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 (2020-21)

Index

Department: **Postgraduate Department of English**
Programme Name: **Masters in English** **Programme Code:** **ENG**
Session/Year: **2020-21**

List of POs & PSOs

POID	PO Statement
PO1	Develop skills to write logically relating the real-life scenario with the issues depicted in literary texts
PO2	Formulate critical reading and thinking skills in writing analytical essays
PO3	Explain figurative language in literary works of various literatures
PO4	Appraise students to understand theoretical developments in literary studies
PO5	Develop skills of criticism in reading literary works of different periods of various genres
PO6	Organise focused, well-developed text-based essay
PSO1	Develop the competence to work as English Language teacher at Primary, Secondary, Higher secondary and Pre-University level
PSO2	Create basic knowledge needed to get global level research opportunities to pursue Ph.D. programme, targeted approach to NET and competitive civil service examinations
PSO3	Formulate good communication skills for specific placements in teaching, publishing and many other industries
PSO4	Inculcate the scientific temperament in the students using the skills of critical thinking and creative writing
PSO5	Learnt to analyse emphatically in discussions and debates demonstrating good communication skills
PSO6	Produce the skills to train the English language trainers

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	Classify the origin and growth of English Theatres and Renaissance plays
CO2	Produce the knowledge of Elizabethan culture, society and politics
CO3	Analyse Shakespearean Tragedies and Comedies in terms of language, character and Themes
CO4	Develop ability to read, summarize and critically analyse Shakespearean sonnets on various themes

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

List of COs

CO ID	CO Statement
CO1	Create the knowledge related to the historical and cultural contexts of the period
CO2	Analyse the use of figurative language and literary techniques
CO3	Organise analytically the literary texts and their contexts
CO4	Develop skills of critical analysis in reading the prescribed plays, novels and essays

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 Drama
Course Code: ENA220
Class : MA - I 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: 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

Course Title: Indian Writing in English – I
Course Code: ENB030
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

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

List of COs

CO ID	CO Statement
CO1	Evaluate the social, political and cultural milieu of the age
CO2	Explain the impact of World War I and II on 20th Century poetry
CO3	Analyse literary elements like rhyme, rhythm, tone, style, imagery and, symbols, etc
CO4	Produce analytical skills of understanding war 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 and get awareness about gender issues
CO2	Appreciate the poetry of Kamala Das and Maya Angelou
CO3	Understand the injustices done towards women in patriarchal society.
CO4	Understand and analyse the works of Emecheta, Atwood, Mahasweta Devi, Simone de Beauvoir, Virginia Woolf and Showalter
CO5	Learn the problems faced by women in societies of different traditions and culture

Course Title: English Essayists
Course Code: ENB220
Class : MA - II Sem

List of COs

CO ID	CO Statement
CO1	Explain the genre of prose essays and appreciate the essayist's artistic statements
CO2	Evaluate the literary devices employed by the essayists
CO3	Analyse the importance of essays as a genre to bring social change based on close reading of the essayist's observations on society.
CO4	Compare the views of Bacon, Hazlitt, Charles Lamb, Bertrand Russell, Mathew Arnold and Orwell in the prescribed essays

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
CO2	Analyse the impact of World War I and II on 20th Century fiction
CO3	Evaluate the use of various literary devices and postmodern techniques such as Stream of Consciousness, Dark Humour in modern writings
CO4	Judge the new theatres evolved in modern age.

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	Compare and critically analyse essays of Indian critics
CO3	Evaluate the Indianness in Indian Writing in English
CO4	Analyse the use of various literary devices by Indian writers, such as Arundati Roy, Amitav Ghosh, Amrita Pritam and RK Narayan
CO5	Understand in depth literary essays of Gayatri Spivak, Aijaz Ahamed and Meenakshi Mukherjee

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

CO ID	CO Statement	%Attainment
CO1	Explain the emergence of New Literatures from Commonwealth literature	100
CO2	Analyse the thematic concerns in New Literatures	98.03
CO3	Evaluate the cultural conflict in New literatures such as African, Australian, Canadian and Caribbean and the impact of colonization on native cultures	99.49
CO4	Formulate essays on the novels of Chinua Achebe, Wole Soyinka, Alice Munro, Patrick White, and V S Naipaul	99.47
CO5	Judge the use of various literary devices in the poetry of Dennis Brutus, David Diop, AJM Smith, Judith Wright, Derek Walcott, and Braithwaite	98.65
CO6	Produce analysis on the essays of Ngugi, Northrop Frye and Wilson Harris	99.25

Course Title: Indian English Poetry After Independence
Course Code: ENC230
Class : MA - III Sem

CO ID	CO Statement	%Attainment
CO1	Explain the use of Indianness in the modern Indian poetry	99.31
CO2	Analyse the themes, imagery, symbolism in the poems of Ezekiel, Ramanujan, Daruwalla, de Souza, Mahapatra, Parthasarathy, Anita Nair and Vikram Seth	98.71
CO3	Evaluate the human values and human predicament in modern Indian poetry	99.12
CO4	Formulate the trend setting themes explored in contemporary Indian poetry	98.68

Course Title: A Course in Written and Spoken English
Course Code: ENC520
Class : MA - III Sem
List of COs

CO ID	CO Statement
CO1	Understand grammar rules and apply them in conversation and communication
CO2	Able to write effectively describing impressions, feelings and experiences
CO3	Understand in depth LSRW Skills
CO4	Understand the characteristics of writing essays of various topics
CO5	Identify the characteristics of learning basic grammar
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

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

CO ID	CO Statement
CO1	Explain the movements of American Renaissance and Transcendentalism
CO2	Appreciate the poetry of Emily Dickinson, Wallace Stevens, Whitman and Robert Frost
CO3	Understand the essays of Emerson and Thoreau
CO4	Appreciate the novels of Mark Twain, Hemmingway and Bradbury
CO5	Describe the African American sensibility based on the readings of Toni Morrison, Jamaica Kincaid and Fredrick Douglas's writings

Course Title: Major Project Work leading to Dissertation

Course Code: END030
Class : MA - IV Sem

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: Postcolonial African Fiction

Course Code: END230

Class : MA - IV Sem

CO ID	CO Statement
CO1	Learn the social, political and cultural milieu of the Postcolonial African Fiction
CO2	Appreciate the ideas on decolonization, gender and cultural issues
CO3	Learn the literary theories employed by the postcolonial African writers
CO4	Appreciate the postcolonial African novels - Anthills of Savannah, The River Between, The Bride Price and Changes

Department: PG Commerce Programme Code: 1001

Programme Name: M.Com

PSO ID	PSO Statement
PSO1	Inculcate the knowledge of business and the techniques of managing the Business with special focus on Accounting, finance, and financial services
PSO2	Identify knowledge based accounting principles and the latest application oriented corporate accounting methods.
PSO3	Develop decision making skill through costing methods and practical application of management accounting principles.
PSO4	Enhance taxation skills through a thorough understanding of tax laws

PO ID	PO Statement
PO1	Understand role of accounting and finance in the present business scenario.
PO2	Identify the latest trends in banking and finance
PO3	Use wide varieties of tools and techniques to meet the emerging opportunities and challenges
PO4	Become an entrepreneur based on the knowledge gained.
PO5	Strengthen the knowledge base to take up CA/ICWA/ICS and other competitive examination
PO6	Acquire the ability to engage in independent & lifelong learning in the broader context of social and technical changes.
PO7	Accept the challenges of business world
PO8	Enhance logical thinking and decision making ability

Course title	Course Code	CO No./Id	CO Statement
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 analyze and interpret accounting transactions.
		MCA010.4	Understand the recognition, measurement and disclosure principles of elements of financial statements.
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.
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

Strategic Marketing	**MCA100**	MCA100.1	Understand the marketing strategy formulation
		MCA100.2	Learn the steps in implementation of marketing strategies.
		MCA100.3	Analyze different marketing strategy
		MCA100.4	Learn about formulation and evaluation of marketing strategy
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
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

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

PO (Direct)

COID	PO'S
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	Tomakethestudentsdevelopinterpersonalskills,writtenandoralcommunicationandalso to improve their body language and eye contact duringpresentations.
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	Uponcompletionofcoursestudentswillhavetheabilitytodesigntheexperimentstosolve thecurrentproblemsinthesocietyrelatedtohealth,environmentandindustries,
PO6	Uponcompletionofcoursestudentswillhavetheabilitytodesigntheexperimentstosolve thecurrentproblemsinthesocietyrelatedtohealth,environmentandindustries

PO- (Indirect)

COID	PO'S
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	Tomakethestudentsdevelopinterpersonalskills,writtenandoralcommunicationandalso to improve their body language and eye contact duringpresentations.
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	Uponcompletionofcoursestudentswillhavetheabilitytodesigntheexperimentstosolve thecurrentproblemsinthesocietyrelatedtohealth,environmentandindustries,
PO6	Uponcompletionofcoursestudentswillhavetheabilitytodesigntheexperimentstosolve thecurrentproblemsinthesocietyrelatedtohealth,environmentandindustries

Course outcomes

COURSE	COURSE CODE	COID	CO'S
BIOMOLECULESANDBIOENERGETICS	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.
BIOANALYTICALTECHNIQUES	BTA050	CO1	To understand the separation of molecules by different chromatography, centrifugation and electrophorotic techniques
		CO2	Analysisandcharacterizationofmoleculesbyspectroscopytechniques
		CO3	Useofradioactivematerialinunderstandingmetabolicpathways
		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 ofgrowth kinetics.
		CO4	In genetics students are exposed to know about culture and maintenance of *Drosophila melanogaster* (model organism), Study of mutants, salivary gland chromosome and karyotyping techniques.
		CO5	To understand the different enzyme kinetics.

MOLECULAR GENETICS	BTA230	CO1	Tounderstandthemolecularmechanismofinheritance
		CO2	Mutation and DNA repairmechanism
		CO3	Genemappingandstudyofchromosomalabnormalities
		CO4	Phylogenetics andmicro-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 obtainindepthknowledgeofgeneticcode,DNAreplicationandtranscription.
		CO3	Understand principles, concepts of translation, post translation mechanism
		CO4	Regulationofgeneexpressioninprokaryotesandeukaryotes
		CO5	Gaintheinsightintomolecularmechanismofantisensemolecules,inhibitionofsplicingand application of antisense and ribozymetechnologies
IMMUNOLOGYANDIMMUNOTECHNOLOGY	BTB050	CO1	Study basic concepts of immunology
		CO2	MHC and their role in transplantion
		CO3	Cytokines and their role in immune system, TumorImmunology
		CO4	Autoimmune diseases , causes and treatment
		CO5	Hypersensitivity, Vaccine production

LAB – II	BTB060	CO1	StudentsaretrainedtogettheskillsinthefieldofMolecularbiologyandGenetic engineering
		CO2	Isolationandpurificationofnucleicacidsandtheirquantification
		CO3	Study of antigen and antibodyinteractions
		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 ENGINEERING AND TECHNOLOGY	BTC040	CO1	understand the different metabolic pathways of microorganisms
		CO2	To have the **c**omprehensive insight into the different type of fermenter
		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 **c**omprehensive insight into the different enzymes used in Geneticengineeringlab
		CO2	To obtain knowledge of construction of vectors
		CO3	Students will be able to understand different type of cloning methods.
		CO4	UnderstandtheprinciplesofPCR&types
		CO5	Toknowthedifferentsequencemethods
LAB- III	BTC060	CO1	To have the **c**omprehensive 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 BIOENTERPRENURSHIP	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 BIOTECHNPLOGY	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	Applications of recombinant technology to produce disease free crops
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

Department: PG Biochemistry **Programme: M.Sc Biochemistry**

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 Enzymologyand Seminar	BCA060	47926	Identify the details of spectrophotometer
Experiments in Biochemical Techniques and Enzymologyand Seminar	BCA060	47927	Identify the details of specific activity of enzymes
Experiments in Biochemical Techniques and Enzymologyand Seminar	BCA060	47928	Deliberate the characteristics of gel electrophoresis

Experiments in Biochemical Techniques and Enzymologyand 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	BCB050		Understand the classification and characteristics of chemistry of carbohydrates

Carbohydrates and Lipids		47943	
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 andSeminar	BCB060	47947	Understand in details with examples antigen antibody reactions
Experiments in Immunology andBiochemical Estimations and Seminar	BCB060	47949	Specify in details with application, if applicable, oils and fats estimation

Experiments in Immunology andBiochemical Estimations and Seminar	BCB060	47950	Understand in depth acid value principle and determination
Experiments in Immunology andBiochemical 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	4759	Specify the details of vitamins and minerals
Cell Biology, Endocrinology andCell Signaling	BCC070	47961	Specify in details with examples cellular organization
Cell Biology, Endocrinology andCell Signaling	BCC070	47962	Learn the characteristics of endocrinology

Cell Biology, Endocrinology andCell Signaling	BCC070	47963	Learn in depth cell signaling
Cell Biology, Endocrinology andCell 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	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

PO M.SC. BOTANY

POID	PO
BOT20PO1	Conductinvestigationsofcomplexproblemsbytheuse of research-based knowledge on an independent term project.
BOT20PO2	Transferofappropriateknowledgeandmethodsfromonetopictoanotherwithin thesubject.
BOT20PO3	Carryoutpracticalwork,inthefieldand inthelaboratory,withminimalrisk.
BOT20PO4	Able to think logically and organize tasks into a structured form and assimilate knowledge and ideasbased on wide reading of text booksand throughthe internet.
BOT20PO5	Apply the scientific knowledge of basic science,lifesciences and fundamental process of plants to study and analyze any plant form.
BOT20PO6	Knowledge and understanding of the range of plant biologyin terms of structure, function and environmentalrelationships.
BOT20PO7	Apply reasoning informed by the contextual knowledge to assess plantdiversity, and the consequent responsibilities relevant to the biodiversity conservation Practice.

PSOM.SC.BOTANY(2020-2021)

COURSE	PSOID	PSO
AlgalBiologyand Biotechnology	BOA230	Phylogeny,thallusorganization,economicand ecologicalimportanceofalgal community
BiochemistryandPlant Physiology	BOC030	Biomolecules,metabolic pathwaysandstress physiologyinplants
CellBiologyandGenetics	BOB020	CelloriginalsandMendelianprinciples
Ecology,Conservation Biology andPhytogeography	BOD010	Diversityofvegetation, distributionand its conservation
EconomicBotany	BOB220	Economicvaluesofdifferentcropplantsand their applications
MajorProject	BOD020	Hands on experience in various fields of plant science
MolecularBiology	BOC040	Molecularlevelorganization in prokaryotesand eukaryotes with respect to various mechanisms involved
PlantAnatomyand Histochemistry	BOB210	Anatomicalfeaturesand organizationofcellsin plants
PlantBreedingand Evolutionary Biology	BOB030	Plantbreedingmethods, proceduresandtheir applicationforcropimprovement
PlantBiotechnology	BOC050	Tissueculturetechniques and itsapplication in developmentofresistant varieties
PlantPropagationandPlant Breeding	BOC230	Propagationmethodsandplantbreedingprocedures and theirapplicationindifferentfields
PlantPropagation Techniques	BOC640	Propagationmethodsand proceduresandtheir applicationindifferentfields
Phycology,Bryophytes, PteridophytesandGymnosperms	BOA050	Distribution,classification andphylogenyoflower plant communities

Phytopathology	BOA240	Conceptsofplantdiseases defensemechanismsin plantsandstudyofplantdiseases
ReproductiveBiologyof Angiosperms and Plant Morphogenesis	BOB010	Embryologicalstudy ofgrowth and development using plant models
SeedTechnology	BOD210	Industrialscaleprocessing ofseedsuptomarketing
SystematicsofAngiosperms	BOA060	Angiospermicplantfamily studywiththeir phylogeny
Virology,Bacteriology, MycologyandPlantPathology	BOA040	Diversity,distribution ofmicroorganismwithrespect totheireconomicaspects

CO's

COURSE	COID	CO
AlgalBiologyand Biotechnology	BOA2301	Specifyindepthofthallusorganizationand phylogenyinalgae
AlgalBiologyand Biotechnology	BOA2302	Understand the detailsof toxins, blooms and distributions of algae
AlgalBiologyand Biotechnology	BOA2303	Deliberateindepthaboutcultivationand marketingalgae
AlgalBiologyand Biotechnology	BOA2304	SpecifythedetailsofAlgalproductsanduses
BiochemistryandPlant Physiology	BOC0301	Learnindetailswithbiomoleculesandtheir function
BiochemistryandPlant Physiology	BOC0302	Understandindepthaboutsolutetransport andphotosynthesisinplants
BiochemistryandPlant Physiology	BOC0303	Specifythe details ofmetabolism of nitrogen, lipids and plant hormones
BiochemistryandPlant Physiology	BOC0304	UnderstandindepthaboutStressphysiology
CellBiologyandGenetics	BOB0201	Learnindetailaboutcell membranestransport andproteins
CellBiologyandGenetics	BOB0202	DeliberatetheFunctions ofcell organelles, programedcelldeath

CellBiologyandGenetics	BOB0203	Specifytheextensions ofMendelianprinciples
CellBiologyandGenetics	BOB0204	LearnaboutSexdeterminationand dosagecompensation
Ecology, conservation Biology and Phytogeography	BOD0101	Understandthediversity of ecosystemand types ofecosystems
Ecology, conservation Biology and Phytogeography	BOD0102	Learn the in details ofpollutionand environmental biology
Ecology, conservation Biology and Phytogeography	BOD0103	Study the importance of biodiversityand conservation biology
Ecology, conservation Biology and Phytogeography	BOD0104	Detailed study ofphytogeography and crop distribution
EconomicBotany	BOB2201	Specifythedetailsofcereals,millets,pulses, oil yielding plants andstudy of horticultural plants and floriculture
EconomicBotany	BOB2202	Deliberatethecharacteristicsofsugar yielding plants,spicesandcondiments
EconomicBotany	BOB2203	Understand the importanceoffiber,timberand gumyielding plant
EconomicBotany	BOB2204	Deliberateonthemedicinalplantsand their applications

MajorProject	BOD0201	Learn the details ofliterature survey and methodology in research
MolecularBiology	BOC0401	Identifythecharacteristicsofgenetic materials anditsreplication
MolecularBiology	BOC0402	Learn the details ofmolecular basis of mutation, repair and recombination
MolecularBiology	BOC0403	Deliberate the details of RNAformation, processing of RNA and post-RNA
MolecularBiology	BOC0404	Understand in depth of generegulationin prokaryotes and eukaryotes
PlantAnatomyand Histochemistry	BOB2101	Learn in detailsofprimary vegetative body of the plants
PlantAnatomyand Histochemistry	BOB2102	Deliberate in details of differentiationin vascular tissues and study of apical meristemsinshootand root
PlantAnatomyand Histochemistry	BOB2103	Deliberate thecharacteristicsof secondarygrowth
PlantAnatomyand Histochemistry	BOB2104	Understand the details ofplantistochemistry
Plant Breeding and EvolutionaryBiology	BOB0301	Learnindepthabout plantbreedingmethods and techniques
Plant Breeding and EvolutionaryBiology	BOB0302	Understandthedetails ofbreedingforspecific purposes

PlantBreedingand EvolutionaryBiology	BOB0303	Learnthedetailsof Natureofevolution
PlantBreedingand EvolutionaryBiology	BOB0304	Identifythe characteristicsofvariationandspeciation
PlantBiotechnology	BOC0501	Understandindepth aboutplanttissueculture andits techniques
PlantBiotechnology	BOC0502	Specifythegenetic engineeringandtools usedinit
PlantBiotechnology	BOC0503	Understandthedetails of genetic manipulation,transgenic approaches to produce resistant plants
PlantBiotechnology	BOC0504	Learn the details of engineering of cropplants for production of secondary metabolites
PlantPropagationandPlant Breeding	BOC2301	Learn the details of importance of plant propagation, vegetative propagation and micro propagation
PlantPropagationandPlant Breeding	BOC2302	Understandingofbasicconceptsofplant breedingandgenetics
PlantPropagationandPlant Breeding	BOC2303	Studytypes,purposesofplantbreeding
PlantPropagationandPlant Breeding	BOC2304	Deliberatestudyof advancedbreedingaspects
PlantPropagation Techniques	BOC6401	Learn the details of importance of plant propagation

PlantPropagation Techniques	BOC6402	Understandin depth abouttypesof vegetative propagation
PlantPropagationTechniques	BOC6403	Learnthetechniquesofbuddingandlayering
PlantPropagation Techniques	BOC6404	Deliberate in details with examples of micro propagation in forestryand horticulture plants
Phycology, Bryophytes, Pteridophytes and Gymnosperms	BOA0501	Understandthedetails ofdiversity, distribution, pigmentationand lifecycle of algae
Phycology,Bryophytes, Pteridophytesand Gymnosperms	BOA0502	DeliberateindepthofBryophyteslifecycle, classification,phylogeny andEconomic importance
Phycology,Bryophytes, Pteridophytesand Gymnosperms	BOA0503	UnderstandthedetailsofPteridophyteslife cycle,phylogeny,classification,economic importance and anatomy
Phycology,Bryophytes, Pteridophytes and Gymnosperms	BOA0504	Write down in details with examples Gymnosperms history, reproduction, economic importanceandinterrelationship
Phytopathology	BOA2401	Learn the details of the concept,causative agents and disease cycleof plant pathogens
Phytopathology	BOA2402	Deliberate the details of defense mechanisms in plants and its genetics
Phytopathology	BOA2403	StudyofManagementofplantdiseases
Phytopathology	BOA2404	Identify in details withexamples of diseases in crop plants

ReproductiveBiologyof AngiospermsandPlant Morphogenesis	BOB0101	Understandingthemicro sporogenesisand historical overview
ReproductiveBiologyof Angiosperms and Plant Morphogenesis	BOB0102	Specify in details with examples about mega sporogeneis,fertilization,endosperm and embryo
ReproductiveBiologyof Angiosperms and Plant Morphogenesis	BOB0103	Specifythe details ofmodels and concepts of plant morphogenesis
ReproductiveBiologyof AngiospermsandPlant Morphogenesis	BOB0104	Understandindetailswithexamplesofplant growthanddevelopment, photo morphogenesis
SeedTechnology	BOD2101	Understandtheseed scienceandconcepts
SeedTechnology	BOD2102	Study the seedproductionandprocessing methods
SeedTechnology	BOD2103	Learnaboutseedqualityparametersandtests
SeedTechnology	BOD2104	Deliberatetheprocedureofseedcertification
Systematicsof Angiosperms	BOA0601	Understand the principles andapplicationsof Taxonomy of angiosperms
SystematicsofAngiosperms	BOA0602	Specifythedetailsoftaxonomicliterature
Systematicsof Angiosperms	BOA0603	Deliberateindetails withexamplesDicotand monocotfamilyandfeatures of classification systems

Systematicsof Angiosperms	BOA0604	Specify in details molecularsystematics withexamplesofsoftwares and databases
Virology,Bacteriology, MycologyandPlant Pathology	BOA0401	Learn the classification andcharacteristics of viruses, viroids, prions and diseases of it
Virology,Bacteriology, Mycology and Plant Pathology	BOA0402	Deliberateindetails with examples of Bacteria,archeabacteria, actinomycetesand mycoplasmaanditseconomicimportance
Virology,Bacteriology, Mycology and Plant Pathology	BOA0403	SpecifytheFungaldiversity,lifecycleand economic importance of fungi
Virology,Bacteriology, MycologyandPlant Pathology	BOA0404	Understandin details of etiology, distribution and management of plant disease

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 properities.
		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	**CHB 110**	CO1	Understand in depth Reductions and Oxidations.

Chemistry-II		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 Practicals	**CHB 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.
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 developedwith 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 experimentsand 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 13C-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.

Programme Name: Computer Science Programme Code: MCSC01

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 C**ourse 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**

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.

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, confirmal 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 Diffrential Equations **Course 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 emphansizes the rigorous ustification of methods for approximating solutions in pure and applied mathematics by using power sreies method some polyniomals.
	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

Department :Physics

COURSE	COURSE CODE	COID	CO'S
Classical Mechanics	PHY101	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
Mathematical Methods of Physics 1	PHY102	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
Mathematical Methods of Physics 2	PHY103	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

Optics, Classical Electrodynamics, Plasma Physics	**PHY104**	**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**
Continuum Mechanics and Relativity	**PHY201**	**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**
Thermal Physics	**PHY202**	**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**

Quantum Mechanics 1	**PHY203**	**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**
Spectroscopy and Fourier Optics	**PHY204**	**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**
Quantum Mechanics 2	**PHY301**	**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**
Condensed Matter Physics	**PHY302**	**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**

Nuclear and Particle Physics	**PHY303**	**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**
Solid State Physics 1	**PHY304**	**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**
Nuclear Physics 1	**PHY305**	**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**
Solid State Physics 2	**PHY401**	**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**

Solid State Physics 3	**PHY402**	**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, Carrierconcentrations**
Nuclear Physics 2	**PHY403**	**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**
Nuclear Physics 3	**PHY404**	**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**
Accelerator Physics	**PHY407**	**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**

Electronics	**PHY413**	**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**

PO-ATTAINMENT 2020-21

COID	**PO'S**
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**

Department: PG Kannada
Programme Name: MA Kannada **Programme Code:** MKAN01

Session/Year: 2020-21
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 occassions
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 SahithyadaHinnele **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 ChandasinnaAdhyayana **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: VimarsheyaAdhyayana **Course Code: KNA040**

Name of Course In-charge/Coordinator: Dr. Sudeep B S

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
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: BashavignanadaMulatatvagalu **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 SahithyaHinnele **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: DravidaBashavijyayana **Course Code: KNB030**

List of COs

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

Course Title: Kannada Vimarshe :AydaLekhanagalu **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 VyakarangalaThoulanikaSamikshe **Course Code: KNB210**

List of COs

CO ID	CO Statement
CO1	Able to lidentify 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 SamskurthiChinthane **Course Code: KNB220**

List of COs

CO ID	CO Statement
CO1	Acquire knowledge of Different phases of Kannada Culture
CO2	Understnand and adopot 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: ThulanikaSahithya :KavyamattuNataka **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 SahithyadaHinnele **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: BharatiyaKavyaMimamse **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: SamashodanavidyanamattuGanakaGyana **Course Code: KNC040**

List of COs

CO ID	CO Statement	%Attainment
CO1	Understand the Research methodology of Kannada Studies	**88.89**
CO2	Understand the historical background of Kannada Research	**92.59**
CO3	Learn to utilize the application of the computers	**88.89**
CO4	Learn the application of computers in Social media	**95.19**

Course Title: UpabashaVijyayana **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 theams according to period.
CO3	Create interest to opt these in their research work.
CO4	Motivate young writers.

Course Title: PacshatiyaKavyaMimamse **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: SamuhaMadyama **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: AvadikaKarya **Course Code: KND040**

List of COs

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

Course Title: Kannada BashaSwaroopa :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	Developers a significant capacity for adaptation and the ability to question and engage in professional practice

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: 2020-21

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	Imbibed 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 wok 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 Organizaion

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**

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

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

JSS Mahavidyapeetha

JSS College of Arts, Commerce and Science (Autonomous)

Ooty Road, Mysuru - 570025

Department: **KANNADA** Programme: **BA**

PO's

POID	PO
BA231	DEVELOP HUMAN VALUES & A SENSE OF SOCIAL SERVICE
BA232	BECOME A RESPONCIBLE & DUTIFUL CITIZEN
BA233	ABLE TO ENHANCE CRITICAL TEMPER & CREATIVE ABILITY
BA234	UNDERSTAND & APPRECIATE RELATIONSHIP BETWEEN MAN AND ENVIRONMENT
BA235	TO READ & INTERPRIT ,GENERATE MAPS AND OTHER GEOGRAPHIC REPRESENTATIONS
BA236	UNDERSTAND PHYSICAL- GEOGRAPHIC PROCESS, THE GLOBAL DISTRIBUTION OF LANDFORMS AND ECOSYSTEMS
BA237	ROLE OF THE PHYSICAL ENVIRONMENT ON HUMAN POPULATION

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

Department: History **Program: BA**

Program Code: BA24

PO ID	PO
BAHE24P01	Critically recognize the social, political, economic and cultural aspects of History
BAHE24P02	Demonstrate thinking skills by analyzing, synthesizing, and evaluating historical information from multiple sources
BAHE24P03	Correctly extract evidence from primary sources by analyzing and evaluating them in relation to their cultural and historical context
BAHE24P04	Develop an informed familiarity with multiple cultures
BAHE24P05	Emerge as a multifaceted personality who is self-dependent
BAHE24P06	Spread the messages of equality, nationality, social harmony and other human values
BAHE24P07	Comprehend the basic structures and processes of government systems and/or theoretical underpinnings
BAHE24P08	Analyze political problems, arguments, information, and/or theories
BAHE24P09	Apply methods appropriate for accumulating and interpreting data applicable to the Discipline of political science & English
BAHE24P10	Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes

Program Code: BA24

Course Title: HISTORY OF ANCIENT INDIA (UPTO 1100AD)

Course Code	COs
BAHE24CO1	Familiarise the students of early civilizations. The birth of new religions. Jainism and Budhism and the teachings of Mahaveera and Buddha
BAHE24CO2	Discuss ancient republics, establishment of great Empires political land military Adventures of out great rulers
BAHE24CO3	Gain knowledge of Economic, Social and religious conditions and education system of Ancient period
BAHE24CO4	Inspire the students through the great literary books and contributions to the growth of Art & Architectures
BAHE24CO5	Understanding the administration of our great kingdoms and foreign trade and commercial activities are of great values in the development of the state

Course Title: HISTORY OF KARNATAKA (540-1565)

Course Code	COs
BAHE24CO1	Understand the historical growth of Karnataka, sources-Geographical feature and Early kingdom
BAHE24CO2	Enable the students to learn the contributions of Chalukyas, Rastrakutas and Hoysalas development of Art and Architecture.
BAHE24CO3	Understand the glorious days of Vijayanagara Empire. The developments of Economy, Social and religious life style, contribution, Administration and culture
BAHE24CO4	Gain knowledge about Bahamani and Adilshahi's Kingdowm, their contribution to Education and Culture
BAHE24CO5	Helpful for the students to understand the policy of Wodeyar and their contributions to the of growth and development of Mysore

Course Title: HISTORY OF MODERN INDIA (1498-1947)

Course Code	COs
BAHE24CO1	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
BAHE24CO2	Develop the knowledge of Consolidation of the British rule regulating Act 1773, subsidiary allianace, doctrine of lapse and land revenue policies
BAHE24CO3	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
BAHE24CO4	Gain knowledge about foundation of Indian National congress. Role of moderates, extremists and Ghandhian era., to the students

Course Title: HISTORY OF MODERN ASIA (1900-1990)

Course Code	COs
BAHE24CO1	Analyze the progress of Asian countries like China and Japan from insular nations to their present Dynamic position
BAHE24CO2	Understand to trace their role in world affairs in the last 3 decades of the 20th Century
BAHE24CO3	Develop the knowledge about diverse countries of the region and provide an insight into the historical background
BAHE24CO4	Evalute the basics of colonization and decolonization and analyse the areas of conflict in this vital region. Historical background of Iran, Arabs and Jews. Rise and growth of Arab nationalism, Zionist movement

Course Title: HISTORY OF MODERN EUROPE (1789-1945)

Course Code	COs
BAHE24CO1	Enrich the knowledge to understand Europe before French revolution
BAHE24CO2	Europe of to-day which occupies a place of vital importance in world affairs
BAHE24CO3	learn the major events that challenged the life style of the people of Europe and their governments
BAHE24CO4	Acquire knowledge about the age of revolutions and the slogan of liberty equality and fraternity
BAHE24CO5	Understand the role played by the dictators and causes and impacts of World Wars
BAHE24C06	Know the establishment of UNO and its Aims, Objectives and structures

Course Title: INDIA AND CONTEMPORARY WORLD (1947-2000)

Course Code	COs
BAHE24CO1	Gain knowledge about the Birth of Indian Republic, Economic Development under Nehru
BAHE24CO2	Foreign Policy of India and major crisis in India
BAHE24CO3	Understand & update knowledge on contemporary, issues and challenges
BAHE24CO4	Understand the concepts of state and power in International relations
BAHE24CO5	Conceptualize the Relations between India and other countries Alliances.

Department: **Journalism** Programme: **BA**

Programme Code: **BA25(CBCS)**

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.

Course Title: Media Industry and Manangement

CO ID	CO
FLC270251	Become a owner of the media house.
FLC270252	Become an Administrator of CEO
FLC270253	Become as TRP agent
FLC270254	Assistance for media management industry
FLC270255	To set up the newspaper industry.

Course Title: Reporting and Editing Techniques

CO ID	CO
FLE270251	Prepare news copy
FLE270252	Specialize as fashion reporter
FLE270253	Prepare news copy and editing
FLE270254	Become Freelance journalist
FLE270255	Develop skills for news writing.

Course Title: Indian Applied Journalism

CO ID	CO
FLE270741	Become news reporters and stringers.
FLE270742	Become circulation manager.
FLE270743	Become script writer.
FLE270744	Gain knowledge about the birth and growth of Indian Media Industry.

Course Title: Practice of Advertising and Public Relation

CO ID	CO
FLF270251	Setup advertising agency.
FLF270252	Prepare the advertising copy for print.
FLF270253	Become script writer-marketing research
FLF270254	Become PRO and event campaigner.

Course Title: Introduction to New Media

CO ID	CO
ELF270741	Become a video journalist
ELF270742	Become a cinema story writer
ELF270743	Become audio/video editor
ELF270744	Become digital content editor
ELF270745	Become sound mixer and film maker.

JSS COLLEGE OF ARTS, COMMERCE & SCIENCE, OOTY ROAD, MYSORE-25 (AUTONOMOUS)
UG DEPARTMENT OF ECONOMICS

Name of the Department: ECONOMICS

PO-ID	PO After completion of your study in the college:
PO1	Students will be able to understand economic vocabulary, methodologies, tools andanalysis procedures.
PO2	Students will be familiar with the knowledge and application of micro economics for the formulation of policies and planning.
PO3	Students will learn to apply economic theories and concepts to contemporary socialissues, as well as analysis of policies.
PO4	Students will be able to understand the impact of government policies and will be ableto assess the consequences of the policies on the parties involved.
PO5	As the programme along with economics contains like statistics, mathematics, it enhances them to compute and assess the real situation of the economy including the size and changes of population, income pattern, and rate of development with pattern ofsavings and investments and social security measures adopted in the country.
PO6	Understand the basics of Quantitative techniques their applications
PO7	Critically evaluate the ongoing economic developments in India and abroad
PO8	Understand research methods in economics
PO9	Student develops an awareness of career choices and the option for higher studies.

Course title	CO ID	CO
PRINCIPLES OF MICRO ECONOMICS-I	**CO1**	Understand in details with examples Concepts of Micro and Macro Economics.
	CO2	Deliberate in depth Law 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.
	CO6	Understand the details of meaning and types of markets

III Semester Course code: ELC210

Course title	CO ID	CO
PRINCIPLES OF MACRO ECONOMICS-I	CO1	Identify in details with examples Key variables of Macro Economics.
	CO2	Understand in details with examples Concepts of National Income.
	CO3	Identify the characteristics of Keynesian Macro Economics.
	CO4	Identify the characteristics of Demand for Money.
	CO5	Deliberate in depth Liquidity Theory of money.
	CO6	Identify in details with application, if applicable, Concepts of Micro and Macro Economics.

V Semester Course code: ELE210

Course title	CO ID	CO
ECONOMICS OF DEVELOPMENT	CO1	Learn in depth Understand the concept of Economic development and factors affect Development.
	CO2	Deliberate in details with examples Differentiate Economic development and growth.
	CO3	Identify the characteristics of Demographic Trends.
	CO4	Specify in depth Harrod -Domar Growth Model. Understand the classification and characteristics of Endogenous Growth theory.
	CO5	Identify the details of Poverty Eradication Measures.
	CO6	Learn in depth Understand the concept of Economic development and factors affect Development.

VI Semester Course code: ELF210

Course title	CO ID	CO
INDIAN ECONOMY	CO1	Understand the characteristics of Indian Agricultural policies.
	CO2	Identify the classification and characteristics of Regional variation.
	CO3	Write down the classification and characteristics of New Industrial Policy.
	CO4	Identify in depth Monetary Policy.
	CO5	Understand in depth FDI and WTO.
	CO6	Identify the details of Effects of Parallel Economy.

JSS Mahavidyapeetha

JSS College of Arts, Commerce and Science

Ooty Road, Mysuru

Department: Microbiology

Programme Name: B.Sc(BMBt & BBM) **Programme Code:BSc06 & BSc07**

Session/Year: 2020-21

List of POs

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:DMA28006 & 28007
List of CO

CO ID	CO Statement
CO1	Gain basic knowledge about Microbiology starting from history to Microorganisms. Gain basic knowledge about Microbiology starting from history to Microorganisms
CO2	Learn 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 And the replication strategies of representative viruses

Course Title: BACTERIOLOGY **Course Code:DMB28006 &28007**

COVID 19

Course Title: MICROBIAL PHYSIOLOGY AND METABOLISM
Course Code: DMC28006 & 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: DMD28006 & 28007

COVID 19

Course Title: ENVIRONMENTAL SCIENCE

Course Code: DME28006 & 28007

List of CO

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: INDUSTRIAL, FOOD AND MEDICAL MICROBIOLOGY

Course Code: DMF28006 & 28007

List of CO

CO ID	CO Statement
CO1	Understand food related microorganisms, their contamination, spoilage and preservation .
CO2	Understand the beneficial role of microorganisms in fermented dairy products
CO3	UUnderstand how microbiology is applied in manufacture of industrial products
CO4	The underlying principles in downstream processing
CO5	Know the human immune response towards microbes, Know the relationship between microorganism and human disease, pathogenicity, Laboratory diagnosis, treatment and prophylaxis Demonstrate an understanding of key concepts in immunology

Course Title: MICROBIAL DIAGNOSIS IN HEALTH CLINICS

Course Code: DMF28206 & 28207

List of CO

CO ID	CO Statement
CO1	Gain experience in health clinics such as examination, collection of clinical samples and diagnosis
CO2	Demonstrate scientific quantitative skills, the ability to evaluate experimental design, read graphs.

JSS Mahavidyapeetha

JSS College of Arts, Commerce and Science

Ooty Road, Mysuru

Department: COMMERCE AND MANAGEMENT

Programme Name: B.COM

Session/Year 2020-21

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: Banking and Insurance **Course Code: ENA 230**

List of COs

CO ID	**CO Statement -** On successful completion of the course, the Students will be able to;
CO1	Understand the basic concepts of Banking
CO2	Judge the impact of schemes of banks on self employment
CO3	Analyse the the present scenario of banking services
CO4	Analyse the the present scenario of Insurance services

Course Title: Cost Accounting **Course Code: ENB 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: Financial Accounting -II **Course Code: ENB 220**

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: Principles of Marketing **Course Code: ENB 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: Principles and Practices of General Insurance **Course Code: ENC 260**

List of COs

CO ID	**CO Statement -** On successful completion of the course, the Students will be able to;
CO1	Determine the loss exposures of properties, human lives, business operations
CO2	Identify the financial consequences because of the occurrence of a loss.
CO3	Apply the knowledge of current information, models, and techniques
CO4	Practices in all of the major business disciplines.

Course Title: Logistics and supply Chain Management **Course Code: ENC 270**

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Provide an opportunity for comprehensive analysis
CO2	To evaluate the achievement of competitive advantage through logistics framework
CO3	Discussion of key contemporary issues and problems in logistics management.
CO4	Outline the recent developments in the field of marketing

Course Title: Corporate Accounting - II **Course Code: END 210**

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Know the procedure of redemption of preference shares.
CO2	Comprehend the different methods of Mergers and Acquisition of Companies
CO3	Understand the process of internal reconstruction
CO4	Prepare the liquidators final statement of accounts.

Course Title: Quantitative Techniques **Course Code: END 230**

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Recognize the laws and its application in business activities.
CO2	Acquire knowledge of business decision models.
CO3	Understand in depth Ratio proportion and variation
CO4	Learn in depth the the different tools applicable for business decision

Course Title: Consumer Affairs **Course Code: ENE 280**

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Learn conceptual frame work of consumer and consumer market
CO2	Understand in depth the characteristics of consumer protection law in India
CO3	Deliberate the details of role played by the advisory bodies at different level
CO4	Indentify the grievance redressal mechanism

Course Title: International Business **Course Code: ENE 290**

List of COs

CO ID	**CO Statement -** On successful completion of the course, the Students will be able to;
CO1	Learn in detail about import and export and able to become an importer and exporter
CO2	Specify in detail the application of foreign trade policies and analyse how international factors affect domestic concern
CO3	Learn in depth and analyse legal issues related to international business
CO4	Identify and analyse various social culture and responsibility awareness on global issues

Course Title: GST -I **Course Code: ENE 300**

List of COs

CO ID	**CO Statement -** On successful completion of the course, the Students will be able to;
CO1	Understand the technology and flow of return filing under GST
CO2	Learn in details and gain knowledge to practice as GST Consultant
CO3	Learn in details provisions of GST to handle TDS and POS online and off line more efficiently
CO4	Understand in depth tax provisions to make managerial decisions effectively in various tax related matters

Course Title: Financial Management -I **Course Code: ENE 310**

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	Learn the characteristics of different methods of time value of money and its application to investment decision
CO3	Learn the classification and characteristics of cost of capital
CO4	Identify the characteristics of capital structure and factors affecting the capital structure

Course Title: Advanced Cost and Management Accounting - I
Course Code: ENE 320

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Learn in depth various Costing methods
CO2	Understand the details of contract costing and process costing
CO3	Identify reasons for reconciliation of cost and financial accounts
CO4	Learn in depth the details of Activity based costing

Course Title: Retail Management **Course Code: ENE 330**

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Learn in depth the characteristics of retailing
CO2	Understand in depth the details of retail consumer
CO3	Identify and basis of retail market segmentation and strategies
CO4	Specify the factors determining the retail location selection

Course Title: Entrepreneurship Development **Course Code: ENE 210**

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Specify in details the different types of entrpreneurs
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**

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

JSS Mahavidyapeetha

JSS College of Arts, Commerce and Science

Ooty Road, Mysuru

Department: COMMERCE AND MANAGEMENT

Programme Name: BBA **Session/Year 2020-21**

List of POs & PSOs

POID	PO Statement – On successful completion of this Programme, students will be enable 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	Understand and identify the different theories of organisations, which are relevant in the present context.
CO2	Design and demonstrate the strategic plan for the attainment of organisational goals.

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 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: 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 rations 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: Company Law **Course Code: CDE 210**

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Understand the Memorandum and Articles of Association
CO2	Learn the formation of Joint Stock company
CO3	Identify the provisions relating to membership of a company
CO4	Learn in details company frauds and their preventions.

Course Title: Business Statistics **Course Code: CDE 220**

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	
CO2	
CO3	
CO4	

Course Title: Tax Management **Course Code: CDE 230**

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Learn in depth Income Tax Act 1961
CO2	Identify the different heads of Income
CO3	Identify in detail different sections of I T Act
CO4	Understand about Exempted Incomes

Course Title: Business Research Methodology **Course Code: CDE 240**

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Learn in depth the different methods of research
CO2	Understand about types of business rearch and design
CO3	Learn in depth the various types opf sampling techniques
CO4	Understand to report about various issues of different organisations

Course Title: Human Resource Management - I **Course Code: CDE 270**

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, Human Resource Management
CO2	
CO3	
CO4	

Course Title: Financial Management -I **Course Code: CDE 280**

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Learn in depth the concepts of profit maximisation
CO2	Understand and able to identify the source of finance
CO3	Understand and able to identify the factors influencing dividend decision
CO4	Understand the relevance of dividend policy

Course Title: Human Resource Management-II **Course Code: CDE 272**

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 techniques to manage Human Resource
CO3	Learn in depth the objectives and methods of training
CO4	Learn in depth the Methods of wage payments

Course Title: Financial Management- II **Course Code: CDF 282**

List of COs

CO ID	CO Statement - On successful completion of the course, the Students will be able to;
CO1	Understand and identify the nature and types of working capital
CO2	Understand in depth the approaches to financing of current assets
CO3	Able to identify the objectives of cash management
CO4	Learn in depth and identify cost and benefits of receivables

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: CDE 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: BIOTECHNOLOGY (UG)

Programme Name: BSc **Programme Code: BSC05/BSC06**

Session/Year: 2020-21

List of POs & PSOs

POID	PO Statement
PO1	Developstate-of-the-artlaboratoryskillsandprofessionalcommunicationskills.
PO2	Applythescientificmethodtodesign,execute,andanalyseanexperiment.
PO3	Explainthetheoreticalbasisofthetools,technologiesandmethodscommonin 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 techniquesforthequalitative andquantitative analysisof chemicals inlaboratoriesandin industries
PSO2	Demonstrate effectively the applications of biochemical and biological sciences.
PSO3	Know andapply appropriate tools andtechniquesinbiotechnologicalmanipulation
PSO4	Understandhisorherresponsibilitiesinbiotechnologicalpractices.

Course Title: CELLBIOLOGY& GENETICS **Course Code:DMA220**

List of COs

CO ID	CO Statement
CO1	Developanunderstandingofthestructureandfunctionsoforganelles.
CO2	Understandthestructureofchromosomes,types,celldifferentiationandfeaturesofcancer cells.
CO3	Gaincomprehensiveunderstandingofthechemicalbasisofhereditymethods.
CO4	Understandeffectofmutation,mechanismandChromosomalAberrations.

Course Title: BIOMOLECULES&BIO-ANALYTICALTECHNIQUES Course Code:DMB220

List of COs

CO ID	CO Statement
CO1	Understandtheproperties,mechanismsandbiologicalimportanceofBio-molecules.
CO2	Comphrendthemechanismofenzymeaction,factorsaffectingitanditsapplications.
CO3	Understandandabletorelatetheprinciplesunderlyingvariousinstrumentsinthefieldof Biology.
CO4	Compareandcontrasttheroleofbio-moleculesandenzymes.

Course Title: MOLECULARBIOLOGY&GENETICENGINEERING Course Code:DMC220

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 concept of genome organization and manipulation
CO4	Demonstrateworkingknowledgeinadefinedskillset ofmolecularbiologyandbiotechnologyprotocols.

Course Title: PLANTTISSUE&ANIMALCELLCULTURE **Course Code:DMD220**

List of COs

CO ID	CO Statement
CO1	Develop concept of plant tissue and animal cellculture techniques and their application inbiotechnology.
CO2	Comprehendtheknowledgeoftransgenicplantsinindustrialandagricultural applications.
CO3	Establishandmaintainvariouscelllinesusedintissueculture.
CO4	Understand the application of animal cell culture in biopharmaceutical industry.

Course Title: IMMUNOLOGY&MEDICALBIOTECHNOLOGY **Course Code:DME220**

List of COs

CO ID	CO Statement
CO1	Understand the role of different types of Cells in immune system .
CO2	Discusstheprinciplesandapplicationsofimmunologicaltechniques.
CO3	Understandto diagnosediseases.
CO4	Comprehendtheknowledgeoftherapeuticapplicationsofenzymeandhormone.

Course Title: MICROBIALTECHNIQUES**Course Code:DME222**

List of COs

CO ID	CO Statement
CO1	Understand structure, classification and reproduction in micro-organisms.
CO2	Know andapply appropriate sterilizationtechniquesinbiotechnology.
CO3	Discussthevarious culture media and its components used in culturing microbes.
CO4	Comprehendtheknowledgeof staining technique.

Course Title: ENVIRONMENTALBIOTECHNOLOGY&BIOSTATISTICS **Course Code:DMF220**

List of COs

CO ID	CO Statement
CO1	Gainanunderstandingofthecauses,typesandcontrolmethodsforEnvironmentalPollution.
CO2	DifferentiatetheapplicationofdifferentlifeformsinEnvironmentalRemediation.
CO3	ApplyStatisticalToolsforAnalysisofBiologicalData.
CO4	ApplyStatisticalToolsfor calculation of standard deviation

Name of the Department: Botany UG
Programmes offered: B.Sc. (CBZ & BBM)
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.	Biodiversity of Microbes and Archegoniate	DMA2300701	Understand the characteristics of viruses
		DMA2300702	Learn the classification and characteristics of bacteria
		DMA2300703	Understand the classification and characteristics of fungi
		DMA2300704	Identify the classification and characteristics of archegoniate
2.	Plant Ecology, Morphology and Taxonomy	DMB2300701	Learn the classification and characteristics of plant communities
		DMB2300702	Understand in depth herbarium
		DMB2300703	Understand in details with examples plant morphology
		DMB2300704	Specify the characteristics of ecosystem
3.	Plant Anatomy and Embryology	DMC2300701	Understand the details of histology
		DMC2300702	Learn the details of embryology
		DMC2300703	Understand the details of anatomy
		DMC2300704	Learn in depth translocation in phloem
4.	Plant Physiology and Metabolism	DMD2300701	Understand the details of photosynthesis
		DMD2300702	
		DMD2300703	Specify the classification and characteristics of enzyme
		DMD2300704	
5.	Cell and Molecular Biology	DME2300701	Understand in depth microscopy
		DME2300702	Learn the details of cell
		DME2300703	Specify the details of DNA
		DME2300704	Learn the details of gene regulation
6.	Floriculture	DME2360701	Specify the classification and characteristics of gardening
		DME2360702	Understand in depth nursery management
		DME2360703	Identify in details with examples ornamental plants
7.	Genetics and Plant Breeding	DMF2300701	Specify the details of heredity
		DMF2300702	Write down the classification and characteristics of mutations
		DMF2300702	Learn the details of plant breeding
		DMF2300703	Identify in details with examples linkage

Programme Outcome for Bachelor of Science in Botany, Biochemistry & Microbiology

Sl. No.	Course	COID	
1.	Biodiversity of Microbes and Archegoniate	DMA2300801	Understand the characteristics of viruses
		DMA2300802	Learn the classification and characteristics of bacteria
		DMA2300803	Understand the classification and characteristics of fungi
		DMA2300804	Identify the classification and characteristics of archegoniate
2.	Plant Ecology, Morphology and Taxonomy	DMB2300801	Learn the classification and characteristics of plant communities
		DMB2300802	Understand in depth herbarium
		DMB2300803	Understand in details with examples plant morphology
		DMB2300804	Specify the characteristics of ecosystem
3.	Plant Anatomy and Embryology	DMC2300801	Understand the details of histology
		DMC2300802	Learn the details of embryology
		DMC2300803	Understand the details of anatomy
		DMC2300804	Learn in depth translocation in phloem
4.	Plant Physiology and Metabolism	DMD2300801	Understand the details of photosynthesis
		DMD2300802	
		DMD2300803	Specify the classification and characteristics of enzyme
		DMD2300804	
5.	Cell and Molecular Biology	DME2300801	Understand in depth microscopy
		DME2300802	Learn the details of cell
		DME2300803	Specify the details of DNA
		DME2300804	Learn the details of gene regulation
6.	Floriculture	DME2360801	Specify the classification and characteristics of gardening
		DME2360802	Understand in depth nursery management
		DME2360803	Identify in details with examples ornamental plants
7.	Genetics and Plant Breeding	DMF2300801	Specify the details of heredity
		DMF2300802	Write down the classification and characteristics of mutations
		DMF2300802	Learn the details of plant breeding
		DMF2300803	Identify in details with examples linkage

Name of the Department: UG CHEMISTRY

I semester

Programme Outcome for Bachelor of Science in Physics, Chemistry and Mathematics: After completing the graduation in the Bachelor of Science the students are able to:

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. Apply the scientific method to design, execute, and analyze an experiment and also to explain their scientific procedures as well as their experimental observations.

PO6. Appreciate the role of chemistry in the society

PO7. Use this as a basis for ethical behaviour in issues facing chemists /drugs.

PO8. Understand chemistry as an integral part for addressing social, economic, and environmental problems.

PO9. Develop and understand the value of Mathematical proof and demonstrate proficiency in writing and understanding proofs.

PO10. Investigate and apply mathematical problems and solutions in aspects of science and technology.

PO11. Gain experience investigating the real world problems

PO12. Apply mathematical ideas and models to those problems.

Program Specific Outcome: Bachelor of Science in Physics, Chemistry and Mathematics After completing the graduation in Physics, Chemistry and Mathematics the students are able to:

PSO1. Find career opportunities and develop competence to write competitive examinations.

PSO2. Develop proficiency in the analysis of complex physical problems and the use of mathematical or other appropriate techniques to solve them.

PSO3. Apply appropriate techniques for the qualitative and quantitative analysis of chemicals in laboratories and in industries.

PSO4. Create a hypothesis and appreciate how it relates to broader theories.

PSO5. Demonstrate skills in the use of Computers.

Course outcome: After completion of the course the student is able to:

CO1: Learn the basics of atomic structure and periodicity functions, structures and properties of chemical compounds.

CO2: Acquire knowledge on aromaticity and aliphatic hydrocarbons

CO3: Learn the basics of stereochemistry

CO4: Understand the methods of analysis related to volumetric estimations.

II semester

Programme Outcome for Bachelor of Science in Physics, Chemistry and Mathematics: After completing the graduation in the Bachelor of Science the students are able to:

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. Apply the scientific method to design, execute, and analyze an experiment and also to explain their scientific procedures as well as their experimental observations.

PO6. Appreciate the role of chemistry in the society

PO7. Use this as a basis for ethical behaviour in issues facing chemists /drugs.

PO8. Understand chemistry as an integral part for addressing social, economic, and environmental problems.

PO9. Develop and understand the value of Mathematical proof and demonstrate proficiency in writing and understanding proofs.

PO10. Investigate and apply mathematical problems and solutions in aspects of science and technology.

PO11. Gain experience investigating the real world problems

PO12. Apply mathematical ideas and models to those problems.

Program Specific Outcome: Bachelor of Science in Physics, Chemistry and Mathematics After completing the graduation in Physics, Chemistry and Mathematics the students are able to:

PSO1. Find career opportunities and develop competence to write competitive examinations.

PSO2. Develop proficiency in the analysis of complex physical problems and the use of mathematical or other appropriate techniques to solve them.

PSO3. Apply appropriate techniques for the qualitative and quantitative analysis of chemicals in laboratories and in industries.

PSO4. Create a hypothesis and appreciate how it relates to broader theories.

PSO5. Demonstrate skills in the use of Computers.

Course outcome: After completion of the course the student is able to:

CO1: Understand the concept of thermodynamics.

CO2: Learn the concept of ionic equilibria.

CO3: Understand the mechanisms involved in functional Organic Chemistry.

CO4: Study the applications of electrochemistry.

III semester

Programme Outcome for Bachelor of Science in Physics, Chemistry and Mathematics: After completing the graduation in the Bachelor of Science the students are able to:

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. Apply the scientific method to design, execute, and analyze an experiment and also to explain their scientific procedures as well as their experimental observations.

PO6. Appreciate the role of chemistry in the society

PO7. Use this as a basis for ethical behaviour in issues facing chemists /drugs.

PO8. Understand chemistry as an integral part for addressing social, economic, and environmental problems.

PO9. Develop and understand the value of Mathematical proof and demonstrate proficiency in writing and understanding proofs.

PO10. Investigate and apply mathematical problems and solutions in aspects of science and technology.

PO11. Gain experience investigating the real world problems

PO12. Apply mathematical ideas and models to those problems.

Program Specific Outcome: Bachelor of Science in Physics, Chemistry and Mathematics After completing the graduation in Physics, Chemistry and Mathematics the students are able to:

PSO1. Find career opportunities and develop competence to write competitive examinations.

PSO2. Develop proficiency in the analysis of complex physical problems and the use of mathematical or other appropriate techniques to solve them.

PSO3. Apply appropriate techniques for the qualitative and quantitative analysis of chemicals in laboratories and in industries.

PSO4. Create a hypothesis and appreciate how it relates to broader theories.

PSO5. Demonstrate skills in the use of Computers.

Course outcome: After completion of the course the student is able to:

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

Programme Outcome for Bachelor of Science in Physics, Chemistry and Mathematics: After completing the graduation in the Bachelor of Science the students are able to:

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. Apply the scientific method to design, execute, and analyze an experiment and also to explain their scientific procedures as well as their experimental observations.

PO6. Appreciate the role of chemistry in the society

PO7. Use this as a basis for ethical behaviour in issues facing chemists /drugs.

PO8. Understand chemistry as an integral part for addressing social, economic, and environmental problems.

PO9. Develop and understand the value of Mathematical proof and demonstrate proficiency in writing and understanding proofs.

PO10. Investigate and apply mathematical problems and solutions in aspects of science and technology.

PO11. Gain experience investigating the real world problems

PO12. Apply mathematical ideas and models to those problems.

Program Specific Outcome: Bachelor of Science in Physics, Chemistry and Mathematics After completing the graduation in Physics, Chemistry and Mathematics the students are able to:

PSO1. Find career opportunities and develop competence to write competitive examinations.

PSO2. Develop proficiency in the analysis of complex physical problems and the use of mathematical or other appropriate techniques to solve them.

PSO3. Apply appropriate techniques for the qualitative and quantitative analysis of chemicals in laboratories and in industries.

PSO4. Create a hypothesis and appreciate how it relates to broader theories.

PSO5. Demonstrate skills in the use of Computers.

Course outcome: After completion of the course the student is able to:

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.

V semester

Programme Outcome for Bachelor of Science in Physics, Chemistry and Mathematics: After completing the graduation in the Bachelor of Science the students are able to:

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. Apply the scientific method to design, execute, and analyze an experiment and also to explain their scientific procedures as well as their experimental observations.

PO6. Appreciate the role of chemistry in the society

PO7. Use this as a basis for ethical behaviour in issues facing chemists /drugs.

PO8. Understand chemistry as an integral part for addressing social, economic, and environmental problems.

PO9. Develop and understand the value of Mathematical proof and demonstrate proficiency in writing and understanding proofs.

PO10. Investigate and apply mathematical problems and solutions in aspects of science and technology.

PO11. Gain experience investigating the real world problems

PO12. Apply mathematical ideas and models to those problems.

Program Specific Outcome: Bachelor of Science in Physics, Chemistry and Mathematics After completing the graduation in Physics, Chemistry and Mathematics the students are able to:

PSO1. Find career opportunities and develop competence to write competitive examinations.

PSO2. Develop proficiency in the analysis of complex physical problems and the use of mathematical or other appropriate techniques to solve them.

PSO3. Apply appropriate techniques for the qualitative and quantitative analysis of chemicals in laboratories and in industries.

PSO4. Create a hypothesis and appreciate how it relates to broader theories.

PSO5. Demonstrate skills in the use of Computers.

Course outcome: After completion of the course the student is able to:

CO1: Understand the synthesis and applications of glass and ceramics, vitamins, hormones, soaps and detergents; and higher aspects of spectroscopy.

CO2: Understand the types and manufacture of different fertilizers.

CO3: Understand the different methods of prevention of corrosion.

VI semester

Programme Outcome for Bachelor of Science in Physics, Chemistry and Mathematics: After completing the graduation in the Bachelor of Science the students are able to:

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. Apply the scientific method to design, execute, and analyze an experiment and also to explain their scientific procedures as well as their experimental observations.

PO6. Appreciate the role of chemistry in the society

PO7. Use this as a basis for ethical behaviour in issues facing chemists /drugs.

PO8. Understand chemistry as an integral part for addressing social, economic, and environmental problems.

PO9. Develop and understand the value of Mathematical proof and demonstrate proficiency in writing and understanding proofs.

PO10. Investigate and apply mathematical problems and solutions in aspects of science and technology.

PO11. Gain experience investigating the real world problems

PO12. Apply mathematical ideas and models to those problems.

Program Specific Outcome: Bachelor of Science in Physics, Chemistry and Mathematics After completing the graduation in Physics, Chemistry and Mathematics the students are able to:

PSO1. Find career opportunities and develop competence to write competitive examinations.

PSO2. Develop proficiency in the analysis of complex physical problems and the use of mathematical or other appropriate techniques to solve them.

PSO3. Apply appropriate techniques for the qualitative and quantitative analysis of chemicals in laboratories and in industries.

PSO4. Create a hypothesis and appreciate how it relates to broader theories.

PSO5. Demonstrate skills in the use of Computers.

DSE

Course outcome: After completion of the course the student is able to:

CO1: Understand the techniques involved in metallurgy.

CO2: Understand the role of ions in different biological systems.

CO3: Understand the applications of spectroscopy.

SEC

Course outcome: After completion of the course a student is able to:

CO1: Understand soil sample for calcium and magnesium content.

CO2: Understand water parameters.

CO3: Identify food adulterants.

CO4: Understand chromatography.

JSS Mahavidyapeetha

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

Department: Hindi

Programme: BBA/BCOM/BCA

PO ID	PO (BBA) **(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: FBA040 (11)

Course title **:**Hindi KahaniaurVyakarna

CO ID	CO
CO 1	**1**.Deliberate in details with application, if applicable, short stores of 20th century
CO 2	**2**. Deliberate in details with application, if applicable, Bade bhaheSahab by Premchand
CO 3	**3**. Understand the classification and characteristics of Akasha deep by JayashankarPrasada
CO 4	**4**. Understand in details with application, if applicable, Hindi vyakaran
CO 5	**5.** Learn the details of Hindi vyakaran
CO 6	**6.** Specify in details with application, if applicable, Hindi vyakaran

Programme Code: ENB050

Course title **:Hindi GadyaaurVyakarna**

Paper 2

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

Programme Code: CDC050

Course title **:** Hindi KavyaaurAnuvadaParibhashikShabdavali

Paper 3

CO ID	CO
CO 1	**1.**Deliberate the classification and characteristics of medieval and modern hindikavya
CO 2	**2** .Deliberate the characteristics of medieval and modern hindikavya
CO 3	**3** .Understand the details of Kaber by saakhe
CO 4	**4** . Identify the characteristics of Hemala by ramadharesimhadinakar, Hindi SarkariPatrachar
CO 5	**Co5** . Learn in depth preyatham by suryakantathreepatinirala
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

1.

Programme Code: CDD050

Course title **:Hindi UpanyasTathaVanijya 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 VanijyaHindI
CO 5	**5.**Learn the classification and characteristics of Vanijya Hindi
CO 6	**6.**Identify in details with application, if applicable, Vanijya Hindi

2.

Programme: BA

PO ID	PO (BA) **-21 to 25)**
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: ELA 050 (21 to 25)

Course title :**Hindi GadyaaurVyakarna**

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 vykaran
CO 5	**5.** Identify the characteristics of Hindi vykaran

Programme Code: ELB 050 (21 to 25)

Course title :**Hindi KahaniaurVyakarna**

Paper 2

CO ID	CO
CO 1	**1**. Write down the details of short stores of 20 th century
CO 2	**2** Identify in depth short stores of 20 th century
CO 3	**3**. Identify in details with application, if applicable, short stores of 20 th century
CO 4	**4**.Identify the classification and characteristics of Hindi vyakaran
CO 5	**5.**Write down the characteristics of Hindi vyakaran

Programme Code: ELC 050 (21 to 25)

Course title**:Hindi** NatakaaurVanjya 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 Ramkumarvarma
CO 3	**3**. Deliberate the characteristics of Hindi Natak -Red kehaddi by Jagadeshachandramathur
CO 4	**4**.Understand the details of Hindi Natak -sukhe dale by Upendranathashka
CO 5	**5.**Write down in details with examples Hindi Natak -mai bee manavhu by Vishnu prabakar
CO6	**6.**Identify the details of Hindi Vanijya Hindi
CO7	**7.**Specify in depth Vanijya Hindi

Programme Code: ELD 050 (21 to 25)

Course title **:Hindi** KavyaaurAnuvadaParibhashikShabdavali

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 RamadhareSimhaDinakar
CO 4	**4**.Specify in details with application, if applicable, Gurukul by RamkumarVarma
CO 5	**5.**Specify the characteristics of Hindi AnuvadaParibhasikShabdavali
Co6	**6** . Learn in details with examples Hindi AnuvadaParibhasikShabdavali

JSS Mahavidyapeetha

JSS College of Arts, Commerce and Science

Ooty Road, Mysuru

Department: Physics

Programme Name: B.Sc **Session/Year: 2020-21**

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

*Average from all the courses.

After converting direct attainment to 80% and indirect attainment to 20%, give overall attainment as summation of the above.

Send the sample filled in survey forms for indirect assessment.

Course Title: **Course Code:**

Name of Course In-charge/Coordinator:

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
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
V SEM Solid State Physics	DME29201	Write down in detail with application of crystal structure
	DME29202	Write down the details of elementary lattice dynamics
	DME29203	Deliberate in detail with examples magnetic properties of matter
V SEM Renewable energy and Energy harvesting	DME29601	Understand the characteristics of fossil fuel
	DME29602	Learn in detail with application of wind energy
	DME29603	Specify in detail with application of ocean energy and hydro energy
VI SEM Nuclear and particle physics	DMF29201	Write down in detail with application and properties of nuclei
	DMF29202	Learn in details with application and properties of nuclei
	DMF29203	Understand in detail with examples radioactivity
	DMF29204	Identify the details of particle physics

JSS Mahavidyapeetha

JSS College of Arts, Commerce and Science (Autonomous)

Ooty Road, Mysuru - 570025

Department: **UG Department of English** Programme: **BA**

PO

(CBCS)

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 andanalysis of literary and cultural texts in multiple genres
PO3	Students should be able to identify, analyze, interpret and describe the critical ideas, valuesand 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 humanexperiences through literary representation using historical contexts and disciplinarymethodologies.
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.

CBSC Papers

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 18thCentury 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	Reminiscence 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 19th 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.

JSS Mahavidyapeetha

JSS College of Arts, Commerce and Science

Ooty Road, Mysuru

Department:Computer Science

Programme Name:BCA

Session/Year:2020-2021

List of POs & PSOs

POID	PO Statement
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
PSO1	Knowledge of contemporary and emerging issues in computer science
PSO2	Ability to identify, critically analyse, formulate and develop computer application
PSO3	Learn techniques, skills and modern hardware and software tools necessary for innovative software solutions
PSO4	Devise and conduct experiments, interpret data and provide well informed conclusions.
PSO5	Information about computer, technology, organization and management.
PSO6	Know various computer applications and latest development in IT and communication system.
PSO7	Act as software programmer, system and Database administrator, web designer, faculty for computer science and computer applications.
PSO8	Design and conduct experiments, analyze and interpret data.

*Average from all the courses.

After converting direct attainment to 80% and indirect attainment to 20%, give overall attainment as summation of the above.

Send the sample filled in survey forms for indirect assessment.

Course Title: Analysis and Design of Algorithms
Course Code: ECE23001

List of COs

CO ID	CO Statement
CO1	Learn the details of Types of notion of Algorithm
CO2	Learn in details with examples Algorithm Design Techniques
CO3	Deliberate in depth Sorting Techniques
CO4	Deliberate in depth of Searching Techniques
CO5	Identify in details with examples Analysis of Graph Algorithms
CO6	Learn the details of Dynamic Programming Methods

Course Title: Data Communication and Computer Networks
Course Code: ECE21001
List of COs

CO ID	CO Statement
CO1	Learn in depth Elements of Data Communications and network Systems
CO2	Learn in depth Transmission Media
CO3	Understanding the various classifications and characteristics of Signals
CO4	Understand in details with examples Network Models
CO5	Learn in depth Error Detection and Corrections Algorithms
CO6	Deliberate in details with examples Switching Concepts
CO7	Deliberate the classification and characteristics of networking and internetworking Devices

Course Title: Data Mining and Data Warehousing **Course Code: ECF22201**
List of COs

CO ID	CO Statement
CO1	Understand the characteristics of Data Warehousing
CO2	Understand the details of Data Warehousing Architecture
CO3	Deliberate in depth Data Mining
CO4	Learn in details with examples Association Rule Mining
CO5	Specify the details of Classification and Prediction Techniques
CO6	Learn in depth Clustering Methods
CO7	Write down in depth Application of Data Mining

Course Title: Operation Research **Course Code: ECF21001**

List of COs

CO ID	CO Statement
CO1	Write down the details of Origin and Development of Operation Research
CO2	Understand the characteristics of Linear Programming Problems and Methods
CO3	Deliberate in depth Transportation Problems
CO4	Deliberate in depth Assignment Problem
CO5	Identify in details with examples Network Analysis
CO6	Learn in depth Application of Operation Research

Course Title: Project work **Course Code: ECF23001**

List of COs

CO ID	CO Statement
CO1	Identify in details with examples Problem identification
CO2	Write down in depth System Analysis
CO3	Understand and Develop SRS for selected System Problem
CO4	Understand and Develop System Design for selected System Problem
CO5	Learn in details and Develop a Code and Test the System
CO6	Understand the details of Presentation and Demo of Project Work

JSS Mahavidyapeetha

JSS College of Arts, Commerce and Science

Ooty Road, Mysuru – 570 025, Karnataka, India

Name of the Department: POLITICAL SCIENCE
Programmes offered: B A

List of COs, POs, and PSOs (For the year 2020-21Only):

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

Course title	Course Code	CO No./Id	CO Statement
POLITICAL THEORY	ELA26022 /ELA26025	**CO1**	Learn in depth meaning and nature of political Theory
		CO2	Deliberateindetailswithexamplesdifferencesbetweenpoliticsandpolitical theory
		CO3	Understand the characteristics of elements of state
		C04	Specify the details of civil society
		CO5	Understand the classification and characteristic so frights
COMPARATIVE GOVERNMENT AND POLITICS	ELC26022/ ELC26025	CO1	Understand the classification and characteristics of electoral systems
		CO2	Understand the details of classification of political systems
		CO3	Understand in details with application if applicable contemporary debates
		CO4	Learn the classification and characteristics of contemporary debates on state.
		CO5	Understand the classification and characteristics of electoral systems
THEMES ON COMPARATIVE GOVERNMENT POLITICAL	ELE26022/ ELE26025	CO1	Understand in details with application if applicable democracy and governance
		CO2	Identify the classification and characteristics of lobbying institutions

THEORY		CO3	Understand in details with application if applicable Indian political thought
		CO4	Specify in depth Indian political thought
		CO5	Identify the classification and characteristics of western political thought
		CO6	Understand in details with examples western political thought
LEGISALATIVE SUPPORT	ELE26222	CO1	Understand in depth legislative support
		CO2	Write down the details of legislative process
		CO3	Write down the details Of Legislative committees
		C04	Learn in details with examples legislative committees
		CO5	Identify in details with application ,ifapplicable,budget process
		CO6	Understand the working of committees, budgetary aspects and deliberative mechanism within the parliament
Modern Governments (UK, USA, SWISS)	ELF260	CO1	Understanding the world politics
		CO2	Enlighten the world governmental system
		CO3	Develop comparative study on governmental systems
		CO4	Deliberate the details with examples fundamental rights
		CO5	Understand the details of comparative study on judiciary system
PUBLIC ADMINISTRATIO N CONCEPTS AND THEORIES	ELF262	CO1	Aim at understanding the procedural aspects of
		CO2	Learn in depth Administration and Public Policy
		CO3	Specify the details of administrative theories
		CO4	Learn the classification and characteristics of administrative theories
		CO5	Deliberate the details of public policy
		CO6	Deliberate in details with examples public policy in India
GE: Reading Gandhi	ELE262	CO1	Specify the details of reading Gandhi
		CO2	Deliberate in depth Gandhi and hind swaraj
		CO3	Learn the details of Gandhi's views on nationalism