, and acquire the vocabularies of Arabic language
	Thareekul islam al siyasi wa thaqafi -11	to understand the relation between literature and Islamic life in Arabia
3	Applied Arabic Grammar II	To understand students to speak and write without grammar mistake Understand distinguished prose writers of modern period
	Reading modern Arabic Prose	To understand the use of Arabic Language in various situations and occasions
	Reading Arabic Literature -II	To understand the literary traditions of Arabs in Abbasid period
	Thareekul Adabul Arabi - III Thareekul islam al siyasi wa thaqafi -III	to understand major Abbasid dynasty rulers and their important works and reformation to the Muslim civilization
4	Culture and civilizations – II Language Methodology of Arabic	Understand the cultural diversity in India through Arabic Language To understand the humanities language, Arabic language and comparative study between Arabic, English and Malayalam languages Understand the eminent Arab poets of modern period and their works
	Reading Modern Arabic Poetry	Understand the literary pieces , authors , trends and movements in modern periods
	Thareekul Adabul Arabi	

	- IV Thareekul islam al siyasi wa thaqafi -IV	Understand on History of Islam in India , History of Islam in Kerala and Spain
5	Novel Literature in Arabic Reading Medieval Arabic Literature Introduction to Translation Informatics in Arabic Commercial and Business Arabic Open Course- Socio Economic Concept of Islam' Project	Understand the celebrated novelist and their contributions Understand different types of prose and poetry of the period Enable students to learn translation skills Understand the nature of emerging digital knowledge society Aware the preparing commercial and business document Aware an overall all idea of Islamic concepts in various spheres
6	Reading Classical Arabic Literature Introduction to Literary criticism Rhetoric and Prosody Arabic Journalism and Media Indian Writings in Arabic project	Assess and appreciate the different types and aspects of prose and poetry Understand the development of Arabic language and the development of literary schools in Arab world Understand the fundamentals of Rhetorics, and meters of Arabic poetry Familiarize the terminologies in the field of Arabic journalism and preparing simple journalistic news and articles in Arabic language Familiarize the literary creations of Indian Arabic writers Understand and formulate the research methodology and a research project

PROGRAMME-2: B Sc Physics

- Understand the scientific method to approach problems. Inculcate scientific aptitude. Understand the history of development of physics up to modern age.
- Understand the basic concepts of fundamentals of mechanics, properties of matter and electrodynamics
- Understand the theoretical basis of quantum mechanics, relativistic physics, nuclear physics, optics, spectroscopy, solid state physics, astrophysics, statistical physics, photonics, and thermodynamics
- Understand and apply the concepts of electronics in the designing of different analog and digital circuits
- Understand the basics of computer programming and numerical analysis
- Apply and verify theoretical concepts through laboratory experiments

Semester	Course	Course Outcome
1	Methodology of Science and Physics	Understand the features, methods, and limitations of science. Inculcate scientific aptitude. Understand the basic mathematical tools. Understand the history of development of physics up to modern age.
2.	Properties of Matter, Waves and Acoustics.	Understand the properties of matter and the formation of waves and its properties. Apply the linear acoustic wave equation and explain the relationship between pressure and particle velocity for plane waves and spherical waves.
3.	Mechanics	Understand and apply the basic concepts of Newtonian Mechanics to physical systems. Understand and apply the basic idea of work-energy theorem to physical systems.
4	Electrodynamics	Understand and analyze the electrostatic properties of physical systems. Understand the mechanism of electric field in matter. Understand and analyze the magnetic properties of physical systems Understand the mechanism of magnetic field in matter.
4	Practical-I	Apply the concepts learned in 4 semesters by Performing experiments systematically. Analyze the results and identifies the procedural errors and verify the theoretical concepts.
5	Electrodynamics II	Understand the basic concepts of electrodynamics. Understand and analyze the properties of electromagnetic waves. Understand the behavior of transient currents. Understand the basic aspects of ac circuits

		Understand and apply electrical network theorems.
	Quantum Mechanics	Understand the particle properties of electromagnetic radiation. Describe Rutherford – Bohr model of the atom. Understand the wavelike properties of particles. Understand and apply the Schrödinger equation to simple physical systems. Apply the principles of wave mechanics to the Hydrogen atom.
	Physical Optics and Modern Optics	Understand the fundamentals of Fermat"s principles and geometrical optics. Understand and apply the basic ideas of interference of light. Understand and apply the basic ideas of diffraction of light. Understand the basics ideas of polarization of light. Describe the basic principles of holography and fibre optics.
	Electronics (Analogue and Digital)	Understand the basic principles of rectifiers and dc power supplies. Understand the principles of transistor. Understand the working and designing of transistor amplifiers and oscillators. Understand the basic operation of Op – Amp and its applications. Understand the basics of digital electronics
6	Thermal and Statistical Physics	Understand the zero and first laws of thermodynamics Understand the thermodynamical description of the ideal gas. Understand the second law of thermodynamics and its applications. Understand the basic ideas of entropy. Understand the concepts of thermodynamic potentials and phase transitions.
	Solid State Physics, Spectroscopy and Laser physics	Understand the basic principles of statistical physics and its applications. Understand the basic aspects of crystallography in solid state physics. Understand the basic elements of spectroscopy. Understand the basics ideas of microwave and infra-red spectroscopy.
	Nuclear Physics, Particle Physics and Astrophysics	Understand the basic aspects of nuclear structure and fundamentals of radioactivity. Describe the different types of nuclear reactions and their applications. Understand the principle and working of particle detectors and particle accelerators. Understand the basic principles of elementary particle physics.
	Material Science	Understand the basic ideas of bonding in materials. Describe crystalline and non-crystalline materials.

		Understand the types of imperfections and diffusion mechanisms in solids. Describe the different properties of ceramics and polymers. Describe the different types of material analysis techniques.
	Practical _Paper-II	Apply the concepts learned in 4 semesters by Performing experiments systematically. Analyze the results and identifies the procedural errors and verify the theoretical concepts.
	Practical-Paper-III	Apply the concepts learned in Analog and Digital electronics by Performing experiments systematically. Analyze the results and identifies the procedural errors and verify the theoretical concepts.
	Project	Understand research methodology. Understand and formulate a research project. Design and implement a research project.
	Study Tour	Identifies the various applications of the concepts they have learned. Understand to prepare report.

PROGRAMME-3: B Sc Electronics

PO1 – Be able to communicate effectively in term of oral and written communication skills

PO2 - Be passionate to attain professional excellence through lifelong learning

PO3 - Apply the knowledge of Electronics, Computer application and mathematics to analyse, design and develop solutions for real time electronics problems

PO4 – Be able to function as a member of a multidisciplinary team with sense of ethics, integrity and social responsibility.

PO5 - Be able to use techniques, skills and modern technological/scientific/engineering software/tools for professional practices

PO6 - Be competent to pursue higher learning and research

Semester	Course	Course Outcome
1	Basic Electronics	• Demonstrate the operation of passive components in filters, integrator and differentiator • Describe the basic semiconductor principles , working of p-n junction diode and transistors • Demonstrate the operation of diodes in clamper and clipper • Apply standard device models to explain/calculate critical internal parameters of semiconductor devices • Explain the behavior and characteristics of power devices such as SCR/UJT etc
	Electronic devices LAB	• Choose the appropriate equipment for measuring electrical quantities and verify the same for different circuits • Examine the characteristics of basic semiconductor devices. • Perform experiments for studying the behavior of semiconductor devices for circuit design applications. • Calculate various device parameters' values from their IV characteristics. • Interpret the experimental data for better understanding the device behavior. • Prepare the technical report on the experiments carried.
2.	Electronic Circuits	• Study circuits in a systematic manner suitable for analysis and design • Illustrate about rectifiers, transistor and FET amplifiers and its biasing. Also compare the performances of its low frequency models. • Explain the concepts of feedback and construct feedback amplifiers and oscillators. • Summarizes the performance parameters of amplifiers with and without feedback • Illustrate about various wave shaping circuits using passive components.

	Electronic Circuits lab	• Understand and analyze electronic circuits • Choose the appropriate equipment for measuring electrical quantities and verify the same for different circuits. • Ability to understand and apply circuit theorems and concepts in electronics applications • Design and troubleshoot basic electronics circuits • Prepare the technical report on the experiments carried.
3.	Basic Numerical Skills	• Understand the common numerical methods and how they are used to obtain approximate solutions to mathematical problems. • Understand set operations, matrix and Mathematics of finance, Statistical tools and their applications
	General Informatics	• Updates and expands basic informatics skills and attitudes relevant to the emerging knowledge of society • Equip the students to effectively utilize the digital knowledge resources in learning
	Analog & Digital Integrated Circuits	• Infer the DC and AC characteristics of operational amplifiers and its effect on output and their compensation techniques • Elucidate and design the linear and nonlinear applications of an op-amp and special application ICs • Explain and compare the working of multi vibrators using special application IC 555 and general purpose op-amp. • Understand and represent numbers in powers of base and converting one from the other, carry out arithmetic operations • Understand basic logic gates, concepts of Boolean algebra and techniques to reduce/simplify Boolean expressions • Analyze and design combinatorial as well as sequential circuits
	Digital electronics LAB	• Construct basic combinational circuits and verify their functionalities • Apply the design procedures to design basic sequential circuits • Learn about counters • Understand the basic digital circuits and to verify their operation
4	Entrepreneurship Development	• Appreciate the importance of embarking on self-employment and has developed the confidence and personal skills for the same.

		• Identify business opportunities in chosen sector / sub-sector and plan and market and sell products / services • Start a small business enterprise by liaising with different stake holders Effectively manage small business enterprise
	Basics of Audio & Video Media	• To study audio recording systems such CD/DVD recording, Audio Standards, and Acoustics principles
	Microprocessors	• Understand the basic blocks of microcomputers i.e CPU, Memory, I/O and architecture of microprocessor's • Apply knowledge and demonstrate proficiency of designing hardware interfaces for memory and I/O as well as write assembly language programs for target microprocessor • Derive specifications of a system based on the requirements of the application and select the appropriate Microprocessor
	Microprocessor 8085 LAB	• Interface various I/O devices and design and evaluate systems that will provide solutions to real-world problem • Prepare the technical report on the experiments carried
5	Electromagnetic Theory	• Understand the fundamentals of Electrostatics and Magnetostatics hence get the insight of the characteristics of materials and their interactions with electric and magnetic fields • Understand the application of Vector Differential and Integral operators in Electromagnetic Theory. • Interpret Maxwell's equations in differential and integral forms, both in time and frequency domains. • Describe the complex ε, μ, and σ, plane waves, Snell's laws from phase matching, and calculate the reflection and transmission coefficients at the interface of simple media • Calculate input impedance and reflection coefficient of an arbitrarily terminated transmission-line and can use Smith chart to convert these quantities.
	Microcontroller 8051	• Understand the basic blocks of microcomputers i.e CPU, Memory, I/O and architecture of microcontroller

		• Apply knowledge and demonstrate proficiency of designing hardware interfaces for memory and I/O as well as write assembly language programs for target microcontroller • Derive specifications of a system based on the requirements of the application and select the appropriate microcontroller
	Network Theory	• Understands how to formulate circuit analysis problems in a mathematically tractable way with an emphasis on solving linear systems of equations • Analyze the electric circuit using network theorems • Determine Sinusoidal steady state response.
	Analog Integrated Circuits LAB	• Interpret op-amp data sheets. • Analyze and prepare the technical report on the experiments carried out. • Design application oriented circuits using Op-amp and 555 timer ICs • Create and demonstrate live project using ICs.
	Microcontroller 8051 LAB	• Interface various I/O devices and design and evaluate systems that will provide solutions to real-world problem • Prepare the technical report on the experiments carried
	Digital Fundamentals (Open Course)	• Understand and represent numbers in powers of base and converting one from the other, carry out arithmetic operations • Understand basic logic gates, concepts of Boolean algebra and techniques to reduce/simplify Boolean expressions • Analyze and design combinatorial as well as sequential circuits
	Project	• Survey and study of published literature on the assigned topic • Working out a preliminary Approach to the Problem relating to the assigned topic • Conducting preliminary Analysis/ Modelling/ Simulation/ Experiment/ Design/ Feasibility
	Communication System	• Design basic digital communication systems to solve a given communications problem and they become conversant with the

6		requirements and the protocols employed in the fundamental components in a communication network. • Understand simple block forward error correction codes and basic dispersion compensation concepts and also the concepts of up/down conversion and modulation • Determine the suitability of a particular communication system to a given problem • Describe the concept of "noise" in analog and digital communication systems. Also, get insight on the trade-offs (in terms of bandwidth, power, and complexity requirements) in basic digital communication systems.
	Principles of DSP	• Represent various types of continuous-time and discrete-time signals • Understand the basic concepts related to discrete time signals, systems, Z transform and Fourier transform • Apply knowledge and demonstrate proficiency of analyzing signals in time as well as frequency domain using Fourier and Z transform • Design and analyze IIR/FIR filters with given specifications • Apply transform methods for representing signals and systems in time and frequency domain
	Control Systems	• Understand the concepts of closed loop control systems • Analyse the stability of closed loop systems. • Apply the control techniques to any electrical systems • Compute and assess system stability
	Microwave and radar engineering (Elective)	• Identify the use of microwave components and devices in microwave applications. • Understand the working principles of all the microwave tubes • Understand the working principles of all the solid state devices • Choose a suitable microwave tube and solid state device for a particular application

	Communication System LAB	• Understand basic elements of a communication system • Analyze the baseband signals in time domain and in frequency domain • Build understanding of various analog and digital modulation and demodulation techniques • Prepare the technical report on the experiments carried.
	DSP LAB	• Learn the practical implementation issues stemming from the lecture material • Simulate, synthesize and process signals using software tools • Learn to work in groups and to develop MATLAB/ Scilab simulations of various signals and systems. • Prepare the technical report on the experiments carried
	Project	• Implement the working model • Preparing a Written Report on the Study conducted

PROGRAMME-4: B C A

- To attract young minds to the potentially rich & employable field of computer applications

- To be a foundation graduate program which will act as a feeder course for higher studies in the area of Computer Science/Applications

- To develop skills in software development so as to enable the BCA graduates to take up self-employment in Indian & global software market.

- To train & equip the students to meet the requirements of the Software industry in the country and outside.

- a student should be able to get entry level job in the field of Information Technology or ITES or they can take up self-employment in Indian & global software market

Semester	Course	Course Outcome
1	Computer Fundamentals & HTM	To equip the students with fundamentals of Computer To learn the basics of Computer organization To equip the students to write algorithm and draw flow chart for solving simple problems To learn the basics of Internet and webpage design
	Mathematical Foundation of Computer Applications	To learn the basic principles of linear algebra and vectors To learn the basic principles of differential and integral Calculus To learn the mathematical modeling using ordinary and partial differential equations
	Discrete Mathematics	To learn the mathematical logic & Boolean Algebra
2	Problem Solving using C	• To equip the students with fundamental principles of Problem Solving aspects. • To learn the concept of programming • To study C language • To equip the students to write programs for solving simple computing problems
	Financial & Management Accounting	• To get a general introduction on accounting and its general application. • To get a general understanding on various tools for financial statement analysis. • To get a general understanding on accounting procedures up to the preparation

		of various financial statements. To get a general understanding of the important tools for managerial decision making.
	Operations Research	• To get a general introduction in solving linear programming problems. • To get a general understanding of network analysis technique. • To get a general understanding of different mathematical models.
	Programming Laboratory I. HTML & Programming in C	• To make the students learn programming environments. • To practice procedural programming concepts. • To make the students equipped to solve mathematical or scientific problems using C • To learn how to implement various data structures. • To provide opportunity to students to use data structures to solve real life problems
3.	General Course I - Basic Numerical skills	• To enable the students to acquire knowledge of Mathematics and Statistics. • At the end of this course, the students should have understood set operations, matrix and Mathematics of finance, Statistical tools and their applications.
	General Course I I - General Informatics	• To update and expand basic Informatics skills of the students. • To equip the students to effectively utilize the digital knowledge resources for their study.
	Data Structures Using C	• To introduce the concept of data structures • To make the students aware of various data structures • To equip the students implement fundamental data structures
	Computer Oriented Numerical & Statistical Methods	• To learn the floating point arithmetic • To learn how to solve linear equations • To learn the numerical differentiation and integration • To learn basics of statistics, probability theory
	Theory Of Computation	• To get a general introduction to Theory of computer science • To get a general understanding on different languages, grammar, automata

4	General Course III - Entrepreneurship Development	• To familiarise the students with the concept of entrepreneurship. • To identify and develop the entrepreneurial talents of the students. • To generate innovative business ideas in the emerging industrial scenario.
	General Course IV - Basics of Audio and Video	Understand the basic of sound fundamental process. Design and construct the audio-amplifier with various controls
	Database Management System and RDBMS	• To learn the basic principles of database and database design • To learn the basics of RDBMS • To learn the concepts of database manipulation SQL • To study PL/SQL language
	E-Commerce	• To get a general introduction Electronic Commerce framework .To get a general understanding on various electronic payment system. • To get a general understanding on Internal information systems. To get a general understanding on the new age of Information.
	Computer Graphics	• To learn basics of Computer Graphics
	Programming Laboratory II: Data Structures & RDBMS	• To make the students equipped to solve mathematical or scientific problems using C • To learn how to implement various data structures. • To provide opportunity to students to use data structures to solve real life problems.
	Practical-I	Apply the concepts learned in 4 semesters by Performing experiments systematically. Analyze the results and identifies the procedural errors and verify the theoretical concepts.
5	Java Programming	• To review on concept of OOP. • To learn Java Programming Environments. • To practice programming in Java. • To learn GUI Application development in JAVA.
	Computer Organization And Architecture	• To learn logic gates, combinational circuits and sequential circuits • To learn basics of computer organization and architecture
	Web Programming Using PHP	• To review on concept of OOP. • To learn Java Programming Environments. • To practice programming in Java.

	Principles of Software Engineering	• To learn engineering practices in Software Development
	Open Course -Introduction to Computers & Office Automation	• To get a general introduction to office automation packages To get a general introduction to Internet
6	Android programming	• To have a review on concept of Android programming. • To learn Android Programming Environments. • To practice programming in Android. • To learn GUI Application development in Android platform with XML
	Operating Systems	• To learn objectives & functions of Operating Systems. • To understand processes and its life cycle. • To learn and understand various Memory and Scheduling Algorithms. • To have an overall idea about the latest developments in Operating Systems
	Computer Networks	• To learn about transmissions in Computer Networks. • To learn various Protocols used in Communication. • To have a general idea on Network Administration.
	Software testing & Quality Assurance	• To get a general introduction and basic skills on software testing and quality assurance techniques and tools
	Programming laboratory III- Java and Web Programming	• To practice Java programming. • To practice client side and server side scripting. • To practice PHP Programming. • To practice developing dynamic websites. • To practice how to interact with databases through PHP.
	Programming Laboratory IV: Android & Linux shell Programming	• To practice Android programming. • To practice user interface applications. • To develop mobile application. • To practice shell programming
	Project	• To provide practical knowledge on software development process

PROGRAMME-5: BSc.Mathematics

Semester	Course	Course outcomes
1	MTS1B01- Basic logic and Number theory	• Understand the foundations of mathematics and the importance of logic • Be able to prove results involving divisibility, greatest common divisor, least common multiple and identify some applications • Understands the theory and method of solutions of LDE • Solves linear congruent equations, learn classical theorems in Number theory
2	MTS2B02- Calculus of one variable – 1	• Get fundamental ideas of limit, continuity and differentiability • Understands basic theorems and applications of differential calculus • Applies of differential calculus in real life situations • Learn fundamental theorems of Integral Calculus
3	MTS3B03– Calculus of Single variable - 2	• Understands Exponential and Logarithmic functions and its applications • Learn improper integrals their convergence and evaluation. • Understand convergence of a series and become able to apply various tests to check the convergence • Learn about plane and space curves and applies vectors in dealing with the problems involving geometry of lines, curves, planes and surfaces in space and acquire the ability to sketch curves in plane and space given in vector form
4	MTS4B04 – Linear Algebra	• Get idea of linear systems of equations, • vector spaces, and linear transformations. • Understand various methods for solving a system of linear equations • Establish the connection between Matrices and linear transformations

		• Learn a few fundamental results involving diagonalization and eigenvalues which enable them to check whether diagonalization is possible • Study spectral decomposition of a symmetric matrix • Understand Gram-Schmidt process
5	MTS5 B05 - Abstract Algebra	• Understands the abstract notion of a group, with several examples • Learns to check whether an algebraic system forms a group or not and some fundamental results of group theory. • Establish the importance of permutation groups • Explores the idea of structural similarity, the notion of cyclic group, permutation group , various examples and fundamental results in the areas O • Observe the connection emerging between classical algebra and modern algebra.
6	MTS5 B06 - Basic Analysis	• Get basic ideas an methods of real and complex analysis • Understand axiomatic approach to learn real number system • Learn to prove Archimedean property, density theorem, existence of irrational numbers • Study about basic topological properties of real number system such as the concept of open and closed sets, their properties and their characterization • Understands algebraic, geometric and topological structures of complex number system, functions of complex variable, their limit and continuity
7	MTS5 B07- Numerical Analysis	• Learn several methods like bisection method, fixed point iteration method, regulafalsi method etc. to find out the approximate numerical solutions of algebraic and transcendental equations with desired accuracy • Understand the concept of interpolation and also learn some well known interpolation techniques

		• Master a few techniques for numerical differentiation and integration and also realizes their merits and demerits. • Apply numerical approximations to solutions of initial value problems and also to understand the efficiency of various methods.
8	MTS5 B08 - Linear Programming	• Solve linear programming problems geometrically • Understand the drawbacks of geometric methods • Solve LP problems more effectively using Simplex algorithm via. the use of condensed tableau of A.W. Tucker • Convert certain related problems, not directly solvable by simplex method, into a form that can be attacked by simplex method. • Understand duality theory, a theory that establishes relationships between linear programming problems of maximization and minimization • Understand game theory • Solve transportation and assignment problems by algorithms that take advantage of the simpler nature of these problems
9	MTS5 B09 - Introduction to Geometry and Theory of Equations	• Recognise and classify conics • Understand Kleinian view of Euclidean geometry • Understand affine transformations, the inherent group structure, the idea of parallel projections and the basic properties of parallel projections • Learns the relationship between the roots and coefficients of an nth degree polynomial and an upper and lower limit for the roots of such a polynomial. • Derive formulae for the solutions of third and fourth degree polynomial equations given by Carden and Ferrari • Locate the region of solutions for a general polynomial • Learns methods to find out integral and rational roots of a general nth degree polynomial with rational coefficients
10	MTS6 B10 - Real Analysis	• Explore the study on continuous functions, formulate sequential criteria for continuity and proves or disproves continuity of functions using this criteria. • Understand the significance of uniform continuity • Learn Riemann integrability of real valued functions • Formulates Cauchy criteria for integrability and use it to prove the non integrability of certain functions.

		• Understand two forms of fundamental theorem of calculus and their significance in the practical problem of evaluation of an integral • Understand the difference between pointwise and uniform convergence of sequences and series of functions • Learns the properties of and relationship between improper integrals namely beta and gamma functions that frequently appear in mathematics, statistics, science and engineering
11	MTS6 B11- Complex Analysis	• Understand the difference between differentiability and analyticity of a complex function and construct examples • Learn necessary and sufficient condition for checking analyticity • Understand definition of complex integral, its properties, evaluation and applications • Understand and apply Cauchy's integral formula and a few consequences of it such as Liouville's theorem, Morera's theorem and its applications • Understand how Laurent's series expansion lead to the concept of *residue,* which in turn provide another fruitful way to evaluate complex integrals • Learn application of residue theory in locating the region of zeros of an analytic function.
12	MTS6 B12 - Calculus of Multivariable	• Understands several contexts of appearance of multivariable functions and their representation using graph and contour diagrams • Understands the notion of partial derivative, their computation and interpretation • Calculate the extreme values of a multivariable function using second derivative test and Lagrange multiplier method. • Understand the idea of line integral and surface integral and their evaluations • Learn three major results viz. Green's theorem, Gauss's theorem and Stokes' theorem of multivariable calculus and their uses in several areas and directions
13	MTS6 B13- Differential Equations	• Identifiy a number of areas where modelling process results in a differential equation • Learn to solve DEs that are in linear, separable and in exact forms and also to analyse the solution

		• Realise the basic differences between linear and non linear DEs and also basic results that guarantees a solution in each case • Become familiar with the theory and method of solving a second order linear homogeneous and nonhomogeneous equation with constant coefficients • Acquire the knowledge of solving a differential equation using Laplace method • which is especially suitable to deal with problems arising in engineering field • Learn the technique of solving partial differential equations using the method of separation of variables
14	MTS6 B14 (E01)- Graph Theory	• Learn the definition of a graph, Graphs as models, Vertex degrees, Sub graphs, Paths and Cycles, Matrix representation of a graph • Understand Bridges, Spanning Trees Cut Vertices and Connectivity and applies in solving problems • Learn and apply Euler Tour, Hamiltonian Graphs,Plane and Planar graphs and Euler's Formula
15	MTS5 D04 – Mathematics for Decision Making	• Get an overview of Data collection, Data Classification and Experimental Design • Learn frequency distributions and their graphs • Study on Measures of Central Tendency, Measures of Variation and Dispersion • Learn Concepts of Probability and Counting • Understand probability distributions
16	MTS 1 C01 - Mathematics	• Understand concepts of limits, continuity, derivative and linear approximation of curves • Learn basic theorems of differentiation and integration • Apply the concepts in solving optimisation problems in real life • Understand the concepts of maximum and minimum values of functions using graphs and find the extreme values • Learn to draw graphs of functions • Apply integral calculus to find area, surface area, volume of solids etc..
17	MTS 2 C02 - Mathematics	• Understand the concepts of polar coordinates, trigonometric functions, hyperbolic functions, inverse hyperbolic functions • Learn parameterisation of curves and apply the concept of polar coordinates in finding areas, arc length and area between curves

		• Understand the ideas of improper integrals, their convergence, convergence of series and Taylor's formula • Understand the concepts of vector space • Apply the concepts of eigen values and eigen vectors in diagonalisation
18	MTS3 C03 - Mathematics	• Learn fundamental ideas of limits, continuity, differentiability of vector valued functions • Understand the concepts of curl and divergence of vectors • Apply the concepts of multiple integrals in finding surface area, volume, flux •
19	MTS4 C04	• Understands the ODE, its solutions, Initial value problem and different types of ODE. • Apply Laplace transforms and inverse transform for solving ODE • Understand the concepts of Fourier series and its convergence • Learn the methods of solving partial differential equations.

PROGRAMME-5: BSc.Chemistry

- To understand basic facts and concepts in Chemistry.
- To develop the ability for applying the principles of Chemistry.
- To appreciate the achievements in Chemistry and to know the role of chemistry in nature and in society.
- To familiarize the emerging areas of chemistry and their applications in various spheres of chemical sciences and to apprise the students of its relevance in future studies.
- To develop skills in the proper handling of instruments and chemicals.

- To be exposed to the different processes used in industries and their applications.
- To make the students eco friendly by creating in a sense of environmental awareness in them.
- To make the students aware of the applications of chemistry in day to day life.

Semester	Course	Course Outcome
1	Theoretical and inorganic chemistry I	Understand basic concepts in chemistry. Understand laboratory hygiene and safety measures.
2	Theoretical and inorganic chemistry II	To understand basic concepts and theories of quantum mechanics.
3	Physical Chemistry - I	To understand properties of gaseous state and how it links to thermodynamic systems. To understand the concepts of thermodynamics and its relation to statistical thermodynamics.
4	Organic Chemistry - I	To apply the concept of stereochemistry to different compounds. To understand the basic concepts of reaction mechanism. To analyse the mechanism of chemical reaction and to analyse the stability of different aromatic systems.
5	Inorganic Chemistry - III	To understand the principles behind quantitative and qualitative analysis To understand basic processes of metallurgy and to analyse the merit of different alloys. To understand the applications of different inorganic polymers. To analyse different polluting agents. To apply the principles of solid waste management.
5	Organic Chemistry - II	To understand the difference between alcohols and phenols. To understand the importance of ethers and epoxides. To apply the organometallic compounds in preparation of different functional groups.
5	Physical Chemistry - II	To apply the concept of kinetics, catalysis and photochemistry to various chemical and physical processes. To characterize different molecules using spectral methods.
6	Inorganic Chemistry - IV	To understand the principles behind different instrumental methods. To distinguish between lanthanides and actinides. To distinguish geometries of coordination compounds.

6	Organic Chemistry – III	To elucidate structure of simple organic compounds using spectral techniques. To understand the basic structure and tests for carbohydrate. To understand the basic structure of DNA,alkaloids and terpenes.
6	Physical Chemistry – III	To understand basic concepts of electrochemistry. To realize the importance of colligative properties.
6	Advanced and applied Chemistry	To understand the importance of nanomaterials, green chemistry To understand the importance and uses of computational calculations in molecular design. To realize the extent of chemistry in happiness index and life expectancy.
6	Polymer Chemistry	To understand various classification of polymers. To understand the important characteristics of polymers. To appreciate the importance of processing techniques.
6	Organic chemistry practical	To enable students to develop analytical skills in organic qualitative analysis. To analyse and characterize simple organic functional groups.
6	Inorganic chemistry practical II	To enable students to develop analytical skills in inorganic quantitative analysis
6	Inorganic chemistry practical - III	To enable the students to develop skills in inorganic qualitative analysis. To understand the principles behind inorganic mixture analysis and to apply it in qualitative analysis
6	Physical Chemistry practical	To enable the students to develop analytical skills in determining physical constants. To develop skill in setting up a experimental methods to determine the physical properties.
	Project work	To understand the scientific methods of research project. To apply the scientific method in life situations. To analyse scientific problems systematically.
	Industrial visit	Identify the applications of chemistry in industry.

PROGRAMME-6: BA English

- To educate the student in both the artistry and the utility of the English Language through the study of literature.

- To make students aware of the different communicative skills and make them effectively communicate in written and spoken modes.
- To provide students with the critical faculties necessary in an academic environment, while at job and in an increasingly complex and interdependent world.
- The syllabus is aimed at preparing the students with the latest developments and put them on the right track to fulfill the present requirements. The course offers unlimited opportunities to the students in future like research and facing all the competitive examinations.

Semester	Course	Course Outcome
1	Reading Poetry	1. Recognize poetry from a variety of cultures, languages and historic periods. 2. Understand and appreciate poetry as a literary art form. 3. Analyze the various elements of poetry, such as diction, tone, form, genre, imagery, figures of speech, symbolism, theme,etc
1	Transactions	1. Know pronunciation and stress 2. Improve reading skill. 3. Improve writing and speaking skill. 4. Understand grammar and vocabulary.
1	Ways with Words	1. Recognize poetry from a variety of cultures, languages, and historic periods. 2. Understand and appreciate poetry as a literary art form. 3. Analyze the various elements of poetry, such as diction, tone, form, genre, imagery, figures of speech, symbolism, theme etc.
2.	Reading prose	

		1. Develop critical thinking. 2. Enable students to write and appreciate different types of prose.
2	Writing for Academic and Professional Success	1. Understand the study skills expected in college students. 2. Identify the difference in writing requirements in schools and college. 3. Understand the basic features of academic writing.
2	Zeitgeist: readings on society and culture	1. Spread the great values enshrined in the constitution and culture of India. 2. Create awareness about the objectives that led to the foundation of the largest democratic republic.
3.	Reading Drama	1. Understand the concept drama and its types, genres, and elements. 2. Understand the elements and structures of drama with some plays. 3. Know William Shakespeare and Macbeth.
3	Reading Fiction	1. Inspire a love of fiction in students, to open up their minds, to stimulate the sympathetic or empathetic imagination by allowing them see the world through other's eyes as well as foster intercultural dialogue.
3	signatures	1. Know the versatile themes and subjects of English literature. 2. Know objectivity and subjectivity in the English literature. 3. Acquire different mode of readings on autobiographies and memoirs.
4	Methodology of Humanities	1. Know the distinction between the methodologies of natural, social and human science. 2. Know objectivity and subjectivity in the methodology of humanities.

		3. Acquire a methodical and system. 4. Demonstrate capacity for reflection, planning, ethical decision-making.
4	Modern English literature	1. Integrate knowledge of the diversity of cultures and peoples. 2. Apply critical thinking, independent judgment, regional, national and global perspectives to identify and solve problems in English language and literature.
4	spectrum	1. Enable the learners to understand concepts like globalization, commercialization, and intellectual property through new literatures. 2. Disseminate knowledge about the right of minorities such as children, animals and the disabled and thus create a positive change in the societal perception of them
5	Informatics	1. General introduction- history, evolution, and types of computers. 2. Introduction to hardware. 3. Introduction to software. 4. Introduction to networking and knowledge resource on net. 5. Understand computer localization.
	Language and Linguistics	1. Familiarize the learners with the nature and organization of language. 2. Know the history of language and its key concepts. 3. know the pronunciation of the words.
	Methodology of Literature	1. Introduce and discuss the evolution of literature. 2. sensitize the students to their own readings, to develop a critical awareness, to inspire the passion for literature and to implant a serious approach to literature

		3. Familiarize the student with the distinctive features of literature. 4. Make the student to understand the canon formation and marginalized literature.
	Indian Writing in English	1. Introduce students to major movements and figures of Indian literature in English. 2. Create literary sensibility and emotional response to the literary text. 3. Expose students to the artistic and innovative use of language. 4. Instill values and develop human concerns in students through exposure to literary text.
6	Applied Language Skills	1. Understand the basic communication skills. 2. Acquire fluency and accuracy in communication. 3. Understand the principles of good communication.
	Literary Criticism and Theory	1. Introduce the classical age 2. Make the students aware that all readers are critic. 3. familiarize the student to the historical evolution of literary criticism
	Women's Writing	1. Introduce the students regarding the evolution of Feminist Movement. 2. Help the students think critically and creatively on issues related to feminism. 3. Rouse the conscience of the students on gender issues.
	Writing for Media	1. Understand print media, electronic media, and digital media. 2. Learn how to do advertisements and its functions. 3. Identify the concepts stylistics and the media

World Classics in Translation	1. Introduce students to the world's best classics in translation. 2. General introduction to world class. 3. Students learn and differentiate the world classics. 4. Change in perception and approaches. 5. Critical thinking and evaluation.
Literature in English: American and post colonial	1. Initiate the students to varies literatures In English. 2. Expose them to diverse modes of experiences and cultures. 3. Familiarize them with American literature. 4. Enable students to compare and contrast their indigenous literature and culture with other literatures and cultures

PROGRAMME-7: BA Mass Communication

PROGRAM OBJECTIVES

The Learning Outcomes-based Curriculum Framework for B.A (Journalism & Mass Communication) degree programme intended to design a broad learning framework to provide the human capital needs of the ever changing Media and Entertainment Industry. It also aims to inculcate and empower learners to innovation, incubation and acquire entrepreneurship abilities along with professional and employable skills. It is also designed to imbibe primary research culture among learners to encourage Research and Development (R & D) potentials. It has also been structured to prepare the undergraduates to achieve skills for digital and cyber world of the present and future era. The programme incorporates current and futuristic trends in the Media and Entertainment Industry with Graduate Attributes (GAs) such as disciplinary knowledge and skills, influential and effective communication, self-directed learning, critical thinking, problem solving abilities, digital empowerment, ability to apply knowledge, lifelong learning, analytical reasoning, research-related skills, cooperation/team work, scientific reasoning, reflective thinking, multicultural competencies, leadership readiness/qualities, ethical reasoning, global vision and professional commitment. It also aims to build future ready professionals and socially responsible global citizens working under multi-cultural environment contributing to the attainment of global peace.

Programme Educational Objectives (PEOs)

The overall objectives of the Learning Outcomes-based Curriculum Framework (LOCF) for Mass communication & Journalism degree are:

1. To impart the basic knowledge of Mass communication & Journalism and related areas of studies.
2. To develop the learner into competent and efficient Media & Entertainment Industry ready professionals.
3. To empower learners by communication, professional and life skills.
4. To impart Information Communication Technologies (ICTs) skills, including digital and media literacy and competencies.
5. To imbibe the culture of research, innovation, entrepreneurship and incubation.
6. To inculcate professional ethics, values of Indian and global culture.
7. To prepare socially responsible media academicians, researchers, professionals with global vision

PROGRAMME LEARNING OUTCOMES (PLOs)

The key outcomes planned in this undergraduate programme in Mass communication & Journalism are underpinned as follows:
After completing this undergraduate programme, a learner:

1. Shall acquire fundamental knowledge of Mass communication & Journalism and related study area.
2. Shall acquire the knowledge related to media and its impact.
3. Shall be competent enough to undertake professional job as per demands and requirements of M & E Industry.
4. Shall empower themselves by communication, professional and life skills.
5. Shall be able to enhance the ability of leadership. 6. Shall become socially responsible citizen with global vision
6. Shall be equipped with ICTs competencies including digital literacy.
7. Shall become ethically committed media professionals and entrepreneurs adhering to the human values, the Indian culture and the Global culture.
8. Shall have an understanding of acquiring knowledge throughout life.

9. Shall acquire the primary research skills, understand the importance of innovation, entrepreneurship and incubation abilities.
10. Shall acquire the understanding of importance of cooperation and teamwork.

COURSE-WISE LEARNING OBJECTIVES AND OUTCOMES

SEMESTER	COURSE	COURSE OUTCOME
Semester I	**Fundamentals of Mass Communication**	1. To attain the basic concepts of communication and the evolution of mass communication. 2. The knowledge gained from the course should act as a gateway and navigator to thevarious branches of mass communication. 3. To gain the capacity to examine the working of the media and to develop betterperspectives of media.
Semester II	**Media History**	1. To demonstrate an understanding of the history of media and role of professionals inJournalism 2. To understand the development of print and electronic media
Semester III	**Reporting for the Print**	1. Make students reporters having news sense 2. Prepare reporters with the acquaintance of Journalistic Principles 3. Provide practical experiences to the students
Semester III	**Editing for the Print**	1. Produce students with the thorough knowledge in the need for editing 2. Prepare editors having practical knowledge in all the aspects related to editing

Semester IV	Design and Pagination	1. Prepare students to be the editors having pagination skill
Semester IV	Radio Production	1. Develops an awareness on the role of radio as a mass medium 2. Gathers knowledge on the historical evolution of the medium. 3. Understands the technology behind radio production 4. Develops the ability to produce short radio programmes.
Semester V	Mass Communication Theories	1. To attain the basic knowledge of the important communication theories and theirapplications. 2. To attain a theoretical framework of media and also to contextualize the media theories. 3. To effectively assess the changing media scenario and accordingly to expand and redefinethe existing media theories with an interdisciplinary approach.
Semester V	Television Production	5. Prepare practically experienced TV journalists 6. Provide technical know-how to the students 7. Make the students aware of other TV programmes with a thrust on production
Semester V	Public Relations & Corporate Communication	1. Introduce the students the concept of Public Relations 2. Introduce a wider and new concept namely Corporate relations 3. Provide the students with practical experience in PR and Corporate communication
Semester V	Advertising	1. To gain an overview of the world of advertising both in theory and practice. 2. To prepare advertising copies that can effectively and convincingly convey selling ideas,brands and images. 3. To effectively assess the effects of advertising on a larger perspective on a given society

Semester V	Photo Journalism	1. To understand how photographs can be used to communicate in media 2. To enable the students to apply journalistic ethics to photo journalism 3. To produce a compelling and solid visual story telling medium
Semester VI	Media Laws and Ethics	1. To gain basic understanding of the legal system and important media laws. 2. To assess the implications of freedom of speech and expression and perils of therestrictions on this freedom. 3. To obtain the capacity to examine the actual working of the media from an ethicalperspective
Semester VI	Online Journalism	1. Understanding the effectiveness of Digital Medium. 2. To achieve the capacity to evaluate the role of Internet in the contemporary society. 3. To involve and participate in the functional world of Internet in personal capacity
Semester VI	Introduction to Cinema	1. Prepare cinema literate students 2. Present the history of the medium so that the students can have a better knowledgeabout the present and the future.
Semester VI	Economic and Business Reporting	1. Prepare the students to understand the different concepts of economies 2. Present the students the examples of different business newspapers, magazines andchannels 3. Introduce the students the current status of Indian and Kerala economy
Semester VI	Magazine Journalism	1. Students with an awareness about the current status of Magazine Journalism 2. Give the students a practical know how on writing for Magazines.

PROGRAMME-8: B.Com C A

- This program could provide Industries, Banking Sectors, Insurance Companies, Financing Companies, Transport Agencies, warehousing etc. well trained professionals to meet the requirements

- After completing graduation, students can get skills regarding various aspects like Marketing Manager, Selling Manager, Over all Administration abilities of the company.
- Capability of the students to make decisions at personal and professional level will increase after completion of this course.
- Students can independently start up their own Business.
- Student can get thorough knowledge of finance and commerce.
- The knowledge of different specialization in Accounting, Costing, Banking and finance with practical exposure helps the students to stand in organization.

Semester	Course	Course Outcome
I	Business Management	To understand the process of business management and its functions. To familiarize the students with current management practices. To understand the importance of ethics in business. To acquire knowledge and capability to develop ethical practices for effective management.
	Managerial Economics	.To enable the students to understand micro and macroeconomic concepts relevant for business decisions. To help the students to understand the Application of economic principles in business management.
II	Financial Accounting	To equip the students with the skills of preparing financial statements for various type of organizations. To enable the students to acquire knowledge about financial reporting standards and to understand corporate accounting methods.
	Marketing Management	To provide basic knowledge about the concepts, principles, tools and techniques of marketing. To impart necessary knowledge which help the student to choose a career in the field of marketing.

		To expose the students to the latest trends in marketing
III	Basic Numerical Skills	To enable the students to acquire knowledge of Mathematics and Statistics. At the end of this course, the students should have understood set operations, matrix and Mathematics of finance, Statistical tools and their applications
	General Informatics	To update and expand basic Informatics skills of the students. To equip the students to effectively utilize the digital knowledge resources for their study
	Business Regulations	To familiarize the students with certain statutes concerning and affecting business organizations in their operations. To understand rules and regulations of business
	Corporate Accounting	To help the students to acquire conceptual knowledge of the fundamentals of the corporate accounting and the techniques of preparing the financial statements.
	Human Resources Management	To familiarize the students with the different aspects of managing human resources in a organization. To equip the students with basic knowledge and skills required for the acquisition, development and retention of human resources.
IV	Entrepreneurship Development	To enable the students to have an understanding of the basics of business, entrepreneurship and organizational management.
	Banking and Insurance	To enable the students to acquire knowledge about basics of Banking and Insurance. To familiarize the students with the modern trends in banking
	Cost Accounting	To familiarize the students with the various concepts and elements of cost. To create cost consciousness among the students.
	Corporate Regulations	To familiarize the students with corporate law and to make them aware of the importance of corporate governance in the management of organizations.

		Quantitative Techniques	To familiarize student with the use quantitative techniques in managerial decision making.
	V	Accounting for Management	To enable the students to understand the concept and relevance of Management Accounting. To provide the students an understanding about the use of accounting and costing data for planning, control, and decision making
		Business Research Methods	To enable students for acquiring basic knowledge in business research methods and to develop basic skills in them to conduct survey researches and case studies
		Human Resource Management	To familiarize the students with the different aspects of managing human resources in a organization. To equip the students with basic knowledge and skills required for the acquisition, development and retention of human resources.
		Business Applications of Computers	To help the students to acquire basic knowledge about computer and its applications in various areas of business. To enable the students to understand the modern trends and technologies in computer applications.
		Business Information System	To enable the students to acquire basic knowledge in the information technology and its relevance to the various areas of business.
		Basic Accounting (Open Course)	To enable the students to acquire knowledge of Accounting Principles and Practice
		Income Tax Law and Practice	To impart basic knowledge and equip students with application of principles and provisions Income - tax Act, 1961 amended up to date.
		Auditing	To provide knowledge of auditing principles and techniques and to

VI		familiarize the students with the understanding of issues and practices of corporate undertakings
	Office Automation Tools	To enable the students to acquire basic knowledge in the various office automation tools and its applications in the various areas of business.
	Computerized Accounting with Tally	To enable the students to acquire basic knowledge in the computerized accounting systems and its applications in the area of business.
	Project and Viva Voce	To provides learning experience to students To provides opportunity to students to synthesize knowledge from various areas of learning.

PROGRAMME-10: B.A Economics

*An understanding of the methodology by which economic ideas are framed, tested and modified.

* Imparting knowledge of fundamental concepts and theoretical propositions.

*To provide the students an opportunity to take up a career in economics and related areas

*Understanding of the economic issues of national and international importance and realise the

  Dynamics behind them.

*. To develop the capacity to analyse the Socio-economic and political issues in the language of an

   Economist

* Provide an opportunity to venture in the research in economics and thereby contribute to the

  Creation   of knowledge   *.Understanding of the institutions – Social, political and economic that influence economic issues.

* Understand the basics of Computer programming and numerical analysis

Semester	Course	Course Outcome
1	Micro Economics I	Provide a basic understanding of the behaviour of individual Economic agents-consumer, producer.This will introduce the students about the basic ideas and tools that will be utilised throughout the other courses of the degree programme.
2	Micro Economics II	Introduce fundamental market concepts and structures To apply the principles Micro Economic analysis to the decision making of firms and market
3	Quantitative methods for Economic analysis I	Develop sound quantitative skills to collect, analyse and interpret empirical data.
	Modern Banking and Insurance	1. Provide the students the latest developments in the Field of banking and financial system 2. It provides a basic understanding of the mechanics of Insurance.
4	Quantitative methods for economic Analysis II	It develop skills in mathematical and statistical techniques that are required for a meaningfull study of both theori tical and applied economics.
	Computer Application for Economic Analysis	It is expected to provide the students with computing skills that are necessary for easy use of IT.This course will Arm the students with the knowledge of funda -

mentals of computers word processors and

analysis and digital economy.

5 .Macro Economics – 1   understand the relationships and ideas in the measure-

ment of national income ,the theory of income determ-

ination ,fiscal and monetary policies,the government and

its role in the functioning of the economy.

India's Economic Development :   Understand the Key issues facing the Indian economy

National and Regional   both at national and regional levels

.Economics of Capital Market   Give an exposure to the students of Economics to the

Changing world of financial markets and to give them

an opportunity to familarise with the basic concepts

related to Capital Market which they read and hear

through various medias in their daily walks of life and

to understand the economics of Capital Market.

International Economics   Acquire the skill that will help them to take rational

decisions in issues related to International Economics.

6 .Macro Economics II   Understand and develop skill in economic reasoning and

is expected to help them in understanding and solving

aggregate economic problems.

Mathematical Economics   Understand mathematical skills which will help them to

build and test models in economics and related fields.

Public Finance   The students are expected to learn how the principles of

Economics can be applied to sound decision making in

Public finance.   Development Economics   The students are expected

to develop an inter-related

approach to resource use,the relationship between man

and man and man and nature.

Project   Understand research methodology.

Understand and formulate a research project

Design and implement a research project

Study Tour   It may add direct experience to learners about different

Economic culture of the country. Understand to prepare

report of the tour.

PROGRAMME-11:MSc. Mathematics

Semester	Course	Course outcomes
1	MTH1CO1: ALGEBRA - I	• Learn factor group computation. • Understand the notion of group action on a set. • Understand the notion of free groups. • Understand the concepts rings of polynomials and ideals. • Learn basic properties of field extensions.
1	MTH1CO2: LINEAR ALGEBRA	• Learn basic properties of vector spaces • Understand the relation between linear transformations and matrices

		• Understand the concept of diagonalizable and triangulable operators and various fundamental results of these operators • Understand Primary decomposition Theorem. • Learn basic properties inner product spaces
1	MTH1C03: REAL ANALYSIS I	• Learn the topology of the real line • Understand the notions of Continuity, Differentiation and Integration of real functions. • Learn Uniform convergence of sequence of functions, equicontinuity of family of functions, and Weierstrass theorems.
1	MTH1C04: DISCRETE MATHEMATICS	• Understand the fundamentals of Graphs • Learn the structure of graphs and familarize the basic concepts used to analyse different problems in different branches in different areas • Acquire a basic knowledge of formal languages, grammars and automata. • Learn the equivalence of deterministic and non deterministic finite accepters. • Learn the concepts of partial order relation and total order relation. • Acquire a knowledge of Boolean algebras and Boolean function and understand how these concepts arise in certain real life problems.
1.	MTH1CO5: NUMBER THEORY	• Be able to effectively express the concepts and results of number theory. • Learn basic theory of arithmetical functions and Dirichlet multiplication, averages of some arithmetical functions. • Understand distribution of prime numbers and prime number theorem. • Learn the concept of quadratic residue and Quadratic reciprocity laws.

		• Get a basic knowledge in Cryptography
2.	MTH2 C06 ALGEBRA - II	• Be able to apply Sylow's theorem effectively in various contexts. • Learn automorphisms of fields. • Get a basic knowledge in Galois Theory. • Learn how to apply Galois Theory in various contexts.
2	MTH2 C07- REAL ANALYSIS- II	• Learn why and for what the theory of measure was introduced • Learn the concept of measures and measurable functions • Learn Lebesgue integration and its various properties • Learn how to generalize the concept of measure theory. • Learn that a measure may take negative values.
2	MT2 C08 -TOPOLOGY	• Understand topological spaces • Understand continuous functions among topological spaces and quotient spaces • Understand the concept of separation axioms • Understand Urysohn characterisation of normality •
2	MTH2C09 - ODE AND CALCULUS OF VARIATIONS	• Interpret and analyse Power Series Solutions and Special functions • Understand Systems of First Order Equations; Non linear Equations • Understand and analyse the Existence and Uniqueness of Solutions

		• Identify critical points of a given system
2	MTH2C10-OPERATIONS RESEARCH	• Apply the method of minimum spanning tree in solving minimum path problems • Apply Simplex method or Dual Simplex Method to solve linear programming problems • Apply the method of minimum spanning tree in solving minimum path problems • Apply Simplex method or Dual Simplex Method to solve linear programming problems
3	MTH3C11-MULTIVARIABLE CALCULUS AND GEOMETRY	• Understand the concept of functions of several variables, the concept of their differentiation and linear transformation • Understand the concept of curve and their properties. Find curvature and torsion of curves. • Understand the concept of surfaces and their properties
3	MTH3C12 -COMPLEX ANALYSIS	• Understand Conformality, Linear Transformations, Elementary Conformal Mappings, Fundamental Theorems. • Understand Cauchy's Integral Formula, Local Properties of Analytic Functions, The General Form of Cauchy's Theorem, Calculus of Residues. • Analyse Harmonic functions, Power series Expansions, Maximum principle. • Be thorough in power series representation of analytic functions, different versions of Cauchy's • Theorem. • Get an idea of singularities of analytic functions and their classifications. • Learn different versions of maximum modulus theorem.

3	MTH3C13 - FUNTIONAL ANALYSIS	- Learn the concept of normed linear spaces and various properties operators defined on them - Understand Metric spaces and Continuous Functions - Analyse Inner product spaces - Analyse Banach spaces
3	MTH3C14 - PDE AND INTEGRAL EQUATIONS	- Learn a technique to solve first order PDE and analyse the solution to get information - about the parameters involved in the model. - Learn explicit representations of solutions of three important classes of PDE Heat equations - Laplace equation and wave equation for initial value problems. - Define first order differntial equations and solve Quasilinear equations. - Discuss characteristics method and Lagrange method. - Define second order differential equations and canonical form of hyperbolic,parabolic and elliptical equation. - Discuss The Cauchy problem and d'Alemberts formula, Domain of dependence and region of influence. - Discuss Heat equation: homogeneous boundary condition, Separation of variables for the wave equation and basic properties of elliptic problems. - Define Integral equations and discuss Relations between differential and integral equations,The Green's functions, Fredholom equations with separable kernels, Hilbert- Schmidt Theory,The Newmann Series, Fredholm Theory. - Learn the relation between Integral and differential Equations
3	MTH3E01- CODING THEORY	- Learn about error detection - Learn about correcting codes and linear codes - Understand error correcting BCH codes

4	MTH4C15- ADVANCED FUNCTIONAL ANALYSIS	• Understand the concept of spectrum and their properties, compact operators and self adjoint operators. • Understand the properties of orderings. • Study the fundamental theorems and basic results
4	MTH4C11-GRAPH THEORY	• Describe basic concepts of Graph Theory. • Define Trees, Cut edges and Bonds, Cut vertices and discuss The Connector Problem, Connectivity, Blocks, Construction of Reliable Communication Networks, Euler Tours, Hamilton Cycles, The Chineese Postman Problem, The Travelling Salesman Problem. • Explain independent sets and covering sets and some basic theorems. • Discuss Matchings, Matchings and Coverings in Bipartite Graphs, Perfect Matchings, The Per-sonnel Assignment Problem, Edge Chromatic Number, Vizings Theorem,TheTimetabling Problem, Independent Sets, Ramseys Theorem. • Define Vertex Colouring and Chromatic Number. Discuss Brooks Theorem, Chromatic Polynomial, Girth and Chromatic Number, A Storage Problem • Define Plane and Planar Graphs, Dual Graphs and discusd Eulers Formula, Bridges, Kuratowskis Theorem, The Five-Colour Theorem, Directed Graphs, Directed Paths, Directed Cycles.
4	MT4E09 - DIFFERENTIAL GEOMETRY	• Analyze vector fields on surfaces • Understand Geodesics and parallel transport • Understand the concept of curvature and use this to find Arc length and line integrals. • Understand local equivalence of surfaces and parametrized surfaces
4	MTH4E08 – COMMUTATIVE ALGEBRA	• Learn basic properties of commutative rings, ideals and modules over commutative rings • Learn uniqueness theorem for a decomposable ideal.

		- Learn integrally closed domain and valuation ring. - Understand the basic theory of Noetherian and Artin Rings

PROGRAMME-12:MSc. Physics

SEMESTER 1	PHY1C01	Classical Mechanics	Describe and understand the motion of a mechanical system using Lagrange- Hamilton formalism. Enable the students to understand the kinematic and dynamics of rigid body in detail and idea regarding Euler's equation of motion and theory of small oscillation with basis of free vibration.
SEMESTER 1	PHY1C02	Mathematical Physics l	Develop the mathematical methods and techniques widely used to describe various physical phenomena.

SEMESTER 1	PHY1C03	Electrodynamics & Plasma Physics	Students should get better comprehension of how electromagnetic waves consist of an electric field and magnetic field. Describe the foundations of electrodynamics, the multipole expansion of the electromagnetic field, the study of the energy balance, and explain Maxwell's equations in vacuum and inside matter after this advanced course. Examine the methods of vector calculus to solve problems in electromagnetism, concepts and properties of electromagnetic wave propagation and introduce the concept of relativistic electrodynamics and plasma physics.
SEMESTER 1	PHY1C04	Electronics	Use analytical techniques in resistive circuits energized by direct voltage and current sources and evaluate lecture circuit laboratory bench experiments such as FET, OP-AMPS etc. explain concepts of the basic memory elements using flip flops and various applications in registers, counters etc. explain the basic logic operations to interpret logic functions, circuits, truth tables, and Boolean algebra expressions and apply the laws of Boolean algebra to simplify circuits.
SEMESTER 1	PHY1P01	General Physics Practical I	Performs Practical systematically

SEMESTER 1	PHY1P02	Electronics Practical I	Performs Practical systematically
SEMESTER 2	PHY2C05	Quantum Mechanics I	Examine concepts in quantum mechanics such that the behavior of the physical universe, postulates of quantum mechanics. Review of the Schrodinger equation, operators, eigen functions, compatible observables, infinite well in one and three dimensions, degeneracy; harmonic oscillator in one and three dimensions; hydrogen atom, spin.
SEMESTER 2	PHY2C05	Mathematical Physics II	Develops an understanding of special mathematical techniques like group theory, calculus of variations, Greens functions etc which find applications certain special types of physical systems
SEMESTER 2	PHY2C05	Statistical Mechanics	Develops an understanding of various natural phenomena like Bose-Einstein condensates, fermionic systems etc. in terms of ensemble theory

SEMESTER 2	PHY2C05	Computational Physics with Lab	Students should have basic knowledge of different data types used in python such as lists, tuples, dictionary etc. Understand different modules like NumPy, Matplotlib etc. Get an idea about numerical methods in computational physics that can be used to solve many problems. Formulate and computationally solve a section of problems in physics.
SEMESTER 2	PHY2P03	General Physics Practical II	Performs Practical systematically
SEMESTER 2	PHY2P04	Electronics Physics Practical II	Performs Practical systematically
SEMESTER 3	PHY3C09	Quantum Mechanics II	solve quantum mechanical systems using time dependent and independent perturbation methods
SEMESTER 3	PHY3C10	Nuclear and Particle Physics	The student gathers advanced knowledge in Nuclear physics. The different nuclear interactions and corresponding nuclear potentials and its dependence on the coupling are learned. Students should be able to account for the fission and fusion processes. Student gain knowledge about various nuclear models and classify elementary particles based on forces of interaction involved and study in detail conversation laws and quark models.

SEMESTER 3	PHY3C11	Solid State Physics	develop knowledge of solid state systems including reciprocal lattices, band structure, magnetic and electric behaviour of solids.
SEMESTER 3	PHY3E05	Experimental techniques	Develop a knowledge on different types of pumps using for creating vacuum. Identify the difference between thick and thin films. Getting an awareness about production and measurement of thin films. Knowledge on different methods for accelerating the particle and nuclear techniques for material analysis.
SEMESTER 4	PHY4Pr	Project	Students should get out of textbook and should learn from different resources and more deeply with advanced developments in specific topic and give an extension in the topic.
SEMESTER 4	PHY4C12	Atomic and Molecular Spectroscopy	Student get an idea about atomic spectra and describe spectra of one and two electron atoms. Explain change in behavior of atoms in external applied electric and magnetic field.
SEMESTER 4	PHY4C	Material science	To get the knowledge of different kinds imperfections in crystals, to get the idea of phases and its diagrams with rules to get the parameters from phase diagram. To learn the deformation and fracture of materials. To introduce Engineering materials and students should be able to aware of current development in the field of nanomaterials.

SEMESTER 4	PHY4E20	Microprocessor and its applications	Performs machine language programming using the microprocessor programming in 8085 microprocessors for further research in machine language programming. Awareness about AVR family of microcontroller and basic programs in that.

PROGRAMME-13: M S W

1. Understand the history of Social work and Social Work education in India and abroad

2. 1. Understand the sociological concepts to examine social phenomena.

3. To acquaint the students with the basic concepts in Psychology & Human growth and development relevant for Social Work practice

4. To gain an understanding on concepts of self esteem, self awareness, self development etc

5. To acquaint the students with human rights and organizations to protect human rights

6. To understand the basic concepts in Social Case Work and its application in practice

7. To develop an understanding of Social Group Work as a method of Social Work

8. Understand community organization and social action as methods of social work

9. To develop an understanding regarding individual and collective behaviour and determinants of social behavior.

10. To acquire knowledge of the theoretical and therapeutic approaches in counseling.

11. To understand the significance and characteristics of scientific research.

12. To understand the phases of development projects.

13. To learn basic concepts in health and health care.

14. To understand the scope of health care social work.

15. To understand the features and challenges of rural and tribal communities

16. To help the students gain knowledge regarding psychiatric illnesses, their treatment and aftercare.

17. To understand about the urban communities and the processes like urbanization and its impact.

18. Develop understanding of the evolution of administration as a method in Social Work Practice.

19. To understand the prevailing realities and problems of vulnerable and marginalized groups in India.

20. To acquaint the students with contemporary psychosocial approaches to therapy in medical and psychiatric settings.

21. Understand the basic concepts in environment studies

22. Understand family as a social institution and the different conceptual frameworks for understanding family

23. Understand concepts related to gender and its significance in social work

First Semester: Ability Enhancement Course Working with Older Persons

➢ Introduction to basic concepts: Old Age, elderly, older person, ageing, Demography of the Ageing at national and international level and its related implications Module II Needs and problems of elderly: physical, psychological, financial, social and environmental.

Second Semester Professional Competency Course (PCC) Child Protection

➢ Legislation pertaining to child abuse and child protection: POCSO Act • Mechanisms to address child abuse in India/Kerala • Child protection practice in developed countries- any one model • Child Protection Practice in India: Dept of Social Justice, Central government schemes • Child protection agencies – Child protection workers/CWC, JJB, CHILDLIN

Semester	Course	Course Outcome

1	History, Philosophy and Fields of Social Work	2. Learn the basic concepts, methods and functions of Social Work 3. Understand the philosophical assumptions and values of Social Work. 4. Understand social work as a profession 5. Identify various fields of Social Work practice
1	Sociology and Economics for Social Work Practice	2. Understand the various social problems and its impact on the society, various issues and challenges 3. Understand social and economic processes and systems. 4. Understand economics of development.
1	Human Growth and Development	2. To acquaint the students with the developmental stages in human life across the Life span 3. To familiarize students with the theories of development and its relevance in Human growth and development
1	Professional Skills for Social Workers	2. To familiarize with managerial skills required for social work practice 3. To provide training to enhance competence in interpersonal communication and development communication 4. To enhance skills in ICT
1	Social Legislation and Human Rights	2. To familiarize the students with Indian Constitution, and the fundamental rights, duties and directive principles 3. To acquaint them with the statutory bodies for the protection of the rights of the individuals in general and women and children in particular 4. To understand the provisions of the social legislations and utilize them as a tool for empowerment of the vulnerable and marginalized sections of the society.
1(Ability Enhancement Course)	Working with Older Persons	Social security measures and Welfare programmes/schemes for older persons.Introduction to Social Work with Older Persons: Counselling and guidance services for preparation of old age, lifestyle management, Grief and bereavement counseling, sensitizing children/families/ communities, creating favourable/safe environment for the elderly, services for older persons in institutions and palliative care
2	Social Case Work	2. To develop the values and skills to practice Social case work 3. To develop competencies to use the method in practice while working with individuals
2	Social Group Work	2 To acquaint with the process of Social Group Work to enable them to work with individuals in Groups 3 To develop the necessary attitude and competence to practice Social Group Work in various settings
2	Community Organisation and Social Action	2. Understand the elements of community organisation practice and social action. 3. Learn the models and strategies for

		community organization and social action 4. Develop skills and attitudes for participatory Community work and social action.
2	Psychology for Social Work	2. To acquire knowledge regarding the concept of mental health and mental health issues in the contemporary society. 3. To gain basic knowledge regarding various mental disorders and dysfunctions
2	Theory and Practice of Counselling	2. To understand the process of Counselling. 3. To gain knowledge and skills for practice of counselling in different settings
2(Professional Competency Course (PCC))	Child Protection	Case management and support Therapeutic assessment and care plan, Care team approach, Working with family/community services/ school/ health care system/ police and other stakeholders, Placements of children: Kinship/foster care/residential care, Contact with birth family, Adoption/permanent care, Deinstitutionalization. Gender sensitivity and cultural sensitivity in child protection. Intake and Assessment/ Appraisal
3	Quantitative and Qualitative Methods for Social Work Research	2. To develop competence in conducting qualitative and quantitative research 3. To develop an understanding about the research process of qualitative and quantitative research 4. To gain an understanding about the application of statistical techniques in social work research
3	Participatory Project Planning and Training	2. To learn techniques in formulating and implementing development projects 3. To develop skills in writing project proposals and managing projects 4. To Learn the concept and importance of participatory training. 5. To understand the different steps in organizing participatory training programmes and develop skills in participatory training and facilitation
3	Community Health	2. To understand the epidemiology of common communicable diseases and non communicable diseases 3. To understand the community health programmes 4. To acquaint with nutritional problems and their management 5. To know the various legislations pertaining to health care
3	Health Care Social Work	2. To understand the role and functions of social worker in acute and chronic health conditions 3. To understand various social work interventions in health car
3	Rural Community Development and Governance	2. To understand the concept, philosophy and principles of Rural Community development 3. To learn the programmes

		and services in the governmental and voluntary sector. 4. To understand the structure and functions of PRIs and their role in community development 5. To understand the scope of social work interventions in rural communities
3	Social Work in Mental Health Settings	2. To understand the specific roles and functions of psychiatric social worker in different mental health settings 3. To help the students gain an understanding regarding the policies and programmes in the field of mental health 4. To understand the current trends and future of Psychiatric Social Work in India
3	Urban Community Development and Governance	2. To learn about the challenges faced by urban communities in general and vulnerable populations in particular 3. To understand the structures and institutions for urban governance 4. To understand the scope of social work interventions in urban communities
4	Administration of Human Service Organizations	2. Develop understanding and appreciate the utility of the administrative structures, processes and procedures in an organization. 3. To understand the types of organizations and registration of these organizations 4. Develop an overview of human resource management as an important component of AHSO
4	Social Work with Vulnerable groups	2. To learn the roles and functions of social workers in helping them. 3. To understand the contribution of Govt. and non Govt. organizations in promoting welfare of the marginalized and vulnerable groups. 4. To understand the policies and welfare progammes for vulnerable groups
4	Therapeutic Approaches in Medical and Psychiatric settings	2. To help them gain knowledge regarding various therapies practiced in the field of general and mental health 3. To understand the application and effectiveness of these therapies in health settings
4	Environmental Studies and Disaster Management.	2. Understand the environment problems and impact of development initiatives. 3. Examine the utilization and management of natural resources. 4. Study the role of social work practice in dealing with environmental problems and in disaster management.
4	Social Work Practice with Families	2. Develop knowledge and skills for assessment in family social work 3. Demonstrate an understanding of family Social Work 4. Develop an understanding of various Settings of family practice.

4	Social Work Practice and Gender	2. Develop perspectives concerning what constitutes a gender issue and learn to create a multi-perspective analysis of a given gender issue 3. Understand the status of women and appreciate the gaps therein 4. Develop skills and attitudes to work with gender issues 5. Practice social work with a gender perspective.

PROGRAMME-14: MSc. Statistics

1. To inculcate and develop aptitude to study theory of Statistics and apply statistical tools in real life problems.

2. To train students to handle theory, large data sets and carry out data analysis using software and programming language.

3. To teach a wide range of statistical skills, including problem-solving, project work and presentation so as enable students to take prominent roles in a wide spectrum of employm

ent and research.

Semester	Course	Course outcome
1	Measure Theory and integration Analytical tools for statistics -1 Analytical tools for statistics 2 Regression and LPP Distribution theory	Students acquire basic knowledge of measure theory needed to understand probability theory, statistics and functional analysis. The skills and knowledge gained has intrinsic mathematics, which also leads to proficiency in analytical reasoning. This can be utilised in modelling and solving real life problems. Learn how to apply linear regression models in practice: identify situation where linear regression is appropriate; build and fit linear regression models with software SPSS; interpret estimates and diagnostic statistics; produce exploratory graphs Students learn various distributions and their fitting and modelling in real life situations
2	Estimation Theory Sampling Theory Probability Theory Design and analysis of experiments	By the end of this Programme, the students will be able to: • Understand problem of statistical inference, problem of point estimation • Properties of point estimator such Consistency, Unbiasedness, Sufficiency • Obtain minimum variance unbiased estimator Survey sampling methods are familiarised by students by doing this course This paper makes student confident to build a base for higher statistical theory Describe some of the factors affecting reproducibility and external validity and then List the different types of formal experimental designs (e.g. completely randomised, randomised block,

	Statistical computing -1	repeated measures, Latin square and factorial experimental designs).
3	Stochastic Processes	The students are expected to be able to: Carry out derivations involving conditional probability distributions and conditional expectations.
	Testing of statistical hypothesis	Understand hypothesis testing as making an argument; Significance level as the probability of rejecting a true null hypothesis; Understand that p-value is the probability of obtaining the data if the null hypothesis were true.
	Statistical computing 2	Practical problem solving using R & MS EXCEL
4	Multivariate analysis	A distinguished paper that is excellent with regard to the following aspects – theoretical depth, practical relevance, analytical ability and independent thought
	Project dissertation & viva	Project work consists of either theory development or application of theory to real life data

PROGRAMME-15: MA English

- To master the representative literary and cultural texts within a significant number ofhistorical, geographical, and cultural contexts.

- To master the critical and theoretical approaches to the reading andanalysis of literary andcultural texts in multiple

genres.

- To identify, analyze, interpret and master the critical ideas, values,and themes that appear in literary and cultural texts and understand the way these ideas, values, and themes inform andimpact culture and society, both now and in the past.

- to write analytically in a variety of formats, including essays, research papers, reflective writing, and critical reviews of secondary sources so that they should be able to ethicallygather, understand, evaluate and synthesize information from a variety of written and electronic sources for research purposes.to understand the process of communicating and interpreting human experiences through literary representation using historical contexts and disciplinary methodologies

Semester	Course	Course Outcome
I	ENG1C01: British Literature from the Age of Chaucer to the Eighteenth Century	At the end of the course, the student learns to: 1. Appreciate and analyse independently the poems ofChaucer, Donne, Marvell, Milton, Dryden, Pope and Gray. 2. Understand the concept & types of poetry reflecting theage and its importance. 3. Appreciate and analyse independently the drama of Shakespeare, Webster, and Sheridan. 4. Understand the concept & types of drama reflecting theage and its importance. 5. Appreciate and analyse the prose and fictionalnarratives of Bacon, Swift and Fielding. 6. Understand the concept & types of fiction reflecting theage and its importance.

I	ENG1C02: British Literature: The Nineteenth Century.	At the end of the course, the student learns to: 1. Appreciate and analyse independently the poems of Blake, Wordsworth, Coleridge, Shelley, Keats, Tennyson,Browning, and Arnold. 2. Understand the concept & types of poetry reflecting theage and its importance. 3. Appreciate and analyse independently the drama ofWilde, Shelley. 4. Understand the concept & types of drama reflecting theage and its importance.
		5. Appreciate and analyse the prose and fictionalnarratives of Bronte, Dickens, Hardy and Lamb. 6. Understand the concept & types of fiction reflecting theage and its importance.
I	World Drama	At the end of the course, the student learns to: 1. Appreciate and analyse independently the drama ofSophocles, Aristophanes, Shakespeare. 2. Understand the concept of classical drama. 3. Appreciate and analyse independently the drama ofIbsen, Strindberg, Chekhov. 4. Understand the concept of European dramatic tradition. 5. Appreciate and analyse the drama of Brecht, Genet, Ionesco6. Understand the concept of modern Europeandramatic tradition with its experimentation.

I	Writing for the Media	At the end of the course, the student learns to: 1. Understand the nature of News, the role of journalism,the ethical and legal restrictions on media writing and thecriteria for writing excellence. 2. Master the basic writing and reporting skills for variousmedia. 3. Think critically about writing for the media.

II	ENG2C03: 20th Century British Literature up to WW II.	At the end of the course, the student learns to: 1. Appreciate and analyse independently the poems ofHopkins, Yeats, Eliot, and Auden. 2. Understand the concept & types of poetry reflecting theage and its importance. 3. Appreciate and analyse independently the drama ofShaw, Eliot and Synge. 4. Understand the concept & types of drama reflecting theage and its importance. 5. Appreciate and analyse the prose and fictional narratives of Woolf, Leavis, Conrad, Joyce and Lawrence. 6. Understand the concept & types of fiction reflecting theage and its importance.
II	ENG2C04: Criticism and Theory.	At the end of the course, the student learns to: 1. Make use of the concepts of criticism as developed inClassical Age to later periods through the works of Aristotle, Johnson, Longinus, Sydney, and Coleridge. 2. Make use of the concepts of criticism as developed inIndian Aesthetics such as Rasa, Dhwani and Vakrokti. 3. Understand the ideas of criticism as presented by Eliot,Brooks, Frye and Shklovsky. 4. Familiarize with critical terms and concepts proposedby Wilson, Derrida,Barthes and Showalter. 5. Understand the concepts and use of them in the criticalanalysis. 6. Realize the possible dimensions in literary criticism.
II	ENG2E07: American Literature.	At the end of the course, the student learns to: 1. Appreciate the poetry of American writers such as Poe,Whitman, Dickinson, Frost, Stevens, Cummings, and

		Crane. 2. Appreciate drama of American playwrights such as O'Neill, Miller, Williams, and Baraka. 3. Appreciate the works of American fiction writers suchas Melville, Twain, Faulkner. 5. Understand major prose writers such as Emerson, Thoreau6. Appreciate the different traditions of writingsin America.
II	ENG2E10: European Fiction in Translation.	At the end of the course, the student learns to: 1.Appreciate and analyse independently the narratives ofCervantes, Flaubert and Tolstoy. 2. Understand the concept of classical fiction in Europe. 3. Appreciate and analyse independently the narratives ofKafka, Hesse, and Kazantzakis. 4. Understand the concept of the post IndustrialExistential European fiction. 5. Appreciate and analyse the narratives of Pasternak,Grass and Kundera. 6. Understand the concept of modern European fictionwith its experimentation.

III	ENG3C05: 20th Century British Literature: Post 1940.	At the end of the course, the student learns to: 1.Appreciate and analyse independently the poems ofLarkin, Hughes, Heaney and Hill. 2. Understand the concept & types of poetry reflecting theage and its importance. 3. Appreciate and analyse independently the drama ofBeckett, Wesker, Pinter and Bond. 4. Understand the concept & types of drama reflecting theage and its importance. 5. Appreciate and analyse the prose and fictional narratives of Fowles, Greene, Sillitoe, and Lessing. 6. Understand the concept & types of fiction reflecting theage and its importance.

III	ENG3C06: The English Language History and Structure.	At the end of the course, the student learns to: 1. Understand the basics of language. 2. Understand Indo-European family of languages. 3. Understand the different periods of English language. 4. Understand the varieties of language. 5. Understand the phonological concepts with generalideas about phonetics. 6. Understand modern theories of grammar such as IC,TG.
III	EN3C15: Post Colonial Fiction and Drama.	At the end of the course, the student learns to: 1.Appreciate and analyse independently the drama ofSoyinka, Lawler, Reaney and Karnard. 2. Understand the concept of post-colonial drama with itsinfinite variety. 3. Appreciateand analyse independently the fiction ofAchebe, Naipaul, Lawrence, Hosseini and Seth. 4. Understand the concept of fictional narratives in the
		post-colonial domains. 5. Appreciate and analyse the emerging writers of post-colonial times. 6. Understand the concept of postmodern fiction emergingfrom the new world.
III	ENG3E19: Women's Writing.	At the end of the course, the student learns to: 1. Create a new awarness among students concerninggender. 2. Familiarise with some theoretical writings which guidethe current political and literary awareness in this field along with the creative writings of various genres by women.

IV	ENG4C07: Indian English Literature	At the end of the course, the student learns to: 1. Appreciate and analyse independently the poems ofTagore, Aurobindo, Naidu, Dutt etc. 2. Understand the concept & types of poetry reflecting theage and its importance. 3. Appreciate and analyse independently the drama ofManjula Padmanabhan and Mahesh Dattani. 4. Understand the concept & types of drama reflecting theage and its importance. 5. Appreciate and analyse the prose and fictional narratives of Anand, Desai, Narayan, Nehru, Nandy etc. 6. Understand the concept & types of fiction reflecting theage and its importance.
IV	ENG4C08: Dissertation	This dissertation work helps the learner to: 1. Implement the concepts acquired in Criticism course. 2. Understand library work and data collection. 3. Understand scientific data analysis with a humanitiesperspective. 4. Understand presentation of facts methodically andobjectively. 5. Understand the latest format of presentation such asMLA 8 Edition. 6. Understand how a brief presentation is done. 7. Acclimatize himself/herself to the research work andpreparing for higher levels of exploration and study
IV	ENG4E20: Post Colonial Poetry.	At the end of the course, the student learns to: 1. Explore colonialism and its cultural impacts, through poetic outcomes produced by people from countries witha history of colonialism, primarily those concerned with the workings and legacy of colonialism and the post-colonial resistance to them.

IV	ENG4E24: Linguistics.	At the end of the course, the student learns to: 1. Understand what Language is in connection withSociety and its variations. 2. Understand what Linguistics is and its scientific nature. 3. Understand different branches of linguistics. 4. Understand the major approaches of Linguistics such asSynchronic and Diachronic etc.
		5. Understand Phonetics and the different categories. Understand basics of Types of Grammar.
IV	ENG4E27: Teaching of English.	At the end of the course, the student learns to: 1. Understand the basic concepts and the current developments in language teaching in general and EnglishLanguage teaching in particular. 2. Familiarise with the linguistic theories and its impact on language teaching, and different teaching methods andtheir pedagogical implications. Understand various classroom strategies, techniquesand teaching aids, lesson plans for teaching effectively.

PROGRAMME-15: MA ARABIC

- Understand the Application level of Arabic language and its grammar.
- Understand the modern Arabic poetry and its advanced trends in the Modern Arabic Literature
- Enable students to criticize and analyze literary texts
- Detailed study of selected works from different styles of Arabic Literature in various periods
- Promote the ability of reading, assimilations and expression of students
- Develop the reading, writing and presentation skills
- Analyze the reflection of modern Arab issues in modern fiction
- Study the issues and concerns of the contemporary Arab world
- Appreciate different types of prose and poetry in modern Arabic Literature
- Make students familiar with the modern technologies and the effective use of these technological tools in their study and research
- Strengthen the translation skill of the students
- Make the students evaluate the literary texts in accordance with methodology of criticism
- Introduce the journalism and its various aspects
- to get analytical knowledge of Arabic writing in India
- to access the literary achievements by the women in Arabic Literature
- study the different methods of the research and analytical techniques

Semester	Course	Course Outcome
1	Advanced Arabic Structure	To give theoretical and Practical Experience in advanced composition structures
	Modern & Contemporary Arabic Poetry	To introduce new literary schools and trends in Modern Arabic Literature To understand the distinct features of modern poetry in Arabic
	Linguistics , Rhetoric's and Prosody	To teach students the fundamentals of Linguistics , Rhetoric's and Prosody
	Classical Arabic Literature	Understanding the literary contributions eminent literary personalities
2	Modern Arabic Fiction	To identify the modern narrative texts , context and techniques
	History of Contemporary Arab World	To the formation of the contemporary Arab world
	Medieval Arabic Literature	To put light on Arabic literature in Medieval period
	Arab Enabled ICT in Academic Writing	To introduce the tools of new ICT in the field of knowledge , resource and production To give theoretical and practical experience in Arabic Computing , searching in Internet and Preparing and research articles
3	Literary Criticism: Theory and Practice	To Introduce modern and contemporary Literary Theories and its influences in Arab World
	Creative Writing for Media	To introduce the terminologies in the filed of Arabic Journalism
	Arabic Literature in India	To trace the history of Indo Arabic relations
	Research Methodology	To know how to prepare a research paper scientifically

4	Drama and Interaction Skills	To appreciate major works in Arabic Drama To practice on the use of Arabic language in daily life
	Advanced translation and Simultaneous Interpretation	To practice translation from Arabic to English and vise versa, and understand the new usages of Modern Arabic
	Modern essays, biography and travelogue	To acquaint with knowledge about the development of Arabic Essay and Biography and Travelogue
	Classic works in Arabic	To make the students aware of the enormous resources in Arabic Language and Literature