2.6.1 PROGRAM AND COURSE OUTCOMES

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BA ARABIC

Program Outcomes

- Understand the structure of Arabic language and its grammar.
- Understand the geography of Arabian Peninsula, and social, cultural, and political history of Jahiliya 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 Arabicto 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

Course Outcomes

Semester	Course	Course Outcome
1	Elementary Arabic Grammar	• Understand the fundamentals of Arabic grammar, enable students to speak and write Arabic without mistake.
	Thareekulislam al siyasiwathaqafi –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 ThareekulAdabul 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
	Thareekulislam al siyasiwathaqafi –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
	Reading modern Arabic Prose	• Understand distinguished prose writers of modern period
	Reading Arabic Literature –II	• To understand the use of Arabic Language in various situations and occasions
	ThareekulAdabul Arabi – III	• To understand the literary traditions of Arabs in Abbasid period
	Thareekulislam al siyasiwathaqafi –III	• `To understand major Abbasid dynasty rulers and their important works and reformation to the Muslim civilization
4	Culture and civilizations – II	• Understand the cultural diversity in India through Arabic Language
	Language Methodology of Arabic	• To understand the humanities language, Arabic language and comparative study between Arabic,

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

BSc PHYSICS

Program Outcomes

- 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

Course Outcomes

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 analyse 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 behaviour 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 fiber 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.

BSc ELECTRONICS

Program Outcomes

- Be able to communicate effectively in term of oral and written communication skills
- Be passionate to attain professional excellence through lifelong learning
- Apply the knowledge of Electronics, Computer application and mathematics to analyse, design anddevelop solutions for real time electronics problems
- Be able to function as a member of a multidisciplinary team with sense of ethics, integrity and social responsibility.
- Be able to use techniques, skills and modern technological/scientific/engineering software/tools for professional practices
- Be competent to pursue higher learning and research

Course Outcomes

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 •, µ, and •, 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. • Analyse 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
6	Communication System	• Design basic digital communication systems to solve a given communications problem and they become conversant with the 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 • Analyse 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

BCA

Program Outcomes

- 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

Course Outcomes

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 II – 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 a general understand 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 III: 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	• To review on concept of OOP.

	PHP	• 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:	• To practice Android programming.

	Android & Linux shell Programming	• To practice user interface applications. • To develop mobile application. • To practice shell programming
	Project	• To provide practical knowledge on software development process

BSc MATHEMATICS

Course Outcomes

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 vectorsin 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	• Recognize 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 nt• 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 point wise 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 Lowville'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	• Identify a number of areas where modeling process results in a differential equation • Learn to solve DEs that are in linear, separable and in exact forms and also to analyze 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 optimization 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 parameterization 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 eigenvalues and eigenvectors 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.

BSc CHEMISTRY

Program Outcomes

- 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 ecofriendly 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.

Course Outcomes

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.

BA ENGLISH

Program Outcomes

- 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 fulfil the present requirements. The course offers unlimited opportunities to the students in future like research and facing all the competitive examinations.

Course Outcomes

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

		languages, and historic periods. • Understand and appreciate poetry as a literary art form. • Analyze the various elements of poetry, such as diction, tone, form, genre, imagery, figures of speech, symbolism, theme etc.
2.	Reading prose	• Develop critical thinking. • Enable students to write and appreciate different types of prose.
2	Writing for Academic and Professional Success	• Understand the study skills expected in college students. • Identify the difference in writing requirements in schools and college. • Understand the basic features of academic writing.
2	Zeitgeist: readings on society and culture	• Spread the great values enshrined in the constitution and culture of India. • Create awareness about the objectives that led to the foundation of the largest democratic republic.
3.	Reading Drama	• Understand the concept drama and its types, genres, and elements. • Understand the elements and structures of drama with some plays. • Know William Shakespeare and Macbeth.
3	Reading Fiction	• 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	• Know the versatile themes and subjects of English literature. • Know objectivity and subjectivity in the English literature. • Acquire different mode of readings on autobiographies and memoirs.
4	Methodology of Humanities	• Know the distinction between the methodologies of natural, social and human science. • Know objectivity and subjectivity in the methodology of humanities. • Acquire a methodical and system. • Demonstrate capacity for reflection, planning, ethical decision-making
4	Modern English literature	• Integrate knowledge of the diversity of cultures and peoples. • Apply critical thinking, independent judgment,

		regional, national and global perspectives to identify and solve problems in English language and literature.
4	spectrum	• Enable the learners to understand concepts like globalization, commercialization, and intellectual property through new literatures. • 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	• General introduction- history, evolution, and types of computers. • Introduction to hardware. • Introduction to software. • Introduction to networking and knowledge resource on net. • Understand computer localization
	Language and Linguistics	• Familiarize the learners with the nature and organization of language. • Know the history of language and its key concepts. • Know the pronunciation of the words.
	Methodology of Literature	• Introduce and discuss the evolution of literature. • 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 • Familiarize the student with the distinctive features of literature. • Make the student to understand the canon formation and marginalized literature.
	Indian Writing in English	• Introduce students to major movements and figures of Indian literature in English. • Create literary sensibility and emotional response to the literary text. • Expose students to the artistic and innovative use of language. • Instill values and develop human concerns in students through exposure to literary text.
6	Applied Language Skills	• Understand the basic communication skills. • Acquire fluency and accuracy in communication. • Understand the principles of good communication.
	Literary Criticism and Theory	• Introduce the classical age • Make the students aware that all readers are critic. • familiarize the student to the historical evolution of

		literary criticism
	Women's Writing	• Introduce the students regarding the evolution of Feminist Movement. • Help the students think critically and creatively on issues related to feminism. • Rouse the conscience of the students on gender issues.
	Writing for Media	• Understand print media, electronic media, and digital media. • Learn how to do advertisements and its functions. • Identify the concepts stylistics and the media
	World Classics in Translation	• Introduce students to the world's best classics in translation. • General introduction to world class. • Students learn and differentiate the world classics. • Change in perception and approaches. • Critical thinking and evaluation.
	Literature in English: American and post-colonial	• Initiate the students to vary literatures In English. • Expose them to diverse modes of experiences and cultures. • Familiarize them with American literature. • Enable students to compare and contrast their indigenous literature and culture with other literatures and cultures

BA MASS COMMUNICATION AND JOURNALISM

Program Outcomes

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:

- To impart the basic knowledge of Mass communication & Journalism and related areas of studies.
- To develop the learner into competent and efficient Media & Entertainment Industry ready professionals.
- To empower learners by communication, professional and life skills.
- To impart Information Communication Technologies (ICTs) skills, including digital and media literacy and competencies.
- To imbibe the culture of research, innovation, entrepreneurship and incubation.
- To inculcate professional ethics, values of Indian and global culture.
- 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:

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

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

Course Outcomes

Semester	Course	Course Outcome
I	Fundamentals of Mass Communication	• To attain the basic concepts of communication and the evolution of mass communication. • The knowledge gained from the course should act as a gateway and navigator to the various branches of mass communication. • To gain the capacity to examine the working of the media and to develop better perspectives of media.
II	Media History	• To demonstrate an understanding of the history of media and role of professionals in Journalism • To understand the development of print and electronic media
III	Reporting for the Print	• Make students reporters having news sense • Prepare reporters with the acquaintance of Journalistic Principles • Provide practical experiences to the students
	Editing for the Print	• Produce students with thethorough knowledge in the need for editing • Prepare editors having practical knowledge in all the aspects related to editing
IV	Design and Pagination	• Prepare students to be the editors having pagination skill
	Radio Production	• Develops an awareness on the role of radio as a mass medium • Gathers knowledge on the historical evolution of the medium. • Understands the technology behind radio production • Develops the ability to produce short radio programmes.

V	MassCommunicationTheories	• Toattainthebasicknowledgeoftheimportant communicationtheoriesandtheirapplications. • Toattainatheoreticalframeworkofmediaandalsotocontextualizethemediatheories. • Toeffectivelyassessthechangingmediascenarioandaccordingly to expandandredefinetheexistingmediatheories with an interdisciplinaryapproach.
	TelevisionProduction	• PreparepracticallyexperiencedTVjournalists • Providetechnical know-how to the students • Makethestudentsawareofother TV programmes withathrusto nproduction
	Public Relations & CorporateCommunication	• Introduce the students the concept of Public Relations • Introduce a wider and new concept namely corporate relations • Provide the students with practical experience in PR and Corporate communication
	Advertising	• Togainanoverviewoftheworldofadvertisingbothintheoryandpractice. • Topreparead vertisingcopiesthatcaneffectivelyandconvincinglyconveysellingideas,brandsand images. • Toeffectivelyassesstheeffectsofadvertisingonalargerperspectiveonagivensociety
	PhotoJournalism	• To understand how photographs can be used to communicate in media • To enable the students to apply journalistic ethics to photo journalism • To produce a compelling and solid visual story telling medium
SemesterVI	MediaLawsandEthics	• To gain basic understanding of the legal system and important media laws. • To assess the implications of freedom of speech and expression and perils of the restrictions on this freedom. • To obtain the capacity to examine the actual working of the

		media from an ethical perspective
	Online Journalism	• Understanding the effectiveness of Digital Medium. • To achieve the capacity to evaluate the role of Internet in the contemporary society. • To involve and participate in the functional world of Internet in personal capacity
	Introduction to Cinema	• Prepare cinema literate students • Present the history of the medium so that the students can have a better knowledge about the present and the future.
	Economic and Business Reporting	• Prepare the students to understand the different concepts of economies • Present the students the examples of different business newspapers, magazines and channels • Introduce the students the current status of Indian and Kerala economy
	Magazine Journalism	• Students with an awareness about the current status of Magazine Journalism • Give the students a practical know how on writing for Magazines.

BCOM COMPUTER APPLICATION

Program Outcomes

- 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.

Course Outcomes

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.
	Entrepreneurship Development	• To enable the students to have an understanding of the basics of business, entrepreneurship and organizational management.

IV	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
VI	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 • 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.

BA ECONOMICS

Program Outcomes

- 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 creationof knowledge.
- Understanding of the institutions – Social, political and economic that influence economic issues.
- Understand the basics of Computer programming and numerical analysis

Course Outcomes

Semester	Course	Course Outcome
I	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.
II	Micro Economics II	• Introduce fundamental market concepts and structures • To apply the principles Micro Economic analysis to thedecision making of firms and market
III	Quantitative methods for Economic analysis I	• Develop sound quantitative skills to collect, analyse and interpret empirical data.
	Modern Banking and Insurance	• Provide the students the latest developments in theField of banking and financial system • It provides a basic understanding of the mechanics of • Insurance.
IV	Quantitative methods for economic Analysis II	• It develop skills in mathematical and statistical techniques that are required for a meaningful study of both theoretical and applied economics.
	Computer Application for EconomicAnalysis	• 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 fundamentals of computers word processors and analysis and digital economy.
V	Macro Economics – 1	• understand the relationships and ideas in the measurement of national income, the theory of income determination, fiscal and monetary policies, the government and its role in the functioning of the economy.
	India's Economic Development: National and Regional Economics of Capital Market	• Understand the Key issues facing the Indian economy both at national and regional levels • Give an exposure to the students of Economics to Changing world of financial markets • To give them an opportunity to familiarize with the basic concepts related to Capital Market which they read and hear through various medias in their daily walks of life • 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.
VI	Macro Economics II and Mathematical Economics	• Understand and develop skill in economic reasoning is expected to help them in understanding and solving aggregate economic problems. • 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 manand 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.

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B.COM CO-OPERATION

Program Outcomes

- B. Com Co-operation is one of the under graduate programme designed for melding personnel to co-operative societies, finance, banking and insurance sectors.
- After the completion of the programme graduates are capable to take risks of lower-level managers
- Capability of the students to make decisions at personal and professional level will increase after completion of this course.
- B. Com programme also encourage students into growth & development of entrepreneurial skills
- The knowledge of different specialization in Accounting, Costing, Banking and finance with practical exposure helps the students to stand in organization.

Course Outcomes

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.
	Co-Operative Theory and Practice	• To provide conceptual clarity and theoretical base in co-operation. • To provide an overall idea about important types of co-operatives.
	Legal Environment for Co-Operatives	• To enable the students to acquire knowledge about co-operative legal frame work in India and Kerala. • To understand the formalities for registering co-operatives and the administrative set up.
	Basics Of Entrepreneurship and Management (Open Course)	• To enable the students to have an understanding of the basics of business, entrepreneurship and organizational management.
VI	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 • To familiarize the students with the understanding

		of issues and practices of corporate undertakings
	International Co-Operative Movement	• To enable the students to acquire knowledge about evolution and development of co-operative movement in the world.
	Co-Operative Management and Administration	• To enable the students to acquire knowledge about the co-operative management and administration. • To familiarize the students with accounting and auditing of co-operatives.
	Project and Viva Voce	• To provides learning experience to students • To provides opportunity to students to synthesize knowledge from various areas of learning.

MSc MATHEMATICS

Course Outcomes

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 familiarize 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 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; Nonlinear 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'sTheorem. • 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 • Analyze Inner product spaces • Analyze Banach spaces
3	MTH3C14 – PDE AND INTEGRAL EQUATIONS	• Learn a technique to solve first order PDE and analyse the solution to get informationabout 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 differential 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'Alembert's 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, Fredholm equations with separable kernels, Hilbert- Schmidt Theory, The Newman 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 Chinese Postman Problem, and 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, The Timetabling 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 discuss Euler's 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

MSc PHYSICS

Course Outcomes

1	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.
	Mathematical Physics I	• Develop the mathematical methods and techniques widely used to describe various physical phenomena.
	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.
	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.
	General PhysicsPractical I	• Performs Practical systematically
	Electronics Practical I	• Performs Practical systematically
2	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.
	Mathematical PhysicsII	• 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
	Statistical Mechanics	• Develops an understanding of various natural phenomena like Bose-Einstein condensates, fermionic systems etc. in terms of ensemble theory

	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.
	General PhysicsPractical II	• Performs Practical systematically
	Electronics PhysicsPractical II	• Performs Practical systematically
3	Quantum Mechanics II	• solve quantum mechanical systems using time dependent and independent perturbation methods
	Nuclear and ParticlePhysics	• 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.
	Solid State Physics	• develop knowledge of solid-state systems including reciprocal lattices, band structure, magnetic and electric behaviour of solids

	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.
4	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.
	Atomic and Molecular Spectroscopy	• Student get an idea about atomic spectra and describe spectra of one and two electron atoms. • Explain change in behaviour of atoms in external applied electric and magnetic field.
	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.
	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.

MASTER OF SOCIALWORK (MSW)

Program Outcomes

- Understand the history of social work and Social Work education in India and abroad
- Understand the sociological concepts to examine social phenomena.
- To acquaint the students with the basic concepts in Psychology & Human growth and development relevant for Social Work practice
- To gain an understanding on concepts of self-esteem, self-awareness, self-development etc
- To acquaint the students with human rights and organizations to protect human rights
- To understand the basic concepts in Social Case Work and its application in practice
- To develop an understanding of Social Group Work as a method of Social Work
- Understand community organization and social action as methods of social work
- To develop an understanding regarding individual and collective behaviour and determinants of social behaviours.
- To acquire knowledge of the theoretical and therapeutic approaches in counselling.
- To understand the significance and characteristics of scientific research.
- To understand the phases of development projects.
- To learn basic concepts in health and health care.
- To understand the scope of health care social work.
- To understand the features and challenges of rural and tribal communities
- To help the students gain knowledge regarding psychiatric illnesses, their treatment and aftercare.
- To understand about the urban communities and the processes like urbanization and its impact.
- Develop understanding of the evolution of administration as a method in Social Work Practice.
- To understand the prevailing realities and problems of vulnerable and marginalized groups in India.
- To acquaint the students with contemporary psychosocial approaches to therapy in medical and psychiatric Settings.
- Understand the basic concepts in environment studies
- Understand family as a social institution and the different conceptual frameworks for understanding family
- 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

Course Outcomes

Semester	*Course*	*Course Outcome*
1	History, Philosophy and Fields of Social Work	• Learn the basic concepts, methods and functions of Social Work • Understand the philosophical assumptions and values of Social Work. • Understand social work as a profession • Identify various fields of Social Work practice
	Sociology and Economics for Social Work Practice	• Understand the various social problems and its impact on the society, various issues and challenges • Understand social and economic processes and systems. • Understand economics of development.
	Human Growth and Development	• To acquaint the students with the developmental stages in human life across the Life span • To familiarize students with the theories of development and its relevance in Human

		growth and development
	Professional Skills for Social Workers	• To familiarize with managerial skills required for social work practice • To provide training to enhance competence in interpersonal communication and development communication • To enhance skills in ICT
	Social Legislation and Human Rights	• To familiarize the students with Indian Constitution, and the fundamental rights, duties and directive principles • To acquaint them with the statutory bodies for the protection of the rights of the individuals in general and women and children in particular • 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.
	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 counselling, sensitizing children/families/ communities, creating favourable/safe environment for the elderly, services for older persons in institutions and palliative care
2	Social Case Work	• To develop the values and skills to practice Social case work • To develop competencies to use the method in practice while working with individuals

	Social Group Work	• To acquaint with the process of Social Group Work to enable them to work with individuals in Groups • To develop the necessary attitude and competence to practice Social Group Work in various settings
	Community Organisation and Social Action	• Understand the elements of community organisation practice and social action. • Learn the models and strategies for community organization and social action • Develop skills and attitudes for participatory Community work and social action.
	Psychology for Social Work	• To acquire knowledge regarding the concept of mental health and mental health issues in the contemporary society. • To gain basic knowledge regarding various mental disorders and dysfunctions
	Theory and Practice of Counselling	• To understand the process of Counselling. • To gain knowledge and skills for practice of counselling in different settings
	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	• To develop competence in conducting

	Methods for Social Work Research	qualitative and quantitative research • To develop an understanding about the research process of qualitative and quantitative research • To gain an understanding about the application of statistical techniques in social work research
	Participatory Project Planning and Training	• To learn techniques in formulating and implementing development projects • To develop skills in writing project proposals and managing projects • To Learn the concept and importance of participatory training. • To understand the different steps in organizing participatory training programmes and develop skills in participatory training and facilitation
	Community Health	• To understand the epidemiology of common communicable diseases and non-communicable diseases • To understand the community health programmes • To acquaint with nutritional problems and their management • To know the various legislations pertaining to health care
	Health Care Social Work	• To understand the role and functions of social worker in acute and chronic health conditions • To understand various social work interventions in health car
	Rural Community Development and Governance	• To understand the concept, philosophy and principles of Rural Community

		development • To learn the programmes and services in the governmental and voluntary sector. • To understand the structure and functions of PRIs and their role in community development • To understand the scope of social work interventions in rural communities
	Social Work in Mental Health Settings	• To understand the specific roles and functions of psychiatric social worker in different mental health settings • To help the students gain an understanding regarding the policies and programmes in the field of mental health • To understand the current trends and future of Psychiatric Social Work in India
	Urban Community Development and Governance	• To learn about the challenges faced by urban communities in general and vulnerable populations in particular • To understand the structures and institutions for urban governance • To understand the scope of social work interventions in urban communities
4	Administration of Human Service Organizations	• Develop understanding and appreciate the utility of the administrative structures, processes and procedures in an organization. • To understand the types of organizations and registration of these organizations • Develop an overview of human resource management as an important component of AHSO
	Social Work with Vulnerable	• To learn the roles and functions of social

	groups	workers in helping them. • To understand the contribution of Govt. and non-Govt. organizations in promoting welfare of the marginalized and vulnerable groups. • To understand the policies and welfare programmes for vulnerable groups
	Therapeutic Approaches in Medical and Psychiatric settings	• To help them gain knowledge regarding various therapies practiced in the field of general and mental health • To understand the application and effectiveness of these therapies in health settings
	Environmental Studies and Disaster Management.	• Understand the environment problems and impact of development initiatives. • Examine the utilization and management of natural resources. • Study the role of social work practice in dealing with environmental problems and in disaster management.
	Social Work Practice with Families	• Develop knowledge and skills for assessment in family social work • Demonstrate an understanding of family Social Work • Develop an understanding of various Settings of family practice.
	Social Work Practice and Gender	• Develop perspectives concerning what constitutes a gender issue and learn to create a multi-perspective analysis of a given gender issue • Understand the status of women and appreciate the gaps therein • Develop skills and attitudes to work with

		gender issues • Practice social work with a gender perspective.

MSC STATISTICS

Program Outcomes

- To inculcate and develop aptitude to study theory of Statistics and apply statistical tools in real life problems.
- To train students to handle theory, large data sets and carry out data analysis using software and programming language.
- 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 employment and research.

Course Outcomes

Semester	Course	Course outcome
1	Measure Theory and integration	• Students acquire basic knowledge of measure theory needed to understand probability theory, statistics and functional analysis.
	Analytical tools for statistics -1	• 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.

	Analytical tools for statistics 2	• 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
	Regression and LPP	• 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
	Distribution theory	• Students learn various distributions and their fitting and modelling in real life situations
2	Estimation Theory	• 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
	Sampling Theory	• Survey sampling methods are familiarised by students by doing this course
	Probability Theory	• This paper makes student confident to build a base for higher statistical theory
	Design and analysis of experiments	• Describe some of the factors affecting reproducibility and external validity and then List the different types of formal experimental designs
	Statistical computing –1	
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

MA ENGLISH

Program Outcomes

- To master the representative literary and cultural texts within a significant number of historical, geographical, and cultural contexts.
- To master the critical and theoretical approaches to the reading and analysis of literary and cultural texts in multiple genres.
- To identify analyse 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 and impact 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 ethically gather, 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 a disciplinary methodology

Semester	Course	CourseOutcome
I	ENG1C01: BritishLiterature fromtheAgeofChaucer to the EighteenthCentury	Atthe endofthe course,thestudentlearnsto: • Appreciate and analyzeindependently the poems ofChaucer, Donne, Marvell, Milton, Dryden, Pope andGray. • Understand the concept & types of poetry reflecting theage and its importance. • Appreciate andanalyzeindependentlythedramaofShakespeare, Webster, andSheridan. • Understandtheconcept &typesofdrama reflectingtheage and its importance. • Appreciateandanalyzetheproseandfictionalnar rativesofBacon, SwiftandFielding. • Understand the concept & types of fiction reflecting the age and its importance.
I	ENG1C02: BritishLiterature: The Nineteent hCentury.	Atthe endofthe course,thestudent learns to: • Appreciate and analyze independently the poems o ofBlake, Wordsworth, Coleridge, Shelley, Keats, Tennyson,Browning, and Arnold. • Understand the concept & types of poetry reflecting theage and its importance. • Appreciateandanalyzeindependentlythedramaof Wilde, Shelley. • Understandtheconcept &typesofdrama reflectingtheage and its importance. • Appreciateandanalyzetheproseandfictionaln arrativesofBronte, Dickens,HardyandLamb. • Understand the concept & types of fiction reflecting theage and its importance
I	WorldDrama	Atthe endofthe course, the studentlearnsto: • AppreciateandanalyzeindependentlythedramaofS ophocles,Aristophanes, Shakespeare.

		• Understandtheconceptofclassicaldrama. • Appreciateandanalyzeindependentlythedramaof Ibsen, Strindberg, Chekhov. • Understandthe conceptofEuropeand dramatictradition. • Appreciate and analyze the drama of Brecht, Genet, Ionesco6. Understand the concept of modern Europeand dramatictradition with itsexperimentation.
I	WritingfortheMedia	Atthe end of the course,thestudentlearnsto: • Understand the nature of News, the role of journalism, the ethical and legal restrictions on media writing and thecriteriafor writingexcellence. • Master the basic writing and reporting skills for various media. • Thinkcriticallyabout writingforthe media.
II	ENG2C03:20th CenturyBritis h Literature up to WWII.	Atthe endofthe course, the studentlearns to: • Appreciate and analyze independently the poems ofHopkins, Yeats, Eliot, andAuden. • Understand the concept & types of poetry reflecting theage and its importance. • Appreciateandanalyzeindependentlythedramaof Shaw, Eliot andSynge. • Understandtheconcept &typesofdrama reflectingthe age and its importance. • Appreciate and analyze the prose and fictionalnarrativesof Woolf, Leavis, Conrad, JoyceandLawrence. • Understand the concept & types of fiction reflecting the age and its importance.
II	ENG2C04: CriticismandTheory.	Atthe endofthe course, the studentlearns to: • Make use of the concepts of criticism as developed in classical Age to later periods through the works ofAristotle,Johnson, Longinus,

		Sydney, and Coleridge. • Make use of the concepts of criticism as developed in Indian Aesthetics such as Rasa, Dhwani and Verkakte. • Understand the ideas of criticism as presented by Eliot, Brooks, Frye and Sokolovsky. • Familiarize with critical terms and concepts proposed by Wilson, Derrida, Barthes and Showalter. • Understand the concepts and use of them in the critical analysis. • Realize the possible dimensions in literary criticism.
II	ENG2E07: American Literature.	At the end of the course, the student learns to: • Appreciate the poetry of American writers such as Poe, Whitman, Dickinson, Frost, Stevens, Cummings, and Crane
		• Appreciate drama of American play writers such as O' Neill, Miller, Williams, and Baraka. • Appreciate the works of American fiction writers such as Melville, Twain, Faulkner. • Understand major prose writers such as Emerson, Thoreau • Appreciate the different traditions of writings in America.
II	ENG2E10: European Fiction in Translation.	At the end of the course, the student learns to: • Appreciate and analyze independently the narratives of Cervantes, Flaubert and Tolstoy. • Understand the concept of classical fiction in Europe. • Appreciate and analyze independently the narratives of Kafka, Hesse, and Kazantzakis. • Understand the concept of the post Industrial Existential European fiction. • Appreciate and analyze the narratives of Pasternak, Grassland Kundera.

		• Understand the concept of modern European fiction with its experimentation.
III	ENG3C05: 20th Century British Literature: Post 1940.	At the end of the course, the student learns to: • Appreciate and analyze independently the poems of Larkin, Hughes, Heaney and Hill. • Understand the concept & types of poetry reflecting the age and its importance. • Appreciate and analyze independently the drama of Beckett, Wesker, Pinter and Bond. • Understand the concept & types of drama reflecting the age and its importance. • Appreciate and analyze the prose and fictional narratives of Fowles, Greene, Sillitoe, and Lessing. • Understand the concept & types of fiction reflecting the age and its importance.
III	ENG3C06: The English Language History and Structure.	At the end of the course, the student learns to: • Understand the basics of language. • Understand Indo-European family of languages. • Understand the different periods of English language. • Understand the varieties of language. • Understand the phonological concepts with general ideas about phonetics. • 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: • Appreciate and analyze independently the drama of Soyinka, Lawler, Raney and Kannard. • Understand the concept of post-colonial drama with its infinite variety. • Appreciate and analyze independently the fiction of Achebe, Naipaul, Lawrence, Hosseinian Seth. • Understand the concept of fictional narratives in the post-colonial domains. • Appreciate and analyze the emerging writers of post-colonial times. • Understand the concept of post modern fiction emerging from the new world
III	ENG3E19: Women's Writing.	At the end of the course, the student learns to: • Create a new awareness among students concerning gender. • Familiarize with some theoretical writings which guide the 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: • Appreciate and analyze independently the poems of Tagore, Aurobindo, Naidu Dutt etc. • Understand the concept & types of poetry reflecting the age and its importance. • Appreciate and analyze independently the drama of Manjula Padmanabhan and Mahesh Dittany. • Understand the concept & types of drama reflecting the age and its importance. • Appreciate and analyze the prose and fictional narratives of Anand, Desai, Narayan, Nehru, Nandy etc.

		• Understand the concept & types of fiction reflecting the age and its importance.
IV	ENG4C08: Dissertation	This dissertation work helps the learner to: • Implement the concepts acquired in Criticism course. • Understand library work and data collection. • Understands scientific data analysis with a humanities perspective. • Understand presentation of facts methodically and objectively. • Understand the latest format of presentation such as MLA 8 Edition. • Understand how a brief presentation is done. • Acclimatize himself/herself to the research work and preparing for higher levels of exploration and study
IV	ENG4E20: Post Colonial Poetry.	At the end of the course, the student learns to: • Explore colonialism and its cultural impacts, through poetic outcomes produced by people from countries with 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: • Understand what Language is in connection with Society and its variations. • Understand what Linguistics is and its scientific nature. • Understand different branches of linguistics. • Understand the major approaches of Linguistics such as Synchronic and Diachronicity. • 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: • Understand the basic concepts and the current developments in language teaching in general and English Language teaching in particular.

		• Familiarize with the linguistic theories and its impact on language teaching, and different teaching methods and their pedagogical implications. • Understand various classroom strategies, techniques and teaching aids, lesson plans for teaching effectively.

MA ARABIC

Program Outcomes

- 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

Course Outcomes

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 field 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 vice 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

MCOM FINANCE

Program Outcomes

- M.Com course provides quality education to the students serving the needs of managerial cadre in business and industry.
- It also serves the purpose of research and teaching in commerce.
- There are various job options for M.Com degree holders in the private, public as well as government sectors. Nationalised banks, Railways, Income Tax and other such government departments are good options for M.Com degree holders

Course Outcomes

Semester	Course	Course Outcome
I	MCM1C01 – Business Environment & Policy	• To familiarise students with the concepts of macro-economic in which a business organization operates. • To give an idea about the policies of the government and assess their impact on business.
	MCM1C02– Corporate Governance & Business Ethics	• To familiarise the students with the knowledge of corporate ethics • To enable the students to understand the emerging trends in good governance practices. • To create corporate financial reports in the global and Indian context.
	MCM1C03 –Quantitative Techniques for Business Decisions	• To acquaint students with important quantitative techniques, which enable sound business decision Making • To make students learn the process of applying appropriate quantitative techniques for validating findings and interpreting results.
	MCM1C04 –Management Theory and Organizational Behaviour	• To understand the human interactions in an organization, find what is driving it and influence it for getting better results in attaining business goals.
	MCM1C05– Advanced Management Accounting	• To enable students to understand and apply tools, techniques, and concepts in managerial decision-making process. • To inculcate analytical skills in interpreting and diagnosing business problems
II	MCM2C06 –Advanced Corporate Accounting	• To provide knowledge and skills in the theory and practice of corporate financial accounting • To provide insight in to some of the important accounting standards of IFRS /Ind AS • To enable problem solving abilities among

		students in matters of various corporate situations such as consolidation of group information, corporate restructuring and liquidation
	MCM2C07- Advanced Strategic Management	• To understand the principles of strategy formulation, implementation and control in organizations. To help students develop skills for applying these concepts to the solution of business problems
	MCM2C08 -Advanced Cost Accounting	• To enable the students to know the applications of Cost accounting tools, Techniques and concepts in managerial decision-making process. • To provide students adequate knowledge of cost management and control techniques and to enable them to apply these for managing business profitably.
	MCM2C09 -International Business	• To acquaint the students with various concepts of foreign trade and international business.
	MCM2C10- Management Science	• To familiarize students with concepts of management science and tools supporting decision making • To enable students to apply Management science techniques in appropriate decision situations.
	MCM3C11- Financial Management	• To acquaint the students with the basic analytical techniques and methods of financial management of business organization. • To provide the students the exposure to certain advanced analytical techniques that are used for taking financial policy decisions
III	MCM3C12 -Income Tax Law,	• To enable students to understand computation of

	Practice and Tax Planning I	income under various heads, taxable income of various entities, tax planning and procedure of assessment.
	MCM3C13- Research Methodology	• To acquaint students with process and methodology of research • To enable students to identify research problems, collect and analyse data and present results.
	MCM3EF01- Investment Management	• To establish a conceptual framework for the study of security analysis and portfolio management. • This course will provide the students the ability to understand and utilize the skill of optimizing returns
	MCM3EF02 –Financial Markets & Institutions	• To establish a conceptual framework for the study of security analysis and portfolio management. • This course will provide the students the ability to understand and utilize the skill of optimizing returns
IV	MCM4C14- Financial Derivatives & Risk Management	• To make the students efficient in the area of derivatives, by giving them the knowledge of basics in options, futures, swaps etc.
	MCM4C15 –Income Tax Law, Practice and Tax Planning II	• To acquaint the students with theoretical and practical knowledge of assessment and tax planning of different assesses. • To familiarize the students with major and latest provisions of the India tax laws and related judicial pronouncements pertaining to various assesses with a view to derive maximum possible tax benefits admissible under the law.
	MCM4EF03- International	• To understand the concept and significance of

	Finance	international finance • To understand the international financial markets and exchange theories • To get an idea about foreign exchange exposure and risk management
	MCM4EF04 –Advanced Strategic Financial Management	• To build an understanding among students about the concepts, vital tools and techniques used for financial decision making by a business firm.
	MCM4PV01–Project Work & Comprehensive Viva Voce	• To provides learning experience to students • To provides opportunity to students to synthesize knowledge from various areas of learning

MSc ELECTRONICS

Program Outcomes

- Identify, formulate, review research literature, and analyse and design solutions forcomplex engineering problems reaching substantiated conclusions using principles ofmathematics, natural sciences, and engineering sciences.
- Use research-based knowledge and research methods including design ofexperiments, analysis and interpretation of data, and synthesis of the information toprovide valid conclusions.
- Create, select, and apply appropriate techniques, resources, and modern engineeringand IT tools including prediction and modelling to complex engineering activities withan understanding of the limitations.

- Communicate effectively on complex engineering activities with the engineeringcommunity and with society at large, such as, being able to comprehend and writeeffective reports and design documentation, make effective presentations, and giveand receive clear instructions.
- Recognize the need for, and have the preparation and ability to engage inindependent and life-long learning in the broadest context of technological change.
- Be in a position to develop industrial and entrepreneur applications.

Course Outcomes

Semester	Course	Course Outcome
I	ELS1C01: APPLIED MATHEMATICS	• To solve problems using numerical methods. • To learn the basics of Probability and Random variables
	ELS1C02: MICROCONTROLLER BASED SYSTEM DESIGN	• To design and implement micro controller-based system for various applications. • To use Arduino and Raspberry Pi boards for various applications
	ELS1C03: MODERN DIGITAL AND OPTICAL COMMUNICATION	• To understand concept of Network Hardware and Software. • To explain Protocol layers. • To explain concept of optical communication
	ELS1C04 : ADVANCED DIGITAL SYSTEM DESIGN	• To understand Design of sequential logical circuits. • To explain design of PLD and FPGA.
	ELS1L01: APPLICATION BASED PROGRAMMING IN	• To Interface various IO devices using Arduino boards • To use Python Programming for

		Raspberry Pi Applications.
	ELS1A01 – INTRODUCTION TO PYTHON PROGRAMMING	• Read, write, execute by Python programs for solving problems. • Decompose a Python program into functions. • Read and write data from/to files in Python Programs.
II	ELS2C05: HIGH PERFORMANCE COMMUNICATIONNETWORKS	• To understand concept of basic of networks. • To explain internet and TCP/IP network • To explain optical network and switching
	ELS2C06: WIRELESS COMMUNICATION	• To explain the basics of wireless communications. • To explain mobile radio propagation • To explain concept of multiple access techniques
	ELS2C07 : DESIGN OF EMBEDDED SYSTEMS	• To explain basics of embedded systems. • To choose proper processor for different applications. • To explain fundamentals of RTOS
	ELS2C08 : ADVANCED MICROCONTROLLERS	• To design and implement pic microcontroller-based system • To explain basics of ARM processor
	ELS2L02: EMBEDDED SYSTEMS LAB	• To write programs for PIC and ARM microcontrollers • To interface PIC and ARM controllers with different IO devices.
	ELS2A02 : PAPER WRITING AND SEMINAR	• In this course, students will develop their scientific and technical reading and writing skills that they need to understand and construct research articles. A term paper requires a student to obtain information from a variety of

		sources (i.e., Journals, dictionaries, reference books) and then place it in logically developed ideas.
III	ELS3C09: SOFT COMPUTING AND OPTIMIZATION TECHNIQUES	• To provide basic exposition to the goals and methods of soft computing. • To apply intelligent techniques for problem solving.
	ELS3C10: ADVANCED DIGITAL SIGNAL PROCESSING	• To explain discrete random signal processing and simulate using Matlab
	ELS3C11: INTERNET OF THINGS	• To explain IoT architecture and protocols • To apply IoT in different real world applications
	BIO-MEDICALENGINEERING	• Studying the principles of electronics, mechanics, and materials science as they apply to medical devices and equipment. • Studying the principles of electronics, mechanics, and materials science as they apply to medical devices and equipment.
	ELS3L03: COMMUNICATION AND DSP LAB	• To write programs using Matlab for DSP applications • To implement different modulation schemes
IV	ELS4C12: ROBOTICS	• To explain robot hardware and its organizations • To explain robot control applications
	Fibre Optics Instrumentation	• To equip students with the understandings of fibre optic instrumentation, their characterisation and some insight in to designs. • To understand the working of different equipment used to characterise a communication link
	Advanced Sensors	• To provide basic knowledge in transduction

		principles, sensor and transduce technology and measurement system. • To provide familiarity in theoretical and practical concepts of sensors • To provide familiarity with different sensors and their application in real life