



JSS MAHAVIDYAPEETHA

JSS COLLEGE OF ARTS COMMERCE AND SCIENCE

(Autonomous, NAAC 'A' Grade and College with Potential for Excellence)

Ooty Road Mysore

List of CO's & PO's (2018-19)



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JSS College of Arts, Commerce and Science

(Autonomous)

Ooty Road, Mysuru 570025

Department: PG Biochemistry

Programme: M.Sc Biochemistry

Semesters: I-IV

Session: 2018-19

Programme Code: BIC

POID	PO
48032	Provides with the necessary knowledge and skills to undertake a career in research, either in industry or in an academic setting
48035	Provides the breadth and depth of scientific knowledge in Biochemistry and allied areas
48036	Equips to apply for a Ph.D. or to gain employment in biochemistry and allied areas
48016	Provides a substantial element of hands-on research experience, with enhanced experimental skills
48022	Demonstrates detailed knowledge and understanding of the principles and theories of biochemistry
48017	Helps to understand the principle techniques of biomolecular structural characterization, including spectroscopy

PSOID	PSO
48044	Global level research opportunities to pursue Ph.D. programme targeted approach of CSIR-NET examination
48052	Enormous job opportunities at all level of chemical, pharmaceutical, food products, life oriented material industries
48061	Specific placements in R&D and quality control or analysis division of nutraceutical, pharmaceutical industries and allied division

Course Title	Course ID	COID	CO
Analytical Biochemistry-I	BCA040	47911	Specify in depth cell fractionation techniques
Analytical Biochemistry-I	BCA040	47912	Write down in details with application, if applicable, chromatography and spectroscopy
Analytical Biochemistry-I	BCA040	47913	Write down in details with application, if applicable, principle and applications of electrophoresis
Analytical Biochemistry-I	BCA040	47914	Understand the classification and characteristics of centrifugation and microscopy
Chemistry and Metabolism of Proteins and Nucleic Acids	BCA050	47922	Identify the details of amino acids and proteins
Chemistry and Metabolism of Proteins and Nucleic Acids	BCA050	47923	Understand in details with application, if applicable, nitrogen metabolism and degradation
Chemistry and Metabolism of Proteins and Nucleic Acids	BCA050	47924	Write down the classification and characteristics of synthesis of amino acids and proteins
Chemistry and Metabolism of Proteins and Nucleic Acids	BCA050	47925	Write down in details with application, if applicable, metabolism of nucleic acids
Experiments in Biochemical Techniques and Enzymology and Seminar	BCA060	47926	Identify the details of spectrophotometer
Experiments in Biochemical Techniques and Enzymology and Seminar	BCA060	47927	Identify the details of specific activity of enzymes
Experiments in Biochemical Techniques and Enzymology and Seminar	BCA060	47928	Deliberate the characteristics of gel electrophoresis
Experiments in Biochemical Techniques and Enzymology and Seminar	BCA060	47929	Deliberate the characteristics of use of pipettes

Enzymology	BCA230	47930	Write down in details with examples enzyme kinetics
Enzymology	BCA230	47931	Identify in details with examples enzyme catalysed reactions
Enzymology	BCA230	47932	Identify the characteristics of cooperativity reactions
Enzymology	BCA230	47933	Learn the classification and characteristics of multienzyme complex reactions
Chemical Principles and Biochemical Reactions	BCA250	47934	Specify in details with examples chemical principles and bonding
Chemical Principles and Biochemical Reactions	BCA250	47935	Write down in depth thermodynamics
Chemical Principles and Biochemical Reactions	BCA250	47936	Learn in details with application, if applicable, stereochemistry
Chemical Principles and Biochemical Reactions	BCA250	47937	Deliberate in depth secondary metabolites
Analytical Biochemistry–II	BCB040	47938	Identify in details with application, if applicable, flow cytometry
Analytical Biochemistry–II	BCB040	47940	Specify the characteristics of biosensor technology
Analytical Biochemistry–II	BCB040	47941	Understand in details with examples spectroscopy
Analytical Biochemistry–II	BCB040	47942	Write down the details of x-ray crystallography
Chemistry and Metabolism of Carbohydrates and Lipids	BCB050	47943	Understand the classification and characteristics of chemistry of carbohydrates
Chemistry and Metabolism of Carbohydrates and Lipids	BCB050	47944	Deliberate the classification and characteristics of bioenergetics
Chemistry and Metabolism of Carbohydrates and Lipids	BCB050	47945	Write down the characteristics of chemistry of lipids
Chemistry and Metabolism of Carbohydrates and Lipids	BCB050	47946	Learn in depth metabolism of lipids
Experiments in Immunology and Biochemical Estimations and Seminar	BCB060	47947	Understand in details with examples antigen antibody reactions
Experiments in Immunology and Biochemical Estimations and Seminar	BCB060	47949	Specify in details with application, if applicable, oils and fats estimation

Experiments in Immunology and Biochemical Estimations and Seminar	BCB060	47950	Understand in depth acid value principle and determination
Experiments in Immunology and Biochemical Estimations and Seminar	BCB060	47951	Identify in details with examples mitosis and meiosis
Immunology and Microbiology	BCB250	47952	Identify in details with examples antigens and antibodies
Immunology and Microbiology	BCB250	47953	Understand the details of cellular basis of immunity
Immunology and Microbiology	BCB250	47954	Identify the classification and characteristics of MHC Complex
Immunology and Microbiology	BCB250	47955	Learn in depth basic concepts of microbiology
Human Physiology and Nutrition	BCB260	47956	Specify the classification and characteristics of blood and respiratory systems
Human Physiology and Nutrition	BCB260	47957	Identify in depth digestive and excretory systems
Human Physiology and Nutrition	BCB260	47958	Learn in details with application, if applicable, concepts of nutrition
Human Physiology and Nutrition	BCB260	47959	Specify the details of vitamins and minerals
Cell Biology, Endocrinology and Cell Signaling	BCC070	47961	Specify in details with examples cellular organization
Cell Biology, Endocrinology and Cell Signaling	BCC070	47962	Learn the characteristics of endocrinology
Cell Biology, Endocrinology and Cell Signaling	BCC070	47963	Learn in depth cell signaling
Cell Biology, Endocrinology and Cell Signaling	BCC070	47964	Write down the characteristics of membrane biology

Clinical Biochemistry	BCC050	47965	Identify in details with application, if applicable, specimen collection and analysis
Clinical Biochemistry	BCC050	47966	Specify in details with application, if applicable, metabolic disorders
Clinical Biochemistry	BCC050	47967	Write down the characteristics of hormonal disorders
Clinical Biochemistry	BCC050	47968	Write down in details with application, if applicable, hematology
Biotechnology	BCC230	47973	Understand the concepts of biotechnology
Biotechnology	BCC230	47974	Provide examples of current applications of biotechnology
Biotechnology	BCC230	47975	Explain the concept and application of enzyme technology
Biotechnology y	BCC230	47976	Explain the general principles of generating transgenic plants, animals and microbes
Experiments in Clinical Biochemistry and Molecular Biology	BCC060	47977	Specify the details of urine and blood analysis
Experiments in Clinical Biochemistry and Molecular Biology	BCC060	47978	Specify the characteristics of determination of enzyme activity
Experiments in Clinical Biochemistry and Molecular Biology	BCC060	47979	Identify the classification and characteristics of DNA quantification and analysis
Experiments in Clinical Biochemistry and Molecular Biology	BCC060	47980	Deliberate the details of isolation of nucleic acids from plant, animal and microbial sources
Molecular Biology and Gene Regulation	BCD010	47981	Write down the characteristics of DNA characteristics and replication
Molecular Biology and Gene Regulation	BCD010	47982	Write down in depth Transcription and regulation
Molecular Biology and Gene Regulation	BCD010	47983	Learn in depth translation
Molecular Biology and Gene Regulation	BCD010	47985	Identify in depth translational regulation

Genetics and Genetic Engineering	BCB070	47986	Understand the importance of plasmids and viruses to genetic engineering.
Genetics and Genetic Engineering	BCB070	47987	Understand the principle of Mendelism and gene development
Genetics and Genetic Engineering	BCB070	47988	Describe how mutations occur and scope of population genetics
Genetics and Genetic Engineering	BCB070	47989	Explain the principle of genetic engineering
Nutrition and Health	BCC740	47990	Identify the details of basic concepts of nutrition
Nutrition and Health	BCC740	47991	Learn in details with application, if applicable, nutrients
Nutrition and Health	BCC740	47992	Deliberate in details with application, if applicable, nutrition associated problems
Nutrition and Health	BCC740	47993	Write down in depth social health problems
Project Work OR Dissertation	BCD060	47994	Identify the classification and characteristics of literature survey
Project Work OR Dissertation	BCD060	47995	Learn in depth define of objective of project work
Project Work OR Dissertation	BCD060	47996	Write down the classification and characteristics of design of experimental methods
Project Work OR Dissertation	BCD060	47997	Understand the details of result analysis and interpretation

JSS Mahavidyapeetha
JSS College of Arts, Commerce and Science
Ooty Road, Mysuru – 570 025, Karnataka, India
2018-19

Name of the Department: PG Department of Chemistry
Programmes offered: M.Sc. in Chemistry

Course outcomes

Course Title	Course Code	CO No./Id	CO Statement
Fundamentals of Chemical Analysis	CHA 090	CO1	This course in analytical chemistry will make students to get emphasized on quantitative (and sometimes qualitative) methods of analysis with relevant equilibrium chemistry.
		CO2	Learning this course content will develop the ideas with the fundamental aspects in analytical chemistry.
		CO3	Students will be enriched with explored topics such as experimental design, sampling, calibration strategies, standardization, optimization, statistics, and the validation of experimental results.
		CO4	These topics will build the interest in students in developing good experimental protocols, and in interpreting experimental results.
		CO5	Analytical knowledge for the quantitative analysis of various samples of different origin is best sowed among the students under titrimetric aspects.
		CO6	The statistical aspects are learnt and from which the spirit of assessing the results will be enhanced.
		CO7	Method development and validation features will become familiar so that they will become outstanding basement for their career in various industries.
Inorganic Chemistry-I	CHA 100	CO1	Understand the details of Molecular symmetry and group theory and applications, Representation of groups.
		CO2	Learn in details with examples VSEPR model, Non-aqueous solvents, Electron deficient compounds, Lanthanides & Actinides.
		CO3	Understand the classification and characteristics of Organometallics of transition metals.
		CO4	Specify in depth Ferrocene and ruthenocene, Complexes containing alkene, alkyne, arene and allyl ligands.
Organic Chemistry-I	CHA 110	CO1	Learn in details with examples Stereoisomerism, Stereoselectivity, Optical, Geometrical, isomerism and Conformational isomerism
		CO2	Understand in details with examples Molecular rearrangements, Carbon to carbon migration, Carbon to nitrogen migration.
		CO3	Learn the classification and characteristics of Heterocyclic chemistry.
Physical Chemistry-I	CHA 120	CO1	Learn in depth Concepts of entropy and free energy, Partial molar properties.
		CO2	Learn the details of Fugacity, Statistical thermodynamics.
		CO3	Learn the details of Chemical Kinetics, Kinetics of reactions in solution, Linear free energy, Enzyme kinetics.
		CO4	Learn the characteristics of Electrochemistry, Energetics of cell reactions, Corrosion.
Analytical Chemistry Practicals	CHA 050	CO1	Learn in depth selection of analytical methods with suitable techniques.
		CO2	Understand in depth classical and instrumental methods.
		CO3	Learn in depth quantification of individual analytes.
		CO4	Identify the details of quantification of individual analytes.
Inorganic Chemistry Practicals	CHA 060	CO1	Specify the details of reagents required for analysis.
		CO2	Understand in depth experiment for quantitative analysis of inorganic samples such as ore, metals, complexes mixture of metals and complexes etc.
		CO3	Understand the classification and characteristics of semi-micro qualitative analysis.
		CO4	Learn the details of skills for the scientific and relevant documentation and risk and

			security assessment.
Organic Chemistry Practicals	CHA 070	CO1	Students are involved in the multi-step synthesis of different organic compounds.
		CO2	Understand the qualitative analysis of binary mixture of organic compounds through separation, identification of functional groups and preparation of solid derivatives.
Physical Chemistry Practicals	CHA 080	CO1	Understand the details of instruments like UV-Visible Spectrophotometer, Potentiometer, pH meter, etc.
		CO2	Learn the details of concentration of the species in given solutions using kinetic methods.
		CO3	Understand the characteristics of physical properties of substances.
		CO4	Learn the characteristics of different thermodynamic parameters.
Separation Techniques	CHB 090	CO1	Knowledge of various physico-chemical separation techniques with principle, mechanism of separation, materials or compounds or analytes in the sample to be separated.
		CO2	Built in ability to select appropriate separation technique for intended problem.
		CO3	Capacity and scope of the built knowledge to separate analytes in multi-component mixtures.
		CO4	Ability to design separation procedure for the effective solution of intended problem.
		CO5	Enriched knowledge on method development and validation to propose new analytical separation method.
		CO6	Attainment of ability to describe the instrumentation required for the various separation techniques and their associated operating principles.
		CO7	Student will reach a stage to understand the significance, quality, and limitations of the results produced by the various separation techniques.
Advanced Coordination Chemistry	CHB 100	CO1	Learn in depth Preparation of coordination compounds, Stability of coordination compounds, Geometries of metal complexes, Determination of stability constants, Crystal field theory.
		CO2	Understand in details with examples Molecular Orbital Theory, Electronic spectra, Magnetic properties.
		CO3	Learn in details with examples Reaction and Mechanisms, Substitution reactions.
		CO4	Identify in details with examples Inner-sphere mechanism and outer-sphere mechanism.
Organic Chemistry-II	CHB 110	CO1	Understand in depth Reductions and Oxidations.
		CO2	Learn in depth Reagents in organic synthesis, Green Synthesis.
		CO3	Understand in details with examples Photochemistry and concerted reactions, Electrocyclic reactions.
Physical Chemistry - II	CHB 120	CO1	Learn in depth Quantum Chemistry.
		CO2	Learn in details with examples Microwave and Vibration spectroscopy.
		CO3	Understand in depth Raman and UV-Visible spectroscopy.
		CO4	Learn the classification and characteristics of NQR, Mössbauer, ESR spectroscopy.
Analytical Chemistry Practicals	CHB 050	CO1	Learn in depth selection of analytical methods with suitable techniques.
		CO2	Understand in depth classical and instrumental methods.
		CO3	Learn in depth quantification of individual analytes.
		CO4	Identify the details of quantification of individual analytes.
Inorganic Chemistry Practicals	CHB 060	CO1	Specify the details of reagents required for analysis.
		CO2	Understand in depth experiment for quantitative analysis of inorganic samples such as ore, metals, complexes mixture of metals and complexes etc.
		CO3	Understand the classification and characteristics of semi-micro qualitative analysis.
		CO4	Learn the details of skills for the scientific and relevant documentation and risk and security assessment.
Organic Chemistry Practicals	CHB 070	CO1	Students are involved in the multi-step synthesis of different organic compounds.
		CO2	Understand the qualitative analysis of binary mixture of organic compounds through separation, identification of functional groups and preparation of solid derivatives.
Physical Chemistry	CHB 080	CO1	Understand the details of instruments like UV-Visible Spectrophotometer, Potentiometer, pH meter, etc.

Practicals		CO2	Learn the details of concentration of the species in given solutions using kinetic methods.
		CO3	Understand the characteristics of physical properties of substances.
		CO4	Learn the characteristics of different thermodynamic parameters.
Instrumental Methods of Analysis	CHC 010	CO1	Students will gain the knowledge on the differences between classical and instrumental methods of chemical analysis.
		CO2	Students will attain the state to explain different types of Instrumental methods employed in chemical analysis.
		CO3	Students are developed with the understanding of the range and theories of instrumental methods available in analytical chemistry.
		CO4	Student can make out the clear distinctions among spectrometric, electro-analytical, thermal and microscopic methods with respect principle, materials and procedural or operational aspects in each.
		CO5	Students gain the knowledge pertaining to the appropriate instrumental technique to be employed for the successful analysis of complex mixtures.
		CO6	Obtain the practical experience in selected instrumental methods of analysis.
		CO7	Develop the skills on instrumental methods for planning, developing, conducting, reviewing, conducting experiments and reporting results.
Spectroscopy	CHC 020	CO1	Understand in details with examples UV-Visible and IR spectroscopy.
		CO2	Understand in depth Nuclear magnetic resonance spectroscopy, Chemical shift.
		CO3	Learn the characteristics of ¹³ C-NMR spectroscopy.
Analytical Chemistry Practicals	CHC 210	CO1	Identify in details with examples selection of analytical methods with suitable techniques.
		CO2	Learn in details with examples Analyze various samples with different classical and simple instrumental skills.
		CO3	Learn in details with examples classical and instrumental methods.
		CO4	Understand the details of Propose and conduct experiment for quantification of individual analyte.
Inorganic Chemistry Practicals	CHC 220	CO1	Learn in depth analysis of various complex mixtures by multistep reactions.
		CO2	Understand the details of instruments and to overcome the general problems arises during the analysis.
		CO3	Learn in depth sampling, analytical and interpretation and presentation of results.
		CO4	Learn the details of Preparation and characterization of complexes.
Organic Chemistry Practicals	CHC 230	CO1	Learn in depth various estimations like sugars, enol content, ketones, nitro, protein etc.
		CO2	Learn in depth multistep synthesis and also mechanisms.
		CO3	Specify the details of reactions under multistep synthesis.
		CO4	Identify in depth isolation experiments, preliminary identification and separation.
Physical Chemistry Practicals	CHC 240	CO1	Learn the details of handling instruments and to overcome the general problems arises during the analysis.
		CO2	Learn the details of concepts of rate constants, energy of activation, order of the reaction.
		CO3	Learn in depth thermodynamics parameters.
		CO4	Specify in depth kinetics experiments.
Bioinorganic Chemistry	CHD 010	CO1	Understand in details with examples Structural and molecular biology, Bioenergetics, Sodium and potassium-channels and pumps, Biochemistry of calcium, Vitamin B12 and Coenzymes.
		CO2	CO2: Understand the characteristics of Electron transport proteins and redox enzymes, Non-redox metalloenzymes.
		CO3	CO3: Specify the classification and characteristics of Identify the details of Metal ion transport and storage, Oxygen transport and oxygen uptake proteins.

		CO4	CO4: Learn the details of Metals in medicine, Disease due to metal deficiency and treatment, Metal complexes as drugs and therapeutic agents, Treatment of toxicity.
Advanced Physical Chemistry	CHD 020	CO1	Learn in details with examples Understand the characteristics of Kinetics and Thermodynamics of Polymerization, Copolymerization, Polymer molecular weights, Conducting Polymers.
		CO2	Learn the characteristics of Polymer Degradation, Stability and Environmental Issues.
		CO3	Learn in depth Photochemistry, Mechanism of absorption and emission of radiation, Photophysical kinetics.
		CO4	Understand in depth Nuclear Chemistry, Radiation Chemistry.
Analytical Chemistry Practicals	CHD 210	CO1	Identify in details with examples selection of analytical methods with suitable techniques.
		CO2	Learn in details with examples Analyze various samples with different classical and simple instrumental skills.
		CO3	Learn in details with examples classical and instrumental methods.
		CO4	Understand the details of Propose and conduct experiment for quantification of individual analyte.
Inorganic Chemistry Practicals	CHD 220	CO1	Learn in depth analysis of various complex mixtures by multistep reactions.
		CO2	Understand the details of instruments and to overcome the general problems arises during the analysis.
		CO3	Learn in depth sampling, analytical and interpretation and presentation of results.
		CO4	Learn the details of Preparation and characterization of complexes.
Organic Chemistry Practicals	CHD 230	CO1	Learn in depth various estimations like sugars, enol content, ketones, nitro, protein etc.
		CO2	Learn in depth multistep synthesis and also mechanisms.
		CO3	Specify the details of reactions under multistep synthesis.
Physical Chemistry Practicals	CHD 240	CO4	Identify in depth isolation experiments, preliminary identification and separation.
		CO1	Learn the details of handling instruments and to overcome the general problems arises during the analysis.
		CO2	Learn the details of concepts of rate constants, energy of activation, order of the reaction.
		CO3	Learn in depth thermodynamics parameters.
Project /Dissertation Work	CHD 250	CO1	Understand in details with examples literature survey on the problem/s to be solved.
		CO2	Learn the details of suitable research methodologies to propose and to perform experiments.
		CO3	Understand in depth ability to take up research work.
		CO4	Understand the details of research articles, patents, book chapters or books on relevant research problem.
		CO5	Learn in depth skills of writing research reports in the form of articles or thesis.

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Department: PG

Programme Name: Computer Science

Programme Code: MCSC01

Session/Year - 2018-19

List of POs & PSOs

POID	PO Statement
PO1	Identify, formulate, and solve computer science problems
PO2	Design, implement, test, and evaluate a computer system, component, or algorithm to meet desired needs
PO3	Receive the broad education necessary to understand the impact of computer science solutions in a global and societal context
PO4	Communicate effectively
PO5	Success in research or industry related to computer science
PSO1	Programmers or the Software Engineers with the sound knowledge of practical and theoretical concepts for developing software.
PSO2	Serve as the Computer Engineers with enhanced knowledge of computers And its building blocks. Work as the Hardware Designers/Engineers with the knowledge of Networking Concepts.
PSO3	Work as the System Engineers and System integrators Serve as the System Administrators with thorough knowledge of DBMS.
PSO4	Work as the Support Engineers and the Technical Writers
PSO5	Work as IT Sales and Marketing person.
PSO6	Serve as the IT Officers in Banks and cooperative societies.
PSO7	Computer Scientist in research and R & D laboratories.

Course Title: DATA STRUCTURES & ALGORITHMS

Course Code: CSA100

List of COs

CO ID	CO Statement
CO1	Select appropriate data structures as applied to specified problem definition.
CO2	Implement operations like searching, insertion, and deletion, traversing mechanism etc. on various data structures.
CO3	Implement Linear and Non-Linear data structures.
CO4	Implement appropriate sorting/searching technique for given problem.
CO5	Design advance data structure using Non Linear data structure.

Course Title: System Software

Course Code:CSA110

List of COs

CO ID	CO Statement
CO1	Understand fundamentals of language processing and grammar
CO2	Apply knowledge of compilation and code optimization steps to mimic a simple compiler
CO3	Demonstrate the working of various system software like assembler, loader, linker, editor and device driver

Course Title: Computer Networks

Course Code: CSA120

List of COs

CO ID	CO Statement
CO1	Master the terminology and concepts of the OSI reference model and the TCP-IP reference model.
CO2	Study the basic taxonomy and terminology of the computer networking and enumerate the layers of OSI model and TCP/IP model.
CO3	Master the concepts of protocols, network interfaces, and design/performance issues in local area networks and wide area networks
CO4	Acquire knowledge of Application layer and Presentation layer paradigms and protocols.
CO5	Study Session layer design issues, Transport layer services, and protocols.

Course Title: Discrete Mathematics

Course Code:CSA260

List of COs

CO ID	CO Statement
CO1	Construct simple mathematical proofs and possess the ability to verify them.
CO2	Have substantial experience to comprehend formal logical arguments .
CO3	Skillfull in expressing mathematical properties formally via the formal language of propositional logic and predicate logic.
CO4	Specify and manipulate basic mathematical objects such as sets, functions, and relations and will also be able to verify simple mathematical properties that these objects possess.
CO5	Apply basic counting techniques to solve combinatorial problems .

Course Title: Java Programming

Course Code:CSA270

List of COs

CO ID	CO Statement
CO1	Understand concept of Object Oriented Programming & Java Programming
CO2	Understand basic concepts of Java such as operators, classes, objects, inheritance, packages ,Enumeration and various keywords.
CO3	Understand the concept of exception handling and Input/Output operations.
CO4	Design the applications of Java & Java applet.
CO5	Analyze & Design the concept of Event Handling and Abstract Window Toolkit.

Course Title: Analysis and Design of Algorithms

Course Code:CSB060

List of COs

CO ID	CO Statement
CO1	Analyze different scenarios for running time of algorithms using asymptotic notations and Design using Recursion.
CO2	Apply divide and conquer strategy for design of various algorithms.
CO3	Develop algorithms for well known problems using greedy methods.
CO4	Describe and apply dynamic-programming approach for designing graph and matrix based algorithms.
CO5	Understand the concept of backtracking for traversal and search algorithms.

Course Title: Operating System and UNIX

Course Code: CSB070

List of COs

CO ID	CO Statement
CO1	Understand device drivers
CO2	Write applications with improved performance and stability
CO3	Write set of small commands and utilities that do specific tasks well
CO4	Run multiple programs each at the same time without interfering with each other or crashing the system.
CO5	Implement Commands of UNIX.

Course Title: Computer Graphics

Course Code: CSB080

List of COs

CO ID	CO Statement
CO1	Utilize the components of a graphics system and become familiar with building approach of graphics system components and algorithms related with them.
CO2	Learn the basic principles of 3- dimensional computer graphics.
CO3	Provide an understanding of how to scan convert the basic geometrical primitives, how to transform the shapes to fit them as per the picture definition.
CO4	Provide an understanding of mapping from a world coordinates to device coordinates, clipping, and projections
CO5	Implement the applications of computer graphics concepts in the development of computer games, information visualization, and business applications

Course Title: Graph Theory

Course Code: CSB270

List of COs

CO ID	CO Statement
CO1	Explain basic concepts in combinatorial graph theory
CO2	Define how graphs serve as models for many standard problems
CO3	Discuss the concept of graph, tree, Euler graph, cut set and Combinatorics.
CO4	See the applications of graphs in science, business and industry.

Course Title: .NET Technologies

Course Code:CSB280

List of COs

CO ID	CO Statement
CO1	Design web applications using .NET
CO2	Use .NET controls in web applications.
CO3	Debug and deploy .NET web applications
CO4	Create database driven .NET web applications and web services
CO5	Analyze & Design the concept of Event Handling and Abstract Window Toolkit.

Course Title: Software Engineering

Course Code: CSC040

List of COs

CO ID	CO Statement
CO1	Understand the nature of software development and software life cycle process models, agile software development, SCRUM and other agile practices.
CO2	Learn methods of capturing, specifying, visualizing and analyzing software requirements.
CO3	Understand concepts and principles of software design and user-centric approach and principles of effective user interfaces.
CO4	Basics of testing and understanding concept of software quality assurance and software configuration management process.
CO5	Understand need of project management and project management life cycle.

Course Title: Database Management System

Course Code: CSC060

Name of Course In-charge/Coordinator: Mrs.Sumanashree Y S

List of COs

CO ID	CO Statement
CO1	Explain the features of database management systems and Relational database.
CO2	Design conceptual models of a database using ER modelling for real life applications and also construct queries in Relational Algebra.
CO3	Create and populate a RDBMS for a real life application, with constraints and keys, using SQL.
CO4	Retrieve any type of information from a data base by formulating complex queries in SQL.
CO5	Analyze the existing design of a database schema and apply concepts of normalization to design an optimal database.

Course Title: Theory of Languages

Course Code: CSC070

List of COs

CO ID	CO Statement
CO1	Design different types of Finite Automata and Machines as Acceptor, Verifier and Translator.
CO2	Understand, design, analyze and interpret Context Free languages, Expression and Grammars.
CO3	Design different types of Push down Automata as Simple Parser.
CO4	Design different types of Turing Machines as Acceptor, Verifier, Translator and Basic computing machine

Course Title: Computer Fundamentals

Course Code: CSC630

List of COs

CO ID	CO Statement
CO1	. Use technology ethically, safely, securely, and legally.
CO2	. Identify and analyze computer hardware, software, and network components
CO3	. Design basic business web pages using current HTML/CSS coding standards
CO4	. Install, configure, and remove software and hardware.

Course Title: Data Mining

Course Code:CSD230

List of COs

CO ID	CO Statement
CO1	Demonstrate an understanding of the importance of data mining and the principles of business intelligence
CO2	Organize and Prepare the data needed for data mining using pre - processing techniques
CO3	Perform exploratory analysis of the data to be used for mining.
CO4	Implement the appropriate data mining methods like classification, clustering or Frequent Pattern mining on large data sets.
CO5	Define and apply metrics to measure the performance of various data mining algorithms.

Course Title: Internet Technology

Course Code:CSD220

List of COs

CO ID	CO Statement
CO1	Develop analytical ability in network technology
CO2	Create quality websites
CO3	Work individually as a web designer and set up their own business
CO4	Get the job opportunities in most companies for professional web designers and build websites more visually elegant and interactive
CO5	Implement interactive web page(s) using HTML, CSS and JavaScript.

Department: PG Mathematics

Programme Name: M.Sc.,

Session/Year:2018-19

List of POs & PSOs

POID	PO Statement
PO1	To move away from the conventional pedagogy of teaching mathematics
PO2	To include methods of facilitating learning such as projects, group work and participative learning
PO3	To Innovate, invent and solve complex mathematical problems using the knowledge of pure and applied mathematics
PO4	To impart knowledge of some basic concepts and principles of the discipline
PO5	To establish inter-disciplinarily between mathematics and other subjects from Humanities and the Social Sciences.
PO6	To provide in-service training for school teachers. To learn to apply mathematics to real life situations and help in problem solving
PSO1	Explain the importance of mathematics and its techniques to solve real life problems and provide the limitations of such techniques and the validity of the results
PSO2	Propose new mathematical and statistical questions and suggest possible software
PSO3	Continue to acquire mathematical and statistical knowledge and skills appropriate to
PSO4	Ability to use computer calculations as a tool to carry out scientific investigations and
PSO5	Crack lectureship and fellowship exams approved by UGC like CSIR – NET and SLET.
PSO6	Apply knowledge of Mathematics, in all the fields of learning including higher research and its extensions.

Course Title: Algebra-I

Course Code:MAA010

List of COs

CO ID	CO Statement
CO1	Define and interpret the concepts of divisibility, congruence, greatest common divisor, prime, and prime-factorization and Apply the Law of Quadratic Reciprocity
CO2	To analyze and demonstrate examples of subgroups, normal subgroups and quotient groups.
CO3	Assess properties implied by the definitions of groups and To use the concepts of isomorphism and homomorphism for groups
CO4	Analyze Permutation groups and the Class Equation and Sylow theorems
CO5	To demonstrate knowledge of conjugates.

Course Title: Real Analysis-I

Course Code:MAA020

CO ID	CO Statement
CO1	Understand the characteristics of extended real number system, the n-dimensional Euclidean space
CO2	Study the details of inequalities and its applications
CO3	Learn the characteristics of sequences and Cauchy's sequences, upper and lower limits
CO4	Understand the details of series of real numbers, tests for convergence
CO5	Learn in detail with examples-multiplication of series, double series, infinite products

Course Title: Real Analysis-II

Course Code:MAA030

CO ID	CO Statement
CO1	Deliberate in depth the basic topological properties of the subsets of the real numbers
CO2	Understand in details with examples, Continuity of functions
CO3	Deliberate the details of Differentiability, mean value theorems
CO4	Learn the details of The Riemann-Stieltje's integral
CO5	Identify in detail Integration and differentiation with examples.

Course Title: Complex Analysis-I

Course Code:MAA040

CO ID	CO Statement
CO1	Understand the characteristics of represent complex numbers algebraically and geometrically, Study stereographic projection
CO2	Understand the characteristics lines and circles
CO3	Study the characteristics of analytic functions, Cauchy-Riemann equations and harmonic functions
CO4	Learn in depth sequences and series , uniform convergence of power series and entire functions
CO5	Learn in detail with examples-linear fractional transformations, cross ratio, symmetry, conformal mapping, evaluate definiteintegrals
CO6	Understand different types of Cauchy theorems and Cauchy integral formula and apply these to evaluate integrals

Course Title: Linear Algebra

Course Code:MAA210

Linear Algebra	CO1	Learn in depth Vector Spaces, Subspaces
	CO2	Understand the classification and characteristics of Determinants
	CO3	Learn in details Inner Products and Norms with examples
	CO4	Deliberate the details of normal and Self-Adjoint Operators
	CO5	Analyse the classification and characteristics of The Diagonal form, The Triangular form and its applications

Course Title: Algebra -II

Course Code:MAB010

Algebra II	CO1	Assess properties implied by the definitions of rings
	CO2	Analyze and demonstrate examples and properties of ideals and quotient rings
	CO3	Demonstrate knowledge of polynomial rings and associated properties
	CO4	Derive and apply Gauss Lemma, Eisenstein criterion for irreducibility of rationals with examples
	CO5	Understand the characteristic of a field and the prime subfield

Course Title: Real Analysis -III

Course Code:MAB020

Real Analysis III	CO1	Deliberate in details with examples Sequences and series of functions
	CO2	Understand the characteristics of Uniform convergence continuity,differentiation and integration with examples
	CO3	Identify in details with examples Improper integrals and their convergence
	CO4	Understand in depth Functions of several variables
	CO5	Specify the details of Taylor's theorem, the Maxima and Minima

Course Title: Complex Analysis -II

Course Code:MAB030

Complex Analysis-II	CO1	Understand in details with application-the residue theorem, evaluation of definite integrals
	CO2	Understand in details with properties of harmonic functions
	CO3	Understand in depth of power series expansions, Weierstrass theorem
	CO4	Learn in detail with examples-partial fractions, study the characteristics of infinite products, canonical products
	CO5	Study the characteristics of the gamma and beta functions, and entire functions

Course Title: Ordinary and Partial Differential Equations

Code:MAB210

ODPDE	CO1	Solve problems in ordinary differential equations, dynamical systems, stability theory and a number of applications to scientific and engineering problems
	CO2	The study of Differential focuses on the existence and uniqueness of solutions also emphasizes the rigorous justification of methods for approximating solutions in pure and applied mathematics by using power series method some polynomials.
	CO3	Recognize the major classification of PDEs and the qualitative differences between the classes of equations
	CO4	Be competent in solving linear PDEs using classical solution methods.
	CO5	Theory of differential equations is widely used in formulating many fundamental laws of physics and chemistry.

Course Title: Graph Theory**Course Code:MAB230**

Graph theory	CO1	Construct examples and proofs pertaining to the basic theorems
	CO2	Understand the characteristics of external graphs, intersection graphs, operations on graph
	CO3	Write down in detail with examples of cut points, bridges, blocks and block graph
	CO4	Specify the characteristics of trees, centers, and centroids, spanning tree
	CO5	Identify the details of connectivity and the line connectivity, coverings, independence

Course Title: Elements of Functional Analysis**Course Code:MAC010**

Elements Functional Analysis	CO1	Explain the fundamental concepts of functional analysis.
	CO2	Understand the approximation of continuous functions on linear spaces
	CO3	Understand concepts of Hilbert and Banach spaces
	CO4	Understand the definitions of linear functional and prove the Hahn-Banach theorem, open mapping theorem, uniform boundedness theorem, etc.
	CO5	Define linear operators, self adjoint, isometric and unitary operators on Hilbert spaces

Course Title: Topology-I**Course Code:MAC020**

Topology-I	CO1	Deliberate in details with applications, topological spaces, basis for a topology, the order topology, subspace topology and product topology
	CO2	Learn in depth with closed set and limit point, continuous functions(defined in terms of open sets)
	CO3	Learn in details with examples-the product topology ,metric topology, quotient topology
	CO4	Understand in depth connected spaces , connected sets on the real line , path connectedness
	CO5	Deliberate the characteristics of compact spaces, compact sets on the real line, limit point compactness, local compactness

Course Title: Commutative Algebra

Course Code:MAC210

Commutative Algebra	CO1	Understand in depth commutative ring and local rings with examples
	CO2	Learn the characteristics of Nil radical and Jacobson radical and prime spectrum of a ring
	CO3	Understand the characteristics of Noetherian and Artinian module
	CO4	Identify in details with examples Free modules, Finitely generated modules, Simple modules, Exact sequences of modules
	CO5	Specify the characteristics of Noetherian rings and Artinian rings

Course Title: Theory of Numbers

Course Code:MAC220

Theory of Numbers	CO1	Know the diophantine equations, prime numbers, irrational numbers and prime-factorization
	CO2	Define and interpret the concepts of Arithmetical Functions and Dirichlet product of Arithmetical functions
	CO3	Provide precise definitions and appropriate examples and counter examples of Representation of a number by two or four squares, Fibonnaci and perpect number
	CO4	Know the continued fractions

Course Title: Basic Mathematics

Course Code:MACC660

Basic Mathematics	CO1	Write an argument using logical notation and determine if the argument is or is not valid
	CO2	Identify sets as well defined collections, represents sets in roster and set builder form,
	CO3	CO3 Identify the subsets of the given sets, find the complement of a subset of a given Set, within a given universe. Represent venn diagram using sets.
	CO4	Use the simple method to solve small linear programming models by hands, given a basic feasible point
	CO5	Understand the definitions of graphs, path, connectedness, cut vertex, bridge, blocks of a graph.
	CO6	Study the properties of trees and matrix of a graph

Course Title: Measure and Integration**Course Code: MAD010**

Measure and Integration	CO1	Understand in details with examples Lebesgue measure, outer measure
	CO2	Learn the characteristics of measurable sets and measurable functions
	CO3	Deliberate in details with examples of Integration of measurable functions
	CO4	Learn in details with examples, functions of bounded variation, differentiation of an integral, absolute continuity
	CO5	Understand in depth the general measure theory

Course Title: Topology-II**Course Code: MAD020**

Topology-II	CO1	Deliberate the classification and characteristics of the countability axioms, the separation axioms
	CO2	Understand the details of Urysohn's lemma, Tietze's extension theorem, partitions of unity
	CO3	Discuss Tychonoff's theorem, local finiteness, Paracompactness
	CO4	Familiar with the construction of the fundamental group of a topological space and applications to covering spaces

Course Title: Differential Geometry**Course Code: MAD230**

Differential Geometry	CO1	To introduce the fundamentals of differential geometry primarily by focussing on the theory of curves and surfaces in three space.
	CO2	To compute quantities of geometric interest such as curvature, as well as develop a facility to compute in various specialized systems
	CO3	The theory of surfaces introduces the fundamental quadratic forms of a surface, intrinsic and extrinsic geometry of surfaces, and the Gauss theorem
	CO4	Introduce the method of the moving frame and overdetermined systems of differential equations as they arise in surface theory.

Course Title: Theory of Partitions**Course Code: MAD220**

Theory of Partitions	CO1	Know the definitions of partitions, Euler's theorem on $p(n)$
	CO2	CO2 Apply the q-binomial theorem and Ramanujan $1\psi_1$ - summation formula
	CO3	Know the congruence of partition
	CO4	To apply the q-series

JSS Mahavidyapeetha
JSS College of Arts, Commerce and Science
Ooty Road, Mysuru

Department: PG Physics

Programme Name: MSc Physics

Programme Code:PHY13

Session/Year 2018-2019

List of POs

POID	PO Statement
PO1	Identify, formulate and analyze complex problems using first principles.
PO2	A research oriented learning to develop analytical problem-solving approaches.
PO3	Understand the basic concepts, fundamental principles and the scientific Theories.
PO4	Acquire skills in handling scientific instruments, planning and performing in laboratory experiments
PO5	Think creatively in explaining solutions to the problems

Course Title: Classical Mechanics

Course Code: PHY101

List of COs

CO ID	CO Statement
CO1	Deliberate the characteristics of Mechanics of a system of particles
CO2	Specify in depth The Lagrangean method
CO3	Learn in details with examples Central forces
CO4	Write down the details of Hamilton's equations
CO5	Deliberate the characteristics of Canonical transformations

Course Title: Mathematical Methods of Physics 1

Course Code: PHY102

List of COs

CO ID	CO Statement
CO1	Specify the characteristics of Curvilinear coordinates and Tensors
CO2	Write down in depth Tensors
CO3	Learn in details with application, if applicable, Differential equations, Hermite function and Laguerre functions
CO4	Write down the details of Special functions
CO5	Write down in details with application, if applicable, Bessel functions

Course Title: Mathematical Methods of Physics 2

Course Code: PHY103

List of COs

CO ID	CO Statement
CO1	Understand the classification and characteristics of Linear vector space
CO2	Specify the characteristics of Linear representations of groups
CO3	Deliberate in details with application, if applicable, Rotation group
CO4	Understand the details of Fourier transforms
CO5	Understand in details with examples Integral equations

Course Title: Optics, Classical Electrodynamics, Plasma Physics **Course Code:** PHY104

List of COs

CO ID	CO Statement
CO1	Write down in details with examples Electric multipole moments
CO2	Deliberate the characteristics of Potential formulation
CO3	Specify in details with application, if applicable, Fields of moving charges and radiation
CO4	Learn the characteristics of Radiating systems
CO5	Learn the details of Relativistic electrodynamics

Course Title: Continuum Mechanics and Relativity

Course Code: PHY201

List of COs

CO ID	CO Statement
CO1	Write down the details of Continuum mechanics of solid media
CO2	Understand the characteristics of Fluid mechanics
CO3	Deliberate in details with examples Minkowski space-time
CO4	Specify the classification and characteristics of Relativistic mechanics of a material particle
CO5	Specify the characteristics of Einstein's equations

Course Title: Thermal Physics

Course Code: PHY202

List of COs

CO ID	CO Statement
CO1	Identify the classification and characteristics of Thermodynamics Preliminaries
CO2	Deliberate in depth Entropy
CO3	Specify in depth Phase equilibria
CO4	Deliberate the characteristics of Classical Statistical Mechanics
CO5	Deliberate the classification and characteristics of Quantum Statistical Mechanics

Course Title: Quantum Mechanics 1

Course Code: PHY203

List of COs

CO ID	CO Statement
CO1	Understand in depth The wave function and uncertainty Principle
CO2	Specify in depth Formalism of quantum mechanics
CO3	Understand the details of Schrodinger equation in one dimension
CO4	Deliberate the details of Angular Momentum
CO5	Understand in depth Schrodinger equation in three dimensions

Course Title: Spectroscopy and Fourier Optics

Course Code: PHY204

List of COs

CO ID	CO Statement
CO1	Specify the details of Atomic spectroscopy
CO2	Identify in details with application, if applicable, Nuclear magnetic resonance
CO3	Specify in depth Microwave spectroscopy
CO4	Specify in depth Infrared spectroscopy
CO5	Write down in details with application, if applicable, Raman spectroscopy

Course Title: Quantum Mechanics 2

Course Code: PHY301

List of COs

CO ID	CO Statement
CO1	Learn in details with application, if applicable, The time-independent perturbation theory
CO2	Learn the characteristics of The Variational Principle
CO3	Understand in details with application, if applicable, WKB Approximation
CO4	Deliberate in details with examples Adiabatic approximation
CO5	Deliberate in details with application, if applicable, Time-dependent perturbation theory

Course Title: Condensed Matter Physics

Course Code: PHY302

List of COs

CO ID	CO Statement
CO1	Write down the classification and characteristics of X-ray crystallography
CO2	Identify in details with examples Atomic scattering factor
CO3	Specify in details with examples Electron and neutron diffraction
CO4	Identify in details with examples Crystal growth techniques
CO5	Learn the details of Disordered materials

Course Title: Nuclear and Particle Physics

Course Code: PHY303

List of COs

CO ID	CO Statement
CO1	Specify in details with application, if applicable, Properties of the Nucleus
CO2	Learn in details with application, if applicable, Nuclear Models
CO3	Specify the characteristics of Nuclear reactions
CO4	Deliberate in depth Nuclear decay modes
CO5	Understand the classification and characteristics of Interaction of nuclear radiation with matter

Course Title: Solid State Physics 1

Course Code: PHY304

List of COs

CO ID	CO Statement
CO1	Specify in details with application, if applicable, basic concepts of properties of Solid
CO2	Deliberate in details with application, if applicable, Dielectrics; Properties and classification
CO3	Specify the classification and characteristics of Ferroelectrics; Properties and classification
CO4	Specify the characteristics of thermal and vibrational properties of solids
CO5	Learn the characteristics of tight-binding approximation

Course Title: Nuclear Physics 1

Course Code: PHY305

List of COs

CO ID	CO Statement
CO1	Specify in details with examples Nuclear detectors
CO2	Understand in depth Nuclear pulse techniques
CO3	Learn the details of Shell model
CO4	Understand the classification and characteristics of Collective model
CO5	Identify the classification and characteristics of Nilsson model

Course Title: Solid State Physics 2

Course Code: PHY401

List of COs

CO ID	CO Statement
CO1	Learn the details of X-ray diffraction by crystals
CO2	Identify the details of Experimental techniques
CO3	Deliberate in depth Structure analysis
CO4	Learn the classification and characteristics of Particle Size study of Fibre structure
CO5	Specify in depth Imperfections in solids

Course Title: Solid State Physics 3

Course Code: PHY402

List of COs

CO ID	CO Statement
CO1	Write down in details with application, if applicable, Free electron theory of metals
CO2	Identify the characteristics of Electrical conductivity
CO3	Deliberate in details with examples Hall effect
CO4	Write down the classification and characteristics of Elemental and Compound Semiconductors
CO5	Deliberate in details with application, if applicable, Carrier concentrations

Course Title: Nuclear Physics 2

Course Code: PHY403

List of COs

CO ID	CO Statement
CO1	Write down the details of nuclear fission
CO2	Write down in details with application, if applicable, Neutron transport equation using elementary diffusion theory
CO3	Specify the details of Fermi age theory
CO4	Specify in depth homogeneous reactor
CO5	Write down the details of nuclear fission

Course Title: Nuclear Physics 3

Course Code: PHY404

List of COs

CO ID	CO Statement
CO1	Write down the details of Deuteron
CO2	Understand in details with application, if applicable, Deuteron magnetic and Quadrupole moments
CO3	Understand the details of Nucleon-nucleon scattering processes
CO4	Write down in details with examples Theory of scattering of slow neutrons
CO5	Specify in details with examples Plane wave theory of direct reactions

Course Title: Accelerator Physics

Course Code: PHY407

List of COs

CO ID	CO Statement
CO1	Specify in details with application, if applicable, ion Source
CO2	Deliberate the details of Alternating gradient machines
CO3	Understand the working of Betatron
CO4	Learn the details of Ion sources
CO5	Write down the characteristics of Townsend theory

Course Title: Electronics

Course Code: PHY413

List of COs

CO ID	CO Statement
CO1	Learn analyzing digital and analog devices and circuits
CO2	Analyze components associated with digital and analog electronic systems
CO3	Demonstrate proficiency in the use of electronic equipment and devices
CO4	Assist in the design, operation, and troubleshooting of electronic systems
CO5	Analyze electronics devices and circuits using computer simulations

Department: PG Commerce
 Programme Name: M.Com
 Session/Year: 2018-19

Programme Code: 1001

PSO

PO

Sl.No	PO ID	PO Statement
1	PSO1	Inculcate the knowledge of business and the techniques of managing the Business with special focus on Accounting, finance, and financial services
2	PSO2	Identify knowledge based accounting principles and the latest application oriented corporate accounting methods.
3	PSO3	Develop decision making skill through costing methods and practical application of management accounting principles.
4	PSO4	Enhance taxation skills through a thorough understanding of tax laws
1	PO1	Understand role of accounting and finance in the present business scenario.
2	PO2	Identify the latest trends in banking and finance
3	PO3	Use wide varieties of tools and techniques to meet the emerging opportunities and challenges
4	PO4	Become an entrepreneur based on the knowledge gained.
5	PO5	Strengthen the knowledge base to take up CA/ICWA/ICS and other competitive examination
6	PO6	Acquire the ability to engage in independent & lifelong learning in the broader context of social and technical changes.
7	PO7	Accept the challenges of business world
8	PO8	Enhance logical thinking and decision making ability

Name of the Co-ordinator : Dr .H .C .Honnappa
CO

Semester –I

Sl.No	Course title	Course Code	CO No./Id	CO Statement
1	Accounting Theory	MCA010	MCA010.1	Acquaint a set of logical principles for evaluation and development of sound accounting practices.
			MCA010.2	knowledge on conceptual framework of accounting theory
			MCA010.3	Critical thinking skills to analyse and interpret accounting transactions.
			MCA010.4	Understand the recognition, measurement and disclosure principles of elements of financial statements.
2	Corporate Governance And Business Ethics	MCA080	MCA080.1	Understand the concept of corporate governance
			MCA080.2	knowledge about corporate ethics and cultural influences
			MCA080.3	Acquire knowledge of corporate social responsibility and accountability
			MCA080.4	Analyze the role of E-governance in present scenario.
3	Advanced Financial Management	MCA090	MCA090.1	Understand financial management concepts and its important functions.
			MCA090.2	Learn the process of evaluation of projects
			MCA090.3	Understand capital structure theories
			MCA090.4	Identify the dynamics of financial markets
4	Strategic Management	MCA100	MCA100.1	To understand the strategy formulation
			MCA100.2	To learn the steps in implementation of strategies.
			MCA100.3	To learn evaluation of strategy
			MCA100.4	To analyze strategy
5	Business Policy And Environment	MCA210	MCA210.1	Insight on policy formation
			MCA210.2	Understand the environmental factors that influence business
			MCA210.3	Knowledge and significance of corporate social responsibility
			MCA210.4	Identify the Principles of Business ethics
6	Statistics For Business Decisions	MCA220	MCA220.1	Knowledge about application of probability theory and sampling in different areas of commerce
			MCA220.2	Analyze the various methods of theoretical probability distribution
			MCA220.3	Application of different tools in taking business decisions
			MCA220.4	Learn the advanced application oriented tests – F Distribution and Anova

Semester: II

Sl.No	Course title	Course Code	CO No./Id	CO Statement
1	Organizational Behavior	MCB030	MCB030.1	Understand individual behavior in the organization
			MCB030.2	Acquire the knowledge about foundation of individual behavior
			MCB030.3	Learn and apply skills in motivation
			MCB030.4	Evaluate individual behavior in group and resolve the conflicts
2	Entrepreneurial Development	MCB050	MCB050.1	Analyze the foundations and different dimensions of Entrepreneurial Development
			MCB050.2	Acquaint the skills of an young entrepreneurs
			MCB050.3	Analyze the techniques of project planning, implementation and execution.
			MCB050.4	Identify the institutional support to entrepreneurs.
3	Capital Market Instruments	MCB010	MCB010.1	Understand the role of capital markets
			MCB010.2	Critically evaluate the various capital market instruments like Stock, bonds etc
			MCB010.3	Identify the dynamics of global capital markets
			MCB010.4	Understand the concept and use of Derivatives in risk management.
4	Human Resource Management	MCB240	MCB240.1	Knowledge about human resources, their significance and management in organizations
			MCB240.2	Analyze human resource planning
			MCB240.3	Learn the steps in HRD
			MCB240.4	Understand reward system and appraisal of individual
5	Management of financial services	MCB270	MCB250.1	To understand and appreciate the role of financial services industry
			MCB250.2	To grasp the trends in financial services industry particularly the impact of globalization of Financial Services
			MCB250.3	To gain an insight into the future of Financial Services industry
			MCB250.4	Verify the global developments in technology.

Semester: III

Sl.No	Course title	Course Code	CO No./Id	CO Statement
1	International Business	MCC010	MCC010.1	Understand the scope of international business along with drivers of globalization
			MCC010.2	Analyze different aspects of International Business environment and the issues associated with them.
			MCC010.3	Identify policy and practice skills related to international business
			MCC010.4	Identify the various modes of entry in international business.
2	Business Research Methods	MCC030	MCC030.1	Evaluate various research decisions
			MCC030.2	Learn the methods of data collection
			MCC030.3	Analysis and interpretation of data
			MCC030.4	Equip the skills of report writing
3	Security Analysis And Portfolio Management	MCC040	MCC040.1	Knowledge about practical aspects of investment analysis
			MCC040.2	Understand the functions of SEBI
			MCC040.3	Analyze the various investment alternatives
			MCC050.4	Learn the skills to construct investment portfolio
4	Indirect Tax Law and Practice	MCC230	MCC230.1	Understand the significance and contribution of indirect taxes (GST) in the Indian and global economy.
			MCC230.2	Comprehend the principles of taxation and incidence process of indirect taxes in market orientated economy.
			MCC230.3	Understand the implications of indirect taxes on the taxable capacity of consumers, dealers and society at large.
			MCC230.4	Become tax consultants for tax planning, tax management, payment of tax and filling of tax returns
5	Management Accounting	MCC250	MCC250.1	Understand the basic concept of marginal costing.
			MCC250.2	Analyze and apply of profitability and cost concept.
			MCC250.3	Evaluate the managerial decisions-make or buy decisions.
			MCC250.4	Examine the cost accounting techniques.

Semester: IV

Sl.No	Course title	Course Code	CO No./Id	CO Statement
1	International Accounting	MCD010	MCD010.1	Understand international accounting issues related to global financial reporting.
			MCD010.2	Examine, analyze and assess theoretical and practical aspects of accounting harmonization.
			MCD010.3	Identify major diversities and challenges of financial reporting in the global arena and IFRS.
			MCD010.4	Learn the techniques of international financial statement analysis
2	Current Trends In Business And Commerce	MCD020	MCD020.1	Understand changing business and financial environment
			MCD020.2	Equip the skills required for competitive examinations and JRF, NET and SLET
			MCD020.3	Develop analyzing and decision making skills on current topics of business
			MCD020.4	Identify the reforms in areas of banking, insurance, capital markets and taxation.
3	Supply Chain Management	MCD210	MCD210.1	To make students familiar with various innovations taking place in accounting
			MCD210.2	To learn valuation of human resource
			MCD210.3	To learn valuing the brand
			MCD210.4	To understand the concepts of Responsibility accounting
4	Corporate Tax Law And Planning	MCD230	MCD230.1	Understand the incidence of tax on residential status of the companies
			MCD230.2	Understand the different types of companies under corporate income tax act.
			MCD230.3	Know the different sources of income for corporate assesses.
			MCD230.4	Become a manger of a company/tax consultant and reduce the tax burden and maximize the company's wealth
5	Management Accounting	MCD250	MCD250.1	Understand the scope and need for cost control and management.
			MCD250.2	Familiarize with the basic cost control and management tools.,
			MCD250.3	Know the manufacturing industries cost system and analysis through the statistical tool.
			MCD250.4	Understand the importance of operation research in cost control and management

JSS Mahavidyapeetha
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Department: Postgraduate Department of English
Programme Name: Masters in English **Programme Code:** ENG
Session/Year: 2018-19

List of POs & PSOs

POID	PO Statement
PO1	Learn English language explored through literature
PO2	Demonstrate critical reading, writing, and thinking skills. Write focused, organized, well-developed and text-based essays using effective paragraphs, which support a clear thesis statement, and demonstrate competence in Standard English grammar and usage
PO3	Learn to participate effectively in debates, group discussions, and seminars
PO4	Get the opportunity to opt for career in the fields of teaching, journalism and Communication with the command and fluency gained in English language
PO5	Acquire skills of criticism in reading literary works of different periods of various genres
PO6	Learn to think logically and relate to real life scenario in writing analytically about the issues depicted in literary texts
PO7	Imbibe good ethics explored in the works of great writers
PO8	Develop sensibility to understand social, cultural and spiritual issues explored in literary works
PO9	Draw on and integrate knowledge from many related areas of literary studies
PO10	Recognize and understand figurative language in literary works of various literature
PO11	Develop analytical skills to know the social, political and cultural milieu of various periods of literary development
PSO1	Acquire the competence to work as English Language teacher at Primary, Secondary, Higher secondary and Pre-University level.
PSO2	Gain basic knowledge needed to enrol for M Phil or PhD programmes
PSO3	Demonstrate good communication skills
PSO4	Draft literary essays demonstrating the skills of critical thinking and creative writing
PSO5	Participate in discussions and debates demonstrating good communication skills
PSO6	Work as English language trainer
PSO7	Take up worldwide research opportunities and more knowledgeable to qualify UGC-NET, K-SET and other competitive exams

Course Title: English Literature from Chaucer to Milton
Course Code: ENA010
Class : MA - I Sem

List of COs

CO ID	CO Statement
CO1	Analyse figurative language and literary techniques
CO2	Compare the unique qualities of the authors studied.
CO3	Develop a well-written argument about one or more literary texts or authors, and accurately cite literary and other sources
CO4	Create ability to read, summarize and analyse poems and sonnets of various themes

Course Title: Elizabethan Age
Course Code: ENA020
Class : MA - I Sem

List of COs

CO ID	CO Statement
CO1	Analyse Shakespearean Tragedies and Comedies in terms of language, character and themes.
CO2	Develop ability to read, summarize and critically analyse Shakespearean sonnets with various themes
CO3	Deliberate the characteristics of Elizabethan theatre
CO4	Understand in depth plays of Marlowe and Thomas Kyd
CO5	Write down the classification and characteristics of plays of Shakespeare- Macbeth, Julius Caesar and As You Like It.

JSS Mahavidyapeetha
JSS College of Arts, Commerce and Science
Ooty Road, Mysuru

Department: Postgraduate Department of English
Programme Name: Masters in English **Programme Code:** ENG
Session/Year: 2018-19

Course Title: 17th and 18th Century English Literature
Course Code: ENA030
Class : MA - I Sem

List of COs

CO ID	CO Statement
CO1	Deliberate the details of restoration period
CO2	Develop skills of critical analysis of restoration poetry
CO3	Specify the classification and characteristics of restoration period
CO4	Learn in depth and appreciate The Spectator Essays
CO5	Deliberate the characteristics of Comedy of Manners

Course Title: 19th Century English Literature
Course Code: ENA040
Class : MA - I Sem

List of COs

CO ID	CO Statement
CO1	Analyse the impact of French Revolution on Romantic and Victorian age.
CO2	Judge the issues related to Woman's Question during the period and contributions of Mary Wollstonecraft and J S Mill to this movement
CO3	Explain the use of allegory, metaphor, irony, rhyme, rhythm, allusion in Romantic and Victorian poetry
CO4	Produce analytical skill of understanding literary essays of Victorian philosophers
CO5	Develop ability to summarize and analyse the novels of Jane Austen, Emily Bronte, Charles Dickens and Thomas Hardy

Course Title: Indian Diaspora Fiction
Course Code: ENA210
Class : MA - I Sem

List of COs

CO ID	CO Statement
CO1	Learn the background of Diaspora Literature & major themes of Diaspora Literature
CO2	Compare and Contrast authors' treatment of themes, characters, subject matter etc.
CO3	Analyse the literary elements like plot, setting, tone, point of view, imagery, etc
CO4	Trace the historical event like partition, corruption, migration, etc
CO5	Understand in details the interpretation of Indian diaspora fiction

Course Title: Literary Criticism-I
Course Code: ENB020
Class : MA - II Sem

List of COs

CO ID	CO Statement
CO1	Analyse figurative language and literary techniques
CO2	Compare the unique qualities of the authors studied.
CO3	Develop a well-written argument about one or more literary texts or authors, and accurately cite literary and other sources
CO4	Create ability to read, summarize and analyse poems and sonnets of various themes
CO5	Write down the details of Aristotle's poetics, Longinus' On the Sublime

Course Title: Indian Writing in English – I
Course Code: ENB030
Class : MA - II Sem

List of COs

CO ID	CO Statement
CO1	Explain the origin and growth of Indian English Writing
CO2	Specify in details with examples poetry of Toru Dutt, Tagore, Sarojini Naidu and Aurobindo.
CO3	Learn in depth plays of Girish Karnad, Tendulkar, and Dattani
CO4	Specify in depth Novels of R K Narayan, Mulk Raj Anand and Raja Rao
CO5	Appreciate and understand the critical essays of Hiriyanna, Coomaraswamy and Aurobindo

Course Title: The Modern Age-I
Course Code: ENB040
Class : MA - II Sem

List of COs

CO ID	CO Statement
CO1	Explain the social, political and cultural milieu of the 20th Century England.
CO2	Learn the impact of World War I and II on 20th Century poetry.
CO3	Identify the characteristics of Modern English poetry.
CO4	Learn the details of Modern English poetry.
CO5	Learn to interpret and appreciate the poetic devices of Modern poetry

Course Title: 20th Century Women's Writing: Theory & Practice
Course Code: ENB050
Class : MA - II Sem

List of COs

CO ID	CO Statement
CO1	Learn feminism as a movement-transforming woman's life.
CO2	Get awareness about gender issues and understand the injustices done towards women in patriarchal society
CO3	Appreciate the efforts of women writers to subvert the oppression of women in their literary works
CO4	Learn the problems faced by women in societies of different traditions and culture
CO5	Understand in details with examples Fiction of 20th century women writers

Course Title: Indian Drama
Course Code: ENB210
Class : MA - II Sem

List of COs

CO ID	CO Statement
CO1	Understand the important aspects and features of Indian Drama
CO2	Learn to interpret and appreciate poetic devices in Indian Classical Dramas
CO3	Compare and analyse the classical Indian dramas with the contemporary time
CO4	Write down the characteristics of interpretation of Indian classical dramas

Course Title: The Modern Age-II
Course Code: ENC010
Class : MA - III Sem

List of COs

CO ID	CO Statement
CO1	Explain the social, political and cultural milieu of the age of 20th Century England.
CO2	Learn the impact of World War I and II on 20th Century poetry.
CO3	Identify the characteristics of Modern English poetry
CO4	Learn the details of Modern English poetry
CO5	Learn to interpret and appreciate the poetic devices of Modern poetry

Course Title: Indian Writing in English-II
Course Code: ENC020
Class : MA - III Sem

List of COs

CO ID	CO Statement
CO1	Explain the characteristic features of post-independent Indian Writing in English.
CO2	Read, compare and critically analyse partition novels and autobiographies.
CO3	Write down in details with examples characteristics of Modern Indian writing in English.
CO4	Learn the characteristics of appreciation of short stories of Jahnvi Barua.
CO5	Identify in details with examples appreciation of the fiction of Arundhati Roy and Amitav Ghosh

Course Title: New Literatures in English
Course Code: ENC030
Class : MA - III Sem

List of COs

CO ID	CO Statement
CO1	Explain the emergence of New Literatures from Commonwealth literature
CO2	Analyse the thematic concerns in New Literatures
CO3	Evaluate the cultural conflict in New literatures such as African, Australian, Canadian and Caribbean and the impact of colonization on native cultures
CO4	Formulate essays on the novels of Chinua Achebe, Wole Soyinka, Alice Munro, Patrick White, and V S Naipaul
CO5	Judge the use of various literary devices in the poetry of Dennis Brutus, David Diop, AJM Smith, Judith Wright, Derek Walcott, and Braithwaite
CO6	Produce analysis on the essays of Ngugi, Northrop Frye and Wilson Harris

Course Title: Indian English Poetry After Independence

Course Code: ENC230

Class : MA - III Sem

List of COs

CO ID	CO Statement
CO1	Explain the use of Indianness in the modern Indian poetry
CO2	Analyse the themes, imagery, symbolism in the poems of Ezekiel, Ramanujan, Daruwalla, de Souza, Mahapatra, Parthasarathy, Anita Nair and Vikram Seth
CO3	Evaluate the human values and human predicament in modern Indian poetry
CO4	Formulate the trend setting themes explored in contemporary Indian poetry

Course Title: A Course in Written and Spoken English

Course Code: ENC520

Class : MA - III Sem

List of COs

CO ID	CO Statement
CO1	Explain the correct use of parts of speech and English grammar
CO2	State the grammar rules and apply them in conversation and communication
CO3	Evaluate effectively describing impressions, feelings and experiences
CO4	Formulate the familiar topics and give explanations and reasons for opinions, past actions and future plans.
CO5	Analyse comprehension passages and answer the implied questions rightly
CO6	Write down in details with application, if applicable, speaking skills
CO7	Learn the skills of writing resume and business applications.

Course Title: Literary Criticism-II

Course Code: END010

Class : MA - IV Sem

List of COs

CO ID	CO Statement
CO1	Explain the meaning, elements and characteristics of contemporary literary criticism
CO2	Analyse the essays using the skills of literary critical analysis
CO3	Produce analytical essays on the literary texts of the prescribed critics
CO4	Evaluate the latest developments in the specific field of practice of literary theories
CO5	Deliberate the details of interpretation of critical essays of Elaine Showalter, Helene Cixous and Spivak
CO6	Write down in depth essays of Northrop Frye, Derrida, Elaine Showalter, Helene Cixous etc.

Course Title: American Literature
Course Code: END020
Class : MA - IV Sem

List of COs

CO ID	CO Statement
CO1	Explain the significance of Renaissance, Transcendentalism and journey metaphor in American literature
CO2	Analyse the poems of Emily Dickinson, Wallace Stevens, Walt Whitman and Robert Frost
CO3	Compare and analyse the themes, narrative techniques, character analysis in the novels of Mark Twain, Douglas, Toni Morrison and Ray Bradbury
CO4	Describe the African American sensibility based on the readings of Toni Morrison, Jamaica Kincaid and Fredrick Douglas's writings.
CO5	Study literary expressions of American writers depicting American sensibility.

Course Title: Major Project Work leading to Dissertation
Course Code: END030
Class : MA - IV Sem

List of COs

CO ID	CO Statement
CO1	Analyse the area of topic chosen for project work in detail
CO2	Create research skills and demonstrate scholarly expertise in exploring the subject to prepare the dissertation for the project work
CO3	Produce the skills of research analysis in writing thesis
CO4	Explain logically and relate the issues and findings to real life scenario

Course Title: Dalit Literature
Course Code: END210
Class : MA - IV Sem

List of COs

CO ID	CO Statement
CO1	Explain the origin and growth of Dalit literature in India.
CO2	Explain the sufferings of marginalised in Dalit writings.
CO3	Compare and analyse the life of oppressed in various languages translated into English like Kannada, Gujarathi, Punjabi, Tamil and Telugu
CO4	Compare and analyse the different forms of Dalit Literature based on different experiences
CO5	Understand the classification and characteristics of Dalit Movement in post-independent India

JSS Mahavidyapeetha
JSS College of Arts, Commerce and Science
 Ooty Road, Mysuru – 570 025, Karnataka, India

2018-19

Name of the Department: PG Department of Biotechnology
Programmes offered: M.Sc. in Biotechnology

Course outcomes

COURSE	COURSE CODE	COID	CO'S
BIOMOLECULES AND BIOENERGETICS	BTA040	CO1	Study of different biomolecules
		CO2	Metabolism and their regulation
		CO3	Enzymes and their role in metabolism
		CO4	Application of thermodynamics to understand the basic concepts of life.
		CO5	To study the integrated metabolism of all the biomolecules.
BIOANALYTICAL TECHNIQUES	BTA050	CO1	To understand the separation of molecules by different chromatography, centrifugation and electrophoretic techniques
		CO2	Analysis and characterization of molecules by spectroscopy techniques
		CO3	Use of radioactive material in understanding metabolic pathways
		CO4	To study the imaging techniques to explore the basics of cell
LAB – I	BTA060	CO1	Course objective is to introduce the students to the fundamental experiments in the field of Biochemistry, Microbiology and Genetics.

		CO2	Students get the insight to operate simple equipments like colorimeter and spectrophotometer
		CO3	Identification of microorganisms by morphology and staining techniques and study of growth kinetics.
		CO4	In genetics students are exposed to know about culture and maintenance of <i>Drosophila melanogaster</i> (model organism), Study of mutants, salivary gland chromosome and karyotyping techniques.
		CO5	To understand the different enzyme kinetics.
MOLECULAR GENETICS	BTA230	CO1	To understand the molecular mechanism of inheritance
		CO2	Mutation and DNA repair mechanism
		CO3	Gene mapping and study of chromosomal abnormalitis
		CO4	Phylogenetics and micro-evolution
		CO5	Development of an organism
MICROBIOLOGY	BTA240	CO1	To understand the microbial taxonomy
		CO2	Handling, preservation and sterilization of microbes
		CO3	Microbial interactions with different hosts
		CO4	-Application of microorganisms in the field of agriculture, environment and health sciences
MOLECULAR BIOLOGY	BTB020	CO1	The student will get an idea about the genomic organization of prokaryotes and eukaryotes.
		CO2	To obtain in depth knowledge of genetic code, DNA replication and transcription.
		CO3	Understand principles, concepts of translation, post translation mechanism
		CO4	Regulation of gene expression in prokaryotes and eukaryotes
		CO5	Gain the insight into molecular mechanism of antisense molecules, inhibition of splicing and application of antisense and ribozyme technologies

IMMUNOLOGY AND IMMUNO TECHNOLOGY	BTB050	CO1	Study basic concepts of immunology
		CO2	MHC and their role in transplantation
		CO3	Cytokines and their role in immune system, Tumor Immunology
		CO4	Autoimmune diseases , causes and treatment
		CO5	Hypersensitivity, Vaccine production
LAB – II	BTB060	CO1	Students are trained to get the skills in the field of Molecular biology and Genetic engineering
		CO2	Isolation and purification of nucleic acids and their quantification
		CO3	Study of antigen and antibody interactions
		CO4	Preparation of wine and analysis of food samples
		CO5	Visit to Bio-tech Industries
CELL SIGNALLING AND COMMUNICATION	BTB220	CO1	Understanding the multi-cellularity of organisms
		CO2	role of extracellular matrix in signalling
		CO3	various signalling pathways from the cell surface to the nucleus
		CO4	cell signalling in plants
		CO5	microbe-plant and insect-plant interaction.
FOOD AND ENVIRONMENTAL BIOTECHNOLOGY	BTB210	CO1	Comprehensive insight into the fermented foods and enzymes in food industry
		CO2	Obtain knowledge of functional foods, genetically modified foods and nutraceuticals
		CO3	Students will be able to understand current status of biotechnology in environment protection.
		CO4	Understand the principles of bioremediation and significance of GMO to the environment.
		CO5	waste management.
BIOPROCESS	BTC040	CO1	understand the different metabolic pathways of microorganisms
		CO2	To have the comprehensive insight into the different type of fermenter

ENGINEERING AND TECHNOLOGY		CO3	To obtain knowledge of media design and industrial culture
		CO4	Students will be able to understand different type of fermenter and bioreactor
		CO5	Understand the principles of downstream processing, To understand the enzyme technology and their applications in industry.
GENETIC ENGINEERING	BTC050	CO1	To have the comprehensive insight into the different enzymes used in Genetic engineering lab
		CO2	To obtain knowledge of construction of vectors
		CO3	Students will be able to understand different type of cloning methods.
		CO4	Understand the principles of PCR& types
		CO5	To know the different sequence methods
LAB- III	BTC060	CO1	To have the comprehensive insight into the different enzymes kinetics
		CO2	Production of different compounds by fermentation
		CO3	to study the plant tissue culture methods
		CO4	Estimation of different bio active compounds
		CO5	Preparation of animal cell culture media and anti-angiogenic activity
BIostatistics, BIOINFORMATICS AND BIO ENTERPRENURSHIP	BTC220	CO1	Application of statistics to understand and analyse the experimental results of biological sciences
		CO2	Retrieval of biological data
		CO3	phylogenetic analysis

		CO4	Primer designing, Insight into start-up companies.
		CO5	drug discovery and molecular docking
APPLIED BIOTECHNOLOGY		CO1	Scope of Biotechnology in India
		CO2	Use of plant tissue culture to society
		CO3	Applications of animal cell culture in medical field
		CO4	Applications of Bio-technology in solving agricultural problems
		CO5	Production of bio-pesticides and bio-fertilizers.
PLANT BIOTECHNOLOGY	BTD010	CO1	General Introduction to tissue culture
		CO2	Use of plant tissue culture to society
		CO3	Haploid technology to produce seedless crops
		CO4	Applications of Bio-technology in solving agricultural problems
		CO5	
ANIMAL BIOTECHNOLOGY	BTD020	CO1	General Introduction to Animal cell culture
		CO2	Use of different media to culture animal cells
		CO3	Different methods of cell separation
		CO4	Tissue Engineering using different matrices
		CO5	Cloning of animals
Project work	BTD030	CO1	Making the students to think about current scientific problems
		CO2	Designing the objectives and writing the synopsis
		CO3	Understanding the research articles
		CO4	Designing the experiments
		CO5	Analysing the data, interpretation of results and writing research papers

**JSS COLLEGE OF ATRS, COMMERCE AND SCIENCE
OOTY ROAD MYSURU-25
PG DEPARTMENT OF BIO-TECHNOLOGY**

PO

SUBJECT	COID	PO'S
MSc Biotechnology	PO1	Acquire knowledge on the fundamentals of biotechnology for sound and solid base which enables them to understand the emerging and advanced engineering concepts in life sciences
	PO2	To make the students develop interpersonal skills, written and oral communication and also to improve their body language and eye contact during presentations.
	PO3	To train the students in group discussions to develop leadership qualities and to respect the others idea and take the decisions for the welfare of society.
	PO4	To teach the students not to demoralize the others ideas and not to differentiate the intelligent and the ignorant, poor and the rich and to uphold the moral values in the society
	PO5	Upon completion of course students will have the ability to design the experiments to solve the current problems in the society related to health, environment and industries,
	PO6	Upon completion of course students will have the ability to design the experiments to solve the current problems in the society related to health, environment and industries

JSS Mahavidyapeetha
JSS College of Arts, Commerce and Science
 Ooty Road, Mysuru

Department: PG Department of Social Work

Programme Name: MSW

Programme Code: MSW 13

Session/Year: 2018-19

List of POs & PSOs

POID	PO Statement
PO1	Develop the capacity to undertake Research
PO2	Develop the skills and capacities to work in a multidisciplinary team
PO3	Develop the capacity to project self as a professional
PO4	Equipped with the knowledge of Social dynamism
PO5	Equipped to work in various fields of Social Work
PO6	Imbued with the core values and principles of Social Work
PSO1	Equip to work in the Community Development Programmes
PSO2	Develop the capacity to work in the field of Human Resource as Labour Welfare Officers, HR Executives and liaison officers
PSO3	Develop the skill to work as medical and psychiatric social workers
PSO4	Equip with the skill to work in family and Child Welfare Centres
PSO5	Develop the capacity to work in correctional settings

Course Title: Social Work – History and Ideologies

Course Code: SWA 010

List of COs

CO ID	CO Statement
CO1	Learn the details of Indian History of Social work Profession
CO2	Understand in depth Values and principles of Social work
CO3	Deliberate the details of Contemporary Ideologies for Social change
CO4	44731 Learn the details of Western Ideologies for Social Change and History of Social Work

Course Title: Work with Individuals and Families

Course Code: SWA 020

List of COs

CO ID	CO Statement
CO1	Learn in details with application of social case work as method of Social Work
CO2	Learn in detail the Values and principles of Social Case work
CO3	Learn the details of theories and process of Casework
CO4	Specify in depth application of Social Case work in different settings

Course Title: Work with Groups

Course Code: SWA 030

List of COs

CO ID	CO Statement
CO1	Identify in detail the concept of group and group work
CO2	Learn the process of Group Work
CO3	Understand in depth Group dynamics and skills in group work

Course Title: Work with Communities

Course Code: SWA 040

List of COs

CO ID	CO Statement
CO1	Learn in details with examples concept of Community and Community organization
CO2	Learn in depth models and strategies of Community Organization
CO3	Understand the skills of Community organize
CO4	Understand in depth Micro and macro policies of community OrgOrganizaion

Course Title: Human Growth & Development

Course Code: SWA 050

List of COs

CO ID	CO Statement
CO1	Learn in detail Human life span and principles of growth and development
CO2	Understand the details of Developmental stages of Human Life span
CO3	Understand the theories of Human Development and learning
CO4	Understand the theories of Basic Human Needs, motivation, Personality

Semester: II

Course Title: Social Work Research and Statistics

Course Code: SWB 010

List of Cos

CO ID	CO Statement
CO1	Understand the meaning, objectives and scope of Social Work Research
CO2	Understand in detail the Process of Social Work Research

Course Title: Developmental and Welfare Services

Course Code: SWB 020

List of COs

CO ID	CO Statement
CO1	Deliberate in depth need for social welfare organization
CO2	Learn the procedure of establishment of Human Service Organizations
CO3	Understand the process of Management
CO4	Learn in detail the concepts of Programme Development and Public Relations

Course Title: Personal and Professional Growth

Course Code: SWB 030

List of COs

CO ID	CO Statement
CO1	Understand the meaning, importance, purpose and process of communication
CO2	Learn the use of Visual aids in communication
CO3	Understand the counselling situations and approaches
CO4	Understand self and developing self awareness
CO5	Understand the details of emotions and emotional expressions
CO6	Understand in depth life skills
CO7	Identify in depth Values, attitudes and professional ethics

Course Title: Communication and Counselling

Course Code: SWB220

List of COs

CO ID	CO Statement
CO1	Identify in detail the concept of group and group work
CO2	Learn the process of Group Work
CO3	Understand in depth Group dynamics and skills in group work

Course Title: Social Science Perspectives for Social Work Practice **Course Code:** SWD 240

List of COs

CO ID	CO Statement
CO1	Deliberate the characteristics of sociology and its relationship with other social sciences
CO2	Specify the characteristics of social movements in India

Semester: III

Course Title: Human Resource Management

Course Code: SWC 010

List of COs

CO ID	CO Statement
CO1	Learn the concept and philosophy of Human Resource Management
CO2	Understand the policies, sources and methods of talent acquisition
CO3	Deliberate in details with examples Compensation Management
CO4	Deliberate the changing scenario of strategic Human Resource Management 70

Course Title: Organizational Behaviour and Organizational Behaviour

Course Code: SWC 020

List of COs

CO ID	CO Statement
CO1	Specify the significance of transactional analysis and theories of motivation
CO2	Understand group dynamics and organization development
CO3	Deliberate in depth on organizational change, stress and burnout

Course Title: Preventive and Social Medicine and Medical Social Work

Course Code: SWC 030

List of COs

CO ID	CO Statement
CO1	Learn in depth concept of health and health care
CO2	Learn in details with application Medical Social Work and Rehabilitation of Patients

Course Title: Social Policy, Planning and Development

Course Code: SWC 040

List of COs

CO ID	CO Statement
CO1	Understand in detail concept and purpose of social policies and values underlying social policy
CO2	Learn in detail Sectoral policies in India
CO3	Learn the social planning process
CO4	Learn in detail the concept of social development and Indicators of development

Course Title: Legal System in India

Course Code: SWC 050

List of COs

CO ID	CO Statement
CO1	Learn in depth concept of social justice and understanding of Rights
CO2	Understand the divisions of law and chapters under IPC and CRPC
CO3	Understand the details of structure and functions of District Court, High Court and Supreme Court

Semester: IV

Course Title: Employee Relations and Legislations

Course Code: SWD 010

List of COs

CO ID	CO Statement
CO1	Identify in details with application concept, philosophy and principles of employee relations
CO2	Deliberate on functioning of trade unions in India
CO3	Learn the employee legislations
	Understand in depth process of collective bargaining

Course Title: Mental Health and Psychiatric Social Work

Course Code: SWD 020

List of COs

CO ID	CO Statement
CO1	Learn the details of concept of Mental Health, Mental Illness and its classification
CO2	Understand the concept of psychiatric Social Work and Multidisciplinary approach and team work
CO3	Learn about the institutional care of mentally ill and role of social workers
CO4	Understand the psycho social rehabilitation and legislations related to mental Health

Course Title: Human Resource Development and Employee Wellness

Course Code: SWD 030

List of Cos

CO ID	CO Statement
CO1	Understand concept, approaches and dimensions of Human resource development
CO2	Deliberate in depth on HRD Interventions
CO3	Learn in details with examples concept and importance of talent development
CO4	Deliberate on employee wellness and standardization of systems

Course Title: Society and Social Work
Course Code: SWD 040

List of COs

CO ID	CO Statement
CO1	Understand in depth on society and its institutions
CO2	Understand in details on the different concepts of psychology
CO3	Specify the characteristics of mental health and mental disorders

Course Title: Social Science Perspectives for Social Work Practice **Course Code:** SWD 050

List of COs

CO ID	CO Statement
CO1	Deliberate the characteristics of sociology and its relationship with other social sciences
CO2	Specify the characteristics of social movements in India

Department: PG Kannada

Programme Name: MA Kannada

Programme Code: MKAN01

Session/Year: 2018-19

List of POs & PSOs

POID	PO Statement
PO1	Demonstrate critical reading, writing, and thinking skills. Write well developed, focussed and effective paragraphs, which support a clear thesis statement, and demonstrate competence in Standard Kannada usage.
PO2	Get the opportunity to opt for career in the field of social media
PO3	Helps to pursue research work at M.Phil and Doctoral level
PO4	Help to communicate effectively and fluently at various occasions
PO5	Analyse and interpret text written in Dravidian Language.
PO6	Learn to write logical and informative papers
PO7	Imbibe good ethics explored in the works of great writers.
PO8	Learn to participate effectively in debates, group discussions, seminars.

Course Title: Prachina Kannada Sahithya : Patya : Adipurana Course Code: KNA010

List of COs

CO ID	CO Statement
CO1	Recognize and understand figurative language, such as allegory and metaphor, and literary techniques, like irony, rhyme, and allusion.
CO2	Identify the unique qualities of the authors studied, and compare and contrast them
CO3	Analyze literary works for their structure and meaning
CO4	Able to effectively communicate ideas related to the literary work

Course Title: Prachina Kannada Sahithyada Hinnele

Course Code: KNA020

List of COs

CO ID	CO Statement
CO1	To enable them to have a historical perspective of the development over the centuries. CO2: Identify the unique qualities of the authors studied, and compare and contrast them
CO2	Identify the unique qualities of the authors studied, and compare and contrast them
CO3	Demonstrate knowledge of the style, structure, and content of the assigned literary texts.
CO4	Develop a well-written argument about one or more literary texts or authors, and accurately cite literary and other sources

Course Title: Kannada Chandasinna Adhyayana

Course Code: KNA030

List of COs

CO ID	CO Statement
CO1	Familiar with Old Kannada Poetry
CO2	Adopt the correct reading of Old Kannada poetry
CO3	Identify the different forms of meters in the writings of poets of different genre
CO4	Learn to apply in creative literature

Course Title: Vimarsheya Adhyayana

Course Code: KNA040

List of COs

CO ID	CO Statement
CO1	Creates opportunity to nurture their ability to produce literary texts. CO2: Helps to understand the process of communicating and interpreting human experience through literary representation
CO2	Helps to understand the process of communicating and interpreting human experience through literary representation
CO3	They learn to raise significant questions, gather relevant evidence, reach well-reasoned conclusions.
CO4	Students also develop an ethical orientation to living as their study of literature encourages them to value human actions, motivations, and differences.

Course Title: Bashavignanada Mulatatvagalu

Course Code: KNA210

List of COs

CO ID	CO Statement
CO1	They have the ability to analyse and interpret all aspects of language phenomena
CO2	Able to understand the concepts, theories, and methodologies used by linguists
CO3	Helps in qualitative and quantitative analyses of linguistic structure, and patterns of language use.
CO4	Developes a significant capacity for adaptation and the ability to question and engage in professional practice

Course Title: Madhyakaleena Kannada Sahithya : Patya

Course Code: KNB010

List of COs

CO ID	CO Statement
CO1	Able to understand the background for the linguistic situation of the period.
CO2	Appreciate the representative poets, novelists and works of Kannada literature
CO3	Identify and describe distinct literary characteristics of the literature of this time period
CO4	Able to analyze and interpret texts.

Course Title: Madhyakaleena Kannada Sahithya Hinnele

Course Code: KNB020

List of COs

CO ID	CO Statement
CO1	Helps to understand the historical and cultural contexts of the literature of this period to some major authors, works, and genres
CO2	Imbibe good ethics explored in the works
CO3	Helps to Identify the key elements that are distinctive to the artistic achievement of early modern writers.
CO4	Reflect and write analytically about the literary texts and their contexts.

Course Title: Dravida Bashavijayana

Course Code: KNB030

List of COs

CO ID	CO Statement
CO1	Earn knowledge on the Origin and Growth of Dravidian Languages
CO2	Develope the skill to write in traditional form
CO3	Acquire knowledge to analyse Old Kannada Literature
CO4	Able to make the comparative analysis of Dravidian Literature

Course Title: Kannada Vimarshe : Ayda Lekhanagalu

Course Code: KNB040

List of COs

CO ID	CO Statement
CO1	Understand the growth of Kannada Criticism
CO2	Able enough to evaluate the present genre writings
CO3	Understand to view literature in different dimensions
CO4	Learn to write analytically about the literary text and their contexts

Course Title: Kannada Vyakarangala Thoulanika Samikshe

Course Code: KNB210

List of COs

CO ID	CO Statement
CO1	Able to identify the different ways in which grammar has been described.
CO2	Imply the use of grammar and vocabulary in speech and writing
CO3	Learn how to analyze unfamiliar words by understanding the structure of the Language.
CO4	Increase confidence in their ability to read, comprehend, organize, and retain written information.

Course Title: Kannada Samskurthi Chinthane

Course Code: KNB220

List of COs

CO ID	CO Statement
CO1	Acquire knowledge of Different phases of Kannada Culture
CO2	Understand and adopt the values of Rich Heritage of Kannada Culture
CO3	Understand the relation between Kannada Language and Culture
CO4	Read and analyse the opinions of famous intellectuals about Kannada Culture

Course Title: Thulanika Sahithya : Kavya mattu Nataka

Course Code: KNC010

List of COs

CO ID	CO Statement
CO1	Explore the connections of literature with history, philosophy, politics, and literary theory
CO2	Analyze literary works from various genres for their structure and meaning, using correct terminology
CO3	Develop multi-dimensional characters
CO4	Help to interact, with other cultural forms of literature.

Course Title: Adunika Kannada Sahithyada Hinnele

Course Code: KNB020

List of COs

CO ID	CO Statement
CO1	Develops new thinking on modern writers and their writings.
CO2	Identify and describe distinct literary characteristics of 20th century literature
CO3	Effectively communicate ideas related to the literary works
CO4	Integrate source material into research papers smoothly

Course Title: Bharatiya Kavya Mimamse

Course Code: KNB030

List of COs

CO ID	CO Statement
CO1	Helps to unfold new spheres of study and research
CO2	Understand Indian poetics with its speciality of literary devices, Helps to gain knowledge of poetry as a literary genre.
CO3	Able to Identify and describe distinct literary characteristics of poetic forms
CO4	Able to analyse poetic works for their structure and meaning, using correct terminology

Course Title: Samashodana vidyana mattu Ganaka Gyana

Course Code: KNC040

List of COs

CO ID	CO Statement
CO1	Understand the Research methodology of Kannada Studies
CO2	Understand the historical background of Kannada Research
CO3	Learn to utilize the application of the computers
CO4	Learn the application of computers in Social media

Course Title: Upabasha Vijayana

Course Code: KNC210

List of COs

CO ID	CO Statement
CO1	Understand various Kannada Dialects.
CO2	Learn the Phonetics of Kannada Dialects
CO3	Attempt to collect local dialects through field visits by solving survey problems
CO4	Analyse the different phases of the growth of kannada dialects.

Course Title: Adunika Kannada Sahithya : Patya

Course Code: KND010

List of COs

CO ID	CO Statement
CO1	Learn different phases of the growth of Kannada novels and poems.
CO2	Understand the diverse themes according to period.
CO3	Create interest to opt these in their research work.
CO4	Motivate young writers.

Course Title: Pacshatiya Kavya Mimamse

Course Code: KND020

List of COs

CO ID	CO Statement
CO1	Acquire knowledge on western literary criticism.
CO2	Analyse the influence of western literary criticism on Kannada literature.
CO3	Develop analytical skills.
CO4	Identify the difference between eastern and western criticism.

Course Title: Samuha Madyama

Course Code: KND030

List of COs

CO ID	CO Statement
CO1	Gather knowledge on social and mass media.
CO2	Understand the working knowledge about AIR, TV Channels, cinemas and press media.
CO3	Enhanced communicative skills help in carrier opportunity.
CO4	Able to work in various positions in media sector.

Course Title: Avadika Karya

Course Code: KND040

List of COs

CO ID	CO Statement
CO1	Understand the research methodology.
CO2	Implement the knowledge in their project work.
CO3	Learn editing skills.
CO4	Helps to pursue doctoral research.

Course Title: Kannada Basha Swarupa : Patya

Course Code: KND210

List of COs

CO ID	CO Statement
CO1	Develop the ability to analyse and interpret all aspects of language phenomena
CO2	Able to understand the concepts, theories, and methodologies used by linguists.
CO3	Helps in qualitative and quantitative analyses of linguistic structure, and patterns of language use.
CO4	Developes a significant capacity for adaptation and the ability to question and engage in professional practice

Department: PG Kannada

Programme Name: MA Kannada

Programme Code: MKAN01

Session/Year: 2018-19

List of POs

POID	PO Statement
PO1	Demonstrate critical reading, writing, and thinking skills. Write well developed, focussed and effective paragraphs, which support a clear thesis statement, and demonstrate competence in Standard Kannada usage.
PO2	Get the opportunity to opt for career in the field of social media
PO3	Helps to pursue research work at M.Phil and Doctoral level
PO4	Help to communicate effectively and fluently at various occasions
PO5	Analyse and interpret text written in Dravidian Language.
PO6	Learn to write logical and informative papers
PO7	Imbibe good ethics explored in the works of great writers.
PO8	Learn to participate effectively in debates, group discussions, seminars.

JSS MAHAVIDYAPEETHA
JSS College of Arts, Commerce and Science (Autonomous)
Ooty Road, Mysuru - 570025

Department: History
Program Code: HE14

Program: BA

PO ID	PO
BAHE14P01	Critically recognize the social, political, economic and cultural aspects of History
BAHE14P02	Demonstrate thinking skills by analyzing, synthesizing, and evaluating historical information from multiple sources
BAHE14P03	Correctly extract evidence from primary sources by analyzing and evaluating them in relation to their cultural and historical context
BAHE14P04	Develop an informed familiarity with multiple cultures
BAHE14P05	Emerge as a multifaceted personality who is self-dependent
BAHE14P06	Spread the messages of equality, nationality, social harmony and other human values
BAHE14P07	Comprehend the basic structures and processes of government systems and/or theoretical underpinnings
BAHE14P08	Analyze political problems, arguments, information, and/or theories
BAHE14P09	Apply methods appropriate for accumulating and interpreting data applicable to the Discipline of political science & English
BAHE14P10	Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes

Department: History
Program Code: HE14

Program: BA

Course Title: HISTORY OF INDIA (300 BCE TO 300 AD)

Course Code	COs
BAHE14CO1	Familiarise the students of early civilizations. The birth of new religions. Jainism and Buddhism and the teachings of Mahaveera and Buddha
BAHE14CO2	Discuss ancient republics, establishment of great Empires political land military Adventures of our great rulers

BAHE14CO3	Gain knowledge of Economic, Social and religious conditions and education system of Ancient period
BAHE14CO4	Inspire the students through the great literary books and contributions to the growth of Art & Architectures
BAHE14CO5	Understanding the administration of our great kingdoms and foreign trade and commercial activities are of great values in the development of the state

Department: History

Program: BA

Program Code: HE14

Course Title: History of India (750 CE to 1206 CE)

Course Code	COs
BAHE14CO1	Assimilate knowledge to the students to learn the developments in India during the Muslim rule
BAHE14CO2	Conceptualize the Persian literary sources, military adventures and administration of Delhi Sulthanate and the great Moghuals
BAHE14CO3	Gain knowledge about the cultural contributions of sulthans in the medieval period
BAHE14CO4	Inspire the students through the great literary books and contributions to the growth of Art and Architectures
BAHE14CO5	Understanding the administration of our great kingdoms and foreign trade and commercial activities are of great values in the development of the state

Department: History

Program: BA

Program Code: HE14

Course Title: HISTORY OF INDIA (1206-1550)

Course Code	COs
BAHE14CO1	Gain knowledge about the cultural contributions of sulthans in the medieval period
BAHE14CO2	Understanding the administration of our great kingdoms and foreign trade and commercial activities are of great values in the development of the state
BAHE14CO3	Inspire the students through the great literary books and contributions to the growth of Art and Architectures
BAHE14CO4	Assimilate knowledge to the students to learn the developments in India during the Muslim rule
BAHE14CO5	Conceptualize the Persian literary sources, military adventures and administration of Delhi Sulthanate and the great Moghuals
BAHE14CO6	Illuminate the aspects of Economy and its development in Medieval India

Department: History

Program: BA

Program Code: HE14

Course Title: HISTORY OF INDIA (1500-1650)

Course Code	COs
BAHE14CO1	Understand the detailed picture of the heroic resistance Indian to the company's rule, the battle of Plassi , Buxar and Carnatic wars and their effects
BAHE14CO2	Develop the knowledge of Consolidation of the British rule regulating Act 1773, subsidiary allianace, doctrine of lapse and land revenue policies.
BAHE14CO3	Indian renaissance and change of administration, the great revolt of 1857. It will inspire students to appreciate and respect national leaders and values of patriotism and nationalism
BAHE14CO4	Gain knowledge about foundation of Indian National congress. Role of moderates, extremists and Ghandhian era., to the students
BAHE14CO5	To understand the fusion of art, architecture, literature, language and fine arts inmedieval India under British rule

Name of the Department: POLITICAL SCIENCE

Programme offered: B A : BA22:BA26:BA25

I SEMESTER Course code:

INTRODUCTION TO POLITICAL THEORY

Course title	CO Id	CO
POLITICAL THEORY	CO1	Learn in depth meaning and nature of political theory
	CO2	Deliberate in details with examples differences between politics and political theory
	CO3	Understand the characteristics of elements of state
	CO4	Specify the details of civil society
	CO5	Understand the classification and characteristics of rights
	CO5	Specify the classification and characteristics of democracy
	CO6	Learn in depth meaning and nature of political theory

II SEMESTER Course code:DLB260

BA22/BA26/BA25

Course title	CO Id	Cos
INDIAN GOVERNMENT AND POLITICS	CO1	Identify the characteristics of Indian politics
	CO2	Understand the characteristics of Indian constitution
	CO3	Understand in details with application, if applicable, federalism
	CO4	Identify the classification and characteristics of power structure in India
	CO5	Identify the details of party system in India

III SEMESTER COURSE CODE:DLC260

Course title	CO /Id	CO Statement
COMPARATIVE GOVERNMENT AND POLITICS	CO1	Specify the details of comparative governments
	CO2	Understand the details of classification of political systems
	CO3	Understand the classification and characteristics of electoral systems
	CO4	Learn the classification and characteristics of contemporary debates on state
	CO5	Understand in details with application, if applicable, contemporary debates

IVSEMESTER

COURSE CODE:DLD260

Course title	CO Id	CO Statement
INTRODUCTION TO INTERNATIONAL RELATIONS	CO1	Identify the classification and characteristics of approaches of international relations
	CO2	Specify the classification and characteristics of cold war
	CO3	Write down the characteristics of India's foreign policy
	CO4	Specify in depth India and her neighbours relationship
	CO5	Learn the details of relations of India with great powers

PO/Id/No.	PO
PO1	Critically recognizes the social, political, economic and cultural aspects of History.
PO2	Demonstrate thinking skills by analyzing, synthesizing, and evaluating them in relation to their cultural and historical context.
PO3	Correctly extracts evidence from primary sources by analyzing and evaluating them in relation to their cultural and historical context.
PO4	Develop an informed familiarity with multiple cultures.
PO5	Demonstrate critical reading, writing and thinking skills.

PO'S

POID	PO
PO1	Students should be familiar with representative literary and cultural texts within a significant number of historical, geographical, and cultural contexts.
PO2	Students should be able to apply critical and theoretical approaches to the reading and analysis of literary and cultural texts in multiple genres
PO3	Students should be able to identify, analyze, interpret and describe the critical ideas, values and themes that appear in literary and cultural texts and understand the way these ideas, values and themes inform and impact culture and society, both now and in the past.
PO4	Students should be able to write analytically in a variety of formats, including essays, research papers, reflective writing, and critical reviews of secondary sources.
PO5	Students should be able to ethically gather, understand, evaluate and synthesize information from a variety of written and electronic sources.
PO6	Students should be able to understand the process of communicating and interpreting human experiences through literary representation using historical contexts and disciplinary methodologies.
PO7	Students should be able to spread the messages of equality, nationality, social harmony and other human values.
PO8	Students should be able to develop and carry out research projects, and locate, evaluate, organise, and incorporate information effectively.
PO9	Students should be able to acquire the ability to engage in independent and lifelong learning in a broader context about Socio-technological and demographic changes.
PO10	Students should be able to demonstrate critical reading, writing and thinking skill.

Course Code: ELA22224

Course Title: **Poetry, Drama and Essays**

CO ID	CO
CO1	Know the history of English literature in the chronological order
CO2	Enjoy the literary forms such as novel, poem, play, and essay.
CO3	Critically understand the literature
CO4	Emotionally develop students mind.
CO5	Understand the culture in that particular period of time
CO6	Enhance narrative capacity and be rational and decisive in his approach to life.

Course Code: ELB22224

Course Title: Poetry, Fiction & Essays

CO ID	CO
CO1	Understand the language, culture and pattern of writing of the 18 th Century writers.
CO2	Enjoy the literary forms such as novel, poem, and essay.
CO3	Critically analyse the literature
CO4	Understand the relation between literature and real life.
CO5	Connect, compare and contrast the life of fantasy and fact.
CO6	Distinguish the human qualities

Course Code: ELC22224

Course Title: Poetry, Drama and Fiction

CO ID	CO
CO1	Apply theoretical knowledge into life effectively.
CO2	Reminisce certain literary descriptions and look at life with another perspective.
CO3	Critical understanding of literature
CO4	Relation between literature and real life.
CO5	Understand the culture and tradition prevailed in the 19 th Century
CO6	Connect, compare and contrast the life of fantasy and fact.

Course Code: ELD22224

Course Title: Poetry, Fiction & Prose

CO ID	CO
CO1	Understand the culture and tradition prevailed in 20 th Century
CO2	Enhance the narrative capacity and be rational and decisive in his approach to life
CO3	Re-relate historical events in a more apprehensive language.
CO4	Relation between literature and real life.
CO5	Learn and lead a life filled with humanitarian concern.

Course Code: ELE22224, 225

Course Title: Modern Literature

CO ID	CO
CO1	Have better understanding of life.
CO2	Develop analytical and critical quality.
CO3	Be creative in his day to day life and face the problems
CO4	Relation between literature and real life.
CO5	Compare and contrast the historical and modern works

Course Code: ELF22224, 225

Course Title: English Writing in Third World Countries

CO ID	CO
CO1	Understand the problems the of third world countries
CO2	Know the rift between colonised and coloniser
CO3	Understand the spirit of independence and limitations of freedom.
CO4	Get the knowledge of pre and post independent socio-political and economic aspects of India.
CO5	Develop critical and rational thinking.

Programme Code: **BA25(CBCS)**

Department: **Journalism**

Programme: **BA**

POID	PO
BA251	Acquire a functional knowledge of the underlying principles and recent emerging trends of the media industry.
BA252	Create a design emerging audio media production.
BA253	Conceptualize, create, design and strategies high-quality media content for various digital platforms.
BA254	Appreciate and demonstrate the ability to produce reliable outcome.
BA255	Demonstrate critical reading, writing and thinking skills.
BA256	Locate, evaluate, organize and incorporate information effectively.
BA257	Develop and carry out research project.
BA258	Demonstrate competence in Standard English Language and usage in documentation.

CO Attainment

Course Title: Introduction to Communication And Journalism

CO ID	CO
DLA270151	Become Freelance journalist.
DLA270152	To set up the commercial studio.
DLA270153	Become a armature photo journalist.
DLA270154	Stringer for several media houses.

Course Title: History of Indian Journalism

CO ID	CO
DLB270151	Become news reporters and stringers.
DLB270152	Become circulation manager.
DLB270153	Become script writer.

Course Title: Reporting and Editing Techniques.

CO ID	CO
DLC270151	Prepare news copy
DLC270152	Specialize as fashion reporter
DLC270153	Prepare news copy editing

Course Title: Media Laws and Ethics

CO ID	CO
DLD270151	Establish own publication.
DLD270152	Develop live telecasting skills
DLD270153	Develop social activities skills.

Department: Hindi

Programme: BCOM

PO ID	PO (BCOM) (11)
PO 1	Motivated for their higher education
PO 2	Write resume, letter of application and business letters
PO 3	Improve Spoken and written communication

Programme Code: JUC050

Course title : **Hindi** Gadya aur Vyakarna

Paper 1

CO ID	CO
CO 1	Deliberate in details with application, if applicable, short stores of 20 th century
CO 2	Deliberate in details with application, if applicable, gadya by manoja guptha
CO 3	Understand the classification and characteristics of gadya by manoja guptha
CO 4	Understand in details with application, if applicable, Hindi vyakaran
CO 5	Learn the details of Hindi vyakaran
CO 6	Specify in details with application, if applicable, Hindi vyakaran

Programme Code: JUC050

Course title : **Hindi Kahani aur Vyakaran**

Paper 2

CO ID	CO
CO 1	Specify in details with application, if applicable, Midiya lekan
CO 2	Understand the details of kahani of 20th cenyury
CO 3	Learn in details with application, if applicable, kahani of 20th cenyury
CO 4	Identify the classification and characteristics of Midiya lekan
CO 5	Deliberate the details of Hindi vyakaran
CO 6	Understand in details with application, if applicable, Midiya lekan

Programme Code: JCN 050

Course title : Hindi Kavya Anuvada tatha Paribhashik Shabdavali

Paper 3

CO ID	CO
CO 1	1. Deliberate the classification and characteristics of medieval and modern hindi kavya
CO 2	2 . Deliberate the characteristics of medieval and modern hindi kavya
CO 3	3 . Understand the details of Kaber by saakhe
CO 4	4 . Identify the characteristics of Hemala by ramadhare simha dinakar, Hindi Sarkari Patrachar
CO 5	5 . Learn in depth preyatham by suryakanta threepati nirala
CO 6	6 . Understand the characteristics of Hindi Anuvada
Co7	7 . Understand in depth Hindi Anuvada
Co8	8 . Identify in details with examples Hindi Anuvada

Programme Code: JCN 050

Course title : Hindi Upanyasa tatha Vanijya Hindi

Paper 4

CO ID	CO
CO 1	1. Learn in details with examples Novel-Gaban by Premchand
CO 2	2 . Understand in details with examples Novel-Gaban by Premchand
CO 3	3. Understand the details of Novel-Gaban by Premchand
CO 4	4. Identify the classification and characteristics of Vanijya Hindi
CO 5	5. Learn the classification and characteristics of Vanijya Hindi
CO 6	6. Identify in details with application, if applicable, Vanijya Hindi

Programme: BA

PO ID	PO (BA)
PO 1	Understand culture and heritage
PO 2	Manage business affairs
PO 3	Create interest in literature
PO 4	Report and edit public events effectively
PO 5	Develop reading writing communication and reasoning skills

Programme Code: JUH050Course title : **Hindi Gadhya Aur Vyakarna****Paper 1**

CO ID	CO
CO 1	1 . Identify in details with examples kahani of 20th century
CO 2	2. Write down in depth kahani of 20th century
CO 3	3. Deliberate in depth kahani of 20th century
CO 4	4. Specify the classification and characteristics of Hindi vyakaran
CO 5	5. Identify the characteristics of Hindi vyakaran

Programme Code: JUH050Course title : **Hindi Kahani Aur Vyakarna****Paper 2**

CO ID	CO
CO 1	1.Learn in details with examples Novel- by kamaleshwra
CO 2	2Understand in details with examples Novel-by kamaleshwra
CO 3	3.Understand the details of Novel-by kamaleshwra
CO 4	4. Identify the classification and characteristics of Prayojan Mulak Hindi
CO 5	5. Identify the characteristics of Hindi vyakaran

Programme Code: JCL050

Course title : **Hindi Nataka** aur Vanjya Hindi

Paper 3

CO ID	CO
CO 1	1.Understand the characteristics of Hindi Natak
CO 2	2 . Deliberate in details with application, if applicable, Hindi Natak -deep daan by Ramkumar varma
CO 3	3. Deliberate the characteristics of Hindi Natak - Red ke haddi by Jagadeshachandra mathur
CO 4	4. Understand the details of Hindi Natak -sukhe dale by Upendranath ashka
CO 5	5. Write down in details with examples Hindi Natak -mai bee manav hu by Vishnu prabakar
CO6	6. Identify the details of Hindi Vanijya Hindi
CO7	7. Specify in depth Vanijya Hindi

Programme Code: JCL050

Course title : **Hindi Kavya** aur Anuvada Paribhashik Shabdavali

Paper 4

CO ID	CO
CO 1	1. Write down the classification and characteristics of medieval and madran Hindi Kavya
CO 2	2. Deliberate in details with application, if applicable, medieval - saakhi by Kaber
CO 3	3. Specify in details with examples Hemala by Ramadhare Simha Dinakar
CO 4	4. Specify in details with application, if applicable, Gurukul by Ramkumar Varma
CO 5	5. Specify the characteristics of Hindi Anuvada Paribhasik Shabdavali
Co6	6 . Learn in details with examples Hindi Anuvada Paribhasik Shabdavali

Department: Hindi

Programme: BBA

PO ID	PO (BBA) (11)
PO 1	Inculcate human values
PO 2	Avail job opportunities in translation
PO 3	Create interest in literature

Programme Code: JUB050

Course title : **Hindi Kahani** aur Vyakarna

Paper 1

CO ID	CO
CO 1	Deliberate in details with application, if applicable, short stores of 20 th century
CO 2	Deliberate in details with application, if applicable, gadya by manoj guptha
CO 3	Understand the classification and characteristics of gadya by manoj guptha
CO 4	Understand in details with application, if applicable, Hindi vyakaran
CO 5	Learn the details of Hindi vyakaran
CO 6	Specify in details with application, if applicable, Hindi vyakaran

Programme Code: JUB050

Course title : **Hindi Gadya** aur Vyakaran

Paper 2

CO ID	CO
CO 1	Specify in details with application, if applicable, Midiya lekan
CO 2	Understand the details of kahani of 20th cenury
CO 3	Learn in details with application, if applicable, kahani of 20th cenury
CO 4	Identify the classification and characteristics of Midiya lekan
CO 5	Deliberate the details of Hindi vyakaran
CO 6	Understand in details with application, if applicable, Midiya lekan

Programme Code: JCP050

Course title : Hindi Kavya Anuvada tatha Paribhashik Shabdavali

Paper 3

CO ID	CO
CO 1	Deliberate the classification and characteristics of medieval and modern hindi kavya
CO 2	Deliberate the characteristics of medieval and modern hindi kavya
CO 3	Understand the details of Kaber by saakhe
CO 4	Identify the characteristics of Hemala by ramadhare simha dinakar, Hindi Sarkari Patrachar
CO 5	Learn in depth preyatham by suryakanta threepati nirala
CO 6	Understand the characteristics of Hindi Anuvada
Co7	Understand in depth Hindi Anuvada
Co8	Identify in details with examples Hindi Anuvada

Programme Code: JCP050

Course title : **Hindi Upanyas aur Vanijya Hindi**

Paper 4

CO ID	CO
CO 1	Learn in details with examples Novel-Gaban by Premchand
CO 2	Understand in details with examples Novel-Gaban by Premchand
CO 3	Understand the details of Novel-Gaban by Premchand
CO 4	Identify the classification and characteristics of Vanijya Hindi
CO 5	Learn the classification and characteristics of Vanijya Hindi
CO 6	Identify in details with application, if applicable, Vanijya Hindi

Department: Hindi

Programme: BCA

PO ID	PO (BCA) (11)
PO 1	Inculcate human values
PO 2	Avail job opportunities in translation
PO 3	Create interest in literature

Programme Code: JUA050

Course title : **Hindi Kahani** aur Vyakarna

Paper 1

CO ID	CO
CO 1	Deliberate in details with application, if applicable, short stores of 20 th century
CO 2	Deliberate in details with application, if applicable, gadya by manoja guptha
CO 3	Understand the classification and characteristics of gadya by manoja guptha
CO 4	Understand in details with application, if applicable, Hindi vyakaran
CO 5	Learn the details of Hindi vyakaran
CO 6	Specify in details with application, if applicable, Hindi vyakaran

Programme Code: JUA050

Course title : **Hindi Gadya** aur **Vyakaran**

Paper 2

CO ID	CO
CO 1	Specify in details with application, if applicable, Midiya lekan
CO 2	Understand the details of kahani of 20th cenyury
CO 3	Learn in details with application, if applicable, kahani of 20th cenyury
CO 4	Identify the classification and characteristics of Midiya lekan
CO 5	Deliberate the details of Hindi vyakaran
CO 6	Understand in details with application, if applicable, Midiya lekan

Programme Code: JCM 050

Course title : Hindi Kavya Anuvada tatha Paribhashik Shabdavali

Paper 3

CO ID	CO
CO 1	Deliberate the classification and characteristics of medieval and modern hindi kavya
CO 2	Deliberate the characteristics of medieval and modern hindi kavya
CO 3	Understand the details of Kaber by saakhe
CO 4	Identify the characteristics of Hemala by ramadhare simha dinakar, Hindi Sarkari Patrachar
CO 5	Learn in depth preyatham by suryakanta threepati niral
CO 6	Understand the characteristics of Hindi Anuvada
Co7	Understand in depth Hindi Anuvada
Co8	Identify in details with examples Hindi Anuvada

Programme Code: JCM 050

Course title : Hindi Upanyas Tatha Vanijya Hindi

Paper 4

CO ID	CO
CO 1	Learn in details with examples Novel-Gaban by Premchand
CO 2	Understand in details with examples Novel-Gaban by Premchand
CO 3	Understand the details of Novel-Gaban by Premchand
CO 4	Identify the classification and characteristics of Vanijya Hindi
CO 5	Learn the classification and characteristics of Vanijya Hindi
CO 6	Identify in details with application, if applicable, Vanijya Hindi

Department: Hindi

Programme: BCOM

PO ID	PO (BCOM) (11)
PO 1	Motivated for their higher education
PO 2	Write resume, letter of application and business letters
PO 3	Improve Spoken and written communication

Programme Code: JUC050

Course title : **Hindi** Gadya aur Vyakarna

Paper 1

CO ID	CO
CO 1	Deliberate in details with application, if applicable, short stores of 20 th century
CO 2	Deliberate in details with application, if applicable, gadya by manoja guptha
CO 3	Understand the classification and characteristics of gadya by manoja guptha
CO 4	Understand in details with application, if applicable, Hindi vyakaran
CO 5	Learn the details of Hindi vyakaran
CO 6	Specify in details with application, if applicable, Hindi vyakaran

Programme Code: JUC050

Course title : **Hindi Kahani aur Vyakaran**

Paper 2

CO ID	CO
CO 1	Specify in details with application, if applicable, Midiya lekan
CO 2	Understand the details of kahani of 20th cenyury
CO 3	Learn in details with application, if applicable, kahani of 20th cenyury
CO 4	Identify the classification and characteristics of Midiya lekan
CO 5	Deliberate the details of Hindi vyakaran
CO 6	Understand in details with application, if applicable, Midiya lekan

Programme Code: JCN 050

Course title : Hindi Kavya Anuvada tatha Paribhashik Shabdavali

Paper 3

CO ID	CO
CO 1	1. Deliberate the classification and characteristics of medieval and modern hindi kavya
CO 2	2 . Deliberate the characteristics of medieval and modern hindi kavya
CO 3	3 . Understand the details of Kaber by saakhe
CO 4	4 . Identify the characteristics of Hemala by ramadhare simha dinakar, Hindi Sarkari Patrachar
CO 5	Co5 . Learn in depth preyatham by suryakanta threepati nirala
CO 6	Co6 . Understand the characteristics of Hindi Anuvada
Co7	7 . Understand in depth Hindi Anuvada
Co8	8 . Identify in details with examples Hindi Anuvada

Programme Code: JCN 050

Course title : Hindi Upanyasa tatha Vanijya Hindi

Paper 4

CO ID	CO
CO 1	1. . Learn in details with examples Novel-Gaban by Premchand
CO 2	2 . Understand in details with examples Novel-Gaban by Premchand
CO 3	3. Understand the details of Novel-Gaban by Premchand
CO 4	4. Identify the classification and characteristics of Vanijya Hindi
CO 5	5. Learn the classification and characteristics of Vanijya Hindi
CO 6	6. Identify in details with application, if applicable, Vanijya Hindi

Department: Hindi

Programme: BSC

PO ID	PO (BSA)
PO 1	Inculcate human values
PO 2	Avail job opportunities in translation
PO 3	Create interest in literatur

Programme Code: JUS 050

Course title : **Hindi Gadhya Aur Vyakarna**

Paper 1

CO ID	CO
CO 1	1 . Identify in details with examples kahani of 20th century
CO 2	2. Write down in depth kahani of 20th century
CO 3	3. Deliberate in depth kahani of 20th century
CO 4	4. Specify the classification and characteristics of Hindi vyakaran
CO 5	5. Identify the characteristics of Hindi vyakaran

Programme Code: JUS 050

Course title : **Hindi Kahani Aur Vyakarna**

Paper 2

CO ID	CO
CO 1	1.Learn in details with examples Novel- by kamaleshwra
CO 2	2Understand in details with examples Novel-by kamaleshwra
CO 3	3.Understand the details of Novel-by kamaleshwra
CO 4	4. Identify the classification and characteristics of Prayojan Mulak Hindi
CO 5	5. Identify the characteristics of Hindi vyakaran

Programme Code: JCM 050

Course title : **Hindi Nataka** aur Vanjya Hindi

Paper 3

CO 1	1.Understand the characteristics of Hindi Natak
CO 2	2 . Deliberate in details with application, if applicable, Hindi Natak -deep daan by Ramkumar varma
CO 3	3. Deliberate the characteristics of Hindi Natak -Red ke haddi by Jagadeshachandra mathur
CO 4	4. Understand the details of Hindi Natak -sukhe dale by Upendranath ashka
CO 5	5. Write down in details with examples Hindi Natak -mai bee manav hu by Vishnu prabakar
CO6	6. Identify the details of Hindi Vanijya Hindi
CO7	7. Specify in depth Vanijya Hindi

Programme Code: JCM 050

Course title : **Hindi Kavya** aur Anuvada Paribhashik Shabdavali

Paper 4

CO ID	CO
CO 1	1. Write down the classification and characteristics of medieval and madran Hindi Kavya
CO 2	2. Deliberate in details with application, if applicable, medieval -saakhi by Kaber
CO 3	3. Specify in details with examples Hemala by Ramadhare Simha Dinakar
CO 4	4. Specify in details with application, if applicable, Gurukul by Ramkumar Varma
CO 5	5. Specify the characteristics of Hindi Anuvada Paribhasik Shabdavali
Co6	6 . Learn in details with examples Hindi Anuvada Paribhasik Shabdavali

Department: Physics
Programme Name: B.Sc
Session/Year: 2018-19

List of POs & PSOs

POID	PO Statement
PO1	Demonstrate proficiency in mathematics and the mathematical concepts needed for a proper understanding of physics
PO2	Demonstrate the ability to justify and explain their thinking and/or approach
PO3	Develop state of the art laboratory and professional communication skills
PO4	Apply the scientific method to design, execute and analyse an experiment

Course title	Course Code	CO Statement
I SEM Mechanics	DMA29001	Learn the detail of Elasticity
	DMA29002	Understand the classification and characteristics of motion of a point particle
	DMA29003	Understand in detail with example frame of reference and relative motion
	DMA29004	Deliberate the classification and characteristics of Dynamic of particle in conservative field
II SEM Electricity and magnetism	DMB29001	Deliberate in detail with examples vector analysis
	DMB29002	Write down in detail with application, electrostatics and magneto static
	DMB29003	Write down the classification and characteristics of AC Circuits
	DMB29004	Specify in details with application, if applicable, properties of magnet material
III SEM Thermal Physics	DMC29001	Write down the classification and characteristics of laws of thermodynamics
	DMC29002	Have a clear understanding about reversible and irreversible process
	DMC29003	Understand the classification and characteristics of entropy and thermodynamic potential
	DMC29004	Specify in details with examples kinetic theory of gases
IV SEM Waves and Optics	DMD29001	Specify the classification and characteristics of Fourier theorem
	DMD29002	Learn in detail with application, superposition of simple harmonic motion
	DMD29003	.Learn the details of Interference, diffraction and polarization
	DMD29004	Deliberate in detail with examples Sound, wave optics and transducers

Department: CHEMISTRY

Programme: BSc-PCM, CBZ, CZB

Programme Code: DMA24001/ DMA24005/ DMA24008

PO attainment:

I semester

Course title	POID	PO
CHEMISTRY - 1	PO1	Demonstrate proficiency in Mathematics and the Mathematical concepts needed for a proper understanding of Physics.
	PO2	Demonstrate the ability to justify and explain their thinking and/or approach
	PO3	Demonstrate the ability to think, express and present in a clear, logical and succinct arguments
	PO4	Develop state-of-the-art laboratory skills and professional communication skills
	PO5	Use this as a basis for ethical behavior in issues facing chemist/drugs
	PO1	Demonstrate proficiency in Mathematics and the Mathematical concepts needed for a proper understanding of Physics.

II semester

Course title	CO ID	CO
SOLUTIONS AND ORGANIC CHEMISTRY	CO1	Understand the concepts of electrochemistry.
	CO2	Study organometallic compounds.
	CO3	Learn the synthesis and reactions of amino acids, carbohydrates, alkaloids, vitamins, hormones and terpenes.
	CO4	Understand the qualitative organic analysis of organic compounds and enthalpy reactions.

IV semester

Course title	CO ID	CO
COORDINATION CHEMISTRY AND PHYSICAL CHEMISTRY	CO1	Know about co-ordination chemistry.
	CO2	Understand kinetic theory of gases, properties of liquids and crystallography.
	CO3	Acquire knowledge on the qualitative analysis of mixtures.

Department: Mathematics

Programme: B.Sc

Programme Code: BScPCM01/BScPMCs02/BScPMcm03/BScPME04

I SEMESTER

Course title	CO ID	CO
Differential Calculus	CO1	Distinguish between the average rate of change and instantaneous rate of change.
	CO2	<i>Understand the concept in physics with the help of differential calculus.</i>
	CO3	Understand problem in chemistry, biology, electronics and business studies with a mathematical model.
	CO4	Understand the behavior of monotonic functions and curves.
	CO5	Find the approximate value of a function at a point using Taylor's formula.

II SEMESTER

Course title	CO ID	CO
Differential Equations	CO1	Find the general solution and particular solution of a differential equation.
	CO2	<i>Distinguish between homogeneous and non homogeneous equations.</i>
	CO3	Understand integrating factors and exact equations.
	CO4	Distinguish between ordinary and partial differential equations.
	CO5	Understand the difference between linearly dependent and independent solutions.

III SEMESTER

Course title	CO ID	CO
Real Analysis	CO1	Distinguish between a field and an ordered field
	CO2	<i>Study the behaviour of sequences.</i>
	CO3	Discuss the nature of infinite series.
	CO4	Understand the concept of least upper bound principle and its applications.
	CO5	Distinguish between pointwise and uniform convergence of sequence of functions

IV SEMESTER

Course title	CO ID	CO
Algebra	CO1	Understand the concept of groups.
	CO2	<i>Understand the concept of cyclic groups.</i>
	CO3	Understand normal subgroups and Quotient groups.
	CO4	Understand the symmetries of geometrical figures.
	CO5	Understand the concept of integral domains and fields.

PO ID	PO
PO1	Demonstrate proficiency in Mathematics and the Mathematical concepts needed for a proper understanding of Physics.
PO2	Demonstrate the ability to justify and explain their thinking and/or approach
PO3	Demonstrate the ability to think, express and present in a clear, logical and succinct arguments
PO4	Develop state-of-the-art laboratory skills and professional communication skills
PO5	Use this as a basis for ethical behavior in issues facing chemist/drugs

Department: BIOCHEMISTRY

Programme: B.Sc

Programme Code: BScBBM 07/ BScBMBt06

I SEMESTER

Course title	CO ID	CO
Fundamentals Of Chemistry And Molecules Of Life	CO1	Understand in detail with examples stereo-chemistry
	CO2	Specify the characteristics of carbohydrates & glycobiology
	CO3	Learn the characteristics of proteins
	CO4	Understand the classification and characteristics of vitamins

II SEMESTER

Course title	CO ID	CO
Physiology	CO1	Understand in depth cardiovascular physiology
	CO2	Specify the characteristics of renal physiology
	CO3	Deliberate the detail of musculoskeletal system
	CO4	Learn the detail of reproductive physiology

III SEMESTER

Course title	CO ID	CO
Enzymology & Bioenergetics	CO1	Learn the characteristics of enzyme kinetics
	CO2	Learn in depth enzyme inhibitions
	CO3	Specify in detail with examples enzyme activity
	CO4	Understand the classification and characteristics of bioenergetics

IV SEMESTER

Course title	CO ID	CO
Metabolism	CO1	Specify the detail of metabolism of lipids
	CO2	Understand the detail of metabolism of carbohydrates
	CO3	Deliberate the characteristics of metabolism of proteins
	CO4	Understand the detail of metabolism of nucleic acids

V SEMESTER

Course title	CO ID	CO
Food and Nutrition	CO1	Understand the characteristics of energy metabolism
	CO2	Specify the characteristics of dietary carbohydrates
	CO3	Identify in detail with examples dietary lipid & health
	CO4	Understand the characteristics of minerals

PO ID	PO
PO1	Identify the taxonomic position of plants using principles and methods of nomenclature and classification in Botany
PO2	Understand the impact of the plant diversity in societal and environmental context
PO3	Demonstrate the knowledge of, and need for sustainable development
PO4	Use interdisciplinary approaches with quantitative skills to work on biological problems
PO5	Demonstrate the ability to justify and explain their thinking and/or approach
PO6	Develop state-of-the-art laboratory and professional communication skills
PO7	Apply the scientific method to design, execute, and analyze an experiment
PO8	Explain scientific procedures and their experimental observations

V SEMESTER

Course title	CO ID	CO
Human Physiology and Immunology	CO1	Specify the characteristics of renal physiology and musculoskeletal system
	CO2	Learn the detail of reproductive physiology and cardiovascular physiology
	CO3	Specify the detail of bone and endocrine system
	CO4	Understand the characteristics of Immunoglobulins

VI SEMESTER

Course title	CO ID	CO
Molecular Biology, Genetic Engineering And Concepts Of Biostatistics	CO1	Learn the detail of Molecular Biology
	CO2	Specify the characteristics of DNA and RNA
	CO3	Specify the detail of genetic engineering
	CO4	Understand the Concepts Of Biostatistics

VI SEMESTER

Course title	CO ID	CO
Clinical Biochemistry	CO1	Learn the detail of urine and blood
	CO2	Learn in depth of disorders of metabolism
	CO3	Specify the detail of haematology
	CO4	Understand the liver disease

PO ID	PO
PO1	Identify the taxonomic position of plants using principles and methods of nomenclature and classification in Botany
PO2	Understand the impact of the plant diversity in societal and environmental context
PO3	Demonstrate the knowledge of, and need for sustainable development
PO4	Use interdisciplinary approaches with quantitative skills to work on biological problems
PO5	Demonstrate the ability to justify and explain their thinking and/or approach
PO6	Develop state-of-the-art laboratory and professional communication skills
PO7	Apply the scientific method to design, execute, and analyze an experiment
PO8	Explain scientific procedures and their experimental observations

Name of the Department: Botany UG

Programmes offered: B.Sc. (CBZ & BBM) Non CBCS

Programme Outcome for Bachelor of Science in Chemistry, Botany, Zoology

PO/PSO Id/No.	PO/PSO
PO1	Identify the taxonomic position of plants using principles and methods of nomenclature and classification in Botany
PO2	Understand the impact of the plant diversity in societal and environmental context
PO3	Demonstrate the knowledge of, and need for sustainable development
PO4	Use interdisciplinary approaches with quantitative skills to work on biological problems
PO5	Demonstrate the ability to justify and explain their thinking and/or approach
PO6	Develop state-of-the-art laboratory and professional communication skills. Work as a laboratory technician, biochemists or medical scientist
PO7	Apply the scientific method to design, execute, and analyze an experiment
PO8	Explain scientific procedures and their experimental observations

Sl. No.	Course	COID	
1.	Angiosperm Taxonomy, Economic Botany and Ethnobotany	BME25001	Understand the classification of plant taxonomy
		BME25002	Identification of Economic Botany
		BME25003	Identification of Ethnobotany
2.	Plant Physiology and Ecology	BME25201	Understand the details of photosynthesis, respiration
		BME25202	Specify the classification and characteristics of enzyme
		BME25203	Understand the details of Plant ecology
3.	Cell biology genetics and evolution	BMF25001	Understand the details of Plant cell organelles.
		BMF25002	Learn in depth Genetics
		BMF25003	Understand in depth Evolution

4.	Molecular Biology And Genetic Engineering, Plant biotechnology, Plant propagation and plant breeding	BMF25201	Learn the details of concept of gene and replication.
		BMF25202	Understand in depth transcription and translation.
		BMF25203	Specify in depth enzymes in genetic engineering and cloning vectors.

**Programme Outcome for Bachelor of Science in Botany, Biochemistry & Microbiology
CO attainment 2018-19**

Sl. No.	Course	COID	
1.	Angiosperm Taxonomy, Economic Botany and Ethnobotany	BME25001	Understand the classification of plant taxonomy
		BME25002	Identification of Economic Botany
		BME25003	Identification of Ethnobotany
2.	Plant Physiology and Ecology	BME25201	Understand the details of photosynthesis, respiration
		BME25202	Specify the classification and characteristics of enzyme
		BME25203	Understand the details of Plant ecology
3.	Cell biology genetics and evolution	BMF25001	Understand the details of Plant cell organelles.
		BMF25002	Learn in depth Genetics
		BMF25003	Understand in depth Evolution
4.	Molecular Biology And Genetic Engineering, Plant biotechnology, Plant propagation and plant breeding	BMF25201	Learn the details of concept of gene and replication.
		BMF25202	Understand in depth transcription and translation.
		BMF25203	Specify in depth enzymes in genetic engineering and cloning vectors.

Department: ECONOMICS

Programme Name: BA

Programme Code: 31

Session/Year 2018-2019

List of POs & PSOs

POID	PO Statement
PO1	Critically recognizes the social, political, economic and cultural aspects of History
PO2	Demonstrate thinking skills by analysing and Evaluating relation to their cultural and historical context
PO3	Develop an informed familiarity with multiple cultures
PO4	Correctly extracts evidence from primary sources
PO5	Demonstrate critical reading, writing and thinking skills

Course Title: Principles of Micro Economics –1 (1st sem)

Course Code: ELA21021/22/26/23/24

CO ID	CO Statement
CO1	Understand in details with examples Concepts of Micro and Macro Economics
CO2	Deliberate in depth laws of Demand
CO3	Understand in depth laws of utility.
CO4	Learn in details with examples meaning and properties of indifference curve
CO5	Deliberate in depth cost and revenue concepts

Course Title: Principles of Micro Economics –11 (2nd sem)

Course Code: ELB21021/22/26/23/24

CO ID	CO Statement
CO1	Learn in depth types of Imperfect Competition
CO2	Deliberate the Characteristics of price Discrimination.
CO3	Identify the classification and characteristics of Kinked Demand Curve
CO4	Identify in details with examples Merits and Public Goods
CO5	Write down the classification and characteristics of general Equilibrium of Exchange and Production

Course Title: Principles of Macro Economics –1 (3RD sem)

Course Code: ELC21021/22/26/23/24

List of COs

CO ID	CO Statement
CO1	Identify in with examples key variables of Macro Economics
CO2	Understand in details with examples Concepts of National Income
CO3	Identify in depth Marginal Efficiency of Capital
CO4	Specify the details of concepts of Multiplier
CO5	Identify the Characteristics of Keynesian Macro Economics

Course Title: Principles of Macro Economics –11 (4th sem)

Course Code: ELD21021/22/26/23/24

List of COs

CO ID	CO Statement
CO1	Specify in details with examples IS-LM Analysis
CO2	Learn in-depth supply-side Economics
CO3	Identify the details of Rational Expectation
CO4	Identify the details with examples of concepts if Inflation
CO5	Learn the classification and characteristics of Balance of Trade

Department: Microbiology

Programme Name: B.Sc(BMBt & BBM)

Programme Code: BSc06 & BSc07

Session/Year: 2018-19

List of POs & PSOs

POID	PO Statement
PO1	Demonstrate the ability to justify and explain their thinking and/or approach, both written and oral. Demonstrate the ability to present clear, logical and succinct arguments, including prose and mathematical language. Write and speak using professional norms, and demonstrate an ability to collaborate effectively.
PO2	Develop state-of-the-art laboratory skills and professional communication skills.
PO3	Apply the scientific method to design, execute, and analyze an experiment and also to explain their scientific procedures as well as their experimental observations.
PO4	Demonstrate an understanding of fundamental biochemical principles, structure and biological function of biomolecules, metabolic pathways and their regulation.
PO5	Work as a laboratory technician, biochemists or medical scientist
PO6	Possess knowledge of ethical practices in science.
PO7	Describe/ explain the processes used by microorganisms for their replication, survival, and interaction with their environment and host populations.
PO8	Explain the theoretical basis of the tools, technologies and methods common to microbiology.
PO9	Apply the scientific method as a demonstration that they understand its application furthering our knowledge of the microbial world.
PO10	Design and develop solution to Biotechnology problems by applying appropriate tools while keeping in mind safety factor for environmental & society.
PO11	Create, select, and apply appropriate techniques, resources, and modern tools including prediction and modelling to different activities with an understanding of the limitations.
PO12	Support biotechnology research activity with strong technical background knowledge.

Course Title: Introduction to Microbiology and Microbial diversity

Course Code: CMA28006 & 28007

List of COs

CO ID	CO Statement
CO1	Gain basic knowledge about Microbiology starting from history to Microorganisms.
CO2	An entire picture about the taxonomical classification of Microbes.
CO3	Understand the basic microbial structure, function and study of the comparative characteristics of prokaryotes and eukaryotes
CO4	Understand the structural similarities and differences among various physiological groups of fungi, protozoa and algae.
CO5	Know how viruses are classified and understand the structure of viruses.

Course Title: BACTERIOLOGY**Course Code: CMB28006 & 28007****List of COs**

CO ID	CO Statement
CO1	Bacteria, microscopes and basic laboratory techniques.
CO2	Demonstrate theory and practical skills in microscopy, their handling techniques and staining procedures.
CO3	Various Culture media and their applications and also understand various physical and chemical means of sterilization.
CO4	Know about microbial techniques for isolation of pure cultures of bacteria. staining and cultural characteristics & maintenance and preservation of cultures

Course Title: MICROBIAL PHYSIOLOGY AND METABOLISM**Course Code: CMC28006 & 28007****List of Cos**

CO ID	CO Statement
CO1	Inculcate the knowledge regarding microbial growth, functions, physiology and metabolism.
CO2	Understand the microbial transport systems and microbial metabolism
CO3	Know the microbial growth in response to environmental factors.
CO4	Get equipped with various methods of bacterial growth measurement
CO5	Knowledge of properties, structure, function of enzymes, enzyme kinetics and their regulation

Course Title: MICROBIAL GENETICS AND GENETIC ENGINEERING**Course Code: CMD28006 & 28007****List of COs**

CO ID	CO Statement
CO1	Genetics of microorganisms and also about recombinant DNA technology used in microbiological research
CO2	Understand about techniques in genetic engineering
CO3	Social and ethical issues concerning genetic engineering
CO4	Applications of genetic engineering in various fields

Course Title: ENVIRONMENTAL SCIENCE**Course Code: CME28006 & 28007****List of Cos**

CO ID	CO Statement
CO1	The role of microorganisms in soil, air, water, waste water and bioremediation.
CO2	Know about the diversity of microorganism and microbial communities inhabiting a wide range of ecological habitats.
CO3	Learn the occurrence, abundance and distribution of microorganisms in the environment and their role in the environment
CO4	Understand various biogeochemical cycles – Carbon, Nitrogen, Phosphorus cycles etc. and microbes involved in these cycles.

CO5	Understand various plant microbes interactions especially rhizosphere, phyllosphere and mycorrhizae and their applications especially the biofertilizers and their mass production.
CO6	The various methods to determine the Sanitary quality of water and sewage Treatment methods employed in waste water treatment

Course Title: SOIL AND AGRICULTURAL MICROBIOLOGY

Course Code: CME28206 & 28207

List of Cos

CO ID	CO Statement
CO1	Microorganisms in agriculture, plant pathology and control of plant diseases
CO2	and their significance
CO3	Understand the land mark in the field of Agricultural microbiology.
CO4	Gain knowledge about biofertilizers and biopesticide in agriculture.
CO5	Know about principles and practices involved in the management of plant diseases by different methods
CO6	Understand the important plant diseases caused by phytoplasma, viruses and viroids. Bacteria and fungi

Course title: FOOD AND INDUSTRIAL MICROBIOLOGY

Course Code: CMF28006 & 28007

Name of Course In-charge/Coordinator: Dr.H.P.Spoorthy

List of Cos

CO ID	CO Statement
CO1	Food related microorganisms, their contamination, spoilage and preservation
CO2	Understand the beneficial role of microorganisms in fermented dairy products
CO3	Know the significance and activities of microorganisms in food
CO4	Understand the food borne intoxication and infections
CO5	Learn about food safety and quality control. Know the principles involving various methods of food preservation. Understand how microbiology is applied in manufacture of industrial products

Course Title: IMMUNOLOGY AND MEDICAL MICROBIOLOGY

Course Code: CMF28206 & 28207

List of Cos

CO ID	CO Statement
CO1	The human immune response towards microbes in medical microbiology, knowledge is gained about the relationship between microorganism and human disease, pathogenicity, Laboratory diagnosis, treatment and prophylaxis.
CO2	Demonstrate an understanding of key concepts in immunology.
CO3	Understand the overall organization of the immune system.
CO4	To make them understand the salient features of antigen antibody reaction & its uses in diagnostics and various other studies.
CO5	Learn about immunization and their preparation and its importance

Department: **KANNADA**

Programme: **BA**

PO Attainment

Programme Code: **BA23**

POID	PO
BA231	LANGUAGE & LITERATURE KNOWLEDGE OF CULTURAL
BA232	GAIN THE KNOWLEDGE OF CLASSICAL, MEDIEVAL & MODERN KANNADA LITERATURE
BA233	GAIN LANGUAGE SKILLS IN READING & WRITING
BA234	GAIN KNOWLEDGE OF CONTEMPORARY PREVAILINGS
BA235	AWARENESS OF SOCIO-RELIGIOUS, POLITICAL & GEOGRAPHICAL BACKGROUND OF KANNADA
BA236	LANGUAGE & LITERATURE KNOWLEDGE OF CULTURAL RICHNESS OF KANNADA
BA237	BECOME A CREATIVE WRITER BY STUDYING KANNADA LITERATURE

Department: COMMERCE AND MANAGEMENT

Programme Name: B.COM

Session/Year 2018-19

List of POs & PSOs

POID	PO Statement – On successful completion of this Programme, students will be enable to work in ;
PO1	Industries and Multinational Companies
PO2	Banking Sectors and Insurance Companies
PO3	Financing and Leasing Companies
P04	Transport Agencies and Warehousing
P05	Stock Markets and Foreign Trade

Course Title: Financial Accounting

Course Code: ENA 210

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Understand the theoretical framework of accounting as well accounting standards.
CO2	Understand the accounting treatment for royalty transactions & articulate the Royalty agreements.
CO3	Demonstrate the preparation of financial statement of manufacturing and nonmanufacturing entities of sole proprietors.
CO4	Exercise the accounting treatments for consignment transactions & events in the books of consignor and consignee.

Course Title: Business Organisation and Management

Course Code: ENA 220

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Design and demonstrate the strategic plan for the attainment of organisational goals.
CO2	Differentiate the different types of authority and chose the best one in the present context.
CO3	Compare and chose the different types of motivation factors and leadership styles.
CO4	Choose the best controlling techniques for better productivity of an organisation

Course Title: Principles of Marketing

Course Code: ENA 230

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Analyse the consumer behaviour in the present scenario and marketing segmentation.
CO2	Discover the new product development & identify the factors affecting the price of a product in the present context.
CO3	Judge the impact of promotional techniques on the customers & importance of channels of distribution.
CO4	Outline the recent developments in the field of marketing

Course Title: Cost Accounting

Course Code: ENA 210

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Understand concepts of cost accounting & Methods of Costing.
CO2	Outline the Procedure and documentations involved in procurement of materials& compute the valuation of Inventory.
CO3	Make use of payroll procedures & compute idle and over time.
CO4	Prepare cost sheet & discuss cost allocation under ABC.

Course Title: Banking and Insurance

Course Code: END 210

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Students will understand the conceptual frame work of Banking, classification of Banking.
CO2	Students will understand the banker and customer relationship
CO3	Students will understand the E-Banking services.
CO4	Enable the student to understand banking regulations Act.

Course Title: Business Statistics

Course Code: END 240

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Familiarizes statistical data and descriptive statistics for business decision-making.
CO2	Comprehend the measures of variation and measures of skewness.
CO3	Demonstrate the use of probability and probability distributions in business.
CO4	Validate the application of correlation and regression in business decisions

Course Title: Business Research Methods

Course Code: ENE 260

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Learn in depth different methods of research, methodology, data collection, analysis
CO2	Understand the details of types of Business Research and Research design
CO3	Identify and contribute to the discipline of commerce and management through the Research
CO4	Deliberate the details of Data analysis

Course Title: Entrepreneurship Development

Course Code: ENF 210

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Specify in details with application, if applicable, easily access different financial
CO2	Identify in detail with examples to easily different financial schemes offered by Banks and Government Agencies
CO3	Understand in depth and identify the social responsibility of an entrepreneur towards different sectors
CO4	Learn in depth the Self employment opportunities

Course Title: IFRS (IND - AS)

Course Code: ENF 220

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Learn in detail with examples Accounting for assets and liabilities
CO2	Understand the details of IND AS in relation to accounting for Revenue and Expenses
CO3	Learn in detail with examples IND AS on business combination
CO4	Deliberate the characteristics of IFRS

Course Title: Goods and Services Tax

Course Code: ENF 300

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Learn in details provisions of GST to handle TDS and POS online
CO2	Understand the provisions of integrated goods and service Tax Act, 2017
CO3	Understand the technology and flow of return filing under GST
CO4	Learn in details and gain knowledge to practice as GST Consultant

Course Title: Financial Management -I

Course Code: ENF 310

Name of Course In-charge/Coordinator: Navyashree M B

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Identify the details of various sources of finance
CO2	Identify the characteristics of capital structure and factors affecting the capital Structure
CO3	Learn the characteristics of different methods of time value of money and its strucutre
CO4	Learn the details of Capital Budgeting

Course Title: Principles and Practice of Auditing

Course Code: ENF 210

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Learn the characteristics of errors and frauds and minimize them in maintenance of books of accounts
CO2	Identify the details of audit planning
CO3	Learn in depth verification and valuation of Assets and Liabilities
CO4	Deliberate in details with examples audit of different types of organizations

Course Title: Business Law

Course Code: ENF 220

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Understand the characteristics of legal environment and practice business ethics
CO2	Learn in depth and apply the basic legal knowledge to business enterprises
CO3	Identify and appointed as member of various commerce and legal boards / committee
CO4	Specify the details of Information technologies Act

Course Title: Financial Management - II

Course Code: ENF 310

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Deliberate the details of working capital management
CO2	Understand the details of working capital financing
CO3	Deliberate in details with examples Venture capital financing
CO4	Learn in depth the details of shareholders value creation

Course Title: Advanced Cost and management Accounting

Course Code: ENF 320

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Understand the details of management accounting
CO2	Learn in depth the details of financial statement analysis techniques
CO3	Analyze the inflow and outflow of cash and able to prepare cash flow statement
CO4	Understand the characteristics of different types of ratios

Department: COMMERCE AND MANAGEMENT

Programme Name: BBA

Session/Year 2018-19

List of POs & PSOs

POID	PO Statement – On successful completion of this Programme, students will be able to work in ;
PO1	Financial Analysts, Tax consultants, Tax Practitioners and Investment consultants
PO2	Financial and management accountants
PO3	Marketing Manager, Store manager, Purchase Manager and Sales Manager
P04	Human Resources Manager, Counsellor
P05	Retail Manager, Middle men and Customer relation manager

Course Title: Business Organisation and Management

Course Code: CBA 410

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Design and demonstrate the strategic plan for the attainment of organisational goals.
CO2	Differentiate the different types of authority and chose the best one in the present context.
CO3	Compare and chose the different types of motivation factors and leadership styles.
CO4	Choose the best controlling techniques for better productivity of an organisation

Course Title: Financial Accounting

Course Code: CDA 420

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Understand the theoretical framework of accounting as well accounting standards.
CO2	Understand the accounting treatment for royalty transactions & articulate the Royalty a
CO3	Demonstrate the preparation of financial statement of manufacturing and nonmanufacturing entities of sole proprietors.
CO4	Exercise the accounting treatments for consignment transactions & events in the books of consignor and consignee.

Course Title: Marketing Management

Course Code: CDA 430

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Understand the concepts and functions of marketing.
CO2	Analyse marketing environment impacting the business.
CO3	Segment the market and understand the consumer behaviour
CO4	Enable students learn to media decision

Course Title: Human Resource Management

Course Code: CDB 420

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Ability to describe the role and responsibility of Human resources management functions on business
CO2	Ability to describe HRP, Recruitment and Selection process
CO3	Ability to describe to induction, training, and compensation aspects.
CO4	Ability to explain performance appraisal and its process.

Course Title: Business Environment

Course Code: CDB 430

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	An Understanding of components of business environment.
CO2	Ability to analyse the environmental factors influencing business organisation.
CO3	Ability to demonstrate Competitive structure analysis for select industry
CO4	Ability to explain the impact of fiscal policy and monetary policy on business.

Course Title: Financial management

Course Code: CDB 410

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	The ability to understand the process of public issue of shares and accounting for the same
CO2	The ability to prepare final accounts of joint stock companies.
CO3	The ability to prepare and evaluate vertical and horizontal analysis of financial statements
CO4	The ability to understand the process of public issue of shares and accounting for the same

Course Title: Cost and management Accounting

Course Code: CDC410

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	The ability to understand company's annual reports.
CO2	Understand the elements of costing and preparation of cost sheet
CO3	The ability to prepare material requisitions and management of store.
CO4	The ability to compare and contrast labour cost techniques.

Course Title: Organisational Behaviour

Course Code: CDC 420

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Ability to reconcile the cost.
CO2	To recall role of OB in business organization.
CO3	Able to understand group dynamics in an organization.
CO4	Able to understand the change management

Course Title: Statistics for Business Decisions

Course Code: CDC 430

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	To understand the requirements of statistical framework
CO2	To construct and visualize the data.
CO3	To determine the data adequacy for analysis.
CO4	To Review the data by using various tools.

Course Title: Management Accounting

Course Code: CDD 410

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Able to understand the concept of Management Accounting.
CO2	To Understand and recall ratios and apply the same on given case.
CO3	To construct cash flow statement
CO4	Should be able to apply Marginal cost ratios to make business decisions.

Course Title: Financial Management

Course Code: CDD 430

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Able to Summarize the concept of stock market
CO2	To identify the goals of financial management.
CO3	To appraise the concepts of time value of money.
CO4	To understand the different models of dividend policy.

Course Title: Entrepreneurship Development

Course Code: CDF 210

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Learn in depth qualities of an entrepreneur and able to become an entrepreneur
CO2	Write down the details of financial schemes offered by banks and government agencies and able to access them easily
CO3	Learn the details of mobilization of resources
CO4	Learn in depth the characteristics of customer and able to identify the customer

Course Title: Human Resource Management - I

Course Code: ENA 220

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Understand and identify the objectives, principles, factors influencing wage and salary Administration
CO2	Understand the concept of wage policy in India
CO3	Learn in depth the objectives of fringe benefits.
CO4	Learn in depth the Methods of performance appraisal

Course Title: Financial Management -I

Course Code: CDF 284

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Understand and identify the features, importance, contribution of financial service in promoting industry and service
CO2	Understand the concept of money market and capital market.
CO3	Learn in depth the Scope of merchant banking services
CO4	Learn in depth the growth of merchant banking in India

Course Title: Human Resource Management-II

Course Code: CDF 276

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Understand and identify conditions necessary for employee empowerment
CO2	Understand the concept of Quality circles
CO3	Learn in depth the types of social Security
CO4	Understand and identify the measures to strengthen trade Union movement in India

Course Title: Financial Management- II

Course Code: CDF 286

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Understand the concept of Portfolio Management Process- Approaches to Investment Decision making Portfolio Management Process- Approaches to Investment Decision making
CO2	Understand the concept of Risk and Return
CO3	Understand and identify the features, importance, contribution of financial service in promoting industry and service
CO4	Understand the concept of Portfolio Return and Risk-Measurement

Department: Computer Science

Programme Name: BCA

Session/Year I sem 18/19

List of POs & PSOs

PO/PSO ID	PO/PSO
PO1	Get expected skills to be placed in IT sector and self-employment.
PO2	To develop abilities for data analysis and interpretation using ICT.
PO3	Acquire comprehensive knowledge with equal emphasis on theory and practice.
PO4	Analyze and apply latest technologies to solve problems in the areas of computer applications.
PO5	Develop the basic programming skills to enable students to build Utility tools.
PO6	Get the foundation knowledge for higher studies in the field of Computer Application.
PO7	Analyze and synthesis computing systems through quantitative and qualitative techniques
PO8	Develop practical skills to provide solutions to industry, society and business.
PO9	Work effectively both as an individual and a team leader on multidisciplinary projects.
PO10	Improves communication skills so that they can effectively present technical information in oral and written reports
PSO01	Knowledge of contemporary and emerging issues in computer science
PSO02	Ability to identify, critically analyse, formulate and develop computer application
PSO03	Learn techniques, skills and modern hardware and software tools necessary for innovative software solutions
PSO04	Devise and conduct experiments, interpret data and provide well informed conclusions.
PSO05	Information about computer, technology, organization and management.
PSO06	Know various computer applications and latest development in IT and communication system.
PSO07	Act as software programmer, system and Database administrator, web designer, faculty for computer science and computer applications.
PSO08	Design and conduct experiments, analyze and interpret data.

Course Title: Java

List of COs

CO ID	CO Statement
CO1	Deliberate the details of computer system
CO2	Learn the classification and characteristics of computer system
CO3	Understand in details with examples software
CO4	Identify the characteristics of devices
CO5	Learn the classification and characteristics of software
CO6	Understand the classification and characteristics of Memory units

.Course Title: Object Oriented Programming IN C++

List of COs

CO ID	CO Statement
CO1	Deliberate the details of computer system
CO2	Learn the classification and characteristics of computer system
CO3	Understand in details with examples software
CO4	Identify the characteristics of devices
CO5	Learn the classification and characteristics of software
CO6	Understand the classification and characteristics of Memory units

Department: BIOTECHNOLOGY (UG)

Programme Name: BSc

Programme Code: BSC05/BCS06

Session/Year:2018-19

List of POs & PSOs

POID	PO Statement
PO1	Develop state-of-the-art laboratory skills and professional communication skills.
PO2	Apply the scientific method to design, execute, and analyse an experiment.
PO3	Explain the theoretical basis of the tools, technologies and methods common in Life science.
PO4	Design and develop solution to biotechnology problems by applying appropriate tools while keeping in mind safety for environment and society.
PSO1	Apply appropriate techniques for the qualitative and quantitative analysis of chemicals in laboratories and in industries
PSO2	Demonstrate effectively the applications of biochemical and biological sciences.
PSO3	Know and apply appropriate tools and techniques in biotechnological manipulation
PSO4	Understand his or her responsibilities in biotechnological practices.

Course Title: BIOMOLECULES

Course Code:CMA230

List of COs

CO ID	CO Statement
CO1	Understand the Structure, properties and biological importance of carbohydrates.
CO2	Comphrend the Structure, properties and functions of amino acids.
CO3	Understand the Structure, properties and biological importance of lipids and nucleic acids.
CO4	Comphrend the mechanism of multi –enzyme complex.

Course Title: Enzymology& BIO-ANALYTICAL TECHNIQUES

Course Code:CMB220

List of COs

CO ID	CO Statement
CO1	Understand the properties, mechanisms and biological importance of Bio-molecules.
CO2	Comphrend the mechanism of enzyme action, factors affecting it and its applications.
CO3	Understand and able to relate the principles underlying various instruments in the field of Biology.
CO4	Compare and contrast the role of bio -molecules and enzymes.

Course Title: CELL BIOLOGY & GENETICS **Course Code:**CMC220

List of COs

CO ID	CO Statement
CO1	Develop an understanding of the structure and functions of organelles.
CO2	Understand the structure of chromosomes, types, cell differentiation and features of cancer cells.
CO3	Gain comprehensive understanding of the chemical basis of heredity and methods.
CO4	Understand effect of mutation, mechanism and Chromosomal Aberrations.

Course Title: MOLECULAR BIOLOGY & GENETIC ENGINEERING **Course Code:**CMD220

List of COs

CO ID	CO Statement
CO1	Display a broad understanding of core molecular Biology.
CO2	Discuss and differentiate the process of Transcription and Translation
CO3	Explain key concepts of genome organization and manipulation.
CO4	Demonstrate working knowledge in a defined skill set of molecular biology and biotechnology protocols.

Course Title: Microbial technology and agricultural biotechnology

Course Code: CME230

List of COs

CO ID	CO Statement
CO1	Develop skills associated with screening of Industrially Important Strains.
CO2	Understand principles underlying design of Fermentor, Fermentation Process and downstream processing
CO3	Discuss the various aspects for the improvement of crop plants.
CO4	Understand the application of r-DNA technology to enhance the production of crop plant

Course Title: PLANT TISSUE & ANIMAL CELL CULTURE

Course Code:CME232

List of COs

CO ID	CO Statement
CO1	Develop concept of plant tissue and animal cell culture techniques and their application in biotechnology.
CO2	Comprehend the knowledge of transgenic plants in industrial and agricultural applications.
CO3	Establish and maintain various cell lines used in tissue culture.
CO4	Understand the application of animal cell culture in biopharmaceutical industry.

Course Title: IMMUNOLOGY & MEDICALBIOTECHNOLOGY **Course Code:**CMF230

List of COs

CO ID	CO Statement
CO1	Understand the role of different types of Cells in immune system .
CO2	Discuss the principles and applications of immunological techniques.
CO3	Understand to diagnose diseases.
CO4	Comprehend the knowledge of therapeutic applications of enzyme and hormone.

Course Title: ENVIRONMENTAL BIOTECHNOLOGY, BIOSTATISTICS & Bioinformatics

Course Code:CMF232

List of COs

CO ID	CO Statement
CO1	Gain an understanding of the causes, types and control methods for Environmental Pollution.
CO2	Differentiate the application of different life forms in Environmental Remediation.
CO3	Apply Statistical Tools for Analysis of Biological Data.
CO4	Comprehend the knowledge of bio-informatics