

COURSE OUTCOMES FOR UNDERGRADUATE PROGRAMMES

COMMON COURSE – ENGLISH

Name of the Programme	Course Code	Course Title	Course Outcomes	
SEMESTER 1				
BA BSc BCom	EN1CC01	Fine-tune Your English	CO1	To confidently use English in both written and spoken forms
			CO2	To use English for formal communication effectively
BA BSc	EN1CC02	Pearls from the Deep	CO1	To introduce students to the different genres of literature and to the niceties of literary Expression
			CO2	To appreciate and enjoy works of literature.
			CO3	To appreciate the aesthetic and structural elements of literature
SEMESTER 2				
BA BSc BCom	EN2CC03	Issues that Matter	CO1	To sensitize the learners to contemporary issues of concern.
			CO2	To identify the major issues of contemporary significance.
			CO3	To respond rationally and positively to the issues raised.
SEMESTER 3				
BA BSc	EN3CC05	Literature and/ as Identity	CO1	To sensitize students to the various ways in which literature serves as a platform for forming, consolidating, critiquing and reworking the issue of identity at various levels.
			CO2	To introduce the subtle negotiations of Indigenous and Diasporic identities with-in Literature.
			CO3	To give an idea of the fissures, the tensions and the interstices present in South Asian regional identities
BCom	EN3CC07	Gems of Imagination	CO1	To introduce students to the different genres of literature and to the niceties of literary Expression
			CO2	To appreciate and enjoy works of literature.
			CO3	To appreciate the aesthetic and structural elements of literature
SEMESTER 4				
BA BSc	EN4CC06	Illuminations	CO1	To acquaint the learners with different forms of inspiring and motivating literature.
			CO2	To evaluate and overcome setbacks based on the insights that these texts provide.
B Com	EN4CC08	Revisiting the Classics	CO1	To introduce the students to the taste of time-tested world classics
			CO2	To make the students familiar with the classics from various lands.

SECOND LANGUAGES

Name of the Programme	Course Code	Course Title	Course Outcomes	
SEMESTER 1 MALAYALAM				
BA BSc	ML1CCT01	Katha Sahithyam	CO1	Recognize general awareness in literature
			CO2	Appreciate importance of literature and life To sensitize aspects in Malayalam
BCom	ML1CCT05	Kathayum Kavithayum	CO1	General awareness about Malayalam literature
			CO2	Introducing new common trends in Malayalam literature
BSc Physics (Model 2)	ML1CCT09	Katha Kavitha	CO1	General awareness about Malayalam literature
			CO2	Introducing new common trends in Malayalam literature
SEMESTER 1 HINDI				
BA BSc	HN1CCT01	Prose and One Act Play.	CO1	To develop student's competence with reference to Hindi language and literature.
			CO2	To give an authentic knowledge about the development of literature.
BCom	HN1CCT01	Prose and Mass Media	CO1	To make familiar with the Students, the literary form of essays.
			CO2	To understand the principles and assumptions governing modern linguistic.
			CO3	To promote eminent Hindi scholars and encourage them to write and translate relevant works in Hindi.
SEMESTER 2 MALAYALAM				
BA BSc	ML2CCT02	Kavitha	CO1	General awareness in poetry and to identify new trends in poetry.
			CO2	Appreciate importance of literature and life To sensitize aspects in Malayalam
BCom	ML2CCT06	Athmakatha, Lekhanam	CO1	Realize Aesthetic power of prose in Malayalam.
			CO2	Introducing awareness about creativity in Malayalam Literature.
SEMESTER 2 HINDI				
BA BSc	HN2CCT02	Hindi Novel and Stories	CO1	To develop student's competence with reference to Hindi language and literature.
			CO2	To make students familiar with novel and stories.
BCom	HN2 CCT02	Poetry, Commercial Corresponde nce and Translation	CO1	To make the students familiar with ancient and modern Culture.
			CO2	To give an authentic knowledge about the development of literature.
				To know about the culture of our country through the famous works of the poets.
SEMESTER 3 MALAYALAM				
BA BSc	ML1C CT05	Drisyakala sahithyam	CO1	Familiarized more about Drisyakala Sahithyam
			CO2	Understood other art forms like Cinima
			CO3	Created an awareness of Kerala Culture

SEMESTER 3 HINDI

BA BSc	HN3CCT03	Poetry Grammar and Translation	CO1	To make the students familiar with ancient and Modern Culture
			CO2	To understand the principles and assumptions governing modern linguistic.

SEMESTER 4 MALAYALAM

BA BSc	ML4CCT04	Malayala Gadhya Rachanakal	CO1	Created an awareness of Malayala GadhyaSahithyam
			CO2	Familiarized with Malayalam writers and their Writings
			CO3	Understood various trends in Malayalam Literature & Culture

SEMESTER 4 HINDI

BA BSc	HN4CCT04	Drama & Long Poems	CO1	Familiarized the students with Hindi language
			CO2	Familiarized the students with various trends in Hindi Drama & Poetry
			CO3	Created an awareness of Indian Culture & Heritage

CORE COURSES OF B. A. ECONOMICS

Course Code	Course Title	Course Outcomes	
SEMESTER 1			
EC1CRT 01	Perspectives and Methodology of Economics	CO1	It identifies the main concerns of social science disciplines
		CO2	It articulates the basic terminology and theories prevalent across various disciplines.
		CO3	It helps to understand qualitative and quantitative models within the social sciences, especially Economics
SEMESTER 2			
EC2CRT 02	Micro Economic Analysis 1	CO1	It gives the foundation for economic analysis and problem solving.
		CO2	It introduces a framework for learning about consumer behaviour and analyzing consumer decisions.
		CO3	It provides an introduction to supply and demand and the basic forces that determine equilibrium in a market economy.
SEMESTER 3			
EC3CRT 03	Micro Economic Analysis- II	CO1	This course is designed to provide basic understanding of micro economic concepts.
		CO2	Students are provided with the working and performance of firms in the market.
		CO3	It deals with behavior of economic agents – consumer, producer, factor owner – price fluctuations in the market.
EC3CRT 04	Economics of Growth & Development	CO1	This course enables the students to understand the theories and strategies of growth and development.
		CO2	It imparts knowledge about the issues relating to sustainable development, environmental protection and pollution control measures.
		CO3	It makes the students more insightful about modern approaches to development.
SEMESTER 4			
EC4CRT 05	Macro Economics 1	CO1	This paper provides the students the information regarding the theory of cost, market performance and welfare economics.
		CO2	This course also makes a picture regarding the cost analysis which seems to be integral to their life
		CO3	It also aids the students to know more about the theoretical background of market structure
EC4CRT 06	Public Economics	CO1	The purpose of this course is to give an understanding of the role of state in fostering the economic activities via budget and fiscal policies.
		CO2	Students get a chance to know about the financial position of the country.
		CO3	This course enables the students to understand the various issues between Central and State Governments.

SEMESTER 5

EC5CRT0 8	Macro Economics II	CO1	This course is designed to make the students aware of the theoretical aspects of Macroeconomics.
		CO2	It helps the students to think issues which are a nature of economy as a whole.
EC5CRT0 9	Environmental Economics	CO1	This course imparts an awareness regarding the issues like environment conservation and climate change
		CO2	It also emphasizes the need of environmental protection and its role in economic development.
EC5CRT 10	Introductory Econometrics	CO1	It introduces various concepts and application of econometrics.
		CO2	It helps the students to know the interrelationship between econometric variables.
		CO3	It also provides an access to mathematical and econometric methods which are employed for economic measurement.

SEMESTER 6

EC6CRT 12	International Economics	CO1	The objective of this course is to arrive at an understanding of theories of international trade
		CO2	It examines the impact of the trade policies on the world economy.
		CO3	It helps the students to know about the recent trade relations of the country.
EC6CRT 13	Money & Financial markets	CO1	The present course is designed to acquaint the students with the changing role of the financial sector of the economy.
		CO2	It introduces the students the functioning of stock markets in India
		CO3	The stake-holders are to familiarize with the basic concepts, the financial institutions and markets.
EC6CRT 14	Indian Economy	CO1	The objective of the course is to equip the students with the theoretical, empirical
		CO2	This course discusses the policy issues relating to the society, polity and economy of India.
		CO3	It also highlights the recent economic problems which are crucial for the growth of economy.

CORE COURSES OF B. A. HISTORY

Course Code	Course Title	Course Outcomes	
SEMESTER 1			
HY1CRT01	Methodology and Perspectives of Social Sciences-History	CO1	Identify the main concerns of Social Science disciplines.
		CO2	Understand qualitative and quantitative models within the Social Sciences
		CO3	Critically read popular and periodical literature from a Social Science perspective.
SEMESTER 2			
HY2CRT02	Understanding Early India: From Hunting Gatherers to Land Grants	CO1	An idea about the life of man and the evolution process of different institutions in early India
SEMESTER 3			
HY3CRT03	Polity, Society and Economy in Pre-Colonial India	CO1	Creates an awareness about the socio-economic- political and cultural life of medieval India
HY3CRT04	Cultural Trends in Pre-Colonial Kerala	CO1	Creates knowledge about colonial relations and maritime trade.
SEMESTER 4			
HY4CRT05	Making of Modern Kerala	CO1	Imbibe an awareness about freedom struggle of Kerala, origin of Marxist ideologies, nationalism, unification of Kerala and role of people in the freedom struggle
HY4CRT06	Researching the Past	CO1	Develops historical perspectives and inspire the student to make their own understanding of various schools of historiography and inspire them to create their own perspectives that enables them to anchor in an area of research
SEMESTER 5			
HY5CRT07	Inheritance and Departures in Historiography	CO1	Gain knowledge about the perspectives of past that evolved and to grasp why history came to be rewritten differently from time to time and under what conceptual presuppositions.
HY5CRT08	India: Nation in the Making	CO1	Emphasis on the study of the struggle for independence in India.
HY5CRT09	State and Society in Ancient and Medieval world	CO1	It enable the students to develop a deep understanding of evolution of human civilization down the ages that is from the pre- historic to the present times. This course explores the various aspects of ancient societies and its character features in a historical perspective. Throughout the duration of the course the students get to know about the global major historical events and got knowledge and culture and also society, power, religion, economy are also mentioned very specific level.
HY5CRT10	Environmental Studies and Human Rights in Historical Outline	CO1	To understand about various aspects, concepts, issues and movements related to the growth of environmental studies and environmental history of India.
		CO2	To learn about various environmental impacts and climate changes

SEMESTER 6

HY6CRT11	Making of Contemporary India	CO1	To analyse and examine the emergence of Modern India.
		CO2	To generate a healthy nationalist feeling.
		CO3	To make students aware about the political, though, economic and social situation of contemporary India
HY6CRT12	Understanding Modern World	CO1	To learn about the various political, social and economic aspects of contemporary world.
		CO2	To provide good awareness about the major social revolutions of the modern world
HY6CRT13	Capitalism and Colonialism	CO1	To learn about the expansion of colonies across the world.
		CO2	To study about various theories related to Marxism, Capitalism and Colonialism
HY6CRT14	Gender in Indian Perspectives	CO1	To introduce the area of gender studies to graduate students and to explain the socio-historical constructions of sexual differences in Indian society by emphasizing the plural backgrounds.
		CO2	To prepare students to challenge the conventional social norms about male-female dichotomy and to conceive biological realities and natural but as always conditioned through social norms, moral codes and historical process.

CORE COURSES OF B. Sc. BOTANY

Course Code	Course Title	Course Outcomes	
SEMESTER 1			
BO1CRT 01	Methodology of science and introduction to Botany	CO1	To acquire fundamental knowledge in plant science and diversity of plants.
		CO2	To understand the universal nature of science and demonstrate the use of scientific method.
		CO3	To develop basic skills to study Botany in detail.
SEMESTER 2			
BO2CRT 02	Microbiology, Mycology and Plant Pathology	CO1	To understand the world of microbes, fungi and lichens and the mechanism of various physiological processes related to plant life.
		CO2	To study the pathological importance of microorganisms
		CO3	To enable the students to identify and culture different types of microbes.
SEMESTER 3			
BO3CRT 03	Phycology and Bryology	CO1	To make the students understand objectives and components of taxonomy
		CO2	To study the evolutionary importance of algae and understand the unique features of algae and bryophytes.
		CO3	To realize the applications of Phycology in different fields.
SEMESTER 4			
BO4CRT 04	Pteridology, Gymnosperms and Paleobotany	CO1	To understand the different plant organs with their functions.
		CO2	To enhance the botanical knowledge on Paleobotany.
		CO3	To study the anatomical variations in vascular plants
SEMESTER 5			
BO5CRT 05	Anatomy, Rep. Botany and Microtechnique	CO1	To study the internal structure of evolved group of plants.
		CO2	To understand the individual cells and also tissues.
		CO3	To understand the morphology and development of reproductive parts and to get an insight into the fruit and seed development
BO5CRT 06	Research Methodology, Biophysics and Biostatistics	CO1	Equip the students to conduct research and prepare research report.
		CO2	To make the students understand the different tools and techniques used in research.
BO5CRT 07	Plant Physiology and Biochemistry	CO1	To acquire the basic knowledge of plant functioning.
		CO2	To understand the basic skills and techniques related to plant physiology.
		CO3	CO3 To understand the role of biomolecules in plant life.
BO5CRT 08	Environmental science and Human rights	CO1	To understand the significance of environmental science.
		CO2	To make the students aware about the extent of the total biodiversity.
		CO3	To enable the students to understand the structure and function of ecosystem and make the students aware about various human right laws in the world

SEMESTER 6

BO6CRT 09	Genetics, Plant Breeding and Horticulture	CO1	To understand the principles of heredity and the patterns of inheritance in different organisms.
		CO2	Understand the methods of crop improvement.
		CO3	To develop skills in gardening techniques in students
BO6CRT 10	Cell and molecular Biology	CO1	To understand the ultrastructure and functioning of cells.
		CO2	To understand the basic and scientific aspects of diversity.
		CO3	To understand DNA as the basis of heredity and variation.
BO6CRT 11	Ang morphology, Taxonomy and Eco Botany	CO1	To understand the aims, objectives and significance of Taxonomy. and identify the common species of plants growing in Kerala.
		CO2	To understand the basic techniques in the preparation of herbarium.
		CO3	Familiarize the plants having immense economic importance.
BO6CRT 12	Bio-technology and Bio-informatics	CO1	Understand the current developments in the field of Biotechnology.
		CO2	Introduce the vast repositories of Biological data knowledge.
		CO3	To equip the students to access and analyze data available in databases.

CORE COURSES OF B. Sc. CHEMISTRY

Course Code	Course Title	Course Outcomes	
SEMESTER 1			
CH1CR T01	General and Analytical Chemistry	CO1	This part of the syllabus will impart an interest in studying chemistry
		CO2	students are getting more ideas about theoretical and experimental Chemistry
		CO3	Students can apply these skills in the analysis of experimental data in chemistry practical and further for jobs.
SEMESTER 2			
CH2CR T02	Theoretical and Inorganic Chemistry	CO1	By studying this part of the syllabus students are getting basic ideas of chemistry, which enables them to build a better foundation
		CO2	The course aims to inculcate an atomic/molecular level thinking in the minds of the students
		CO3	It also develops an interest in various branches of inorganic chemistry.
SEMESTER 3			
CH2CR T03	Organic Chemistry-1	CO1	It gives an idea about the fundamental aspects: structure, reaction dynamics and synthesis of organic molecules
SEMESTER 4			
CH4CR T04	Organic Chemistry-II	CO1	students are getting thorough knowledge about the chemistry of some selected functional groups with a view to develop proper aptitude towards the study of organic compounds and their reactions.
SEMESTER 5			
CH5CR T05	Environment, Ecology and Human rights	CO1	Students will possess the intellectual flexibility necessary to view environmental questions from multiple perspectives, prepared to alter their understanding as they learn new ways of understanding.
		CO2	Students will solve problems systematically, creatively, and reflexively, ready to assemble knowledge and formulate strategy
		CO3	When encountering environmental problems students will assess necessary scientific concepts and data, consider likely social dynamics, and establish integral cultural contexts.
CH5CR T06	CH5CR T06 Organic Chemistry - III	CO1	This part of the syllabus gives the idea of prediction of mechanisms for organic reactions
		CO2	How to use their understanding of organic mechanisms to predict the outcome of reactions
		CO3	How to design syntheses of organic molecules and how to determine the structure of organic molecules using IR and NMR spectroscopic techniques
CH5CR T07	Physical Chemistry-I	CO1	The objective of this academic plan is to make the concepts and methods of physical chemistry clear and interesting to students, who have basic ideas in mathematics and physics
		CO2	The underlying theory of chemical phenomena is completed, and so it is a challenge to make the most important concepts and methods understandable to undergraduate students.
CH5CR T08	Physical Chemistry-II	CO1	The objective of this academic plan is to make the concepts and methods of physical chemistry clear and interesting to students, who have basic ideas in mathematics and physics
		CO2	The underlying theory of chemical phenomena is completed, and so it is a challenge to make the most important concepts and methods understandable to undergraduate students.

SEMESTER 6

CH6CR T09	Inorganic Chemistry	CO1	An undergraduate chemistry student should gain perspective on the past, without compromising the modern developments.
		CO2	A student is expected to be conversant with the chemistry of all the elements and has been closely allied with analytical chemistry, with physical chemistry and even with organic chemistry
CH6CR T10	Organic Chemistry-IV	CO1	This deals with biological aspects of chemistry, which help students to understand medicinal chemistry, useful in daily life
		CO2	By studying the details of Natural products students can get the job of chemist in medicinal companies
CH6CR T11	Physical Chemistry-III	CO1	The syllabus covers Thermodynamics, Equilibrium and Kinetics, three important topics in chemistry, which will help students to get foundation for further studies
		CO2	The main advantage of the syllabus is that students are getting enough information about the speed and energy requirements for chemical reactions.
CH6CR T12	Physical Chemistry -IV	CO1	In this course students are gathering information about Solution Chemistry
		CO2	Students gets an idea about the reactions that takes place in solutions, which are beyond their imagination.

CORE COURSES OF B. Sc. MATHEMATICS

Course Code	Course Title	Course Outcomes	
SEMESTER 1			
MM1CR T01	Foundations of Mathematics	CO1	Familiarize mathematical terminologies and symbols, notations, propositional logic, equivalences etc.
		CO2	Develop standard methods of proofs and learn methods to solve equations, transformed equations, cubic, bi-quadratic and reciprocal equations.
		CO3	Relate factor theorem and remainder theorem.
SEMESTER 2			
MM2CR T01	Analytic Geometry, Trigonometry and Differential Calculus	CO1	Find the equation to tangent, normal at a point on a conic.
		CO2	Find the polar equation of a line, circle, tangent and normal to conics.
		CO3	Familiarize real and imaginary parts of a circular and hyperbolic functions of a complex variable and familiarize successive differentiation and indeterminate forms.
SEMESTER 3			
MM3CR T01	Calculus	CO1	Find the higher order derivative of the product of two functions.
		CO2	Expand a function using Taylor's and Maclaurin's series.
		CO3	Conceive the concepts of convexity, envelopes, asymptotes and learn about partial derivatives and its applications.
SEMESTER 4			
MM4CR T01	Vector Calculus, Theory of Numbers and Laplace Transform	CO1	Acquaint with the concept of vector valued functions and its curvature, torsion, directional derivatives.
		CO2	Extend the tools of integral calculus to vector valued functions.
		CO3	Apply Greens Theorem, Stokes Theorem, Gauss divergence theorem for evaluation of line, surface and volume integrals and get familiarize with the Number system and related concepts.
SEMESTER 5			
MM5CR T01	Mathematical Analysis	CO1	The learner understands the structure and properties of the real number system and Study the basic topological properties of the real numbers.
		CO2	Have the knowledge of the sequence of real numbers and convergence.
		CO3	The student will be able to construct rigorous mathematical proofs of basic results in real analysis.
MM5CR T02	Differential Equations	CO1	Recognize and solve separable, exact, homogeneous and non-homogeneous ordinary differential equations.
		CO2	Convert certain types of differential equations to exact form by using integrating factors
		CO3	Solve second order ordinary differential equations and use power series method to solve differential equations.
MM5CR T03	Abstract Algebra	CO1	Understand basic algebraic concepts like binary operations, groups, cosets, rings, ideals etc.
		CO2	Know how to construct new groups by taking quotients and direct products
		CO3	Prove classical theorems like Lagrange's theorem and Cayley's theorem.
		CO4	Learn how to relate different algebraic objects by homomorphisms and isomorphisms

MM5CR T08	Human Rights and Mathematics for Environmental Studies	CO1	Address complex environmental issues, and take necessary steps to keep our environment healthy and sustainable for the future
		CO2	Have a brief idea of Fibonacci numbers and Golden ratio
		CO3	Learn the idea of Human Rights and study its importance
SEMESTER 6			
MM6CR T01	Real Analysis	CO1	Have the knowledge of the series of real numbers and convergence.
		CO2	Determine the Riemann integrability of a bounded function and establish properties of integrable functions.
		CO3	Recognize the difference between point-wise and uniform convergence of sequences and series of functions.
		CO4	Develop a higher level of mathematical maturity combined with the ability to think analytically.
MM6CR T02	Graph Theory and Metric Spaces	CO1	Write precise and accurate mathematical definitions of objects in Graph theory and analyze different properties that depend on the connectivity of a graph
		CO2	Understand Euclidean distance and generalize that idea to arbitrary sets. CO4 Extend the concepts like convergence and limits of analysis to Metric spaces
		CO3	Extend the concepts like convergence and limits of analysis to Metric spaces
MM6CR T03	Complex Analysis	CO1	Learn about Complex valued functions and determine whether a given function is differentiable
		CO2	Comprehend what an analytic function and understand Complex integration
		CO3	Identify and classify Singular points to use in Complex integrals
MM6CR T04	Linear Algebra	CO1	To Solve systems of linear equations.
		CO2	Comprehend the concept of Vector spaces.
		CO3	Learn deeply about linear transformations and represent them in matrix form.
		CO3	Determine eigenvalues of a given matrix and use it to diagonalize the given matrix.

CORE COURSES OF B. Sc. PHYSICS

Course Code	Course Title	Course Outcomes	
SEMESTER 1			
PH1CRT01	Methodology and Perspectives of Physics	CO1	Create Awareness on the History of Physics, giving emphasis on the contributions of great scientists.
		CO2	Introduce the mathematical methods physicists often use, including differential, integral and vector calculus, curvilinear coordinates etc.
		CO3	Study the principles of various measuring instruments, errors and its propagation
SEMESTER 2			
PH2CRT02	Mechanics and Properties of Matter	CO1	Empower the student to acquire engineering skills and practical knowledge, useful in their everyday life and learn the basics of properties of matter, demonstrate how Young's modulus and rigidity modulus are defined and how they are evaluated.
		CO2	Understand the working of different types of pendulum, study the elastic behaviour of materials, surface tension and viscosity of fluids etc.
		CO3	Learn the fundamentals of harmonic oscillator model, including damped and forced oscillations.
SEMESTER 3			
PH3CRT03	Optics, Laser and Fiber Optics	CO1	Use the principles of wave motion and superposition to explain the physics of polarization, interference and diffraction.
		CO2	Understand the basics of modern optics like Lasers, Fiber optics and holography.
		CO3	Solve problems in optics by selecting the appropriate equations and performing numerical or analytical calculations.
SEMESTER 4			
PH4CRT04	Semiconductor Physics	CO1	Understand the fundamentals of diodes and their applications and analyse the characteristics of transistor and transistor biasing circuits, integrated circuits, modulation etc.
		CO2	Gain basic ideas on construction and working of electronic devices and circuits and communication systems.
		CO3	Apply the principles of electronics in day today life.
SEMESTER 5			
PH5CRT05	Electricity and Electrodynamics	CO1	Gain elaborated knowledge about electrostatics and laws governing the charge distribution and realize the importance of Maxwell's equations, displacement current and wave propagation
		CO2	Study in depth the transient current response which is essential in designing as well as understanding the working of circuits.
		CO3	Solve complex problems involving linear electrical networks employing the symmetry concepts together with various network theorems.
PH5CRT06	Classical and Quantum Mechanics	CO1	Study different frames of references, constraints, Lagrangian and Hamiltonian formalisms etc.
		CO2	CO2 Realize the inadequacies of classical mechanics that lead to the development of quantum concepts.
		CO3	Grasp the idea of Wave Mechanics, the concept of eigen values, eigen functions and learn the basic postulates of quantum mechanics
		CO4	Formulate and solve Schrödinger's equation for many systems such as particle in a box, potential barrier, Harmonic oscillator etc

PH5CRT07	Digital Electronics and Programming	CO1	Understand the fundamentals of codes and number system, binary arithmetic, logics and boolean functions.
		CO2	Study the design and working of various combinational and sequential logic circuits.
		CO3	Develop a greater understanding of the issues involved in programming language design and implementation
		CO4	Train the students the basic concepts of object oriented programming languages and provide exposure to problem solving through programming in C++
PH5CRT08	Environmental Physics and Human Rights	CO1	Prepare students for careers as leaders in understanding and addressing complex environmental issues from a problem oriented interdisciplinary perspective.
		CO2	Master core concepts and methods from ecological and physical sciences and application in environmental problem solving.
		CO3	Understand human rights, its protection and activities against it in a global perspective.
SEMESTER 6			
PH6CRT09	Thermal and Statistical Physics	CO1	Understand the central concepts and basic formalisms of specific heat, entropy, quantum theory of radiation etc.
		CO2	acquire knowledge in heat transfer, production of low temperature, liquefaction of gases etc.
		CO3	Study the statistical distribution of particles, ensembles, classical and quantum statistics etc.
PH6CRT10	Relativity and Spectroscopy	CO1	Provide an idea of Galilean and Lorentz transformations and effects of special relativity which has significance in high energy Physics.
		CO2	Gain deeper understanding of interaction between matter and radiation.
		CO3	Study the principle and instrumentation of various spectrometers including NMR and ESR systems.
PH6CRT11	Nuclear, Particle and Astrophysics	CO1	Understand the concepts and potential applications nuclear and particle Physics and apply general considerations of quantum physics to atomic and nuclear systems.
		CO2	Expand and evaluate the theoretical predictions on nuclear models and nuclear reactions.
		CO3	Understand the evolution of stars and other heavenly bodies.
PH6CRT12	Solid State Physics	CO1	Outline the importance of solid state Physics in the modern society.
		CO2	Explore the relationships between chemical bonding & crystal structure and their effects.
		CO3	Study the conduction mechanism in solids including superconductors.
		CO4	Transfer the knowledge level from theoretical physical subjects towards the understanding of basic properties of solid state matter.

CORE COURSES OF B. Com.

Course code	Course Title	Course Outcomes	
SEMESTER 1			
CO1CRT01	Dimensions and Methodology of Business Studies	CO1	To understand business and its role in society
		CO2	To have an understanding of Business ethics and CSR
		CO3	To comprehend the business environment and various dimensions
		CO4	To familiarise Technology integration in business
		CO5	To introduce the importance and fundamentals of business research
CO1CRT02	Financial Accounting-1	CO1	To equip the students with the skill of preparing accounts and financial statements of various types of business units other than corporate undertakings
CO1CRT03	Corporate Regulations and Administration	CO1	To familiarise the students with the management and administration of joint stock companies in India as per Companies Act, 2013
SEMESTER 2			
CO2CRT04	Financial Accounting-2	CO1	To acquaint the students with the preparation of books of accounts of various types of business activities and application of important accounting standards
CO2CRT05	Business Regulatory Frame work	CO1	To familiarize the students with the legal framework influencing business decisions.
CO2CRT06	Business Management	CO1	To familiarize the students with concepts and principles of management.
SEMESTER 3			
CO3CRT07	Corporate Accounts -1	CO1	To make the students familiarize with corporate accounting procedures and to understand the accounting for banking companies.
CO3CRT08	Quantitative Techniques for Business-1	CO1	To make the students understand the role of statistics and quantitative techniques in business and familiarize them with basic tools applied
CO3CRT09	Financial Markets and Operations	CO1	The course is intended to familiarize the students with financial market operations in India
CO3CRT10	Marketing Management	CO1	The objective of this course is to provide a sound understanding of the basic principles of marketing management and their applications in the business and industry.
CO3OCT01	Goods and Services Tax	CO1	To give the students a general understanding of the GST law in the country with a practical perspective and employability to the students in the commercial tax practices.
SEMESTER 4			
CO4CRT11	Corporate Accounts-2	CO1	To equip the students with the preparation of financial statements of insurance companies and to understand the accounting procedure for reconstruction and liquidation of companies.

CO4CRT12	Quantitative Techniques for Business-2	CO1	The objective of this course is to familiarize the students with more advanced tools of data analysis and forecasting and also to have an understanding of the fundamentals of theory of probability
CO4CRT13	Entrepreneurship Development and Project Management	CO1	To develop entrepreneurial spirit among students
		CO2	To empower students with sufficient knowledge to start up their venture with confidence
		CO3	To mold young minds to take up challenges and become employer than seeking employment and to make them aware of the opportunities and support for entrepreneurship in India
CO4OCT01	Financial services	CO1	To provide the students with an overall idea of financial services available in the country and to create an understanding about recent trends in financial services sector.
SEMESTER 5			
CO5CRT14	Cost Accounting-1	CO1	To familiarise the students with cost concepts and to make the students learn the Fundamentals of cost accounting as a separate system of accounting.
CO5CRT15	Environment Management And Human Right	CO1	To familiarize the students with multidisciplinary nature of environmental studies, natural resources, eco system, bio-diversity and its conservation, environmental pollution
CO5CRT16	Financial Management	CO1	To familiarise the students with the functional areas and principles of financial management.
CO5OCT01	Income Tax-1	CO1	To familiarise the students with Income Tax Act 1961 and to enable the students to compute Income taxable under the first three heads of Income.
SEMESTER 6			
CO6CRT17	Cost Accounting -2	CO1	To familiarise the students with the functional areas and principles of financial management.
CO6CRT18	Advertisement and Sales Management	CO1	To make the students aware of the strategy, concept and methods of advertising and sales promotion.
CO6CRT19	Auditing and Assurance	CO1	To familiarize the students with the principles and procedure of auditing. To enable the students to understand the duties and responsibilities of auditors and to undertake the work of auditing.
		CO2	To familiarise the students with the functional areas and principles of financial management.
CO6CRT20	Management Accounting	CO1	To acquaint the students with management accounting techniques for the analysis and interpretation of financial statements and to study the basic framework of financial reporting.
CO6OCT01	Income Tax-2	CO1	To have an understanding of determination of Total Income and tax payable and to get an overview regarding returns to be filed by an individual and also assessment procedure.

OPEN COURSES
(Offered During Semester 5)

Course Code	Course Title	Course Outcomes	
Department of Economics			
EC5OP T01	Fundamentals of Economics	CO1	This course is designed to make the undergraduate students of other disciplines aware of the basic ideas and concepts in economics.
		CO2	Students get the basic idea regarding national income, production, distribution etc.
		CO3	This course also inculcates some reasoning ability in students from other disciplines.
Department of History			
HY50C T02	Social Implications of Modern Revolutions	CO1	To provide good awareness about the major social revolutions of the modern world.
		CO2	To focus on the linkage between the socioeconomic revolutions of the modern world
Department of Chemistry			
CH5OP T01	Chemistry in Everyday Life	CO1	To know the importance of Chemistry in everyday life, because it provides medicine
		CO2	To understand the chemical processes involved in the digestion of food we eat.
Department of Physics			
PH5OP T02	Physics in Daily Life	CO1	Recognize the importance of applied Physics in describing natural phenomena
		CO2	Realize the significance of units and measurements, optical phenomena, electricity and its applications, matter and energy etc.
		CO3	Obtain a fundamental understanding about our universe, including galaxies, solar system, artificial satellites and their use in global positioning system.
Department of Mathematics			
MM5O PT02	Applicable Mathematics	CO1	To prepare students of all streams particularly those with arts and commerce background for their higher studies and to approach competitive examinations
		CO2	To acquire better understanding in basic concepts of mathematics
		CO3	To introduce shortcut methods for developing problem solving skills
Department of Botany			
BO5OP T02	Horticulture and Nursery Management	CO1	To understand the importance of horticulture in human welfare and the propagation and cultural practices of vegetables, fruit and garden plants.
		CO2	To understand the basic concepts of landscaping and garden designing.
		CO3	To understand the modern technology in horticultural plants.
Department of Commerce			
CM5OPT01	Fundamentals of Accounting	CO1	Familiarize the students with the basic accounting principles and practices in business
		CO2	Equip students in preparing Journal and Ledger accounts
		CO3	Equip students in preparation of Final Accounts of Sole proprietary concerns

CHOICE BASED COURSES
(Offered During Semester 6)

Course Code	Course Title	Course Outcomes	
B. A. Economics			
EC6CB T03	History of Economic Thought	CO1	This course aims to portrait through which the science of economics has evolved.
		CO2	It provides an opportunity for the students to know about the economic history.
		CO3	Students also get chance to realize the different line of thought from ancient economists to modern economists
B. A. History			
HY6CBT01	Archaeology in India	CO1	To acquaint students with some basic concepts and methods of archaeological research such as excavation, survey, analysis of artefacts and various dating methods.
		CO2	To make them aware of the contributions of key archaeologists and institutions in the evolution of archaeology as a discipline in India and to learn an integrative approach to the theoretical perspectives and praxis of archaeology.
B. Sc. Chemistry			
CH6CB T01	Polymer Chemistry	CO1	To understand the basics polymer science, various reactions of polymerization and biodegradable polymers
		CO2	To understand the various processing techniques of plastic materials
B. Sc. Physics			
PH6CBT04	Instrumentation	CO1	To understand the basics of instrumentation engineering
		CO2	To understand about various types of transducers used in instruments
B. Sc. Mathematics			
MM6CBT01	Operations Research	CO1	Formulate and solve LPP using graphical and Simplex method.
		CO2	Study duality in LPP.
		CO3	Study transportation and assignment problems
B. Sc. Botany			
BO6CBT01	Agribusiness	CO1	Inculcate and impart an idea about the business opportunities in the field of plant sciences.
		CO2	Develop an entrepreneurial mindset and also to stick on to the core subject among the Botany students.
		CO3	Give an idea about the need of sustainable development and organic farming.
		CO4	Harness the opportunities and potentials in the field of ecotourism, processing technology and food sciences

COMPLEMENTARY COURSES

Course Code	Course Title	Course Outcomes	
B. A. Economics			
SEMESTER 1			
HY1CPT03	Social Formation in pre modern India.	CO1	Students will be able to examine institutional basis of Ancient India.
		CO2	Students will be able to illustrate the development of empire.
		CO3	Understand the salient features of Indus valley civilization
SEMESTER 2			
HY2CPT02	Transition to the contemporary world	CO1	Students have understood the relation between Modernity and Nationalism and its implications.
		CO2	Realize the cause and results of French Revolution and the achievements of Napoleon Bonaparte.
		CO3	Understand the causes and results of Second World War and the establishment of UNO.
		CO4	Students have understood the necessity of Universal Brotherhood
SEMESTER 3			
PS3CMT 01	An Introduction to Political Science	CO1	It will help the student to understand the relevance of the discipline and also to acquire the practical knowledge of the subject
		CO2	Inculcate awareness about the principles of Political Science in general and political process in particular. For that, various approaches, ideologies and related theories are dealt in an interdisciplinary manner.
SEMESTER 4			
PS4CMT 05	Indian Constitution: Social Issues in India	CO1	The course helps to develop among students the ability to comprehend contemporary politics as a relationship between institutional structures and historically constituted political processes.
		CO2	Integral to the course is the understanding that ideas of democracy, freedom and corresponding social political and institutional practices shaped the discipline in a more meaningful way.
B. A. History			
SEMESTER 1			
EC1CM T01	Principles of Economics	CO1	It helps the students to learn to apply the basic principles and concepts of economics to everyday issues.
		CO2	It also helps the students to imbibe the relationship among the members of the society.
SEMESTER 2			
EC2CM T02	Basic Economic Studies	CO1	It intends to make the students equipped with essential understanding the basic economic issues.
		CO2	Students also get acquainted with policy requirements.
SEMESTER 3			

PS3CMT 01	An Introduction to Political Science	CO1	It will help the student to understand the relevance of the discipline and also to acquire the practical knowledge of the subject
		CO2	Inculcate awareness about the principles of Political Science in general and political process in particular. For that, various approaches, ideologies and related theories are dealt in an interdisciplinary manner.

SEMESTER 4

PS4CMT 05	Indian Constitution: Social Issues in India	CO1	The course helps to develop among students the ability to comprehend contemporary politics as a relationship between institutional structures and historically constituted political processes.
		CO2	Integral to the course is the understanding that ideas of democracy, freedom and corresponding social political and institutional practices shaped the discipline in a more meaningful way.

B. Sc. Chemistry

SEMESTER 1

PH1CM T02	Properties of matter and thermodynamics	CO1	Explore the fundamental concepts of mechanical properties of solids and fluids.
		CO2	Understand the central concepts and basic formalisms of specific heat, entropy, quantum theory of radiation.
		CO3	Acquire knowledge on heat transfer, entropy and quantum theory of radiation
MM1C MT01	Partial Differentiation, Matrices, Trigonometry and Numerical Methods	CO1	Understand the concept of partial differentiation of functions of several variables.
		CO2	Solve systems of linear equations using different methods.
		CO3	Understand trigonometric and hyperbolic functions in detail.
		CO4	Learn how to solve equations using numerical methods.

SEMESTER 2

MM2C MT01	Integral Calculus and Differential Equations	CO1	Use integral calculus to find area and volume of various geometrical objects.
		CO2	Master the concepts of double integrals and triple integrals
		CO3	Recognize and solve separable, exact, homogeneous and non-homogeneous ordinary differential equations
		CO4	Solve partial differential equations
PH2CM T02	Mechanics and superconductivity	CO1	Learn Relative motion, Inertial and non-inertial reference frames and Centre of mass of mechanical systems.
		CO2	Study the interaction of forces between solids in mechanical systems and parameters defining the motion of mechanical systems.
		CO3	Understanding the basic principles of superconducting transitions.

SEMESTER 3

MM3C MT01	Vector Calculus, Analytic Geometry and Abstract Algebra	CO1	Acquaint with the concept of vector valued functions and its curvature, directional derivatives
		CO2	Extend the tools of integral calculus to vector valued functions
		CO3	Understand various properties of conic sections in Cartesian and polar coordinates
		CO4	Understand basic algebraic concepts like binary operations, groups, cosets, rings, ideals

PH3CM T02	Modern physics and magnetism	CO1	Study the basics of dual properties of matter and radiation.
		CO2	Introduce the modern branch of Physics 'Quantum Mechanics'.
		CO3	Define the concepts of magnetic field, magnetic flux etc. and solve technical problems.
SEMESTER 4			
MM4C MT01	Fourier Series, Laplace Transforms and Complex Analysis	CO1	Learn Fourier series and Legendre Polynomials
		CO2	Solve differential equations using power series method
		CO3	Understand Laplace transforms
		CO4	Learn about Complex valued functions and determine whether a given function is differentiable
PH4CM T02	Optics and Solid State physics	CO1	Understand the central concepts and basic formalisms of interference, diffraction and polarization based on wave theory.
		CO2	Gain Fundamental knowledge in lasers and applications.
		CO3	Understand the basic properties of solids, their structure, properties and various technological applications.
B. Sc. Physics			
SEMESTER 1			
MM1CMT01	Partial Differentiation, Matrices, Trigonometry and Numerical Methods	CO1	Understand the concept of partial differentiation of functions of several variables.
		CO2	Solve systems of linear equations using different methods.
		CO3	Understand trigonometric and hyperbolic functions in detail.
		CO4	Learn how to solve equations using numerical methods.
SEMESTER 2			
MM2CMT01	Integral Calculus and Differential Equations	CO1	Use integral calculus to find area and volume of various geometrical objects.
		CO2	Master the concepts of double integrals and triple integrals
		CO3	Recognize and solve separable, exact, homogeneous and non-homogeneous ordinary differential equations
		CO4	Solve partial differential equations
SEMESTER 3			
MM3CMT01	Vector Calculus, Analytic Geometry and Abstract Algebra	CO1	Acquaint with the concept of vector valued functions and its curvature, directional derivatives
		CO2	Extend the tools of integral calculus to vector valued functions
		CO3	Understand various properties of conic sections in Cartesian and polar coordinates
		CO4	Understand basic algebraic concepts like binary operations, groups, cosets, rings, ideals
SEMESTER 4			
MM4CMT01	Fourier Series, Laplace Transforms and Complex Analysis	CO1	Learn Fourier series and Legendre Polynomials
		CO2	Solve differential equations using power series method
		CO3	Understand Laplace transforms
		CO4	Learn about Complex valued functions and determine whether a given function is differentiable
BSc Mathematics			
SEMESTER 1			
ST1CM T01	Descriptive Statistics	CO1	Statistical skills to collect empirical data and to calculate descriptive statistics
		CO2	Statistical skills to visually interpret empirical data
PH1CM T01		CO1	Learn the basics concepts of elasticity, surface tension, gravitation, viscosity and sound.

	Properties of matter & error analysis	CO2	Understand the concepts of properties of matter and to recognize their applications in various problems.
		CO3	Identify/classify the usual experimental errors and study different calculation methods.
SEMESTER 2			
ST2CM T02	Probability Theory	CO1	Basic knowledge in probability theory and problem-solving skill
		CO2	Different methods to find probability
PH2CM T01	Mechanics and Astrophysics	CO1	Understand and define the laws involved in mechanics.
		CO2	Explain the notion of degrees of freedom and identify them for a given mechanical system.
		CO3	Attain an elementary idea on stellar evolution and universe.
SEMESTER 3			
ST3CM T03	Probability Distributions	CO1	Acquaint the students familiar with basic probability distributions
		CO2	Acquaint the students familiar with their properties of probability distributions and problem-solving skill
PH3CM T01	Modern Physics and Electronics	CO1	Study the basics of dual nature of matter and radiation and introduce the new branch of Physics 'Quantum Mechanics'.
		CO2	Impart knowledge related to the concepts of spectroscopy.
		CO3	Familiarize with the basic concepts of construction and working of electronic devices such as diodes and transistors
SEMESTER 4			
ST4CM T04	Statistical Inference	CO1	Expected to learn the basics of estimation theory
		CO2	Make the student understand the concepts of testing of hypothesis and decision-making skill
PH4CM T01	Optics and electricity	CO1	Understand the central concepts and basic formalisms of interference, diffraction and polarization.
		CO2	Gain Fundamental knowledge in lasers and holography.
		CO3	Build up fundamental understanding of electricity and achieve strong problem-solving skills by effectively formulating a circuit.
B. Sc. Botany			
SEMESTER 1			
ZY1CM T01	Non-Chordate Diversity	CO1	To study the scientific classification of invertebrate fauna.
		CO2	To learn the physiological and anatomical peculiarities of some invertebrate phyla through type study.
		CO3	To learn the unity of life with rich diversity of organisms & evolutionary significance of certain invertebrate fauna
CH1CM T01	Basic theoretical and analytical chemistry	CO1	This part of the syllabus will impart an interest in studying chemistry
		CO2	students are getting more ideas about theoretical and experimental Chemistry
		CO3	Students can apply these skills in the analysis of experimental data in chemistry practical and further for jobs
SEMESTER 2			
ZY2CM T02	Chordate Diversity	CO1	To make the student observe the diversity in chordates and their systematic position.
		CO2	To make the student ware of the economic importance of some chordates.
		CO3	CO3 To learn the physiological and anatomical peculiarities of some vertebrate species through type study.

CH2CM T02 Basic Organic Chemistry	CH2CM T02 Basic Organic Chemistry	CO1	By studying this part of the syllabus students are getting basic ideas of organic chemistry, which enables them to build a better foundation
		CO2	The course aims to study the mechanism of organic reactions
		CO3	It also develops an interest in various branches of organic chemistry.
SEMESTER 3			
ZY3CM T03	Physiology and Immunology	CO1	To appreciate the correlation between structure and function of organisms
		CO2	To make the student aware of the health-related problems, their origin and treatment.
		CO3	To understand how efficiently our immune system works in our body and to acquire knowledge about preventing common diseases rather than curing.
CH4CM T04	Inorganic and Organic Chemistry	CO1	Develops an interest in various branches of organic chemistry.
		CO2	An inorganic chemistry student is expected to be conversant with the chemistry of all the elements and has been closely allied with analytical chemistry, with physical chemistry and even with organic chemistry.
SEMESTER 4			
ZY4CM T04	Applied Zoology	CO1	To acquire basic knowledge and skills in applied branches of zoology.
		CO2	To understand the technology for utilizing eco-friendly organisms around them for beneficial purpose.
		CO3	To equip the students for self-employment opportunities with scientific knowledge to perform profitably & confidently.
CH4CM T06	Advanced Bioorganic Chemistry	CO1	This part of the curriculum deals with biological aspects of chemistry, which help students to understand medicinal chemistry, useful in daily life
		CO2	To study the details of Natural products

VOCATIONAL COURSES

Course Code	Course Title	Course Outcomes	
B. Sc. Physics (Model II) Computer Application			
SEMESTER 1			
CA1VOT01	Computer Fundamentals	CO1	To provide basic knowledge about computers
CA1VOT02	Computer Networks and Internet Technologies	CO1	To provide knowledge about various networking technologies
		CO2	To understand about various networking applications
SEMESTER 2			
CA2VOT03	Word and Data Processing Packages	CO1	To provide detailed knowledge about desktop publishing software like MS Word and PageMaker
		CO2	To provide detailed knowledge about data processing software MS Excel
		CO3	To gain working knowledge in desktop publishing and data processing packages.
CA2VOT04	Programming in ANSI C	CO1	To learn the programming concepts in C language
		CO2	To gain the skills of programming using ANSI C
SEMESTER 3			
CA3VOT05	Concepts of OOP	CO1	To understand basic concepts of object-oriented languages
		CO2	To gain the skills of programming using C++
CA3VOT06	Operating System	CO1	To provide basic knowledge about the role of operating system in the functioning of computers
SEMESTER 4			
CA4VOT07	Visual Basic Programming	CO1	To provide basic understanding of VB programming
CA4VOT08	Web Development and PHP Programming	CO1	To provide basic understanding of HTML
		CO2	To provide basic understanding Java Script
		CO3	To provide basic understanding MySQL
		CO4	To learn how to implement MySQL using PHP

Course Outcomes of M. Sc. Applied Chemistry

Course Code	Course Title	Course Outcomes	
SEMESTER 1			
CH500101	Organometallics and Nuclear Chemistry	CO1	Identify the structure and bonding aspects of simple organometallic compounds
		CO2	Apply different electron counting rules to predict the shape/geometry of low and high nuclearity metal carbonyl clusters
		CO3	Identify the different types of organometallic reactions and apply the above concepts to explain different catalytic reactions
CH500102	Structural and Molecular Organic Chemistry	CO1	Comprehend and Predict the role of temperature, solvents, and catalysts in organic reactions
		CO2	Elucidate reaction mechanisms using isotope effects
		CO3	Identify and differentiate prochirality and chirality at centers, axis, planes and helices and determine the absolute configuration
		CO4	Evaluate the stability of various conformers of acyclic and cyclic systems using steric, electronic and stereo-electronic effects and correlate them to reactivity
CH500103	Quantum Chemistry and Group theory	CO1	Use mathematical techniques in linear algebra for eigenvalues and eigenvectors and first and second order differential equations not only in quantum chemistry but in other areas of physical and theoretical chemistry that will be offered during the whole programme.
		CO2	Solve all the model problems in quantum mechanics for which exact analytical methods and solutions are available and will apply them to analyze the basis behind the postulatory method of quantum mechanics and which forms the foundations for advanced study of the subject.
		CO3	Relate concepts that were originally introduced purely as modern atomic physics to molecular systems through harmonic oscillator, spin and rigid rotator.
		CO4	Determine the symmetry operations of any small and medium-sized molecule and apply point group theory to the study of electrical, optical and magnetic properties and selection rules for absorption
CH500104	Classical and Statistical Thermodynamics	CO1	Calculate change in thermodynamic properties, equilibrium constants, partial molar quantities, chemical potential. Identify factors affecting equilibrium constant and apply phase rule and, draw phase diagrams for one, and two component systems, identify the dependency of temperature and pressure on phase transitions, and identify first/second order phase transitions.
		CO2	Solve problems based on Debye-Huckel limiting law. Calculate excess thermodynamic properties and calculate the absolute value of thermodynamic quantities (U, H, S, A, G) and equilibrium constant (K) from spectroscopic data.
		CO3	Predict heat capacity (Cv, Cp) of an ideal gas of linear and non-linear molecules from the number of degrees of freedom, rotational and vibrational wave numbers.
		CO4	Derive the temperature dependence of the second Virial coefficient (real gases) from interatomic potentials.

SEMESTER 2

CH500201	Coordination Chemistry	CO1	Identify the principles, structure and reactivity of selected coordination complexes. Interpret their electronic spectra and magnetic properties.
		CO2	Utilize the principles of transition metal coordination complexes in understanding functions of biological system
CH500202	Organic Reaction Mechanism	CO1	Comprehend the structure-reactivity pattern of reactive intermediates involved in organic reactions
		CO2	Comprehend the orbital interactions and orbital symmetry correlations of various pericyclic reactions
		CO3	Write mechanism of organic reactions involving reactive intermediates and concerted processes and apply these reactions in organic synthesis
CH500203	Chemical Bonding and Computational Chemistry	CO1	Apply time independent perturbation theory to complex problems of molecular energy levels in the presence of external electric and magnetic fields
		CO2	Distinguish different types of hybridization based on geometries of the complex and to calculate for a one electron and two electron system, all the necessary integrals due to coulombic forces.
		CO3	Write short simple programs in FORTRAN and be able to compile and execute them in a host of machines.
		CO4	Use standard software tools such as MATLAB and Mathematica to perform algebraic and numerical calculations often required in elementary physical chemistry in the areas of quantum chemistry, spectroscopy, kinetics and thermodynamics
CH500204	Molecular Spectroscopy	CO1	Apply NMR, IR, MS, UV-Vis spectroscopic techniques in solving structure of organic molecules and in determination of their stereochemistry.
		CO2	Interpret the above spectroscopic data of unknown compounds

SEMESTER 3

CH500301	Advanced Synthetic Organic Chemistry	CO1	Use various reagents and organic reactions in organic synthesis
		CO2	Use retrosynthetic method for the logical dissection of complex organic molecules and devise synthetic methods
CH500302	Spectroscopic Methods in Chemistry	CO1	Apply NMR, IR, MS, UV-Vis spectroscopic techniques in solving structure of organic molecules and in determination of their stereochemistry.
		CO2	Interpret the above spectroscopic data of unknown compounds.
		CO3	Use these spectroscopic techniques in their research
CH500303	Chemistry and Biochemistry of Fatty Acids	CO1	To know how to classify lipids, oils and fats and to learn the nomenclature of triglycerides
		CO2	To study the chemical properties of fatty acids and biochemical transformation of fats in the body
		CO3	To learn the isolation and Characterization of Fatty Acids
CH500304	Essential Oils and Aromatics	CO1	To get an idea about the production and isolation of Essential Oil
		CO2	To understand of the sources, production, general nature and use of various essential oils

SEMESTER 4

CH800401	Fats, Oils and Waxes	CO1	To learn the extraction of oils and fats and get an idea about commercially important oils and fats
		CO2	To analyse fats and oils, waxes and Fatty Alcohols
		CO3	To know the rancidity in oils, fats and oil bearing substances
CH800402	Industrial Oil and Fat Products	CO1	To know the Processing of Oils and Fats
		CO2	To understand the hydrogenation of Oils, Fat Splitting and Esterification
		CO3	To know the theories of surface action and soaps
		CO4	To understand the instrumental Analysis of Oil and Fat Products
CH800403	Chemistry of Aromatics and Essential Oil Constituents	CO1	To study of the sources, production, nature, chemical constituents and uses of common spices and condiments
		CO2	To get an idea about the methods of production, chemistry of the constituents and uses of spice oils and oleoresins
		CO3	To know about the natural source, production and chemistry of aromatics and essential oil constituents

Course Outcomes of M. Sc. Botany

Course Code	Course Title	Course Outcomes	
SEMESTER 1			
BY010101	Microbiology and Phycology	CO1	To understand the world of microbes.
		CO2	To familiarize the algal diversity.
		CO3	To equip the students with in depth knowledge of the kingdom fungi and common diseases affecting plants.
BY010102	Mycology and crop pathology	CO1	To acquire the knowledge to understand various groups of fungi.
		CO2	To impart an in depth knowledge in the pathophysiological mechanisms in plants.
		CO3	To familiarize the common diseases affecting plants.
		CO4	To understand the basics of plant quarantine measures.
BY010103	Bryology and Pteridology	CO1	To study the external morphology of Bryophytes.
		CO2	To study the internal structure and reproduction in Bryophytes.
		CO3	To understand the diversity in habits and habitats of pteridophytes.
		CO4	To familiarize the students with the classification of lower forms of plants.
BY010104	Environmental Biology	CO1	To understand the significance of environmental science.
		CO2	To make the students aware about total biodiversity conservation.
		CO3	To help the students to design novel mechanisms for sustainable utilization of natural resources.
		CO4	To familiarize the students with the vast diversity of biomes and their role in phytogeographical conditions.
SEMESTER 2			
BY010201	Gymnosperms, paleobotany and evolution	CO1	To understand the evolutionary trends in gymnosperms.
		CO2	To understand anatomical variations in vascular plants.
		CO3	To understand the significance of paleobotany and its applications.
		CO4	To make the students aware of the past geological factors that led to the evolution of gymnosperms.
BY010202	Cell and Molecular Biology	CO1	To understand the ultrastructure and functioning of cells.
		CO2	Familiarisation of life processes.
		CO3	To understand the basic and scientific aspects of diversity.
		CO4	To understand DNA as the basis of heredity and variation
BY010203	Plant anatomy and Angiosperm Systematics	CO1	To understand the internal structure of evolved group of plants
		CO2	To understand the individual cells and tissues.
		CO3	To understand structural adaptations in plants growing in different environments.
		CO4	To familiarize the students with modern trends in plant systematics
BY010204	Genetics and Biochemistry	CO1	To understand the principles of heredity.
		CO2	To understand the patterns of inheritance in different organisms.
		CO3	To understand the role of biomolecules in plant life.
		CO4	To understand structure and importance of biomolecules associated with plant life.

SEMESTER 3

BY010301	Research methodology, Biophysics, Biostatistics and Microtechnique	CO1	To equip the students with deep knowledge in the methodology of research.
		CO2	To make the students understand various biophysical instrumentation.
		CO3	To develop statistical skills and techniques.
		CO4	To familiarize the students with various micro-technique skills.
BY010302	Plant physiology and plant breeding	CO1	To understand the physiological processes of plant life.
		CO2	To understand the methods of crop improvement.
		CO3	To make the students skilled to carry out various physiological experiments.
		CO4	To enable the students to understand the different methods used in plant breeding.
BY010303	Biotechnology	CO1	Understand the current developments in the field of Biotechnology.
		CO2	Equip the students to carry out plant tissue culture.
		CO3	Introduce the vast repositories of Biological data knowledge.
		CO4	To introduce the novel prospects in Biotechnology that can be used as potential aids to solve the problems of man and nature.
BY010304	Taxonomy of angiosperms	CO1	To make the students understand the classification, naming and identification of higher plants.
		CO2	To familiarize with the common plants of Kerala and their classification.
		CO3	To develop inductive and deductive reasoning ability.
		CO4	To make the students able to identify, classify and name unknown plant species.

SEMESTER 4

PE1	Tissue culture and microbial biotechnology	CO1	To understand the tissue culture techniques.
		CO2	To equip the students with knowledge of the microbial world and their role in commercial production of various products.
		CO3	To enable the students to carry out micro propagation of various plant species.
		CO4	To develop an in depth understanding of the applications of microbial biotechnology in medical and agricultural fields.
PE2	Genetic Engineering	CO1	To understand the recombinant DNA technology.
		CO2	To understand the elements of GE so as to encourage the students' interest in advanced biological techniques.
		CO3	To develop high order thinking skills in students so as to enable them to find practical solutions to problems in Biology.
		CO4	To enhance the knowledge on the genetic organization of organisms.
PE3	Genomics, Proteomics and Bioinformatics	CO1	To familiarize the students with the modern arena of genomics and proteomics.
		CO2	Understand the current developments in the field of Biotechnology.
		CO3	To equip the students to access and analyze data available in databases.
		CO4	To understand the current developments in the area of Genomics and Proteomics.

Course Outcomes of M. A. Economics

Course Code	Course Title	Course Outcomes	
SEMESTER 1			
EC010101	Microeconomics-I	CO1	To get an understanding of relevant microeconomic concepts
		CO2	To Acquire capacity to explain and evaluate critically theoretical arguments
EC010102	Macroeconomics-I	CO1	To know the major issues as they arise in the field of macroeconomics,
		CO2	To understand alternative approaches to modeling consumption, and investment,
		CO3	To evaluate critically the usefulness of macroeconomic techniques.
EC010103	Development Economics	CO1	To understand and critically evaluate alternative theories of growth.
		CO2	To have a clear understanding of the recent literature, both empirical and analytical, on theories of underdevelopment and growth in developing countries
		CO3	To evaluate critically some of the results in the literature, particularly those related to development issues.
EC010104	Indian Economy-I	CO1	To enable the students to appreciate the evolution of the economy, its institutional framework, nuances in using statistical information for analyzing public policy, and to get familiar with the issues for research.
		CO2	This course also enables the students to understand the pre-reform and post-reform development experiences of the Indian Economy.
		CO3	A thorough understanding of Indian economic policies is a must for post-graduate students of economics and that is what this course aims to develop among the students.
EC010105	Mathematical Methods for Economic Analysis	CO1	To introduce the students to several mathematical tools used in modern economics;
		CO2	To illustrate the use of these tools by applying them to various well-known economic models; and
		CO3	To complement the core postgraduate microeconomic and macroeconomic theory courses. Learning outcomes: On completion of this unit, successful students should be able to demonstrate understanding of static optimization and dynamic systems applicable to economics.
SEMESTER 2			
EC010201	Microeconomics-II	CO1	To acquaint the student with decision making in the context of market interdependence, complexity, uncertainty and informational asymmetry
		CO2	To give insights into developments in the areas of general equilibrium and welfare economics
		CO3	To enable the student to apply microeconomic principles in the areas of industrial organization, exchange, and welfare.

EC010202	Macroeconomics-II	CO1	To understand the strengths and weakness of the main macroeconomic tools and models used in modern macroeconomics
		CO2	To evaluate and critically compare results in alternative macroeconomic models
		CO3	Understand the importance and limitations of modeling assumptions for macroeconomic policy.
EC010203	Public Economics	CO1	To familiarize students about the rationale for and role of government intervention in economic activities and how the government makes economic decisions.
		CO2	To develop the competence of the students to identify major issues in public finance for a critical evaluation of policies.
		CO3	To enable them to use their skills in finding complete or partial solutions to those identified issues and also to demonstrate it through their presentations and contribute to the debate and policy in terms of a public policy paper appropriate to the discipline.
EC010204	Indian Economy-II	CO1	To equip the students with the basic idea for further learning,
		CO2	To help them to analyze the sectoral development that has taken place in India.
		CO3	To know the principles governing fiscal federalism, state the provisions enshrined in Indian Constitution relating to division of financial powers between Union and States.
		CO4	To appreciate the role of Finance Commission which constitutes a pillar of India's federal structure, critically examine the various recommendations of Finance Commission and consider the dimension and nature of issues involved in contemporary situation prevailing in the country.
EC010205	Statistical Methods for Economic Analysis	CO1	To train students in the use of the most common statistical tools and techniques encountered in economics for analysis of data with valid logical inferences.
		CO2	To gain a clear understanding of the inferential statistics as well as the interpretation of data.
SEMESTER 3			
EC010301	International Economics	CO1	To provide an understanding of the broad principles and theories, which govern the free flow of international trade, with empirical evidence.
		CO2	To provide an exposure to the theoretical underpinnings and empirical evidence of the major trade policies followed both at national and international level.
		CO3	To prepare them to become trade policy-makers and key strategists on trade issues.
EC010302	Econometrics-I	CO1	To demonstrate their understanding of the appropriate econometric methods for analyzing data
		CO2	To interpret computer output for the estimation and testing of econometric relationships; and
		CO3	To interpret and discuss results

EC010303	Heterodox Economics	CO1	To revisit a set of economic concepts that are being extensively used in the economics curriculum--but with a critical stance that concentrates on philosophical and methodological considerations.
		CO2	This course will survey contemporary heterodox approaches to economic research, both from a microeconomic and a macroeconomic perspective.
EC010304	Environment Economics	CO1	To provide students with the tools to understand how market inefficiencies might arise in the presence of externalities like pollution and how market solutions can correct market failures.
		CO2	To equip with analytical skills that would enable the evaluation of environmental and economic policy issues.
		CO3	To enable students to understand the economics of the relationship between economic activities and environmental impacts.
		CO4	To build on the knowledge of students in microeconomics and public economics.
EC010305	Kerala Economy	CO1	To teach the students about Kerala's development experiences in historical perspective and to understand the current economic scenario and their routes in historical and global perspective.
		CO2	To make students aware of burning issues in agriculture, industrial and social sectors of Kerala economy.
SEMESTER 4			
EC010401	International Finance	CO1	To understand different aspects of international finance and financial institutions in a historic cum emerging geopolitical context particularly in that of globalization.
		CO2	To equip students with both fundamental knowledge in international finance, financial institutions and their application in real life.
		CO3	To provide knowledge of these issues and understand about policy-making on issues related to international finance and related institutions.
EC010402	Econometrics-II	CO1	To acquaint with advanced techniques in time-series and panel-data analysis as well as implementation of theory through software applications to gear them towards execution of independent research projects.
		CO2	To use methods and to develop an understanding of how specific empirical questions determine the empirical approach to be used.
		CO3	To introduce students to basic modelling techniques in the analysis of cross-section, panel and time series economic data and to provide them with sufficient econometric training to read the applied literature in core journals which use these standard techniques.
		CO4	To prepare students for analysing data using basic econometric techniques and to interpret the results from regression models, understand how to use instrumental variables to account for endogenous regressors, to estimate binary response models; understand how to set up, estimate and analyze panel data regression models, understand the basic concepts of stationary and nonstationary time series

		CO5	To understand and apply basic linear models for univariate and multivariate time series; understand the concepts of integration and co-integration and how to test for these phenomena in time series.
EC800401	Agricultural Economics	CO1	To expose the students to the concepts, significance and uses of production economics in an agricultural context
		CO2	To provide orientation to the students regarding the agricultural policies and its effect on sustainable agricultural development and to make them to understand the globalization and its impact on agricultural development
		CO3	To expose the students to the various kinds of risk in farming, risk management strategies and mechanisms and insurance policies
		CO4	To apprise students regarding various aspects of agro-food marketing and to develop understanding regarding issues in agricultural markets.
EC800403	Labour Economics	CO1	To expose the students to theoretical as well as empirical issues relating to the labour market.
		CO2	To provide an empirical understanding of the labour market and enable the students to understand applications of formal theoretical models in labour economics to the Indian labour market.
EC800402	Industrial Economics	CO1	To familiarize students with a broad range of the methods and models applied by economists in the analysis of firms and industries
		CO2	To provide a detailed understanding of policy debates involved in industrial development in India.
		CO3	To obtain a glimpse of the recent developments in this field and enhance their analytical skill. This course offers a rich and diverse platform to explore the core of the economic theory, using real-world examples and encouraging unique and innovative problem-solving techniques.
		CO4	To understand basic models of the behavior of firms and industrial organization and how they can be applied to policy issues; be able to manipulate these models and be able to solve analytically problems relating to industrial economics;
		CO5	To familiarize with the history of competition policy and the functioning of different experimental market institutions and the key results of these experiments.

Course Outcomes of M. Com.

Course Code	Course Title	Course Outcomes	
SEMESTER 1			
CM010101	Specialised Accounting	CO1	Providing an in depth understanding about theoretical and practical aspects of major Accounting Standards to apply the same in different practical situations.
		CO2	Ascertain the value of goodwill and value of companies based on the value of shares and compare the real value of shares and with the market prices and identify the mispricing.
		CO3	In depth understanding about the determination of purchase consideration in the event of amalgamation and to prepare post amalgamation financial statements
		CO4	Develop a clear understanding about different types of NBFCs, their provisioning norms and to understand the concept of NAV of mutual funds through its computation.
		CO5	Acquaint with the theoretical aspects of emerging areas in accounting
CM010102	Organisational Behaviour	CO1	Basic understanding about the concepts of organisation behaviour.
		CO2	A very good understanding about individual behaviour, personality and motivation.
		CO3	Imparting deep understanding about group behaviour and leadership related to organisational behaviour.
		CO4	Add the knowledge base of the learner regarding change management and deal with stress.
CM010103	Marketing Management	CO1	The learner should have a basic understanding about concepts like customer centricity, CRM, value chain and customer delight.
		CO2	The learner should get a clear understanding about the market segmentation process and its applications in marketing strategies.
		CO3	Develop an idea about consumer behaviour and its impact.
		CO4	Good understanding about product line, product mix, brand equity, brand identity, brand personality and brand image.
		CO5	Develop sound ideas regarding services marketing and service quality.
CM010104	Management Optimisation Techniques	CO1	Develop theoretical understanding about various business optimisation models.
		CO2	Ability to develop Linear Programming Models for business problems and Solve the same.
		CO3	Application of Linear Programming in the areas of transportation and assignment.
		CO4	Develop decision making skills under uncertainty, risk and replacement of assets.
CM010105	Methodology for Social Science Research	CO1	Develop a thorough understanding about the basic concepts of social science research.
		CO2	After completing this module, the learner should be able to formulate a research design.
		CO3	After studying the theoretical aspects of sampling design, the learner should be able to draw a sampling design.
		CO4	Detailed knowledge about the instrument development, its validation and different forms of scaling.
		CO5	Understand the technique of research reporting.

SEMESTER 2

CM010201	Advanced Corporate Accounting	CO1	The learner should be able to prepare consolidated financial statements of group companies.
		CO2	Preparation of the financial statements of public utility companies and deal with the disposal of surplus.
		CO3	Develop and awareness on the procedure of bankruptcy under the recent Bankruptcy Procedure Code.
		CO4	Familiarising the learner with the accounting procedures of liquidation of companies and preparation of various statements required as per the Companies Act.
		CO5	Basic understanding about the preparation of accounts of some special lines of businesses like shipping, hospitals and hotels.
CM010202	Human Resource Management	CO1	Acquaintance with basic concepts of HRM and performance appraisal.
		CO2	Understanding about human resource development, stress management and work life management.
		CO3	High level knowledge about various aspects of training.
		CO4	Understanding about various aspects of industrial relations so as to evaluate the real cases of industrial relations.
		CO5	Understanding about HR outsourcing HR accounting and HR audit.
CM010203	International Business and Finance	CO1	Familiarisation with globalisation, internationalisation of business and the international business environment.
		CO2	Understanding about theories of international trade, trade barriers and trade blocks.
		CO3	Imparting idea about various economic institutions related to international trade.
		CO4	Achieve high level knowledge about various aspects of international monetary system.
		CO5	Develop an understanding about the international investment environment.
CM010204	Quantitative Techniques	CO1	This course intends to give understanding about the applications of quantitative techniques.
		CO2	This course intends to give understanding about the applications of quantitative techniques.
		CO3	After learning this course, the student should be in a position to identify appropriate parametric test for testing the hypotheses.
		CO4	The learner should be equipped with the skills to identify the most suitable non parametric test for testing a hypothesis.
		CO5	The learner should be equipped with the skills to apply the principles of SQC
CM010205	Strategic Management	CO1	Strong understanding about the theoretical foundations of strategic management.
		CO2	Clear understanding about various models of environmental and internal analysis.
		CO3	Development of an idea about the strategy formulation process at the corporate level.
		CO4	Familiarization with various tools strategic planning and evaluation.
		CO5	Understanding about the modes of implementation and control of strategies.

SEMESTER 3			
CM010301	Strategic Financial Management	CO1	Learn the theoretical foundations of financial management and financial management decisions.
		CO2	Evaluate the feasibility of different options regarding discount, credit period, storage cost etc related to current assets and current liabilities and estimate working capital requirements.
		CO3	Evaluate long term proposals and evaluate the risk associated with long term investment.
		CO4	Evaluate the decisions regarding leasing of capital assets.
		CO5	Evaluate and Compare the performance of business entities.
CM010302	Income Tax - Law and Practice	CO1	Acquire knowledge regarding the basic concepts of Income Tax.
		CO2	Able to compute the income from salary and house property.
		CO3	Determine taxable profit of a business or profession.
		CO4	Able to compute capital gain and income from other sources.
		CO5	Able to calculate Gross Total Income of an individual.
		CO6	Learner shall be able to determine eligible deductions and compute Taxable Income and tax liability of an individual.
CM010303	Security Analysis and Portfolio Management	CO1	Able to understand the concepts of investments, different types of investments, views of investment and process of investment and apply the theoretical knowledge in investment information for selecting the securities
		CO2	Understanding the types of risk in security market and Applying various tools for the valuation of bonds as well as economic indicators to predict the market.
		CO3	Understand the tools of technical analysis, analyse the patterns and trends in the market by using various tools and enable to take investment decisions after understanding market efficiency level also.
		CO4	Applying Modern portfolio theories and construct optimum portfolios.
		CO5	Revising constructed portfolios as per risk and return association by using different strategies.
CM800301	Indirect Tax Laws	CO1	Understand the basic concepts of the Goods and Services Tax
		CO2	Develop a clear idea about the levy and collection of tax and tax credit
		CO3	Develop the knowledge about the provisions regarding registration, preparations of books of accounts and filing of returns under the Act
		CO4	Understand about the powers of GST authorities regarding inspection, search and seizure
		CO5	Basic understanding about the Customs Law in India.
SEMESTER 4			
CM010401	Advanced Cost and Management Accounting	CO1	Apply activity-based absorption methods instead of conventional absorption method.
		CO2	Apply the marginal costing principles in decision making situations of businesses.
		CO3	Dealing with practical cases of pricing decisions in different situations
		CO4	Understand the concepts of standard costing, and the process of cost control through it.
		CO5	Deal with the practical issues related to transfer pricing

CM010402	Income Tax – Assessment & Procedures	CO1	Compute the total income and tax liability of firms and Association of Persons
		CO2	Carry out assessment of companies and determine their tax liability
		CO3	Make the assessment of co-operative societies and trusts.
		CO4	Understanding about the assessment procedures, TDS and advance payment of tax and application in various situations
		CO5	Learn tax planning concepts and apply the same
CM800401	Derivatives and Risk Management	CO1	Knowledge about the derivative market in India, its evolution, types, players, risks involved and basic quantitative foundations
		CO2	Analyze the implications of Risk in the perception of individuals and Institutions and measurement of risks
		CO3	Understand and explain the concept of forward market and its function
		CO4	Analyse the operation and pricing of various types of futures
		CO5	Understand the concepts and methodology of option trading and apply the models of pricing the option contracts
		CO6	Develop an idea of exchanges through swaps
CM800402	Personal Investment and Behavioural Finance	CO1	Understand the meaning and significance of Financial literacy, Financial Discipline & Financial Competency, the role of family and parents in financial socialisation
		CO2	Understand and Evaluate the Significance of savings on financial destiny and its relationship with Consumerism and to understand the different elements/steps in Personal Financial Planning to attain Financial Well Being and Evaluate the different retail investment avenues.
		CO3	Know the meaning of Behavioural Finance, its evolution and related theories
		CO4	To understand different Heuristics, Biases and other Irrational Investment Behaviours
		CO5	Understand the relationship between biases and to adopt techniques to lower the impact of biases