MAR THOMA COLLEGE FOR WOMEN PERUMBAVOOR

TEACHING-LEARNING AND EVALUATION

PROGRAM OUTCOMES, PROGRAM SPECIFIC OUTCOMES & COURSE OUTCOMES

PROGRAMME OUTCOMES

PO1	Apply domain based knowledge to real life situations.
PO2	Acquire strong communication skills to function effectively in diverse socialatmosphere.
PO3	Adopt environmental values to enable sustainable living in the world.

COURSE OFFERED

B.Sc. Zoology- Model I

PROGRAMME SPECIFIC OUTCOMES

PSO1	Understanding basic concepts in Biology.
PSO2	Acquire skills in biological instrumentation for research and applied science.
PSO3	Incorporate environmental and ethical practices in scientific study.

COURSE OUTCOMES

Course Name and Code	Course Outcome Statements
SEMESTER 1. *ZY1CRT0I* GENERAL PERSPECTIVES IN SCIENCE & PROTISTAN DIVERSITY	CO1 : To create an awareness on the basic philosophy of science, concepts and scope CO2 : To understand different levels of biological diversity through the systematic classification CO3 :To impart knowledge on Protistan diversity and parasitic protists.
SEMESTER 11. *ZY2CRT02* ANIMAL DIVERSITY - NON CHORDATA	CO1 : To understand the evolutionary significance of invertebrate fauna CO2 : To understand different levels of biological diversity through the systematic classification of invertebrate faunaCO3 : To familiarize taxa level identification of animals
SEMESTER 1 & 11 COMBINED PRACTICALS *ZY2CRPT01*	CO1: To enable students to identify insects, fishes and snakes using keys. CO2: To make students able to draw scientific images of fauna. CO3: To develop dissection skills and understand ethical preactices.
SEMESTER 111. *ZY3CRT03* ANIMAL DIVERSITY – CHORDATA	CO1 : To acquire knowledge on the diversity of chordates and their systematic position CO2 : To make them aware of the economic importance of some classes. CO3 :To understand the evolutionary importance of selected chordate groups

SEMESTER IV. *ZY4CRT04* RESEARCH METHODOLOGY, BIOPHYSICS AND BIOSTATISTICS	CO1 : To familiarise the learner the basic concepts of animal collection, rearing/ preservation methods, scientific research and its ethical practices. CO2. To develop statistical and analytical skills. research communication and scientific documentation. CO3. To create awareness about the various instruments usedin studies and their principle of action.
SEMESTER 1 & 11 COMBINED PRACTICALS *ZY2CRP02*	CO1: To enhance the scientific drawing skill. CO2: To familiarize students with the sample collection techniquesand apply biodiversity estimation tools. CO3: To practice and develop problem solving skills in connectionwith biostatistics.
SEMESTER V. *ZY5CRT05* ENVIRONMENTAL BIOLOGY AND HUMAN RIGHTS	CO1: To create a consciousness regarding Biodiversity, environmental issues & conservation strategies CO2 : To develop the real sense of Human rights – its concepts & manifestations CO3 : To teach the basic concepts of toxicology, their impact on human health and remedial measures
SEMESTER V. *ZY5CRT06* CELL BIOLOGY AND GENETICS	CO1 : To understand the structure and function of the cell and organelles as the fundamentals for understanding the functioningof all living organisms. CO2 : To emphasize the central role of genes and their inheritance in the life of all organisms CO3 : To develop critical thinking, skill and researchaptitudes in basic and applied biology.
SEMESTER V. *ZY5CRT07* EVOLUTION, ETHOLOGY & ZOOGEOGRAPHY	CO1 : To acquire knowledge about the evolutionary history of Life. CO2 : To study the distribution of animals on earth, its pattern, evolution and causative factors. CO3 : To impart basic knowledge on animal behavioural patternsand their role.
SEMESTER V. *ZY5CRT08* HUMAN PHYSIOLOGY, BIOCHEMISTRY, AND ENDOCRINOLOGY	CO1 : To explain the basic principles of biochemistry useful for biological studies for illustrating different kinds of food, their structure, function and metabolism. CO2 : To explain various aspects of physiological activities of animals and their hormonal control with special reference to humans CO3 :To know about the different experimental methods and designs that can be used for further study and research
SEMESTER V *ZY5OPT02* PUBLIC HEALTH AND NUTRITION ***(OPEN COURSE)***	CO1 : To inculcate a general awareness among the students regarding the real sense of health. CO2 : To understand the role of balanced diet in maintaining health. CO3 : To motivate them to practice yoga and meditation in day-to-day life.
SEMESTER V *ZY6CBT04* NUTRITION, HEALTH AND LIFESTYLE MANAGEMENT ***(ELECTIVE)***	CO1 : To develop an understanding about health and life style management and diseases. CO2 : To understand principles of nutrition and its role inhealth. CO3 : To familiarize the students regarding food safety, foodlaws & regulations.

SEMESTER VI. *ZY6CRT09* DEVELOPMENTAL BIOLOGY	CO1 : To identify the various developmental stages and the possible defects in growth CO2: To understand the process of reproduction in man. CO3 : To develop an understanding about scientific developmentsin the field of Developmental biology.
SEMESTER VI. *ZY6CRT10* MICROBIOLOGY AND IMMUNOLOGY	CO 1: To explain the mechanism of immunity and the role of hormones CO2 :To describe microbial types, contamination sites, sterilization techniques and the ecological significance of microbes. CO3: Enumerate autoimmune and immunodeficiency diseases and immunology of tumor and organ transplantation
SEMESTER VI. *ZY6CRT11* BIOTECHNOLOGY, BIOINFORMATICS AND MOLECULAR BIOLOGY	CO1 : To explain the steps in genetic engineering and animal cell culture and ethical issues of transgenic animals. CO2 : To enumerate the applications of biotechnology CO3 : To gain understanding about the biological databases and molecular visualization softwares.
SEMESTER V1. *ZY6CRT12* OCCUPATIONAL ZOOLOGY	CO1 : To understand the scope of occupational zoology and theprocess involved. CO2 : Give awareness to society about need for waste management and organic farming. C03 :To learn the different resources available and to develop anattitude towards sustainability.
SEMESTER V& V1 COMBINED PRACTICALS *ZY6CRP03* ENVIRONMENTAL BIOLOGY AND HUMAN RIGHTS and CELL BIOLOGY AND GENETICS	CO1: To gain expertise in the basic water quality analysis techniques. CO2: To experientially learn about mitosis and various blood cells.CO3: To identify the sexual dimorphisms of Drosophila and to identify presence of barr body experimentally.
SEMESTER V& V1 COMBINED PRACTICALS *ZY6CRP04* EVOLUTION, ETHOLOGY & ZOOGEOGRAPHY; HUMAN PHYSIOLOGY, BIOCHEMISTRY, AND ENDOCRINOLOGY	CO1: Identify zoogeography realms and endemic organisms, aswell as connecting links. CO2: To understand about different animal behaviours and ethological techniques. CO3: To be able to perform basic hematological tests andqualitative analysis of proteins, starch, lipids and glucose.
SEMESTER V& V1 COMBINED PRACTICALS *ZY6CRP05* DEVELOPMENTAL BIOLOGY AND MICROBIOLOGY AND IMMUNOLOGY	CO1: To be able to perform candling experiment, gram staining and blood grouping. CO2: To familiarize students with the techniques and tools in microbiology, reproductive biology and embryology. CO3: To dissect and identify anatomical differences between maleand female cockroach.
SEMESTER V& V1 COMBINED PRACTICALS *ZY6CRP06* BIOTECHNOLOGY, BIOINFORMATICS AND MOLECULAR BIOLOGY; OCCUPATIONAL ZOOLOGY	CO1: To test adulteration in honey. CO2: To download and come protein sequence and genome sequences of given organism from NCBI database and analyse data. CO3: To identify economically important species of fishes, earthworms, honey bees, shell fishes.
PROJECT *ZY6PRP01*	CO1: To enhance observation skills, reading and writing skills. CO2: To enable students to compile, sort and analyse data. CO3: To arrive at meaningful conclusion and develop rational thinking

Course- B. Sc Botany Model 1 (Complementary)

PROGRAMME SPECIFIC OUTCOMES

PSO1	Understanding basic concepts in Biology.
PSO2	Acquire skills in biological instrumentation for research and applied science.
PSO3	Incorporate environmental and ethical practices in scientific study.

COURSE OUTCOMES

Course Name and Code	Course Outcome Statements
SEMESTER 1. *B01CMT01-* *Cryptogams, Gymnosperms, and Plant Pathology*	CO1 : To describe the common algae, fungi, lichen, Bryophytes, pteridophytes, Gymnosperms. CO2 : To classify flora on the basis of their origin. CO3 : To identify and understand the Common plant diseases to and solve problems concerned with common crop plants.
SEMESTER 11. *B02CMT02-* *Plant Physiology*	CO1 : To describe seed germination,mineral nutrition and vernalization CO2 : To illustrate the process of photosynthesis, water absorption, mineral nutrition, seed germination etc. CO3:To understand the role of plant hormones.
SEMESTER 1 & 11 COMBINED PRACTICALS *B02CMP02- Cryptogams, Gymnosperms, and Plant Pathology and Plant physiology*	CO1: To understand the vegetative reproductive life cycle of microsporic plants. CO2: To get familiarized with common crop plant diseases in nature and recognize its causative organisms (microscopic). CO3: To create an awareness about plant physiological process as a part of our life existence.
SEMESTER 111. *B03CMT03* *Angiosperm taxonomy and Economic Botany*	CO1 : To recognize the plants seen in our vicinity through morphological observation. CO2 : To tell the economic importance of some classes of plants and plant products. CO3:To familiarize with angiosperm families.
SEMESTER IV. *B04CMT04* *Anatomy and Applied Botany*	CO1 : To describe the internal structure of plants. CO2. To develop practitioner skills in plant propagation. CO3:To enable students to achieve plant improvement techniques.
SEMESTER 111 & 1V COMBINED PRACTICALS *B04CMP04*	CO1: To enable students to easily identify plants through their morphological characters. CO2: To do plant propagation using artificial propagation techniques.
	CO3: To understand and observe the leaf and stem anatomy.

COURSE OFFERED

M.Sc. Zoology

PROGRAMME SPECIFIC OUTCOMES

PSO1	Understanding the concepts in Biological Sciences.
PSO2	Acquire skills in Biological Instrumentation for research and applied sciences.
PSO3	Incorporate environmental and ethical practices in scientific study.

COURSE OUTCOMES

Course Name and code	Course outcome statements
SEMESTER I ZL010101 - Animal Diversity:Phylogenetic and Taxonomic Approaches	CO1 -Understand the classification and phylogeny of animals CO2-Describe general characteristics, classification of invertebrates and vertebrates. CO3-Describing general taxonomic rules on animal classification
SEMESTER I ZL010102 – Evolutionary Biology and Ethology	CO1-Understand the process of biological evolution. CO2-Analyze evolution at molecular level. CO3-Understand animal behavior and response of animals todifferent instincts.
SEMESTER I ZL010103-Biochemistry	CO1-Understand the structure, properties ,formation and functions of various biomolecules CO2-Explain major metabolic pathways. CO3-Understand the major concepts in Enzymology.
SEMESTER I ZL010104 – Biostatistics and Research Methodology	CO1-Understand the methods of data collection, tabulation and presentation. CO2-Apply various statistical tests and problem solvingmethods for data analysis. CO3-Acquire skills in writing scientific literatures.
SEMESTER I ZL010105 – Evolutionary,Ethological and Biochemical Approaches and Methods	CO1- Understand the scientific classification and biological and phylogenetic significances of various life forms. CO2- Understand the behavior pattern of various organismsbased on observation studies. CO3-Demonstrate the biochemical aspects of tissues and fluids using various tests.
SEMESTER II ZL010201 – Field Ecology	CO-1-Understand the diversity of life forms in an ecosystem and their inter- relationships. CO2-Describe the concepts in population ecology. CO3-Understand environmental pollution and their management.
SEMESTER II ZL010202 – Developmental Biology	CO1-Understand the basic concepts of developmental biology. CO2-Explain the genetics of development. CO3-Understand the application of developmental biology on human welfare.
SEMESTER II ZL010203 – Genetics and Bioinformatics	CO1-Understand the basic principles and mechanism of inheritance. CO2-Analyze the role of genetics in evolution. CO3-Explore the emerging field of bioinformatics and its tools.
SEMESTER II ZL010204 – Microbiology and Biotechnology	CO1-Understand the basic structural aspects of microbes and their interactions. CO2-Explain the basic tools and techniques in biotechnology. CO3-Familiarize with public policy, biosafety and intellectual property rights issues related to biotechnology
SEMESTER II ZL0102005 – Diversity of Life :Ecological,Embryological ,Hereditary and Microbial Methods and Approaches	CO1- Analyze various quality parameters of water and soil. CO2- Understand various developmental stages, genetic problems and gene mapping CO3- T o become skilled in using various bioinformatics tools and microbiological methods.

SEMESTER III ZL010301- Animal Physiology	CO1-Explain the structure and functions of various organs. CO2-Compare the functioning of various organ systems across the animal field. CO3-Understand the concepts of endocrinology.
SEMESTER III ZL010302- Cell and Molecular Biology	CO1- Explain the structural and functional details of cells at molecular level. CO2-Understand various signaling pathways that regulate different physiological processes. CO3-Understand the concepts of gene regulation and expression,cell cycle and cancer.
SEMESTER III ZL010303-Biophysics,Instrumentation and Biological Techniques	CO1-Understand the biological system and processes based on physical principles. CO2-Familiarize with the tools and techniques of various instruments available for biochemical and biophysical studies. CO3-Training the operational skills of different instruments required in Zoology.
SEMESTER III ZL010304- Immunology	CO1-Understand the basic components of immune system. CO2-Explain the role of immunology in organ transplantation. CO3-Analyze the new developments in immunology and its role in human health and well-being
SEMESTER III ZL010305 –Molecular,Physiological and Immunological Methods and Approaches in Biosciences	CO1- Perform micrometric,microscopic andchromatographic techniques. CO2- Demonstrate various histochemical staining methods. CO3- Understand nerve and muscle physiology using virtual practical methods.
SEMESTER IV ZL810401 –Environmental Science: Concepts and Approaches (Elective)	CO1-Understand the components of environment and influence of man on environment. CO2-Equip various tools and techniques for the study of environment. CO3-ExplorE new strategies for management and conservation of environment.
SEMESTER IV ZL810402-Environmental Pollution and Toxicology (Elective)	CO1-Understand the types, sources and effects of various kinds of pollution. CO2-Explain the tools and techniques for the control and management of various kinds of pollutants. CO3-Analyze the effect of various toxicants and their monitoring measures.
SEMESTER IV ZL810403-Environmental Management and	CO1-Understand the basic principles of environmental management. CO2-Explain the concept and steps of Environmental Impact
Development (Elective)	Assessment. CO3-Understanding the concepts of sustainable development and principles of disaster management.
SEMESTER IV ZL810404-Environment science	CO1- Test various soil ,water and air quality parameters using standard tests. CO2- Elucidate histopathological changes in tissues. CO3- Understand the biodiversity and ecological interactions in a nearby ecosystem.

SEMESTER IV ZL010401 - Project	CO1- Explore the methods and techniques in various fields of Biology. CO2- Skilled in scientific paper writing. CO3- Pursue the field of research.
SEMESTER IV ZL010402- Viva	CO1- Developing thorough knowledge in Zoology. CO2- Update the knowledge in field of Biology..

B.Sc. MATHEMATICS MODEL I

UNDER GRADUATE PROGRAMME SPECIFICOUTCOMES

	After the completion of the programme, the students will be able to:
PSO1	Utilize the mathematical tools to face the modern challenges in Mathematics.
PSO2	Acquire analytic and problem solving skills for careers and graduate works.
PSO3	Provide a holistic and logical framework in specific areas of Mathematics.

B.Sc. COURSE OUTCOMES

Sl. No.	Name of the Paper	Course Outcomes After the completion of the course, the students will be able:
1	**SEMESTER I** Core Course: MM1CRT01 Foundations of Mathematics	**CO1 :** To explain the concepts of mathematical logic methods. **CO2 :** To illustrate the idea of sets, functions and relations **CO3 :** To solve polynomial equations using numerical methods.
2	**SEMESTER II** Core Course: MM2CRT02 Analytic Geometry , Trigonometry and Differential Calculus	**CO1 :** To interpret the ideas of conic sections, tangents and normal to a conic and their properties. **CO2 :**.To apply the concepts of trigonometric functions, their properties and summation of trigonometric series. **CO3 :** To solve problems involving successive differentiation and indeterminate forms.
3	**SEMESTER III** Core Course: MM3CRT03 Calculus	**CO1 :** To determine series expansions of given functions and, curvature and related parameters of given curve. **CO2 :** To calculate the partial derivatives, maxima and minima of functions and Lagrange multipliers for extremum problems. **CO3 :** To solve the area and volume problems using multiple integrals.

4	**SEMESTER IV** Core Course: MM4CRT04 Vector Calculus, Theory of Numbers and Laplace transform	**CO1 :** To examine the applications of vector valued functions and vector integration. **CO2 :** To apply the concept of congruence, Fermat's theorem, Wilson's theorem and Euler's phi function. **CO3 :** To determine the Laplace transform of a given function.
5	**SEMESTER V** Core Course: MM5CRT05 Mathematical Analysis	**CO1 :** To use the ideas of finite and infinite sets and the properties of set of real numbers. **CO2 :** To detect the convergence and divergence of sequence and series. **CO3 :** To apply the concept of limit of functions.
6	**SEMESTER V** Core Course: MM5CRT06 Differential Equations	**CO1 :** To explain the concepts of nature of solutions of differential equations, exact equations and homogeneous equations **CO2 :** To determine the solutions of second order linear differential equations and first order partial differential equations using different methods. **CO3 :** To compute the solutions of second order linear differential equations using the power series method.
7	**SEMESTER V** Core Course: MM5CRT07 Abstract Algebra	**CO1 :** To demonstrate different group structures and the basic results related to them. **CO2 :** To analyse the concepts of homomorphism of groups and factor groups using theorems and examples. **CO3 :** To explain the concepts of ideals and factor rings from the concepts of normal subgroups and factor groups.
8	**SEMESTER V** Core Course: MM5CRT08 Human Right and Mathematics for Environmental Studies	**CO1 :** To explain different kinds of environmental pollution and its causes. **CO2 :** To apply knowledge about Fibonacci numbers and Golden ratio. **CO3:** To describe various rules protecting human rights.
9	**SEMESTER V** Open Course: MM5OPT02 Applicable Mathematics	**CO1 :** To apply shortcut methods for solving problems. and improve mathematical skills **CO2 :** To describe the definitions of trigonometric ratios. **CO3 :** To acquire the basic arithmetic skills involving percentage, average, time and distance and elementary algebra.
10	**SEMESTER VI** Core Course: MM6CRT09 Real Analysis	**CO1:** To explain the meaning of continuity ,discontinuity and derivative of a function. **CO2:** To acquire the idea about Riemann integrability and Riemann integration. **CO3 :** To explain uniform convergence of a series.
11	**SEMESTER VI** Core Course: MM6CRT10 Graph Theory and Metric Spaces	**CO1 :** To explain basic concepts of graphs, directed graphs ,weighted graphs, trees, spanning trees, cut vertices and connectivity. **CO2 :** To examine Eulerian and Hamiltonian graphs. **CO3 :** To explain the basic concepts of metric spaces-

		open sets, closed sets and Cantor set, convergence, completeness and continuous mapping in metric spaces.
12	**SEMESTER VI** Core Course: MM6CRT11 Complex Analysis	**CO1 :** To explain the concepts of limit, continuity of complex functions and analytic functions. **CO2 :** To apply the concept of complex integration and the convergence of complex sequence and series. **CO3 :** To detect singular points and residues.
13	**SEMESTER VI** Core Course: MM6CRT12 Linear Algebra	**CO1 :** To illustrate the properties of matrices in solving system of linear equations. **CO2 :** To illustrate the concepts of vector spaces and basic results related to them. **CO3 :** To discuss linear transformation and related concepts using matrices.
14	**SEMESTER VI** Choice Based Course: MM6CBT01 Operations Research	**CO1 :** To apply linear programming problem solving methods and the concept of duality in real world problems. **CO2 :** To solve transportation and assignment problems. **CO3 :** To describe the concept of Game theory.
15	**SEMESTER VI** MM6PRT01: Project	**CO1 :** To demonstrate their own work. **CO2 :** To produce a mature oral presentation of a non-trivial mathematical topic. **CO3 :** To investigate their awareness in relation to the wider research field.
16	**SEMESTER I** Complementary Course: MM1CMT01 Partial Differentiation, Matrices, Trigonometry and Numerical Methods.	**CO1 :** To discuss the concept of partial derivatives. **CO2 :** To practice questions to find the rank of a matrix using elementary transformations and solve linear equations. **CO3 :** To compute summation of infinite series, solutions of algebraic and transcendental equations.
17	**SEMESTER II** Complementary Course: MM2CMT02 Integral Calculus and Differential Equations	**CO1 :** To apply definite integrals to find volumes, length of plane curves and area of surfaces of revolution. **CO2 :** To use multiple integrals to find volume of a solid and area of bounded regions. **CO3 :** To solve first order differential equations and partial differential equations.
18	**SEMESTER III** Complementary Course: MM3CMT03 Vector Calculus, Analytic Geometry and Abstract Algebra	**CO1 :** To solve problems involving vector valued functions, green's theorem, stokes theorem to integrate in vector fields. **CO2** : To illustrate the idea about conic sections, polar coordinates and conics in polar coordinates. **CO3:** To use the concepts of groups, cyclic groups and homomorphism of groups.
19	**SEMESTER IV** Complementary Course: MM4CMT04 Fourier Series, Laplace Transform and Complex Analysis	**CO1 :** To discuss periodic functions, trigonometric series Fourier series and power series method. **CO2 :** To explain Laplace transforms. **CO3 :** To discuss the concepts of complex numbers and analytic functions.

STATISTICS

1	**SEMESTER I** Complementary Course: Descriptive Statistics	**CO1:** To understand the basic knowledge on data collection **CO2:** To discuss the different data summarizing tools. **CO3:** To discuss different types of index numbers and the property satisfied by the good index number.
2	**SEMESTER II** Complementary Course: Probability Theory	**CO1:** To explain the concept of random variable and the probability distributions. **CO2:** To analyse the inter relation between two or more phenomena with the help of curve fitting, correlation –regression analysis. **CO3:** To develop critical thinking in theory of probability and its applications in real life problems.
3	**SEMESTER III** Complementary Course: Distribution Theory	**CO1:** To make a bridge between the elementary statistical tool and probability theory. **CO2:** To understand the standard statistical distribution found in statistical practice and its properties. **CO3:** To develop the knowledge on exact sampling distribution which are essential for statistical inference.
4	**SEMESTER IV** Complementary Course: Statistical Inference	**CO1:** To understand the notation of point and interval estimation of the parametric models and their desirable properties. **CO2:** To understand the problems those are faced in testing a hypothesis with reference to the errors in decision making. **CO3:** To apply the different testing tools like Z-test, t-test, F-test, χ^2 distribution etc. to analyse the relevant real life problems.

M.Sc. MATHEMATICS

POST GRADUATE PROGRAMME SPECIFIC OUTCOMES

	After the completion of the programme, the students will be able to:
PSO1	Evaluate hypothesis, theories, methods and evidence within their proper contexts.
PSO2	Use the concepts and theories of mathematics and their application in the real world to an advanced level in a systematic manner.
PSO3	Prepare for research studies in Mathematics & related fields and enhance career prospects in a huge array of fields.

M.Sc. Course Outcomes

Sl. No	Name of the Paper	Course Outcomes After the completion of the course, the students will be able:
1	**SEMESTER I** ME010101: Abstract Algebra	**CO1 :** To analyze fundamental homomorphism theorem and group action on a set. **CO2 :** To apply isomorphism theorems and Sylow theorems. **CO3 :** To demonstrate the knowledge of factorization of polynomials over a field, ring homomorphism, quotient rings, prime and maximal ideals.
2	**SEMESTER I** ME010102: Linear Algebra	**CO1 :** To illustrate basic concepts of vector spaces and the properties of determinant function. **CO2 :** To differentiate different linear transformations, their algebra and representation of transformations by matrices. **CO3 :** To implement the ideas of canonical forms, characteristic values and annihilating polynomials.
3	**SEMESTER I** ME010103: Basic Topology	**CO1 :** To analyse the concept of topological spaces, base and subbase. **CO2 :** To apply the concept of continuity , quotient spaces and connectedness on different topologies. **CO3 :** To differentiate levels of spaces based on axioms.
4	**SEMESTER I** ME010104: Real Analysis	**CO1 :** To explain theorems associated with bounded variation and rectifiable curves. **CO2 :** To acquire the idea about Riemann-Stieltjes integral and the concept of uniform convergence. **CO3 :** To acquire the idea about special functions.
5	**SEMESTER I** ME010105: Graph Theory	**CO1 :** To discuss about basic concepts of graph theory **CO2 :** To use the application of trees in everyday problems. **CO3 :** To practice problems on Eulerian and Hamiltonian graphs, graph coloring and planarity of graph.
6	**SEMESTER II** ME010201: Advanced Abstract Algebra	**CO1 :**.To explain the properties of finite fields. **CO2 :** To apply the concepts of UFD, ED and field automorphisms **CO3 :** To describe Galois group and Galois theory.
7	**SEMESTER II** ME010202: Advanced Topology	**CO1 :** To explain Urysohn characterization of normality, Tietze characterization of normality, products and co-products. **CO2 :** To analyse embedding lemma, Tychonoff embedding and metrization theorem. **CO3 :** To develop the idea of convergence of nets, compactness and variations of compactness.

8	**SEMESTER II** ME010203: Numerical analysis with Python 3	**CO1 :** To develop basic python programming involving symbolic mathematical operations. **CO2 :** To interpret the concepts of Gaussian elimination, interpolation, curve fitting and finding roots of equations using python programme. **CO3 :** To illustrate the concept of numerical integration using python.
9	**SEMESTER II** ME010204: Complex Analysis	**CO1 :** To explain spherical representation of complex plane and elementary properties of analytic functions. **CO2 :** To analyse power series representation of analytic functions. **CO3 :** To examine the concept of singularities and residues.
10	**SEMESTER II** ME010205: Measure Theory and Integration	**CO1 :** To use knowledge about Lebesgue measure and Lebesgue measurable functions. **CO2:**To describe general measurable space and measurable functions. **CO3:** To apply integration over general measurable space and product measure
11	**SEMESTER III** ME010301: Advanced Complex Analysis	**CO1 :** To apply the concept of harmonic and subharmonic functions. **CO2 :** To explain Weierstrass's theorem, Gamma function, Hadamard's theorem, Riemann zeta function and normal families. **CO3 :**To illustrate Riemann mapping theorem and Weierstrass's theory.
12	**SEMESTER III** ME010302: Partial Differential Equations	**CO1 :** To explain PDEs of first order, second and higher orders. **CO2 :** To apply various analytic methods for computing solutions of various PDEs. **CO3 :** To determine integral surfaces passing through a curve, characteristic curves of second order PDE and compatible systems. **CO4 :** To analyse behavior of solutions of PDEs using technique of separation of variables.
13	**SEMESTER III** ME010303: Multivariate Calculus and Integral Transforms	**CO1 :** To acquire the concepts of integral transforms convolutions and multivariable differential calculus.. **CO2 :** To discuss implicit functions and extremum problems. **CO3 :** To explain integration of differential forms.
14	**SEMESTER III** ME010304: Functional Analysis	**CO1 :** To acquire the concepts of normed spaces, properties of normed space,linear operators on finite dimensional spaces and dual space. **CO2 :** To illustrate inner product spaces and properties of orthonormal sequences using examples and theorems. **CO3 :** To demonstrate different forms of Hahn-Banach Theorems.

15	**SEMESTER III** ME010305: Optimization Techniques	**CO1 :** To determine solutions to linear programming problems and integer programming problems using different methods. **CO2 :** To analyse the concepts of flow and potential in networks and goal programming. **CO3 :** To discuss different methods for solving non-linear programming problems.
16	**SEMESTER IV** ME010401: Spectral Theory	**CO1 :** To distinguish different forms of convergence of operators and open mapping theorem. **CO2 :** To apply the concept of Banach fixed point theorem and properties of resolvent and spectrum. **CO3 :** To discuss properties of compact linear operators, bounded self adjoint linear operators, positive operators and properties of projections.
17	**SEMESTER IV** ME010402: Analytic Number Theory	**CO1 :** To apply the properties of arithmetical functions for solving problems. **CO2 :** To acquire the knowledge about the theory of prime numbers. **CO3 :** To utilize the concepts of congruences, Chinese remainder theorem and Legendre symbol. **CO4 :** To implement Euler's theorem, Wilson's theorem and Mobius inversion formula.
18	**SEMESTER IV** ME800401 (Elective): Differential Geometry	**CO1 :** To interpret the ideas of graphs and level sets, vector fields, the tangent space and vector fields on surfaces and orientation. **CO2 :** To summarize the fundamentals of Gauss map, geodesics and parallel transport. **CO3 :** To describe the ideas of Weingarten map, curvature of plane curves and line integrals,curvature of surfaces and parametrized surfaces.
19	**SEMESTER IV** ME800402 (Elective): Algorithmic Graph Theory	**CO1 :** To implement basic concepts of graphs using algorithms. **CO2 :** To establish the max-flow min-cut algorithm and Menger's theorem for finding connectivity. **CO3 :** To examine algorithms for finding maximum
		matching in bipartite graphs, factorizations and block designs.
20	**SEMESTER IV** ME800403 (Elective): Combinatorics	**CO1:** To apply the concepts of permutation, combinations problems,pigeonhole principle and Ramsey numbers. **CO2:** To use principles of inclusion and exclusion for solving problems. **CO3:** To compute generating functions and recurrence relations.
21	**SEMESTER IV** ME010403 & ME010104: Dissertation and Viva-voce	**CO1 :** To deduce their arguments in a comprehensible and scholarly manner. **CO2 :** To develop the spirit of research in their mind. **CO3 :** To validate scientific integrity.

B.Sc PHYSICS - MODEL II(APPLIED ELECTRONICS)

PROGRAMME SPECIFIC OUTCOMES

PSO1	• Understand the basic concepts, fundamental principles and scientific theories related to scientific phenomena.
PSO2	• Analyze the physical problems and develop optimal solutions using theory and program.
PSO3	• To develop skills in doing programming and practical experiments.

COURSE OUTCOMES

Course Name and Code	COURSE OUTCOME STATEMENT
SEMESTER 1 *PH1CRT01* METHODOLOGY AND PERSPECTIVE OF PHYSICS	CO1 :To understand the contributions of eminent physicists - Newton, Einstein, C. V. Raman, Edison in the development of physics in its historical and cultural context. CO2 :To apply the basic concepts of number system ,binary numbers and mathematical operations and to understand the different types of errors and analyse the data CO3 : To acquire the knowledge about the basic concepts of vector calculus.
SEMESTER 2 *PH2CRT02* MECHANICS AND PROPERTIES OF MATTER	CO1 : To acquire the knowledge about oscillations, examples and applications. CO2: To apply the basic concepts of rotational mechanics to different physical systems. CO3 :To study the basic ideas of elasticity and apply the theory to practical systems
SEMESTER 3 *PH3CRT03* OPTICS ,LASERS AND FIBER OPTICS	CO1 : To develop basic knowledge of the physics behind interference, diffraction and polarization. To Understand the principle of operation of laser and the light propagation in optical fibres. :Be able to outline the important applications of lasers and optical fibres in the modern society.
SEMESTER 4 *PH4CRT04* SEMICONDUCTOR PHYSICS	CO1 : Be able to understand the current-voltage characteristics of a P-N junction diode, Zener diode and bipolar junction transistor, their constructions using different circuit configurations and analyze its operations and working in different electronic circuits. CO2 : To understand the basic concepts of transistor , transistor biasing and amplification. CO3 : Be able to design and construct transistor amplifier, and evaluate its gain, input and output resistances, frequency response and bandwidth. CO4 : Help to identify types of modulation, and also understand the concept of Op amp.

SEMESTER 5 *PH5CRT05* ELECTRICITY AND ELECTRODYNAMICS	CO1 : Be able to solve electrodynamics problems using the fundamental equations through advanced mathematical steps tools like vector calculus. CO2 : Study in depth the alternating current response of RC, LC, LR and LCR series circuits, which is essential in understanding the working of electronic circuits. CO3 : Be able to understand the concept of electromagnetic waves , and applications.
SEMESTER 5 *PH5CRT06* CLASSICAL AND QUANTUM MECHANICS	CO1: Acquire the knowledge about the concepts of Newtonian mechanics, Langrangian dynamics, Hamiltonian mechanics, Lorentz transformations . CO2 : understanding the limitations of classical physics , and the mathematical foundations of quantum mechanics. CO3 : Be able to solve the Schrödinger equations , Dual nature of particles , uncertainity principle etc.
SEMESTER 5 *PH5CRTO7* DIGITAL ELECTRONICS AND PROGRAMMING	CO1 : Understand different number systems as well as the arithmetic operations, digital codes, logic gates, Boolean laws, D' Morgan's theorem CO2 :Analyze, Design and implement combinational logic gate circuits. CO3 : Have deep knowledge in the C++ programming language.
SEMESTER 5 *PH5CRTO8* ENVIORNMENTAL PHYSICS AND HUMAN RIGHTS	CO1 : To gain knowledge in various energy sources CO2 :To gain knowledge on environmental pollution CO3 : To understand the different environmental issues and the management
SEMESTER 5 OPEN COURSE *PH5OPT02* PHYSICS IN DAILY LIFE	CO1: Explain physics related phenomenon using basic physics principles . CO2 : To understand the basic concets of temperature and temperature scales. CO3 : To Acquire the knowledge about waves,lasers etc.
SEMESTER 6 *PH6CRT09* THERMAL AND STATISTICAL PHYSICS	CO1 : Develop skills in the problem solving using the concepts of heat and thermodynamics. CO2: Introduce applications of thermodynamics to heat engines such as Carnot engine, Otto engine and Diesel engine and the principle of refrigerator. CO3: Develop an appreciation of the concepts of order, disorder and entropy and an understanding of the heat as an energy.
SEMESTER 6 *PH6CRT10* RELATIVITY AND SPECTROSCOPY	CO1 : To acquire the knowledge about the atomic spectra, principle of ESR and NMR . Rotational, vibrational, electronic and Raman Spectra of molecules. CO2 : Fine structure of hydrogen, effects of spin-orbit interaction, atomic spectra. CO3: To understand the special theory of relativity.
SEMESTER 6 *PH6CRT11* NUCLEAR , PARTICLE PHYSICS AND ASTROPHYSICS	CO1 : Understand and explain the general properties of nuclei, nuclear structure and nuclear models. CO2: Understand the basic knowledge of elementary particles CO3: Account for the nuclear fission and fusion processes.

SEMESTER 6 *PH6CRT12* SOLID STATE PHYSICS	CO1 : To explain the fundamental features of crystalline solids, metallic conduction through free electron model, Properties of insulators and semiconductors, band theory of solids, dielectric and magnetic properties of materials. CO2 : To acquire the knowledge about the basic of solid state physics such as Miller indices, reciprocal lattice, Brillouin Zones, Bragg's law, Fermi surface, Hall effect, magneto resistance, AC conductivity, Bloch theorem, Kronig-Penney model, Langevin theory, Clausius Mosotti Equation. CO3: Understand the relation between conductors ,insulators and superconductivity.
SEMESTER 6 CHOICE BASED COURSE *PH6CBT02* MATERIAL SCIENCE	CO1 : Understand the types of imperfections and diffusion mechanisms in solids CO2: Describe crystalline and non crystalline materials CO3: To understand the principles of various characterization techniques.
Complementry physics for mathematics **semester 1** *PH1CMTO1* Properties of matter and error analysis	CO1: To describe the different types of errors. CO2:To understand the basic concepts of elasticity and different types strain etc. CO3: To provide the knowledge about different types of flows, theorems .
Semester 2 *PH2CMT01* Mechanics and astrophysics	CO1: To learn the fundamentals of harmonic oscillators, including damped and forced oscillators CO2:: Describe the evolution and death of stars CO3: To understand the basic concepts of gravitational force and different types of pendulum.
Semester 3 *PH3CMT01* Modern physics and electronics	CO1: To describe the wave function and derive schrodinger equation . CO2:To interpret the characteristics of a transisror in CB and CE modes. CO3: To verify the truth tables of basic logic gates and universal gates. CO4: To understand the properties of nucleus.
Semester 4 *PH4CMT01* Optics and electricity	CO1:To analyse the different types of polarized light. CO2: To understand the laser action phenomena, properties of laser. CO3: To analyze the behavior of ac/dc circuits based on L,C,R.
Complementary physics for chemistry **Semester 1** *PH1CMT02* Properties of matters and thermodynamics	CO1: To understand the laws of thermodynamics and identify its outcomes. CO2:To understand the basis of mechanics. CO3: To understand the surface tension and surface energy.
Semester 2 *PH2CMT02* MECHANICS AND SUPERCONDUCTIVITY	CO1:To describe the conservation of momentum , force,linear momentum, angular momentum . CO2: To understand the different types of superconductors,and also about messiner effect. CO3:To understand the basic concepts of rotational mechanics.
SEMESTER 3 *PH3CMT02* MODERN PHYSICS AND MAGNETISM	CO1:To analyse the different kinds magnetic materials CO2 : To understand the basic concept of semiconductor diode and rectifiers. CO3: To describe the basic radioactivity and half life period. Co4: To learn about Heisenberg uncertainty principle, photo electric effect.
SEMESTER 4 *PH4CMT02* OPTICS AND SOLID STATE PHYSICS	CO1: To explain the phenomenon of diffraction and interference of light . CO2: To understand the different kinds of polarization and its effect on dielectric constant. CO3: To learn about crystalline , amorphous solids and also calculate packing factor.
Vocational courses **Semester-I** *AE1VOT01* PRINCIPLES OF ELECTRONIC COMPONENTS	CO1: To gain the basic ideas of electronic devices. CO2: To give the basic ideas of switches, types of switches , contact actions and also provide the concept of LCD and LED. CO3: To develop electronic circuits.
Semester-I	CO1 :To learn about measuring instruments such as multimeter etc.

AE1VOT02 ELECTRONIC APPLICATIONS	CO2:To provide the knowledge about tuning circuit and different types of filters CO3: To design electronic circuits
Semester-II *AE2VOT03* BASICS OF POWER ELECTRONICS	CO1: To understand the working of JFET ,MOSFET . CO2: To explain the concept of FET amplifiers. CO3: To develop various amplifying systems
Semester-II *AE2VOT04* POWER ELECTRONICS	CO1 : To provide the basic ideas of thyristor. CO2:To give the information about uni junction transistors and silicon controlled switches. CO3:To understand the ideas about controlled rectifiers.
Semester-III *AV3VOT05* MICRO PROCESSOR AND INTERFACING DEVICES	CO1: To understand concepts of 8085 . CO2: To explain the concept of interrupts in microprocessor and interface between microprocessor. CO3: To develop programs for microprocessors
Semester-III *AE3VOT06* COMMUNICATION ELECTRONICS	CO1: To understand the basic communication system . CO2: To introduce the various modulation and demodulation techniques. CO3: To develop new communication systems
Semester-IV *AE4VOT07* LINEAR INTEGRATED CIRCUITS	CO1: To understand the comparator, integrator and differentiator. CO2: To analyze various op-amp circuit. CO3: To design op-amp circuits for various applications.
Semester-IV *AE4VOT08* APPLICATIONS OF MICROPROCESSORS	CO1: To apply the programming instructions to perform simple programs using microprocessor. CO2: To have a thorough knowledge about the basic concepts of 8051 microcontroller. CO3: To develop programs for microcontrollers.
PHYSICS PRACTICAL **SEM (1 &2)** *PH2CRP01* Mechanics and Properties of Matter	CO1: Develop the ability to collaborate with peers in a scientific / lab environment. CO2: Apply a conceptual and quantitative understanding to solve physics problems relating to mechanics. CO3: To find out the mechanical properties of unknown materials
SEM (3&4) *PH4CRP02* Optics and Semiconductor Physics	CO1: Students would gain practical knowledge of basic electronic circuits and components by performing experiments in laboratory the experiments include: LCR,Transistors, Amplifiers, and Oscillators. CO2: Able to gain practical knowledge by performing various experiments of Electronics, Optics and Radiation. CO3: To develop novel optical systems.
SEM (5&6) *PH6CRP03* Electricity, Magnetism and LASER	CO1: Demonstrate various electromagnetic process. CO2Analyze scientific data relating to electricity and magnetism. CO3: Display critical thinking skills in applying physics knowledge in the experimental process involving electricity and magnetism.
SEM(5&6) *PH6CRP04* Digital Electronics	CO1: To learn basics of digital electronics CO2: Able to identify various Digital circuits CO3: To design digital circuits
SEM(5&6) *PH6CRP05* Thermal Physics, Spectroscopy and C++ Programming	CO1: To learn about basic knowledge of computer. CO2: To develop programs using C++ CO3: To design new thermodynamic systems
SEM(5&6) *PH6CRP06* Acoustics, Photonics and Advanced Semiconductor Physics	CO1: To understand the physical principles and laws that describe phenomena related to acoustic, electromagnetism and optics. CO2: To design and develop new acoustic systems CO3: Students would learn about electronic circuits such as Amplifiers and Oscillators.

COMPLEMENTARY PHYSICS PRACTICAL SEMESTER 1&2 (First Year) *PH2CRP01*	CO1: Develop and apply a conceptual and quantitative understanding to solve physics problems relating to mechanics. CO2: Develop the ability to collaborate with peers in a scientific / lab environment.
SEMESTER 3&4 (Second Year) *PH4CRP02*	CO1: Understand and apply basic concepts of electricity and apply the knowledge of electricity to simple circuits. CO2: Able to learn about optical phenomena such as interference, diffraction and dispersion and do experiments related to optical devices: Prism, grating, spectrometers

B.Sc CHEMISTRY – MODEL I

PROGRAMME SPECIFIC OUTCOMES

PSO1	• To understand the basic concepts of methodology of chemical science.
PSO2	• To develop the practical skills needed to design, conduct and interpret chemical research.
PSO3	• To develop scientific reasoning and analytical problem solving skills.

Course Name and Code	Course Outcome Statement
Semester 1 CH1CRT01 General and Analytical chemistry	CO1: To discuss the basic concepts and methodology of science in general and Chemistry. CO2: Acquire knowledge in instrumental tools used for practicing chemistry and to explain the important analytical techniques. CO3:To describe different types of errors and data analysis.
Semester 2 CH2CRT02 Theoretical and Inorganic Chemistry	CO1: To interpret interest among students in various branches of inorganic chemistry. CO2: To impart essential theoretical knowledge on atomic structure and to create knowledge in chemical bonding. CO3:To acquire the knowledge in periodic table and periodic properties.
Semester 3 CH3CRT03 Organic Chemistry-I	CO1: To acquire knowledge in emerging areas of organic chemistry. CO2: To understand basic concepts of organic chemistry. CO3: To evaluate the principle of classification of organic compounds and to find the nomenclature of organic compounds.
Semester 4	CO1: To impart the students a thorough knowledge about the

CH4CRT04 Organic Chemistry -II	chemistry of some selected functional groups with a view to develop proper aptitude towards the study of organic compounds. CO2: To define various properties and reactions of some organic compounds. CO3: To analyse reaction mechanisms.
Semester 5 CH5CRT05 Environment, Ecology and Human Rights	CO1: To create environmental awareness to understand the sensitivity of environment. CO2: To understand the different environmental issues and its management and to adapt knowledge on environmental pollution. CO3: To develop a sense of responsibility and proactive citizenship.
Semester 5 CH5CRT06 Organic Chemistry-III	CO1: To impart the students a thorough knowledge about the mechanisms of reactions of some selected functional groups in organic compounds. CO2: To compare basic ideas of carbohydrates, heterocyclic compounds. CO3: To obtain basic knowledge on mode of action of drugs.
Semester 5 CH5CRT07 Physical Chemistry I	CO1: To assess the general characteristics of different states of matter. CO2: To explain various defects in solids. CO3: To attain the basic knowledge on surface chemistry and colloids.
Semester 5 CH5CRT08 Physical Chemistry II	CO1: To create a thorough knowledge of the fundamentals of microwave, infra red, Raman, electronic, NMR, and ESR spectroscopy. CO2: To describe concepts of fundamentals of quantum mechanics. CO3: To develop knowledge of fundamentals of spectroscopy and basic molecular spectroscopy.
Semester 5 Open Course CH5OPT01 Chemistry In Everyday Life	CO1: To make insight into the processes involved in the production of soaps, detergents, cosmetics etc. CO2: To illustrate basic knowledge in food science, nanomaterials, drugs, plastics, dyes and paper. CO3:To create elementary ideas on pesticides and fertilizers.
Semester 6 CH6CRT09 Inorganic Chemistry	CO1: To develop a thorough knowledge of the different theories to explain the bonding in coordination compounds. CO2: To improve the level of understanding of the chemistry of organometallic compounds, metal carbonyls and metal clusters. CO3: To explain various inter halogen compounds and bonding in boron compounds and to attain knowledge about some bioinorganic compounds.
Semester 6 CH 6CRT10 Organic ChemistryIV	CO1; To create basic idea about structural elucidation of alkaloids. CO2: To identify the fundamentals of vitamins, lipids and steroids. CO3: To acquire thorough idea in the chemistry of proteins, amino acids and nucleic acids and to identify organic compounds using spectroscopy.
Semester 6	CO1: To compute thermochemical equations and kinetic

CH6CRT11 Physical Chemistry III	equations. CO2: To assess phase diagrams and elementary idea of catalysis. CO3: To generate thermodynamic and kinetics aspects of chemical reactions and phase equilibria.
Semester 6 CH6CRT12 Physical Chemistry IV	CO1: To apply basic concepts of solutions and electrochemistry CO2: To practice knowledge on problem solving skill. CO3: To learn ionic equilibria and electrical properties of ions in solutions.
Semester 6 Choice Based Course CH6CBT01 Polymer Chemistry	CO1:To implement basic ideas of polymer chemistry and polymer technology. CO2: To evaluate the reactions and properties of different polymers. CO3:To detect the applications of different polymers.

COMPLEMENTARY (For Zoology)

Semester 1 CH1CMT01 Basic Theoretical And Analytical Chemistry	CO1: To explain the structure of atom and to develop the basic concept on chemical bonding CO2: To learn the important analytical techniques and to observe various industrial techniques. CO3: Acquire knowledge in instrumental tools used for practicing chemistry.
Semester 2 CH2CMT02 Basic Organic Chemistry	CO1: To discuss fundamental concepts of organic chemistry. CO2: To illustrate the mechanisms in various organic reactions and to imagine about conformations. CO3: To learn about various polymers and its applications.
Semester 3 CH3CMT04 Inorganic And Organic Chemistry	CO1: To assess about nuclear reactions and its applications. CO2: To create idea about various drugs and its mode of action. CO3: To categorize about the ingredients in a cosmetic product and to understand about toxic effects of cosmetics and fast foods.
Semester 4 CH4CMT06 Advanced Bio-Organic Chemistry	CO1: To compare different types of soaps and detergents and to analyse the structure of DNA, RNA etc. CO2: To explain about classification of vitamins, steroids and hormones. CO3: To define carbohydrates and its structure.

PRACTICALS AND PROJECT

For Core Chemistry

Semester 1&2 CH2CRP01 Volumetric Analysis	CO1: To develop skills in different titrations. CO2: To estimate various metals. CO3: To assess complexometric titration, redox titration, acidimetric and alkalimetric titrations.
Semester 3&4 CH4CRP02 Qualitative Organic Analysis	CO1:To compare different functional groups. CO2: To make tests for Nitrogen, Sulphur, Halogens to analyse organic compounds CO3: To identify test for unsaturation and aromatic character.
Semester 5&6 CH6CRP03	CO1: To identify different acid radicals and basic radicals. CO2: To analyse a mixture containing one interfering

Qualitative Inorganic Analysis	radical. CO3: To verify various identification and confirmation tests.
Semester 5&6 CH6CRP04 Organic Preparations And Laboratory Techniques	CO1: To study various organic preparations. CO2: To acquire practical skill in distillation, TLC. CO3: To develop skills in crystallisation, solvent extraction.
Semester 5&6 CH6CRP05 Physical Chemistry Practicals	CO1: To acquire knowledge in conductometric and potentiometric titrations. CO2: To interpret the molecular weight by Rast's method and to observe freezing point. CO3: To measure the CST of water-phenol system and to observe transition temperature of a salt hydrate
Semester 5&6 CH6CRP06 Gravimetric Analysis	CO1: To estimate Barium as Barium Sulphate. CO2: To acquire practical skill in precipitation. CO3: To develop skills in gravimetric analysis.
Semester 5&6 CH6PRP01 Project, Industrial Visit & Comprehensive Viva-Voce	CO1: To develop skills in various industrial techniques. CO2: To observe the working and principle of various industrial techniques. CO3:To analyse graphical datas from the experiment and to develop skills to submit a project report.

For complementary (zoology)

Semester 1&2 CH2CMP01 Volumetric Analysis	CO1: To develop skills in different titrations. CO2: To analyse about acidimetric and alkalimetric titrations. CO3: To acquire skills in permanganometry, dichrometry, iodometry.
Semester 3&4 CH4CMP03 Organic Chemistry Practicals	CO1: To practice tests for Nitrogen, Sulphur, Halogens. CO2: To verify systematic analysis of organic compounds. CO3: To identify test for unsaturation and aromatic character.

B. Com Model 1 Finance and Taxation

Programme Specific Outcome:

PSO 1- Graduates will be able to inculcate rational, diligent and ethical approach to judiciously employ accounting and statistical tools to assist managerial decision making

PSO 2- Graduates will be able to estimate tax liability of an assesseeand file tax returns in Compliance with the Provisions of Income Tax and GST Act.

PSO 3- Graduates will be able to systematically analyse the socio economic and legal paradigms of a business to assess its performance in the contemporary times and its readiness for the future.

Course

Outcome:

Sl No	Name of the Subject	Course Outcomes: After completing the course, the student shall be able to:
1.	Dimensions and Methodology of Business Studies	CO1 Explain the ecommerce framework and its applications CO2 Classify the electronic payment methods and usage of electronic delivery channels CO3 Understanding the concepts and preparation of research reports
2.	Financial Accounting – I	CO1 Related accounting concepts and reproduce financial statements CO2 Understanding and Preparation of Royalty and consignment accounts CO3 Apply the concept of farm accounting
3.	Corporate Regulation and Administration	CO1 Understand the corporate legislations pertaining to the formation of a company CO2 To identify legal contraventions associated to Issue of shares & Administration of Company CO3 To elucidate the provisions concerned with Winding up of a Company
4.	Banking and Insurance	CO1 Outline the concepts of banking CO2 Impart knowledge on the procedure for opening and operation of bank accounts CO3 Understanding the concepts and principles of Insurance
5.	Financial Accounting 2	CO1 Preparing accounts based on hire purchase system CO2 Understand the key concepts of branch accounts CO3 Preparing accounts for dissolution of partnership firm.
6.	Business Regulatory Framework	CO1 Understanding of general principles of Law of contract. CO2 Develop knowledge on special contracts CO3 Understanding the concepts of sale of goods Act
7.	Business Management	CO1 Identify the types and functions of planning and organizing.
		CO2 Outline about the functions of leadership. CO3 Apply the types of communication and techniques of control.
8.	Principles of Business Decisions	CO1 Outline the role of business economics in decision making. CO2 Explain the factors that determine the supply and demand for productive inputs. CO3 Examine the price determination in various market forms.
9.	Corporate Accounts 1	CO1 Acquire the conceptual knowledge of the fundamentals of corporate accounting CO2 Have a comprehensive knowledge about the latest Provisions of the companies act CO3 Gain expertize in preparation of final accounts as per the revised schedule (3)
10	GST	CO1 -Understand the stages of evolution of GST and the structure of GST CO2 -Distinguish between VAT and GST CO3 Evaluate the importance of GST in the growth of Indian economy

11.	Quantitative Techniques for Business 1	CO1 Get highly familiarised with the concept of statistics. CO2 Understanding of the measures of central tendency and dispersion CO3 Develop knowledge on various methods of interpolation and extrapolation
12.	Financial Markets and Operations	CO1 Illustrate the Indian financial system and markets CO2 Identify the types of mutual fund and derivatives. CO3 Explain the functions of stock exchange.
13.	Marketing Management	CO1 Define market and market environment. CO2 Enhance knowledge about the various marketing mix. CO3 Understanding of various pricing strategies.
14.	Corporate Accounts 2	CO1 To provide the students get an idea about Reconstruction of companies CO2 Preparation of Final accounts of banking and Insurance companies CO3 Preparation of accounts for liquidation of companies.
15.	Quantitative Techniques for Business 2	CO1 Describe the association between dependent and independent variables CO2 Compute correlation coefficient using different methods CO3 Estimate regression line and regression coefficient
16.	Financial Services	CO1 Explain Fund based and fee based financial services CO2 -Familiarise with the process of securitisation CO3 Familiarise with the recent trends in financial services
17.	Entrepreneurship Development and Project Management	CO1 Develop entrepreneurial spirit among students CO2 Get sufficient knowledge to start-up ventures with confidence CO3 Familiarize students with the various schemes and Institutions operating for supporting the entrepreneurs
18.	Cost Accounting -1	CO1 Practice the preparation of cost sheet CO2 Provide knowledge for valuation of inventory CO3 To give an exposure on computation of wage rates and allocation of overheads.
19.	Environment Management and Human Rights	CO1 Equip oneself to make an equitable use of natural resources CO2 Understand the social issues related to environment and the necessity to protect it CO3 Familiarise with concepts like Green accounting ,Green marketing and Green banking
20.	Financial Management	CO1 Define and identify the concepts of financial management CO2 Understand capital structure, cost of capital for strategic financial decision making CO3 Gain knowledge of working capital management.
21.	Income Tax 1	CO1. To comprehend the historical evolution & administrative framework of Income Tax in India CO2. To determine the residential status of an individual and his incidence of tax CO3. To compute the taxable income pertaining to Salary,House Property & Business

22.	Cost Accounting 2	CO1 To apply the acquired knowledge in the preparation of job, Batch and process accounts CO2 Applying the knowledge in Operation costing CO3 Develop knowledge in the practical applications of budgetary control
23.	Income Tax 2	CO1 To determine the taxable income arising : on account of transfer of Capital assets & From any other residual income. CO2. To calculate the total income & tax liability of an individual CO3. To comprehend the functions & powers of various regulatory bodies governing the tax system in India
24.	Advertisement and Sales Management	CO1 Recognise the role of advertisement in the marketing mix CO2 Understand ethics in advertisement CO3 Identify the essentials of an effective advertisement appeal
25.	Auditing and Assurance	CO1 Perceiving the basic concepts of auditing and working of an auditor CO2 Understand the role of Auditing and Assurance Standard Board, India CO3 Gaining knowledge in the verification and valuation of assets and liabilities
26.	Management Accounting	CO1 Understand the evolution of Management Accounting CO2 Distinguish between Management, Financial and cost accounting CO3 Develop knowledge in the practical applications of ratios, fund flow and cash flow

B. Com Model 1 Computer Application

Programme Specific Outcome:

PSO1- Apply the knowledge and skills learnt in this programme towards the industrial scenarios of the real world

PSO2- Apply the knowledge and skills gained in computer application software to meet the technological and creative requirements of the industry.

PSO3- Follow ethical values and principles as a responsible citizen and contribute towards society's development

Course Outcome:

Sl No	Name of the Subject	Course Outcomes: After completing the course, the student shall be able to:
1.	Dimensions and Methodology of Business Studies	CO1 Explain the ecommerce framework and its applications CO2 Classify the electronic payment methods and usage of electronic delivery channels CO3 Understanding the concepts and preparation of research reports
2.	Financial Accounting – I	CO1 Related accounting concepts and reproduce financial statements CO2 Understanding and Preparation of Royalty and consignment accounts CO3 Apply the concept of farm accounting
3.	Corporate Regulation and Administration	CO1 Discuss the importance of Companies Act CO2 Elucidate the procedures involved in the formation and registration of the company CO3 Discuss the laws relating to winding up of a company

4.	Banking and Insurance	CO1 CO2 CO3	Outline the concepts of banking Impart knowledge on the procedure for opening and operation of bank accounts Understanding the concepts and principles of Insurance
5.	Financial Accounting 2	CO1 CO2 CO3	Preparing accounts based on hire purchase system Understand the key concepts of branch accounts Preparing accounts for dissolution of partnership firm.
6.	Business Regulatory Framework	CO1 CO2 CO3	Understanding of general principles of Law of contract. Develop knowledge on special contracts Understanding the concepts of sale of goods Act
7.	Business Management	CO1 CO2 CO3	Identify the types and functions of planning and organizing. Outline about the functions of leadership. Apply the types of communication and techniques of control.
8.	Principles of Business Decisions	CO1 CO2	Outline the role of business economics in decision making. Explain the factors that determine the supply and demand
		CO3	for productive inputs. Examine the price determination in various market forms.
9.	Corporate Accounts 1	CO1 CO2 CO3	Acquire the conceptual knowledge of the fundamentals of corporate accounting Have a comprehensive knowledge about the latest Provisions of the companies act Gain expertize in preparation of final accounts as per the revised schedule (3)
10	Information Technology for Business	CO4 CO5 CO6	Understand about computer based information system. Inculcate knowledge about importance of integration of business information through computer for decision making. Understand the fundamentals of HTML
11	Information Technology for Business (Practical)	CO1	Making experts in most widely used HTML language
11.	Quantitative Techniques for Business 1	CO1 CO2 CO3	Get highly familiarised with the concept of statistics. Understanding of the measures of central tendency and dispersion Develop knowledge on various methods of interpolation and extrapolation
12.	Financial Markets and Operations	CO1 CO2 CO3	Illustrate the Indian financial system and markets Identify the types of mutual fund and derivatives. Explain the functions of stock exchange.
13.	Marketing Management	CO1 CO2 CO3	Define market and market environment. Enhance knowledge about the various marketing mix. Understanding of various pricing strategies.
14.	Corporate Accounts 2	CO1 CO2 CO3	To provide the students get an idea about Reconstruction of companies Preparation of Final accounts of banking and Insurance companies Preparation of accounts for liquidation of companies.
15.	Quantitative Techniques for Business 2	CO1 CO2 CO3	Describe the association between dependent and independent variables Compute correlation coefficient using different methods Estimate regression line and regression coefficient
16.	Information technology for office	CO1 CO2	Understanding of basic computer application Enhance knowledge on MS Office package

16.	Information technology for office(Practical)	CO4 Develop word document using the word package tools CO5 Construct worksheets using Excels advanced functionality. CO6 Demonstrate presentation slides using power point tools.
17.	Entrepreneurship Development and Project Management	CO1 Develop entrepreneurial spirit among students CO2 Get sufficient knowledge to start-up ventures with confidence CO3 Familiarize students with the various schemes and Institutions operating for supporting the entrepreneurs
18.	Cost Accounting -1	CO1 Practice the preparation of cost sheet CO2 Provide knowledge for valuation of inventory CO3 To give an exposure on computation of wage rates and allocation of overheads.
19.	Environment Management and Human Rights	CO1 Equip oneself to make an equitable use of natural resources CO2 Understand the social issues related to environment and the necessity to protect it CO3 Familiarise with concepts like Green accounting ,Green marketing and Green banking
20.	Financial Management	CO1 Define and identify the concepts of financial management CO2 Understand capital structure, cost of capital for strategic financial decision making CO3 Gain knowledge of working capital management.
21.	Computerised Accounting (Theory)	CO1 To acquire basic knowledge in the computerised accounting systems and its application in the area of business CO2 Familiarise the concept of GST and GST compliance in accounts using Tally software
21.	Computerised Accounting (Practical)	CO1 Practical knowledge in Tally ERP.9 software.
22.	Cost Accounting 2	CO1 To apply the acquired knowledge in the preparation of job, Batch and process accounts CO2 Applying the knowledge in Transportation costing CO3 Develop knowledge in the practical applications of budgetary control
23.	Statistical package for Social Science (Theory)	CO1 Read-in, enter, organise, and save data in a suitable way. CO2 Calculate/recode variables and prepare data for analysis. CO3 Conduct descriptive and basic inferential statistics.
23.	Statistical package for Social Science (Practical)	CO1 Practical knowledge in the use of IBM SPSS software.
24.	Advertisement and Sales Management	CO1 Recognise the role of advertisement in the marketing mix CO2 Understand ethics in advertisement CO3 Identify the essentials of an effective advertisement appeal
25.	Auditing and Assurance	CO1 Perceiving the basic concepts of auditing and working of an auditor CO2 Understand the role of Auditing and Assurance Standard Board, India CO3 Gaining knowledge in the verification and valuation of assets and liabilities

26.	Management Accounting	CO1 CO2 CO3	Understand the evolution of Management Accounting Distinguish between Management , Financial and cost accounting Develop knowledge in the practical applications of ratios, fund flow and cash flow

B. A. ENGLISH LANGUAGE AND LITERATURE

MODEL II ADMINISTRATIVE ASSISTANT

I. PROGRAMME SPECIFIC OUTCOMES

PSO1: Comprehend the evolution and contemporaneity of English language and literatures across the world.
PSO2: Apply diverse literary and cultural theories to critically analyse texts.
PSO3: Acquire communication, accounting and IT skills for administerial and business purposes.

II. COURSE OUTCOMES

SEMESTER ONE

Course Code	Title of the Course	Course Category	Hours perweek
EN1CC01	**Fine-tune Your English**	**Common Course -1**	**5**
EN1CCO2(for I B.Sc. Zoology, Maths, Chemistry alone)	**Pearls from the Deep**	**Common Course - 2**	**4**
EN1CR01	**Methodology of Literary Studies**	**Core Course-1**	**5**
EN1CM01(Ad)	**English for Business Communication- 1**	**Complementary Course-1**	**5**
EN1VO01(C)	**Information Technology and Computer Applications**	**Vocational 1**	**5**

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Title of Course	Course Outcomes	Cognitive Level	PO/PSO linked
Fine-tune Your English	CO1: **Define** key terms and concepts of elementary grammar	Remember	PO2
	CO2: **Demonstrate** the knowledge of language and grammar in various levels of language for documentation, conversation and other forms of communication	Apply	PO2

	CO3: **Compare/ Contrast** the different usages of language in various contexts.	Analyze	PO1
Pearls from the Deep(for I B.Sc. Zoology, Maths, Chemistry alone)	CO1: **Define** various literary genres through the works given	Remember	PSO1
	CO2: **Identify** the characteristics of different genres in literature CO3: **Interpret** the relevance of a literary work and its social implications	Understand Apply	PO2
Methodology of Literary Studies	CO1: **Identify** the political and contextual development of literary	Remember	PSO1
	studies.		
	C02: **Outline** the development of literary criticism and theory from traditional to formalistic mode	Understand	PSO2
	CO3: **Apply** the various modes of literary theory and criticism to the samples prescribed for study	Apply	PSO2
English for Business Communication- 1	CO1: **Write** various types of letters required for the smooth functioning of the business CO2:**Prepare** circulars, notices and maintain minutes of the meetings CO3:**Create** effective advertisements for newspapers and souvenirs CO4: **Decipher** the use of memory aids in systematic organization of information.	Understand Understand Create Apply	PSO3 PSO3 PO1 PO1
Information Technology and Computer Applications	CO1:**Understand** the scientific approach of quantification, storing and communication of digital information CO2:**Familiarize** with the practice of reprography CO3:**Retrieve** information as demanded by the end user CO4: **Analyse** various national and international information systems	Understand Understand Apply Analyse	PSO4

SEMESTER TWO

Course Code	Title of the Course	Course Category	Hours per week
EN2CCO3	**Issues that Matter**	**Common Course**	**5**
EN2CC04	**Savouring the Classics**	**Common Course**	**5**
EN2CR02	**Introducing Language and Literature**	**Core Course**	**5**
EN2CM02(Ad)	**English for Business**	**Complementary 2**	**5**

	Communication-2		
EN2VO02(C)	**Computer Applications and DTP(Practical)**	**Vocational 2**	**5**

Title of Course	Course Outcomes	Cognitive Level	PO/PSO linked
Issues that Matter	C01: **Understand** contemporary issues of social, economic and political significance.	Understand	PO3
	CO2: **Analyse** literary texts to identify multiple perspectives in the perception of a problem	Apply	PO1
	CO3: **Write** critical responses to issues we face in real life.	Create	PO2
Savouring the Classics	CO1: **Recall** the early history of classics- "time-testedness" over the ages, depicting universal human conditions	Remember	PSO1
	CO2: **Examine/Illustrate** the Classic texts held as a mirrored reflection of the society	Apply	PSO1
	CO3: **Analyse** various literary features of Classic writing	Analyse	PSO1
Introducing Language and Literature	CO1: **Identify** the evolution of English language and literarture	Remember	PSO1
	CO2: **Classify** the genres and examine techniques of narration	Apply	PSO1
	CO3: **Create/ Identify** the links between literature and film as narrative expressions.	Evaluate	PSO2
English for Business Communication-2	CO1: **Understand** the concept of commercial correspondence CO2: **Familiarize** with terms used in commercial correspondence CO3: **Create** effective messages on the telephone	Understand Understand Create	PSO3 PSO3 PO1

SEMESTER THREE

Course Code	Title of the Course	Course Category	Hours per week
EN3CC05	**Literature and/as Identity**	**Common Course-5**	**5**
EN3CR03	**Harmony of Prose**	**Core Course-3**	**4**
EN3CR04	**Symphony of Verse**	**Core Course-4**	**5**

EN3CM03	**Evolution of Literary Movements: The Shapers of Destiny**	**Complementary Course-3**	**6**
EN3VO03(Ad)	**Business Accounting**	**Vocational Course-3**	**5**

Title of Course	Course Outcomes	Cognitive Level	PO/PSO linked
Literature and/ as Identity	CO1: **Identify** issues related with social realities and cultural modalities like gender, divisions of class, creed, communal tensions and questions of identity	Identify	PSO 2
	CO2: **Trace** the fissures, the tensions and the interstices present in South Asian regional identities	Understand	PO 1
Harmony of Prose	CO1: **Recall** the different essays read/studied	Remember	PSO1
	CO2: **Identify** the essayists in English language	Remember	PSO1
	CO3:**Analyse** the different types of essay	Analyze	PSO1
Symphony of Verse	CO1: **Explain** the social and cultural specifications of each age in the development of poetry.	Understand	PSO1
	CO2: **Compare/contrast** the poetic techniques used by poets ranging from the sixteenth century to the contemporary age.	Analyse	PSO1
	CO3: **Write** detailed analysis of poems through close scrutiny of concepts and techniques discussed.	Create	PO2
Shapers of Destiny	C01: Comprehend the evolution of English literature by analysing the political and social context of the era	Understand	PSO 2
	CO2: **Analyse** how history shapes and mends the life and literature of people	Analyse	PSO 1
	CO 3: Examine how social context of other countries influenced its literature	Examine	PSO 2
Gems of Imagination	CO1:**Analyse** the lives they have come across the text in the context of their awareness of the real world	Analyze	PO1

	CO2:**Contrast/ Compare** the genres of literature they have learnt so far	Analyze	PSO1
	CO3: **Examine** the texts as reflections of the social order	Apply	PO2

SEMESTER FOUR

Course Code	**Title of the Course**	**Course Category**
EN4CCO6	**Illuminations**	**Common Course**
EN4CR05	**Modes of Fiction**	**Core Course-5**
EN4CR06	**Language and Linguistics**	**Core Course-6**
EN4CM04	**Evolution of Literary Movements: The Cross Currents of Change**	**ComplementaryCourse**
EN4VO04(Ad)	**Office Procedures and Practices**	**Vocational 4**
(Only for B Com)	**Revisiting the Classics**	**Common Course**

Title of Course	**Course Outcomes**	**Cognitive Level**	**PO/PSO linked**
IIluminations	CO1: **Explore** the philosophy of life and appreciate the value of being a human enumerated in literature of different phases	Analyse	PSO 1
	CO2: **Create** insightful perspective towards life in the students by critically analysing the text	Create	PSO 2
Modes of Fiction	**CO1: Identify** the elements of fiction	Remember	PSO1
	CO2: Analyse the language, narrative techniques, figures of speech used in texts	Analyze	PSO1
	CO3: Interpret texts with an awareness of and curiosity for other viewpoints	Analyze	PSO2
Language and Linguistics	CO1: **Analyse** the phonological, morphological and semantic structure of words.	Analyse	PSO1
	CO2: **Demonstrate** how literary theories like strucuralism and poststructuralism has evolved from linguistic principles.	Understand	PSO2
	CO3: **Write** the phonetic transcription of linguistic samples	Apply	PSO1

The Crosscurrents of Change	CO1: **Understand** the interrelationships between historical stirrings and literary awakenings	Understand	PSO 1
	CO2: **Identify** the evolution of momentous happenings in history which had impacted the thinking process and literature of the age CO 3: Interpret the literature of other countries with respect to their social and political revolutions	Identify Interpret	PSO 2 PO 1
Revisiting the Classics	CO1: **Examine/Illustrate** the Classic texts as a reflection of society	Apply	PSO1
	CO2: **Analyse** various literary features of	Analyse	PSO1
	Classic writing		
	CO3: **Discuss** the setting, characters and plot of the texts	Evaluate	PO2

SEMESTER FIVE

Course Code	Title of the Course	Course Category	Hours per week
EN5CROP03	**English for Careers**	**Open Course**	**4**
EN5CR07	**Acts on the Stage**	**Core Course-7**	**5**
EN5CR08	**Literary Criticism and Theory**	**Core Course-8**	**5**
EN5CR09	**Indian Writing in English**	**Core Course-9**	**5**
EN5CREN01	**Environmental Science and Human Rights**	**Core Course**	**5**

Title of Course	Course Outcomes	Cognitive Level	PO/PSO linked
Acts on the Stage	CO1: **Examine** the socio-cultural significance of theatre	Analysis	PO1
	CO2: **Evaluate** one act plays based on theoretical frameworks like postcolonialism and subalternity	Evaluate	PSO2
	CO3: **Examine** the functioning of Shakespearean tragedies	Evaluate	PSO1
Literary Criticism and Theory	**CO1: Recall** the fundamentals of Literary Criticism and Theory as taught in semester 1 Methodology of Literary Studies (EN1CRT01).	Remember	PSO2

	CO2: Illustrate, from the prescribed works, various features and techniques employed in criticism.	Apply	PSO2
	CO3: Construct a critical write-up on any given text (Prose & Poetry)	Create	PO1
Indian Writing in English	CO1: **Identify** literary figures, socio-political milieu of the work	Understand	PSO1
	CO2: **Examine** the evolution of Indian Writing in English in the glocal context.	Analyze	PSO1
	CO3: **Critique** the prescribed works as a reflection of life, culture and society	Evaluate	PO1
Environmental Science and Human Rights	CO1: Understand the scope, importance and need for environmental studies.	Understand	PO 3
	CO2: **Analyse** the extent of environmental problems and become socially responsible citizens CO 3: Examine different solutions to the environmental problems endured by one's own society.	Analyse Examine	PO 1 PO 1
English for Careers	CO1: **Develop** communicative skills required for a successful career	Understand	PO2
	CO2: **Apply** oral and written communication to enhance academic and professional use of language	Apply	PO2
	CO3: **Analyse** the communicative skills required to balance family and career	Analyse	PO1

SEMESTER SIX

Course Code	**Title of the Course**	**Course Category**	**Hours per week**
EN6CB02	**Modern Malayalam Literature in Translation**	**Choice Based Course**	**4**
EN6CR10	**Postcolonial Literatures**	**Core Course-10**	**5**
EN6CR11	**Women Writing**	**Core Course-11**	**5**
EN6CR12	**American Literature**	**Core Course-12**	**5**
EN6CR13	**Modern World Literature**	**Core Course-13**	**5**
EN6PR01	**Project**	**Project**	**1**

Title of Course	**Course Outcomes**	**Cognitive Level**	**PO/PSO linked**

Postcolonial Literatures	CO1: **Recognize** the Eurocentric. notions about identity and culture through literature	Identify	PSO 1
	CO2: Analyse the diverse and complex postcolonial identities in literature and social contexts. CO 3: Dissect the colonised minds of the people of the newly independent nations and prepare them to respect their traditions.	Analyse Analyse	PSO 2 PO 1
Women Writing	CO1: **Discuss** the waves of feminism in the social and cultral framework of global timeline	Understand	PSO2
	CO2: **Compare/ Contrast** various feminisms and prescribed literary texts within this frame.	Analyze	PSO1
	CO3: **Critique** the works through the lens of various critical theories and key concepts	Evaluate	PSO2
American Literature	CO1: **Identify** the socio-cultural contexts in which American Literature evolved	Remember	PSO1
	CO2**: Examine** American prose, poetry, drama and fiction in relation to their historical and cultural contexts	Analyse	PSO1
	CO3: **Evaluate** the various literary movements and their role in the growth	Evaluate	PSO1
	of American Literature		
Modern World Literature	CO1**: Recall** the literatures known to the students and place it in geographical context	Remember	PSO1
	CO2: **Define** the basic tenets of modern world literature.	Remember	PSO1
	CO3: **Apply** the various theoretical elements on any given literary text.	Apply	PSO2
Modern Malayalam Literature in Translation	CO1: **Recognise** the major writers and works of Modern Malayalam literature	Remember	PSO1
	CO2: **Demonstrate** the influence of literary movements from elsewhere in Malayalam literature	Understand	PSO1
	CO3: **Examine** the limitations and possibilities of translation in the different genres	Analyse	PSO2

Project	CO1: **Understand** the basics of research methodology and academic documentation	Understand	PSO2
	C02: **Analyse** a text based on any literary/cultural theory, philosophical thought or theoretical tool	Analyse	PSO2
	CO3: **Prepare** a detailed project report	Create	PO2

B .A. History (Model II, Archaeology & Museology)

COURSE OUTCOMES

Sl. No.	Name of the Paper	Course Outcomes
		After the completion of the course, the students will be able:
1	**SEMESTER I** **Core course: HY1CRT01-** Perspectives and methodologies in social sciences – history	**CO1 :** To familiarize the basic concepts of Social Sciences **CO2 :** To explain the methods and methodologies of social science and History **CO3 :** To apply the theories of social sciences to solve the contemporary social problems.
2	**SEMESTER I** **Vocational Core HY1VOT13 -** Introduction to Archaeology	**CO1 :** To familiarize the basic concepts of Archaeology **CO2 :** To explain the historical evolution of archaeology in India **CO3 :** To apply the basic methods and theories in Archaeology
3	**SEMESTER I** **Complementary Course** Economics 1	**CO1 :** To familiarize the basic concepts of Economics **CO2 :** To understand the methods of economics **CO3 :** To apply the basic economics in human life
4	**SEMESTER II** **Core Course: HY2CRT02-** Understanding Early India: From Hunting Gatherers to Land Grants	**CO1 :** To explore the basic contours of pre-history and historic periods in Early India **CO2 :**.To understand the various social and political constructions of early Indian society **CO3 :** To analyze the various aspects of early Indian society through the scholarship of an inter-disciplinary nature.
5	**SEMESTER II** **Vocational Course HY 2VOT14 -** Methods in Archaeology	**CO1 :** To explore the basic exploration and excavation methods in Archaeology **CO2 :**.To understand Archaeological documentation and application of archaeological dating **CO3 :** To analyze various preservation and conservation techniques in archaeological remains

6	**SEMESTER II** **Complementary Course** Economics 2	**CO1 :** To familiarize the basic concepts of Indian Economy **CO2 :** To understand the basic concept of public Economics **CO3 :** To familiarise the policies and programmes of Indian Economy
7	**SEMESTER III** **Core Course: HY3CRT04-** Cultural trends in pre-colonial Kerala	**CO1 :** To familiarize the ecology and environment of ancient Kerala and south India **CO2 :** To illustrate the social formations of pre-colonial Kerala. **CO3 :** To analyze the transformations of Keralan society in the age of agrarian expansion, maritime trade and state formation
8	**SEMESTER III** **Vocational Course** **HY 3VOT15** - Basics of Museology	**CO1 :** To familiarize the basic concepts of museums and museology **CO2 :** To understand various kinds of museums and their functional aspects **CO3 :** To familiarize the concept of Museum organizations and various legislations related to it
9	**SEMESTER III** **Complementary Course** Basics of Indian Numismatics 1	**CO1**: To familiarize the origin and antiquity of ancient Indian Coinage **CO2**: To Understand various Indian coin series from its historical and archaeological point of view **CO3:** To analyse various manufacturing techniques of coins in relation early series
10	**SEMESTER IV** **Core Course-HY4CRT05** Making of modern Kerala	**CO1 :** To understand the numerous complexities in the formation of modern Kerala **CO2 :** To analyze the various social and religious reform movements of modern Kerala **CO3:** To expose the students to the modern and post-modern trends that the region is experiencing.
11	**SEMESTER IV** **Core Course: HY4CRT06** Researching the Past	**CO1:** To familiarize the students with basic research concepts and techniques **CO2:** To understand different methods of textual criticisms **CO3:** To equip the student to practically do the final semester dissertation

12	**SEMESTER IV** **Vocational Core HY 4VOT16 -** Methods of Museology	**CO1 :** To explore the basic concepts of museums administration and management **CO2 :** To understand various kinds of museums architecture and its kinds **CO3 :** To introduce students the basic concepts on preservation and conservation of archaeological remains
13	**SEMESTER IV** **Complementary Course** Basics of Indian Numismatics 2	**CO1**: To analyze the historical context of Indian Coins **CO2:** Develop critical thinking and skills in interpreting the coins **CO3:** To identify and classify coins and their cultural significance
14	**SEMESTER V** **Core Course: HY5CRT08-** India: Nation in the Making	**CO1 :** To familiarize the concept of Nation state in the light of British conquest of India **CO2 :** To discuss the major impact of British rule in India and the subsequent movements for freedom **CO3 :** To analyze the the transition from religious imagination to perception of a secular state
15	**SEMESTER V** **Core Course: HY5CRT 10 -** Environmental Studies and Human Rights in Historical Outline	**CO1 :** To understand the emerging paradigms in the area of environmental studies and how it linked with the rights of human beings. **CO2:** To create awareness about environmental problems among public at large **CO3:** To analyze the various resources and their problems arising out of their degradation and the major threats for sustainable development
16	**SEMESTER V** **Core Course: HY5CRT07** Inheritance and Departures in Historiography	C**O1**: To study the historiographical trends in different historical epochs **CO2**: To improve understanding in historical perspective **CO3**: To enable the student to learn historical writings
17	**SEMESTER V** **Vocational Core HY 5VOT17 -** Systems of Museology	**CO1 :** To familiarize field conservation techniques and preservation **CO2 :** To understand museum display measures and its implications **CO3 :** To analyze the museum public facility and visitors behavior and responses evaluation

18	**SEMESTER V** **Open Course: HY5OCT01** Introducing Environmental History	**CO1:** To study the essential concepts and concerns in environmental history of India **CO2:** To enhance knowledge in basics of environment in the context of colonialism **CO3:** Understand the basics of environmental methodology and roots of crisis
19	**SEMESTER VI** **Core Course: HY6CRT13-** Capitalism and Colonialism	**CO1 :** To trace the emergence of capitalism in Europe and subsequent scramble for colonies **CO2 :** To identify the major debates of transition from feudalism to capitalism and the subsequent expansion of capitalism as a world system in the light of industrial revolution **CO3 :** To equip the students to analyze the nature of imperialist policies in the light of overall progress of the erstwhile colonies in the post-colonial period
20	**SEMESTER VI** **Core Course: HY6CBT03** Gender Studies	**CO1 :** To explore the various stages in the emergence of Gender studies as a discipline **CO2 :** To analyze the social constructions of Gender **CO3:** To equip the students to raise questions against the conventional gender stereotypes centered around male female dichotomy
21	**SEMESTER VI** **Core Course: HY6CRT11** Making of Contemporary India	**CO1**: to make aware the different historical process involved in the Indian independence movement **CO2:** to study the history of the economic development of the country **CO3**: To identify the challenges in the development of the country
22	**SEMESTER VI** Core Course: HY6CRT12 Understanding Modern World	**CO1**: to study the imperialistic expansion and the resultant changes in the world **CO2:** To draw cause and effect of wars in the world history **CO3**: to illustrate the role of new world organizations and their role in the international scenario
23	**SEMESTER VI** **Vocational Core HY 6VOT18** – Understanding Ancient Indian history through Archaeology	**CO1 :** To familiarize the sources of ancient history and different epigraphical sources **CO2 :** To understand various Numismatics series of ancient India **CO3 :** To explore various types and styles of ancient Indian temple architecture

B.Voc Tourism and Hospitality Management

PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO1 Understand the importance of Indian, Global aspects in tourism business

PSO2 Demonstrative effective Communication Skills

PSO3 To applying managerial, financial and technical skills in the field of tourism and hospitalityindustry

COURSE OUTCOMES

Sl. No	Name of the Paper	Course Outcomes After the completion of the course, the students will be
1.	**SEMESTER 1** General BOCG101: Listening & Speaking Skills in English	CO1: To introduce the students to the speech sounds of English in order to enable them to listen to English and speak with global intelligibility. CO2: To impart basic knowledge of English language grammar to the students CO3: To enable the students to speak English confidently and effectively in a wide variety of situations.
2.	**SEMESTER 1** General BOCG102: Information Technology for Business	CO1: To understand and appreciate the critical role of Information Systems in today's organizations CO2: To a basic knowledge about computer hardware CO3: The basic understanding about the theory and practical aspects of Word Processing Package, Spreadsheet Package and Presentation Package
3.	**SEMESTER 1** General THM1GTO3: Management Process & Organizational Behaviour	CO1: To encompasses the core components of management including planning, organizing, leading and controlling the organizations. CO2: The Importance of women rights and safety in an organisation CO3: To acquire dealing with physical and verbal harassments
4.	**SEMESTER 1** Skill THM1GT04: Hospitality & Resort Management	CO1**:** To understand the classification and categorization of hotel. CO2: To understand the operating & non-Operating departments in a hotel CO3: To introduce hospitality sector to the students and to give an understanding of the link between Hospitality and Tourism industries
5.	**SEMESTER 1** Skill THM1ST05: Tourism Products & Tour Guiding	CO1: To ensure that students have an in-depth knowledge about tourism product and its features CO2: To give an overview of all the tourism resources available in India CO3: To understand the duties and responsibilities of a tour guide

6.	**SEMESTER 1** Skill THM1SP06: Destination Visit & Report	CO1: To experience the tourism industry. CO2: To make observations from the point of view of tourists. CO3: To get practical exposure in destinations.
7.	**SEMESTER 2** General BOCG20: Writing and Presentations Skills in English	CO1: To aware of the fundamental concepts of critical reasoning and to enable them to read and respond critically, drawing conclusions, generalizing, differentiating fact from opinion and creating their own arguments. CO2: To developing appropriate and impressive writing styles for various contexts. CO3: To rectify structural imperfections and to edit what they have written and making academic presentations effectively and impressively.
8.	**SEMESTER 2** General THM2GT02: Principles and Practices of Tourism	CO1: To have a holistic understanding of the concept of tourism. CO2: Fair understanding different forms of tourism, travel motivations, various tourism systems, tourism planning, impacts of Tourism. CO3: To understand practical aspects of Tourism
9.	**SEMESTER 2** General THM2GT03: Front Office Management	CO1: To understand the practical aspects of front office operation in Hotel. CO2: In depth knowledge about Front Office functions which include reservations, registrations, handling customers by followingstandard etiquettes. CO3: To know about front office accounting, methods of handling guest account
10.	**SEMESTER 2** Skill THM2ST04: Housekeeping Operations	CO1: The basic understanding of the housekeeping department and its functions. CO2: The layout of housekeeping department CO3: To know about co-ordination with other departments
11.	**SEMESTER 2** Skill THM2ST05: Meet & Greet service	CO1: To help students have a detailed knowledge about the roles and responsibilities of a Meet & Greet staff CO2: To make students understand the importance of acquiring soft
		skills and professionalism while interacting with guests CO3: To know about effective communication etiquettes
12	**SEMESTER 2** Skill THM2SP06: Hospitality Internship	CO1: To experience the hospitality industry and its functioning. CO2: To closely observe how the hospitality staffs impart their duties professionally. CO3: To get practical exposure of Hospitality Industry
13	**SEMESTER 3** General BOCG301: Principles of Management	CO1: The key knowledge, skills, and competencies in various aspects of management CO2: To encompasses of the core components of management including planning, organizing, leading and controlling the organizations. CO3: To understand nature and processes of management
14	**SEMESTER 3** General THM3GT02: Foreign Language (French/ German)	This course aims at enabling students to have small conversations in a foreign language preferably French or German. This will result in an added advantage to the students when they work as tour guides/escorts in future.

15	**SEMESTER 3** General THM3GT03: Travel geography	CO1: The basic knowledge about Geography CO2: Tourist Destination and attractions of major countries (in brief): Africa and Middle East, Europe CO3: The Geographical components and tourism development
16	**SEMESTER 3** Skill THM3ST04: Tourism Marketing	CO1: To imbibe the students with the knowledge of Service Marketing CO2: To help students to understand how marketing mix and promotions are done in tourism marketing. CO3: It also focuses on the marketing strategies in the new digital age
17	**SEMESTER 3** Skill THM3ST05: Travel Agency and Tour Operation Business	CO1: To give an understanding of the functions of a travel agency and a tour operation CO2: To know about Visa processing, Tour packaging and Itinerary preparation CO3: To familiarize the students with regards to the formalities for setting up a travel agency.
18	**SEMESTER 3** Skill THM3SP06: Responsible Tourism	CO1: To understanding of Community based tourism and sustainable-ecotourism. CO2: It also ensures undertake various community-based activities which in turn result in a better understanding of Responsible Tourism CO3: To know about different responsible tourism projects
19	**SEMESTER 4** General	The course aims to cause a basic awareness about the significance of soft skills in professional and inter-personal
	BOCG401: Soft skills and personality development	communications and facilitate an all-round development of personality
20	**SEMESTER 4** General THM4GT02: Tourism Ethics, Laws and Regulations	CO1: To ensure that the students get basic knowledge regarding the rules and regulations concerning various sectors of tourism industry CO2: To familiarize with the various Government Acts which are related to tourism sector CO3: To understand the legal aspects of Tourism business and regulation of travel related authority
21	**SEMESTER 4** General THM4GT03: Sales, Advertising and Guest Relations In Tourism	CO1: To understanding of various strategies and methods of sales management in tourism industry. CO2: To know about the different methods available for advertising. CO3: The concepts of Customer Relationship Marketing and Guest Relations in Tourism.

22	**SEMESTER 4** Skill THM4ST04: Event Management	CO1: To introduced to the concept of Event Management and learn the step-by-step process of event management CO2: The insight into the entrepreneurial opportunities in event management sector. CO3: To understand the various types of events and its operations
23	**SEMESTER 4** Skill THM4ST05: Tour Packaging and Itinerary Preparation	CO1: To acquire necessary knowledge and skill to prepare different itineraries of Domestic and International CO2: To know the concept of tour cost
24	**SEMESTER 4** Skill THM4SP06: Travel and Tour Internship	To get a practical exposure in tour operations.
25	**SEMESTER 5** General BOCG501: Environmental Studies	CO1: To bring in proper awareness among the Environmental Issues CO2: To build a pro-environmental attitude and a behavioural pattern in society based on sustainable lifestyles CO3: To impart basic knowledge on pollution and environmental degradation
26	SEMESTER 5 General THM5GT02: Managerial Accounts and Finance In Tourism	CO1: To introduce the concept and principles of accounting CO2: To give an overview of Financial Management and Capital Management
		CO3: To understand the basic concept and method of financial management.
27	SEMESTER 5 General THM5GT03: Human Resource Management	CO1: To introduce the concept of Human Resource Management CO2: To familiarized with the various functionalities of HRM CO3: To understand the practical aspects of HR management and its function

28	SEMESTER 5 Skill THM5ST04: Changing Trends & Opportunities in Tourism	CO1: The objective of this course is to give an overview of tourism industry at all levels with the aid of tourist statistics CO2: To impart knowledge to the students regarding the government policies on tourism sector CO3: To understand the changing trends in tourism
29	SEMESTER 5 Skill THM5ST05: Destination Planning and Development	CO1: To impart an in-depth knowledge on Destination Planning and Development CO2: To give an understanding on the institutional framework within which destination management takes place CO3: To understand planning policy of tourism development.
30	SEMESTER 5 Skill	CO1: This enables students to analyze the existing
	THM5SP06: Study Tour and Report	infrastructure and amenities of tourism developmentand examine future prospectus in tourism promotion CO2: To get more exposure in various tourist destinations
31	**SEMESTER 6** General BOCG601: Entrepreneurship Development	CO1: To familiarize t the concept and overview of entrepreneurship with a view to enhance entrepreneurial talent. CO2: To impart knowledge on the basics of entrepreneurial skills and competencies to provide the participants with necessary inputs for creation of new ventures. CO3: To explore new vistas of entrepreneurship in 21st century environment to generate innovative business ideas
32	**SEMESTER 6** General THM6GT02: Research Methodology in Tourism	CO1: To introduce the concept of Research Methodology and familiarize the step-by-step process of research methodology CO2: To give an insight to the students regarding major areas of tourism research
33	**SEMESTER 6** General THM6GT03: Airfares, Ticketing & Airport Management	CO1: The students are introduced to the basics of Airfares, Ticketing and Cargo services. CO2: An overview of airport management and aviation industry of India is given to students

34	**SEMESTER 6** Skill THM6SP04: Project / Dissertation	CO1: To demonstrate their own work. CO2: To produce a mature oral presentation of a non-trivial tourism topic. CO3: To investigate their awareness in relation to the **wider research field.**
35	**SEMESTER 6** Skill THM6SP05: Travel and Tour Internship	To get a practical exposure in tour operations.

B.Voc Fashion Technology and Merchandising

UNDER GRADUATE PROGRAMME SPECIFIC OUTCOMES

	After the completion of the programmer, the students will be able to:
PSO1	.This would enable the graduates completing B.Voc. to make a meaningful participation in accelerating India's economy by gaining appropriate employment, becoming entrepreneurs and creating appropriate knowledge.
PSO2	The proposed vocational programme in B.Voc Fashion Technology and Merchandising will be a judicious mix of skills, professional education related to Fashion Designing, Merchandising, Visual Merchandising, Entrepreneurship development and also appropriate content of general education.
PS03	To provide flexibility to students by means of pre-defined entry and multiple exit points. To integrate NSQF within the undergraduate level of higher education in order to enhance

COURSE OUTCOMES

Sl. No.	Name of the Paper	Course Outcomes After the completion of the course, the students will be able:
1	**SEMESTER – I** BOCG101 LISTENING AND SPEAKING SKILLS IN ENGLISH	**CO1 :** To introduce the students to the speech sounds of English in order to enable them to listen to English and speak with global **CO2** : To enable the students to speak English confidently and effectively in a wide variety of situations. **CO3** : To help the students to improve their reading efficiency by refining their reading strategies.
2	**SEMESTER – I** BOCG102: IT FOR BUSINESS	**CO1:** The objective of the course is to help the student understand . **CO2**: To appreciate the critical role of Information Systems in today's organizations **CO3**: To help the students to improve their Typing speed.
3	**SEMESTER – I** FTMG103 INTRODUCTION TO FASHION BUSINESS	**Co1**:To introduce students to growth of fashion industry. **Co2**:To familiarize students with all major international and Indian Fashion designers, their styles of work and fashion related terms. **CO3**:To create awareness amongst students about the domestic and export garments industries and the various career opportunities and diversification possibilities in the field of fashion.
4	**SEMESTER – I** FTMS9104 TEXTILES & ORNAMENTATION	CO1:To gain knowledge about textile fibers and their uses. CO2: To develop an understanding about various kinds of fabrics, their structure and the utility.

		CO3: To impart knowledge about Textile dyeing and printing.
5	**SEMESTER – I** FTMS105 INTRODUCTION TO FASHION ART	CO1:To introduce students to basic sketching techniques and aspects of human anatomy & importance of fashion illustration. CO2:Drawing a fashion figure or a Croquis with proportion & body movements various poses required for fashion illustration. CO3:Various mediums for sketching and rendering life forms.
6	**SEMESTER – I** FTMS106 PROJECT I-HOME FURNISHING	CO1:To develop a home furnishing collection and adorn it with any of the surface ornamentation techniques. CO2:Students must do this project individually. CO3:Project should be worked out through various production stages under the guidance and approval of the faculty/faculties.
7	**SEMESTER II** BOCG201: WRITING AND PRESENTATION SKILLS IN ENGLISH	CO1:To assist the students in developing appropriate and impressive writing styles for various contexts. CO2:To help students rectify structural imperfections and to edit what they have written. CO3:To equip students for making academic presentations effectively and impressively.
8	**SEMESTER II** FTMG9202 WORLD COSTUME-1	CO1: To Identify costumes with reference to time period and culture. CO2: To Create the realization that costumes, and fashion history lies in the excavated past of archaeology and art. CO3:To Understand the reason of costume evolution from necessity driven basics to flamboyant styles.
9	**SEMESTER II** FTMG9203 GARMENT EQUIPMENT AND MACHINERY	CO1:To understand various textile industry machines, CO2:To operating mechanism and sequences of garment construction methods. CO3:To know more equipments and machineries.
10	**SEMESTER II** FTMS204 ELEMENTS OF FASHION DESIGN	CO1: To familiarize students with the design elements and principles and its application in fashion designing. CO2:To Development of research techniques for individualistic concepts. CO3:Development of surface rendering techniques, build understanding to visualize different features of garment collectively and understand technical details to produce accurate technical.
11	**SEMESTER II** FTMS9205 BASIC PATTERN MAKING & GARMENT CONSTRUCTION	CO1: familiarize students with tools and methodologies of pattern making and sewing. CO2:To understand the language of pattern making and develop the ability to create designs through the flat pattern method. CO3:To enable the students to draft basic bodice block, skirt block and sleeve block.
12	**SEMESTER II** FTMS9206 INTERNSHIP-I -GARMENT MAKING UNIT	CO1: To know the guidance of a recognized supervisor to understand various steps and techniques involved in creation of a garment making. CO2:To get a certificate to prove their identity. CO3:To know the variance of garment making.
13	**SEMESTER III** BOCG301 PRINCIPLES OF MANAGEMENT	CO1: To know the basic introductory and foundational management course. CO2: To enable the students key knowledge, skills, and competencies in various aspects of management. CO3:The course encompasses the core components of management including planning, organizing, leading and controlling the organizations.
14	**SEMESTER III** FTMG302 FASHION MERCHANDISING AND MARKETING	CO1: To develop and understanding of the merchandiser, and merchandising departments in the apparel industry. CO2:Understand the potential and limitation of textile industry from a fashion designers' point of view. CO3:To Developing the expertise for appropriate selection of

		fabrics,trims,and other materials keeping the design/ style/ market in perspective.
15	**SEMESTER III** FTMG303 WORLD COSTUME II	CO1: Identify costumes with reference to time period and culture. CO2: Create the realization that costumes, and fashion history lies in the excavated past of archaeology and art. CO3:Understand the reason of costume evolution from necessity driven basics to flamboyant styles.
16	**SEMESTER III** FTMS304 DRAPING	CO1: To teach the basic principles of draping and to construct garments using draping CO2:To know the variance of draping. CO3:To know the different pathways of draping.
17	**SEMESTER III** FTMS305 -PATTERN MAKING, GRADING AND GARMENT CONSTRUCTION-WOMEN'S WEAR	CO1: To teach the students basic fundamentals of kid's wear and Women's worn. CO2:To enable students to do the proper layout of paper drafts on the fabric. CO3: To make maximum usage of fabric minimum wastage.
18	**SEMESTER III** FTMS306 -PROJECT II - WOMEN'S WEAR	CO1: To Design, make a Pattern, and Construct a Women's Wear. CO2: To get more confidence to do a womemens wear. CO3:To know the variance of women's wear.
19	**SEMESTER IV** BOCG401 SOFT SKILLS AND PERSONALITY DEVELOPMENT	CO1:The course aims to cause a basic awareness about the significance of soft skills in professional . CO2: inter-personal communications CO3: facilitate an all-round development of personality.
20	**SEMESTER IV** FTMG402 EXPORT PROCEDURES AND DOCUMENTATION	CO1: To develop an understanding of various organizational structures and function of various departments. CO2:To know the export procedure with different industries. CO3: To understand the potential and limitations of textile industry from a fashion designers' point of view.
21	**SEMESTER IV** FTMG403 ADVANCED FASHION ILLUSTRATION	CO1: Introduction to Various medium for stylization of croqui. CO2:To make the students capable to create their own style of illustration. CO3:To train students in colour rendering in different media keeping fabric qualities.
22	**SEMESTER IV** FTMS404 COMPUTER AIDED DESIGN	CO1: To introduce students to essential software's. CO2:To know the detailing of coral draw CO3:To know illustrater.it helps for advanced developments in CAD.
23	**SEMESTER IV** FTMS405 PATTERN MAKING AND GARMENT CONSTRUCTION - KIDS WEAR	CO1: To teach the students methods of taking body and form measurements for children's wear. CO2:To teach the construction methods for kid's wear CO3: To Design, make a Pattern, and Construct a kid's wear
24	**SEMESTER IV** FTMS406 INTERNSHIP – II- EXPORT HOUSE	CO1: an apparel exporting firm to understand various steps and techniques involved in exporting. CO2:To get a certificate to prove their identity. CO3:To know the variance of Exporting.
25	**SEMESTER V** BOCG501 ENVIRONMENTAL STUDIES	CO1: To build a pro-environmental attitude CO2:behavioural pattern in society based on sustainable lifestyles. CO3:To impart basic knowledge on pollution and environmental degradation.
26	**SEMESTER V** FTMG502 FASHION FORECASTING	CO1: To enable student's knowledge about prediction of upcoming trends, colours, texture, etc. CO2:To develop their forecasting skill. CO3:To know the trends of fashion.

27	**SEMESTER V** FTMG503 ART APPRECIATION	CO1:To induce the students and appreciation of art through ages & its impact upon lifestyle & fashion. CO2: To create innovative paintings inspired by the characteristics of world art. CO3:To know the application of art in fashion.
28	**SEMESTER V** FTMS504 ACCESSORY DESIGNING	CO1: To teach the students the art of accessory designing. CO2: To develop their creativity. CO3:To know more variety of accessory and development.
29	**SEMESTER V** FTMS505 PATTERN MAKING AND GARMENT CONSTRUCTION- MEN'S WEAR	CO1: : To teach the students basic fundamentals of men's wear. CO2:To enable students to do the proper layout of paper drafts on the fabric . CO3:To make maximum usage of fabric with minimum wastage.
30	**SEMESTER V** FTMS506 PROJECT III- KIDS WEAR	CO1: To Design, make a Pattern, and Construct a Women's Wear. CO2: CO2:To get more confidence to do a Kids wear. CO3:To know the variance of Kids wear.
31	**SEMESTER VI** BOCG601 ENTREPRENEURSHIP DEVELOPMENT	CO1: : To familiarize the students with the concept and overview of entrepreneurship with a view to enhance entrepreneurial talent. CO2: To impart knowledge on the basics of entrepreneurial skills and competencies to provide the participants with necessary inputs for creation of new ventures. CO3:To explore new vistas of entrepreneurship in 21st century environment to generate innovative business ideas
32	**SEMESTER VI** FTMG602 COST ACCOUNTING FOR APPAREL INDUSTRY	CO1: To understand the cost factors and calculation methods CO2:To know the accounting. CO3:To develop the skills.
33	**SEMESTER VI** FTMG603 VISUAL MERCHANDISING	CO1: To understand the various aspects Visual Merchandising. CO2:To know more details about boutique management. CO3:To know more about the props .
34	**SEMESTER VI** FTMS604 THEMATIC LINE DEVELOPMENT	CO1: : Each student will conceptualize and develop a collection of at least five garments. CO2:To know the detailing for selection of a thematic lines. CO3:To know more ideas about the new style,collections,trends etc.
35	**SEMESTER VI** FTMS605 PORTFOLIO PRESENTATION	CO1: : To help students to prepare a competitive portfolio which include best of their skills and talents. CO2:To develop the creativity. CO3:To prepare the final collections.
36	**SEMESTER VI** FTMS606 INTERNSHIP – III - VISUAL MERCHANDISING	CO1: : To understand the various aspects Visual Merchandising. CO2: To get a certificate to prove their identity. CO3:To know the variance of visual merchandising.

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