

**JSS COLLEGE OF ATRS, COMMERCE AND SCIENCE**  
**OOTY ROAD MYSURU-25**  
**PG DEPARTMENT OF PHYSICS**  
**CO-ATTAINMENT**

<b>COURSE</b>	<b>COURSE CODE</b>	<b>COID</b>	<b>CO'S</b>	<b>ATTAINMENT (%)</b>
Classical Mechanics	PHY101	CO1	Deliberate the characteristics of Mechanics of a system of particles	95.12
		CO2	Specify in depth The Lagrangean method	78.05
		CO3	Learn in details with examples Central forces	90.24
		CO4	Write down the details of Hamilton's equations	82.93
		CO5	Deliberate the characteristics of Canonical transformations	78.05
Mathematical Methods of Physics 1	PHY102	CO1	Specify the characteristics of Curvilinear coordinates and Tensors	90.24
		CO2	Write down in depth Tensors	87.8
		CO3	Learn in details with application, if applicable, Differential equations, Hermite function and Laguerre functions	85.37
		CO4	Write down the details of Special functions	87.80
		CO5	Write down in details with application, if applicable, Bessel functions	65.85
Mathematical Methods of Physics 2	PHY103	CO1	Understand the classification and characteristics of Linear vector space	87.80
		CO2	Specify the characteristics of Linear representations of groups	92.68
		CO3	Deliberate in details with application, if applicable, Rotation group	80.4

		CO4	Understand the details of Fourier transforms	92.68
		CO5	Understand in details with examples Integral equations	80.49
Optics, Classical Electrodynamics, Plasma Physics	PHY104	CO1	Write down in details with examples Electric multipole moments	90.24
		CO2	Deliberate the characteristics of Potential formulation	75.61
		CO3	Specify in details with application, if applicable, Fields of moving charges and radiation	95.12
		CO4	Learn the characteristics of Radiating systems	75.61
		CO5	Learn the details of Relativistic electrodynamics	90.24
Continuum Mechanics and Relativity	PHY201	CO1	Write down the details of Continuum mechanics of solid media	95.56
		CO2	Understand the characteristics of Fluid mechanics	78.05
		CO3	Deliberate in details with examples Minkowski space-time	82.93
		CO4	Specify the classification and characteristics of Relativistic mechanics of a material particle	46.34
		CO5	Specify the characteristics of Einstein's equations	75.61
Thermal Physics	PHY202	CO1	Identify the classification and characteristics of Thermodynamics Preliminaries	82.93
		CO2	Deliberate in depth Entropy	60.98
		CO3	Specify in depth Phase equilibria	82.93
		CO4	Deliberate the characteristics of Classical Statistical Mechanics	63.41

		CO5	Deliberate the classification and characteristics of Quantum Statistical Mechanics	78.05
Quantum Mechanics 1	PHY203	CO1	Understand in depth The wave function and uncertainty Principle	60.98
		CO2	Specify in depth Formalism of quantum mechanics	85.37
		CO3	Understand the details of Schrodinger equation in one dimension	92.68
		CO4	Deliberate the details of Angular Momentum	80.49
		CO5	Understand in depth Schrodinger equation in three dimensions	87.80
Spectroscopy and Fourier Optics	PHY204	CO1	Specify the details of Atomic spectroscopy	53.66
		CO2	Identify in details with application, if applicable, Nuclear magnetic resonance	92.68
		CO3	Specify in depth Microwave spectroscopy	90.24
		CO4	Specify in depth Infrared spectroscopy	58.54
		CO5	Write down in details with application, if applicable, Raman spectroscopy	70.73
Quantum Mechanics 2	PHY301	CO1	Learn in details with application, if applicable, The time-independent perturbation theory	95.38
		CO2	Learn the characteristics of The Variational Principle	92.31
		CO3	Understand in details with application, if applicable, WKB Approximation	93.85
		CO4	Deliberate in details with examples Adiabatic approximation	86.15
		CO5	Deliberate in details with application, if applicable, Time-dependent perturbation theory	64.62

Condensed Matter Physics	PHY302	CO1	Write down the classification and characteristics of X-ray crystallography	98.46
		CO2	Identify in details with examples Atomic scattering factor	87.69
		CO3	Specify in details with examples Electron and neutron diffraction	93.85
		CO4	Identify in details with examples Crystal growth techniques	87.69
		CO5	Learn the details of Disordered materials	90.77
Nuclear and Particle Physics	PHY303	CO1	Specify in details with application, if applicable, Properties of the Nucleus	96.92
		CO2	Learn in details with application, if applicable, Nuclear Models	98.46
		CO3	Specify the characteristics of Nuclear reactions	96.92
		CO4	Deliberate in depth Nuclear decay modes	46.15
		CO5	Understand the classification and characteristics of Interaction of nuclear radiation with matter	86.15
Solid State Physics 1	PHY304	CO1	Specify in details with application, if applicable, basic concepts of properties of Solid	90.63
		CO2	Deliberate in details with application, if applicable, Dielectrics; Properties and classification	93.75
		CO3	Specify the classification and characteristics of Ferroelectrics; Properties and classification	90.63
		CO4	Specify the characteristics of thermal and vibrational properties of solids	81.25
		CO5	Learn the characteristics of tight-binding approximation	84.38
Nuclear Physics 1	PHY305	CO1	Specify in details with examples Nuclear detectors	100

		CO2	Understand in depth Nuclear pulse techniques	100
		CO3	Learn the details of Shell model	100
		CO4	Understand the classification and characteristics of Collective model	96.97
		CO5	Identify the classification and characteristics of Nilsson model	100
Solid State Physics 2	PHY401	CO1	Learn the details of X-ray diffraction by crystals	65.31
		CO2	Identify the details of Experimental techniques	57.14
		CO3	Deliberate in depth Structure analysis	61.22
		CO4	Learn the classification and characteristics of Particle Size study of Fibre structure	24.49
		CO5	Specify in depth Imperfections in solids	46.94
Solid State Physics 3	PHY402	CO1	Write down in details with application, if applicable, Free electron theory of metals	66.0
		CO2	Identify the characteristics of Electrical conductivity	66.0
		CO3	Deliberate in details with examples Hall effect	46.0
		CO4	Write down the classification and characteristics of Elemental and Compound Semiconductors	--
		CO5	Deliberate in details with application, if applicable, Carrier concentrations	--
Nuclear Physics 2	PHY403	CO1	Write down the details of nuclear fission	96.97
		CO2	Write down in details with application, if applicable, Neutron transport equation using elementary diffusion theory	96.97

		CO3	Specify the details of Fermi age theory	96.97
		CO4	Specify in depth homogeneous reactor	100
Nuclear Physics 3	PHY404	CO1	Write down the details of Deuteron	96.97
		CO2	Understand in details with application, if applicable, Deuteron magnetic and Quadrupole moments	96.97
		CO3	Understand the details of Nucleon-nucleon scattering processes	87.88
		CO4	Write down in details with examples Theory of scattering of slow neutrons	90.91
		CO5	Specify in details with examples Plane wave theory of direct reactions	69.70
Accelerator Physics	PHY407	CO1	Specify in details with application, if applicable, ion Source	86.15
		CO2	Deliberate the details of Alternating gradient machines	100.00
		CO3	Understand the working of Betatron	84.62
		CO4	Learn the details of Ion sources	81.54
		CO5	Write down the characteristics of Townsend theory	89.23

**JSS COLLEGE OF ATRS, COMMERCE AND SCIENCE  
OOTY ROAD MYSURU-25  
PG DEPARTMENT OF PHYSICS  
PO-ATTAINMENT**

<b>SUBJECT</b>	<b>COID</b>	<b>PO'S</b>	<b>ATTAINMENT (%)</b>
MSc Physics	PO1	Identify, formulate and analyze complex problems using first principles.	<b>84.046</b>
	PO2	A research oriented learning to develop analytical problem-solving approaches.	<b>83.66</b>

	PO3	Understand the basic concepts, fundamental principles and the scientific Theories.	<b>83.195</b>
	PO4	Acquire skills in handling scientific instruments, planning and performing in laboratory experiments	<b>82.69</b>
	PO5	Think creatively in explaining solutions to the problems	<b>83.42</b>

**JSS COLLEGE OF ATRS, COMMERCE AND SCIENCE  
OOTY ROAD MYSURU-25  
PG DEPARTMENT OF PHYSICS  
PO-ATTAINMENT-INDIRECT**

<b>SUBJECT</b>	<b>COID</b>	<b>PO'S</b>	<b>ATTAINMENT (%)</b>
MSc Physics	PO1	Identify, formulate and analyze complex problems using first principles.	<b>78.0374</b>
	PO2	A research oriented learning to develop analytical problem-solving approaches.	<b>82.2654</b>
	PO3	Understand the basic concepts, fundamental principles and the scientific Theories.	<b>78.423</b>
	PO4	Acquire skills in handling scientific instruments, planning and performing in laboratory experiments	<b>79.353</b>
	PO5	Think creatively in explaining solutions to the problems	<b>83.808</b>

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

**2022-23**

Name of the Department: PG Department of Chemistry

Programmes offered: M.Sc. in Chemistry

**Course outcomes (%Attainments)**

Course Title	Course Code	CO No./Id	CO Statement	%Attainment
<b>Concepts and Models of Inorganic Chemistry</b>	21CHA10	CO1	The periodic properties of the elements, structures of ionic solids and their lattice energy calculations. Further, the use of VSEPR concepts in analyzing the structures of simple molecules.	83
		CO2	Various acid-base concepts and their applications in different fields. Also, understand the utility of various non-aqueous solvents in inorganic synthesis.	100
		CO3	Complete understanding of the chemistry of lanthanides, actinides and their applications.	100
<b>Stereochemistry and Reaction Mechanism</b>	21CHA11	CO1	Optical and geometrical isomerism of Organic compounds. Application of stereochemistry in the study of regioselective and regiospecific reactions.	100
		CO2	The study of HMOT and its applications to simple organic molecules, and also understand the concept of aromaticity and methods of determining reaction mechanism.	60
		CO3	Nucleophilic, electrophilic and elimination reactions.	100
<b>Basic Physical Chemistry</b>	21CHA12	CO1	The completion of this course will enable the students to gain the knowledge on fundamentals and theoretical background on the concepts of chemical thermodynamics, chemical kinetics and electrochemistry of solutions.	100
		CO2	This helps in understanding the stability and energetics of reaction	100



<b>Essentials of Analytical Chemistry</b>	21CHA13	CO1	To enhance the knowledge on usage of analytical terminologies	100
		CO2	To build the skills on statistical analysis and comparison of results	100
		CO3	To acquire the skills on sampling, purification, separation and data analysis using instrumental techniques.	100
		CO4	To excel the knowledge on various separation techniques	100
		CO5	Explore topics such as experimental design, sampling, calibration strategies, standardization, optimization, statistics and the validation of experimental results	100
<b>Analytical Chemistry Practicals</b>	21CHA50	CO1	Analyze various samples with different classical and simple instrumental skills.	100
		CO2	Obtain knowledge for selection of analytical methods with suitable technique being adopted for the analysis different samples like, water, laboratory chemicals and reagents, body fluids such as urine etc.	100
		CO3	Distinguish classical and instrumental methods.	100
		CO4	Propose and conduct experiment for quantification of individual analytes.	100
<b>Inorganic chemistry Practicals</b>	21CHA51	CO1	Determination of various analytes presents in different ore samples by volumetric, gravimetric and spectrophotometric methods.	100
		CO2	The chemistry of redox, complexometric and indirect methods	100
		CO3	The principle in the semi-micro analysis of an inorganic salt mixture	100
<b>Organic Chemistry Practicals</b>	21CHA52	CO1	Students are involved in the multi-step synthesis of different organic compounds.	100
		CO2	Understand the qualitative analysis of binary mixture of organic compounds through separation, identification of functional groups and preparation of solid derivatives.	100

<b>Physical Chemistry Practicals</b>	21CHA53	CO1	After the completion of this course, the students can able to develop the experimental skill and theoretical interpretation of experimental results of many physical chemistry experiments of chemical kinetics in solution phase, thermodynamics, electrochemistry and spectrophotometry.	100
		CO2	This helps in academics, research and industries.	100
<b>Coordination Chemistry</b>	21CHB10	CO1	Gain the knowledge of preparative methods of coordination compounds and geometries of different coordination numbers.	100
		CO2	Understand the CFT and MOT bonding theories of metal complexes.	100
		CO3	Electronic spectra, magnetic properties and infrared spectroscopy of coordination compounds. In addition, understand the reaction mechanism and photochemistry of coordination compounds.	100
<b>Synthetic Organic Chemistry</b>	21CHB11	CO1	Students are familiar about chemistry of oxidants, reductants and their applications in the organic synthesis.	30
		CO2	Understand the various catalysts in organic synthesis by known naming reactions.	90
		CO3	Retro-synthesis and molecular rearrangement.	100
<b>Principles of Physical Chemistry</b>	21CHB12	CO1	Principles of Quantum chemistry and theoretical calculations of energies of molecules and chemical reactions.	100
		CO2	Apply solutions of the Schrödinger equation for simple systems (particle in a box, rigid rotor, harmonic oscillator) to real systems.	100
		CO3	Explain angular momentum as possessed by atomic or molecular systems, various descriptions of how angular momentum can be coupled, and how conservation of angular momentum is important to spectroscopy.	100
		CO4	Rotational, and electronic energy states) in determining the energy of stationary states.	100

		CO5	Fundamentals of polymers and their applications in controlling the quality and waste management of polymer product.	
<b>Molecular Symmetry and Spectroscopy</b>	21CHB13	CO1	Molecular symmetry and applications of group theory to CFT, hybridization, MOT and vibrational spectroscopy.	90
		CO2	Theory and principles of Rotation, Vibration and Raman Spectroscopy.	100
		CO3	Theory and principles Electronic and Resonance Raman spectroscopy.	100
<b>Analytical Chemistry Practicals</b>	21CHB50	CO1	Analyze various samples with different classical and simple instrumental skills.	100
		CO2	Obtain knowledge for selection of analytical methods with suitable technique being adopted for the analysis different samples like, water, laboratory chemicals and reagents, body fluids such as urine etc.	100
		CO3	Distinguish classical and instrumental methods.	100
		CO4	Propose and conduct experiment for quantification of individual analytes.	100
<b>Inorganic chemistry Practicals</b>	21CHB51	CO1	Determination of various analytes presents in different ore samples by volumetric, gravimetric and spectrophotometric methods.	100
		CO2	The chemistry of redox, complexometric and indirect methods	100
		CO3	The principle in the semi-micro analysis of an inorganic salt mixture	100
<b>Organic Chemistry Practicals</b>	21CHB52	CO1	Students are involved in the multi-step synthesis of different organic compounds.	100
		CO2	Understand the qualitative analysis of binary mixture of organic compounds through separation, identification of functional groups and preparation of solid derivatives.	100
<b>Physical Chemistry Practicals</b>	21CHB53	CO1	After the completion of this course, the students can able to develop the experimental skill and theoretical interpretation of experimental results of many physical chemistry experiments of chemical kinetics in	100

			solution phase, thermodynamics, electrochemistry and spectrophotometry.	
		CO2	This helps in academics, research and industries.	100
<b>Advanced Inorganic Chemistry</b>	21CHC10	CO1	Fundamental concepts of organometallic chemistry and synthesis, structure and bonding in different organometallics and their applications.	100
		CO2	Homogeneous and heterogeneous catalysts and their applications in the synthesis of organic compounds in industries.	100
		CO3	Chemistry of main group elements, metal clusters, silicates and silicones and their applications in day-to-day life.	100
<b>Organometallic and Photochemistry</b>	21CHC11	CO1	Basic concepts of photochemistry and pericyclic reactions and their usefulness in the synthesis of many organic compounds.	100
		CO2	Synthesis of organic compounds using different organometallic compounds as catalysts.	73
		CO3	Asymmetric synthesis of organic compounds using chiral compounds.	100
<b>Advanced Physical Chemistry</b>	21CHC12	CO1	Applications of reaction kinetics help in correlating the rates of biological and chemical reactions.	100
		CO2	Theory and applications of electrochemical systems helps in the field of e-waste management and protection of metals.	100
		CO3	Fundamentals of X-ray crystallography and structural interpretation by various X-ray diffraction techniques.	100
<b>Chemical Spectroscopy</b>	21CHC13	CO1	Understand the spectroscopic techniques such as NMR, IR, UV, and MS for recording and interpretation of spectra.	33
		CO2	Understand the characterization of chemical compounds.	39

		CO3	To learn electric and magnetic properties of radiation, molecules and bulk matter and solve the problems related to these properties.	100
		CO4	Understanding various fragmentation reactions of organic molecules.	100
		CO5	Predict the NMR, IR, UV, and MS spectra from a given molecular structure, including fragmentations in MS.	100
<b>Analytical Chemistry Practicals</b>	21CHC50	CO1	Get experience on analysis of various complex mixtures by following multistep reactions.	100
		CO2	Acquire the knowledge on handling instruments and to overcome the general problems arises during the analysis.	100
		CO3	Acquire industrial skills required for sampling, analytical and interpretation and presentation of results.	100
		CO4	Possess adequate knowledge on literature search for developed analytical methods.	100
<b>Inorganic Chemistry Practicals</b>	21CHC51	CO1	Determination of alloy samples and understanding the electrochemical deposition of metals.	100
		CO2	Preparation and characterization of coordination compounds.	100
		CO3	Determination of composition, stability constant and magnetic susceptibility of metal complexes.	100
<b>Organic Chemistry Practicals</b>	21CHC52	CO1	The isolation of caffeine, carotene, lycopene, cinole, azelaic acid and piperine from respective natural sources.	100
		CO2	Estimation of ketones, sugars, nitro and amino groups in natural products.	100
		CO3	Interpret UV, IR, NMR and MS data of different organic compounds.	100
<b>Physical chemistry practical</b>	21CHC53	CO1	Students can able to develop experimental skill and interpretation of plausible mechanisms of reactions.	100

		CO2	Gain practical knowledge on the theoretical basis of electrochemistry, thermodynamics, and spectrophotometry experiments.	100
		CO3	This helps in academics, research and industries.	100
<b>Bioinorganic Chemistry</b>	21CHD10	CO1	Structural building blocks of proteins, nucleic acids and their metal ion interactions. Biological role of Na/K channel, Ca, Vit B12, and coenzymes.	100
		CO2	Biochemical reactions of several metallo-enzymes and oxygen transport proteins.	100
		CO3	Medicinal applications of metals and metal complexes, and also treatment of toxicity due to heavy metal ions.	100
<b>Heterocyclic and Bioorganic Chemistry</b>	21CHD11	CO1	Structure, reactivity and synthesis of several heterocyclic compounds.	100
		CO2	Synthesis, industrial and biological importance of carbohydrates.	70
		CO3	General synthesis of amino acids, peptides, nucleic acids and their biological	100
<b>Nuclear, Radiation and Photochemistry</b>	21CHD12	CO1	Understand the principles of photochemistry, its experimental techniques and applications.	100
		CO2	Fundamentals of radiation chemistry, experimental methods of detection of radiation and applications of radioisotopes	100
		CO3	General aspects of nuclear chemistry, different types of nuclear reactions, production and separation of radioisotopes and also basic features of different types of nuclear reactors.	100
<b>Instrumental Methods of Analysis</b>	21CHD13	CO1	Gain the knowledge on the differences between classical and instrumental methods of chemical analysis.	73
		CO2	Explain different types of instrumental methods employed in chemical analysis.	30
		CO3	Develop an understanding of the range and theories of instrumental methods available in analytical chemistry.	30

		CO4	Make clear distinctions among spectrometric, electro-analytical, thermal and microscopic methods.	100
		CO5	Gain knowledge pertaining to the appropriate instrumental techniques.	33
		CO6	Obtain the practical experience in selected instrumental methods of analysis.	45
		CO7	Develop the skills on instrumental methods for planning, developing, conducting, reviewing, conducting experiments and reporting results.	100
<b>Analytical Chemistry Practicals</b>	21CHD50	CO1	Get experience on analysis of various complex mixtures by following multistep reactions.	100
		CO2	Acquire the knowledge on handling instruments and to overcome the general problems arises during the analysis.	100
		CO3	Acquire industrial skills required for sampling, analytical and interpretation and presentation of results.	100
		CO4	Possess adequate knowledge on literature search for developed analytical methods.	100
<b>Inorganic Chemistry Practicals</b>	21CHD51	CO1	Determination of alloy samples and understanding the electrochemical deposition of metals.	100
		CO2	Preparation and characterization of coordination compounds.	100
		CO3	Determination of composition, stability constant and magnetic susceptibility of metal complexes.	100
<b>Organic Chemistry Practicals</b>	21CHD52	CO1	The isolation of caffeine, carotene, lycopene, cincole, azelaic acid and piperine from respective natural sources.	100
		CO2	Estimation of ketones, sugars, nitro and amino groups in natural products.	100
		CO3	Interpret UV, IR, NMR and MS data of different organic compounds.	100
<b>Physical Chemistry Practical</b>	21CHD53	CO1	Students can able to develop experimental skill and interpretation of plausible mechanisms of reactions.	100

		CO2	Gain practical knowledge on the theoretical basis of electrochemistry, thermodynamics, and spectrophotometry experiments.	50
		CO3	This helps in academics, research and industries.	100

### 1. Direct Assessment:

	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
21CHA13	100	95.8	76.19	96.3	93.3	76.7	93.3	93.9		71.111	95.8	88.9
21CHA10	78.23	100	98.23	100	100	98.2	100	100		98.23	78.23	100
21CHA11	100	100	100	100	100	100	100	100	100	100	30	50
21CHA12	61	30	66	100	66	61	60	61		60	60	61
21CHA50	100	100	100	100	100	100	100	100		100	100	100
21CHA51	98.23	98.2	100	98.2	100	100	98.2	100		98.2	98.2	98.23
21CHA52	100	100	100	100	100	100	100	100		100	100	100
21CHA53	100	100	100	100	100	100	100	100		100	100	100
21CHB11	100	100	100	100	90	100	100	100	100	100	100	100
21CHB10	71.429	66.7	66.67	71.4	60	71.4	60	83.3		60		
21CHB13	100	100	100	100	100	100	100	100		100	100	100
21CHB12	59.167	64.2	53.3333	100	68	61.7	61.7	61.7		63.333	63.3	66.7
21CHB50	100	100	100	100	100	100	100	100		100	100	100
21CHB51	97.82	97.8	98.2	97.8	100	97.8	97.8	100		97.82	97.8	97.82
21CHB52	100	100	100	100	100	100	100	100		100	100	100
21CHB53	100	100	100	100	100	100	100	100		100	100	100
21CHC13	100	93	91	100	84	100	93	100		93	93	100
21CHC10	100	100	66	100	100	100	76	66		100	100	100
21CHC11	100	100	100	100	100	100	100	100	100	100	33	50
21CHC12	100	100	100	100	100	100	100	100		100	100	100
21CHC50	100	100	100	100	100	100	100	100		100	100	100
21CHC52	100	100	100	100	100	100	100	100		100	100	100
21CHC51	97.82	97.8	98.2	97.8	100	97.8	97.8	100		97.82	97.8	97.82
21CHC53	100	100	100	100	100	100	100	100		100	100	100
21CHD13	82.857	82.8	82.67	82.9	82.7	82.9	82.5	83		84.167	83	83.8
21CHD10	100	98.2	0	100	98.2	98.2	100	98.2		100	100	98.2
21CHD11	100	100	100	100	100	100	100	100	100	100	33	50
21CHD12	100	100	100	100	100	100	100	100		100	100	50
21CHD50	100	100	100	100	100	100	100	100		100	100	100
21CHD51	97.82	97.8	98.2	97.8	100	97.8	97.8	100		97.82	97.8	97.82
21CHD52	100	100	100	100	100	100	100	100		100	100	100
21CHD53	100	100	100	100	100	100	100	100		100	100	100
<b>Average</b>	95.13	94.44	90.45	98.19	95.06	95.10	94.31	95.2	100	94.42	89.06	90.00
<b>Av*0.8</b>	76.11	75.56	72.37	78.56	76.06	76.09	75.45	76.18	80.00	75.54	71.25	72.01



## 2. Indirect Assessment

Response by	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
Students	100	100	100	100	100	100	100	100	100	100	100	100
Teachers	100	100	100	100	100	100	100	100	100	100	100	100
Parents	100	100	100	100	100	100	100	100	100	100	100	100
Alumni	100	100	100	100	100	100	100	100	100	100	100	100
Employers	100	100	100	100	100	100	100	100	100	100	100	100
Average	100	100	100	100	100	100	100	100	100	100	100	100
<b>Av*0.2</b>	20	20	20	20	20	20	20	20	20	20	20	20

### % Attainment

	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
Overall PO/PSO attainment = Attainment (Direct)+Attainment (In-direct)	96.11	95.56	92.37	98.56	96.06	96.09	95.45	96.18	100	95.54	91.25	92.01

**JSS College of Arts, Commerce and Science**

Ooty Road, Mysuru - 570 025

**Outcome attainment reports**

Department:Mathematics

Programme: M.Sc.,

**Course outcomes (%Attainments)**

Semester:I

Course Title	Course ID	COID	CO: After completion of this course student will be able to	%Attainment
Algebra-I	MAA010	CO1	Define and interpret the concepts of divisibility, congruence, greatest common divisor, prime, and prime-factorization and Apply the Law of Quadratic Reciprocity	90
		CO2	To analyze and demonstrate examples of subgroups, normal subgroups and quotient groups.	90
		CO3	Assess properties implied by the definitions of groups and To use the concepts of isomorphism and homomorphism for groups	80
		CO4	Analyze Permutation groups and the Class Equation and Sylow theorems	90
		CO5	To demonstrate knowledge of conjugates.	90
Real Analysis-I	MAA020	CO1	Understand the characteristics of extended real number system, the n-dimensional Euclidean space	100
		CO2	Study the details of inequalities and its applications	90
		CO3	Learn the characteristics of sequences and Cauchy's sequences ,upper and lower limits	100
		CO4	Understand the details of series of real numbers ,tests for convergence	80

		CO5	Learn in detail with examples-multiplication of series, double series, infinite products	80
Real Analysis-II	MAA030	CO1	Deliberate in depth the basic topological properties of the subsets of the real numbers	80
		CO2	Understand in details with examples, Continuity of functions	80
		CO3	Deliberate the details of Differentiability, mean value theorems	90
		CO4	Learn the details of The Riemann-Stieltje's integral	80
		CO5	Identify in detail Integration and differentiation with examples.	80
Complex Analysis-I	MAA040	CO1	Understand the characteristics of represent complex numbers algebraically and geometrically, Study stereographic projection	100
		CO2	Understand the characteristics lines and circles	100
		CO3	Study the characteristics of analytic functions, Cauchy-Riemann equations and harmonic functions	90
		CO4	Learn in depth sequences and series , uniform convergence of power series and entire functions	100
		CO5	Learn in detail with examples-linear fractional transformations, cross ratio, symmetry, conformal mapping, evaluate definiteintegrals	90
		CO6	Understand different types of Cauchy theorems and Cauchy integral formula and apply these to evaluate integrals	90
Linear Algebra	MAA210	CO1	Learn in depth Vector Spaces, Subspaces	80

		CO2	Understand the classification and characteristics of Determinants	80
		CO3	Learn in details Inner Products and Norms with examples	90
		CO4	Deliberate the details of normal and Self-Adjoint Operators	80
		CO5	Analyse the classification and characteristics of The Diagonal form, The Triangular form and its applications	100

Semester:II

Course Title	Course ID	COID	CO: After completion of this course student will be able to	%Attainment
Algebra II	MAB010	CO1	Assess properties implied by the definitions of rings	100
		CO2	Analyze and demonstrate examples and properties of ideals and quotient rings	90
		CO3	Demonstrate knowledge of polynomial rings and associated properties	90
		CO4	Derive and apply Gauss Lemma, Eisenstein criterion for irreducibility of rationals with examples	100
		CO5	Understand the characteristic of a field and the prime subfield	80
Real Analysis III	MAB020	CO1	Deliberate in details with examples Sequences and series of functions	100
		CO2	Understand the characteristics of Uniform convergence continuity, differentiation and integration with examples	80

		CO3	Identify in details with examples Improper integrals and their convergence	90
		CO4	Understand in depth Functions of several variables	80
		CO5	Specify the details of Taylor's theorem, the Maxima and Minima	90
Complex Analysis-II	MAB030	CO1	Understand in details with application-the residue theorem, evaluation of definite integrals	100
		CO2	Understand in details with properties of harmonic functions	90
		CO3	Understand in depth of power series expansions, Weierstrass theorem	80
		CO4	Learn in detail with examples-partial fractions, study the characteristics of infinite products, canonical products	80
		CO5	Study the characteristics of the gamma and beta functions, and entire functions	100
ODPDE	MAB210	CO1	Solve problems in ordinary differential equations, dynamical systems, stability theory and a number of applications to scientific and engineering problems	100
		CO2	The study of Differential focuses on the existence and uniqueness of solutions also emphasizes the rigorous justification of methods for approximating solutions in pure and applied mathematics by using power series method some polynomials.	80
		CO3	Recognize the major classification of PDEs and the qualitative differences between the classes of equations	80

		CO4	Be competent in solving linear PDEs using classical solution methods.	90
		CO5	Theory of differential equations is widely used in formulating many fundamental laws of physics and chemistry.	100
Graph theory	MAB230	CO1	Construct examples and proofs pertaining to the basic theorems	80
		CO2	Understand the characteristics of external graphs, intersection graphs, operations on graph	100
		CO3	Write down in detail with examples of cut points, bridges, blocks and block graph	100
		CO4	Specify the characteristics of trees, centers, and centroids, spanning tree	100
		CO5	Identify the details of connectivity and the line connectivity, coverings, independence	100

Semester:III

Course Title	Course ID	COID	CO: After completion of this course student will be able to	%Attainment
Elements Functional Analysis	MAC010	CO1	Explain the fundamental concepts of functional analysis.	100
		CO2	Understand the approximation of continuous functions on linear spaces	100
		CO3	Understand concepts of Hilbert and Banach spaces	100
		CO4	Understand the definitions of linear functional and prove the Hahn-Banach theorem, open mapping theorem, uniform boundedness theorem, etc.	100

		CO5	Define linear operators, self adjoint, isometric and unitary operators on Hilbert spaces	100
Commutative Algebra	MAC210	CO1	Understand in depth commutative ring and local rings with examples	100
		CO2	Learn the characteristics of Nil radical and Jacobson radical and prime spectrum of a ring	80
		CO3	Understand the characteristics of Noetherian and Artinian module	100
		CO4	Identify in details with examples Free modules, Finitely generated modules, Simple modules, Exact sequences of modules	80
		CO5	Specify the characteristics of Noetherian rings and Artinian rings	90
Topology-I	MAC020	CO1	Deliberate in details with applications, topological spaces, basis for a topology, the order topology, subspace topology and product topology	80
		CO2	Learn in depth with closed set and limit point, continuous functions(defined in terms of open sets)	80
		CO3	Learn in details with examples-the product topology ,metric topology, quotient topology	100
		CO4	Understand in depth connected spaces , connected sets on the real line , path connectedness	100
		CO5	Deliberate the characteristics of compact spaces, compact sets on the real line, limit point compactness, local compactness	90
Theory of Numbers	MAC220	CO1	Know the diophantine equations, prime numbers, irrational numbers and prime-factorization	80

		CO2	Define and interpret the concepts of Arithmetical Functions and Dirichlet product of Arithmetical functions	80
		CO3	Provide precise definitions and appropriate examples and counter examples of Representation of a number by two or four squares, Fibonnaci and perpect number	90
		CO4	Know the continued fractions	100
Basic Mathematics	MCC/BCC/BTC/BOC/ZOC/CSC 580	CO1	Write an argument using logical notation and determine if the argument is or is not valid	80
		CO2	Identify sets as well defined collections, represents sets in roster and set builder form,	100
		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.	100
		CO4	Use the simple method to solve small linear programming models by hands, given a basic feasible point	100
		CO5	Understand the definitions of graphs, path, connectedness, cut vertex, bridge, blocks of a graph.	100
		CO6	Study the properties of trees and matrix of a graph	100

Semester:IV

Course Title	Course ID	COID	CO: After completion of this course student will be able to	%Attainment
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Measure and Integration	MAD010	CO1	Understand in details with examples Lebesgue measure, outer measure	100
		CO2	Learn the characteristics of measurable sets and measurable functions	100
		CO3	Deliberate in details with examples of Integration of measurable functions	100
		CO4	Learn in details with examples, functions of bounded variation, differentiation of an integral, absolute continuity	100
		CO5	Understand in depth the general measure theory	90
Topology-II	MAD020	CO1	Deliberate the classification and characteristics of the countability axioms , the separation axioms	90
		CO2	Understand the details of Urysohn's lemma , Tietze's extension theorem, partitions of unity	90
		CO3	Discuss Tychonoff's theorem, local finiteness, Paracompactness	90
		CO4	Familiar with the construction of the fundamental group of a topological space and applications to covering spaces	80
Differential Geometry	MAD230	CO1	To introduce the fundamentals of differential geometry primarily by focussing on the theory of curves and surfaces in three space.	100
		CO2	To compute quantities of geometric interest such as curvature, as well as develop a facility to compute in various specialized systems	100
		CO3	The theory of surfaces introduces the fundamental quadratic forms of a surface, intrinsic and extrinsic geometry of surfaces, and the Gauss theorem	90

		CO4	Introduce the method of the moving frame and overdetermined systems of differential equations as they arise in surface theory.	80
Theory of Partitions	MAD220	CO1	Know the definitions of partitions , Euler's theorem on $p(n)$	100
		CO2	CO2 Apply the q-binomial theorem and Ramanujan ${}_1\psi_1$ - summation formula	80
		CO3	Know the congruence of partition	100
		CO4	To apply the q-series	100

<b>PO/PSO Id/No.</b>	<b>PO/PSO</b>	<b>%Attainment</b>
PO1	To move away from the conventional pedagogy of teaching mathematics	83.62
PO2	To include methods of facilitating learning such as projects, group work and participative learning	79.34
PO3	To Innovate, invent and solve complex mathematical problems using the knowledge of pure and applied mathematics	77.69
PO4	To impart knowledge of some basic concepts and principles of the discipline	81.6
PO5	To establish inter-disciplinarily between mathematics and other subjects from Humanities and the Social Sciences.	72.71
PO6	To provide in-service training for school teachers. To learn to apply mathematics to real life situations and help in problem solving	77.22
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	80.61
PSO2	Propose new mathematical and statistical questions and suggest possible software	75.42

PSO3	Continue to acquire mathematical and statistical knowledge and skills appropriate to	77.7
PSO4	Ability to use computer calculations as a tool to carry out scientific investigations and	74.94
PSO5	Crack lectureship and fellowship exams approved by UGC like CSIR – NET and SLET.	87.88
PSO6	Apply knowledge of Mathematics, in all the fields of learning including higher research and its extensions.	83.97

**JSS College of Arts, Commerce & Science, Ooty Road, Mysuru - 570 025**

**Outcome attainment reports**

**Department: PG COMPUTER SCIENCE Programme: MSc**

**Course outcomes (%Attainments)**

**Semester: I**

<b>Course Title</b>	<b>Course ID</b>	<b>COID</b>	<b>CO: After completion of this course student will be able to</b>	<b>% Attainment</b>
DATA STRUCTURES & ALGORITHMS	CSA100	CO1	Select appropriate data structures as applied to specified problem definition.	100
		CO2	Implement operations like searching, insertion, and deletion, traversing mechanism etc. on various data structures.	100
		CO3	Implement Linear and Non-Linear data structures.	100
		CO4	Implement appropriate sorting/searching technique for given problem.	100
		CO5	Design advance data structure using Non Linear data structure.	100
SYSTEM SOFTWARE	CSA110	CO1	Understand fundamentals of language processing and grammar	100
		CO2	Apply knowledge of compilation and code optimization steps to mimic a simple compiler	100
		CO3	Demonstrate the working of various system software like assembler, loader, linker, editor and device driver	100
COMPUTER NETWORKS	CSA120	CO1	Master the terminology and concepts of the OSI reference model and the TCP-IP reference model.	100
		CO2	Study the basic taxonomy and terminology of the computer networking and enumerate the layers of OSI model and TCP/IP model.	100
		CO3	Master the concepts of protocols, network interfaces, and design/performance issues in local area networks and wide area networks	100
		CO4	Acquire knowledge of Application layer and Presentation layer paradigms and protocols.	100
		CO5	Study Session layer design issues, Transport layer services, and protocols.	100
JAVA PROGRAMMING	CSA270	CO1	Understand concept of Object Oriented Programming & Java Programming	100
		CO2	Understand basic concepts of Java such as operators, classes, objects, inheritance, packages ,Enumeration and various keywords.	100
		CO3	Understand the concept of exception handling and Input/Output operations.	100

		CO4	Design the applications of Java & Java applet.	100
		CO5	Analyze & Design the concept of Event Handling and Abstract Window Toolkit.	100
DISCRETE MATHEMATICS	CSA260	CO1	Construct simple mathematical proofs and possess the ability to verify them.	100
		CO2	Have substantial experience to comprehend formal logical arguments .	100
		CO3	Skillfull in expressing mathematical properties formally via the formal language of propositional logic and predicate logic.	80
		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.	100
		CO5	Apply basic counting techniques to solve combinatorial problems .	100

### Semester: II

ANALYSIS AND DESIGN OF ALGORITHMS	CSB060	CO1	Analyze different scenarios for running time of algorithms using asymptotic notations and Design using Recursion.	100
		CO2	Apply divide and conquer strategy for design of various algorithms.	100
		CO3	Develop algorithms for well known problems using greedy methods.	100
		CO4	Describe and apply dynamic-programming approach for designing graph and matrix based algorithms.	100
		CO5	Understand the concept of backtracking for traversal and search algorithms.	100
OPERATING SYSTEM and UNIX	CSB070	CO1	Understand device drivers	100
		CO2	Write applications with improved performance and stability	100
		CO3	Write set of small commands and utilities that do specific tasks well	100
		CO4	Run multiple programs each at the same time without interfering with each other or crashing the system.	100
		CO5	Implement Commands of UNIX.	100
COMPUTER GRAPHICS	CSB080	CO1	Utilize the components of a graphics system and become familiar with building approach of graphics system components and algorithms related with them.	100
		CO2	Learn the basic principles of 3- dimensional computer graphics.	100

		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.	100
		CO4	Provide an understanding of mapping from a world coordinates to device coordinates, clipping, and projections	100
		CO5	Implement the applications of computer graphics concepts in the development of computer games, information visualization, and business applications	100
GRAPH THEORY	CSB270	CO1	Explain basic concepts in combinatorial graph theory	100
		CO2	Define how graphs serve as models for many standard problems	100
		CO3	Discuss the concept of graph, tree, Euler graph, cut set and Combinatorics.	100
		CO4	See the applications of graphs in science, business and industry.	100
.NET TECHNOLOGIES	CSB280	CO1	Design web applications using .NET	100
		CO2	Use .NET controls in web applications.	100
		CO3	Debug and deploy .NET web applications	100
		CO4	Create database driven .NET web applications and web services	100
		CO5	Analyze & Design the concept of Event Handling and Abstract Window Toolkit.	100

### Semester: III

DATABASE MANAGEMENT SYSTEM	CSC060 A	CO1	Explain the features of database management systems and Relational database.	100
		CO2	Design conceptual models of a database using ER modelling for real life applications and also construct queries in Relational Algebra.	100
		CO3	Create and populate a RDBMS for a real life application, with constraints and keys, using SQL.	100
		CO4	Retrieve any type of information from a data base by formulating complex queries in SQL.	100
		CO5	Analyze the existing design of a database schema and apply concepts of normalization to design an optimal database.	100
THEORY OF LANGUAGES	CSC070 A	CO1	Design different types of Finite Automata and Machines as Acceptor, Verifier and Translator.	100

		CO2	Understand, design, analyze and interpret Context Free languages, Expression and Grammars.	100
		CO3	Design different types of Push down Automata as Simple Parser.	100
		CO4	Design different types of Turing Machines as Acceptor, Verifier, Translator and Basic computing machine	100
SOFTWARE ENGINEERING	CSC040 A	CO1	Understand the nature of software development and software life cycle process models, agile software development, SCRUM and other agile practices.	90
		CO2	Learn methods of capturing, specifying, visualizing and analyzing software requirements.	100
		CO3	Understand concepts and principles of software design and user-centric approach and principles of effective user interfaces.	100
		CO4	Basics of testing and understanding concept of software quality assurance and software configuration management process.	100
		CO5	Understand need of project management and project management life cycle.	100
COMPUTER FUNDAMENTALS(OE)		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.	
<b>Semester: IV</b>				
DATA MINING	CSD230 A	CO1	Demonstrate an understanding of the importance of data mining and the principles of business intelligence	100
		CO2	Organize and Prepare the data needed for data mining using pre preprocessing techniques	100
		CO3	Perform exploratory analysis of the data to be used for mining.	100
		CO4	Implement the appropriate data mining methods like classification, clustering or Frequent Pattern mining on large data sets.	100
		CO5	Define and apply metrics to measure the performance of various data mining algorithms.	100
INTERNET TECHNOLOGY	CSD220	CO1	Develop analytical ability in network technology	
		CO2	Create quality websites	100

		CO3	Work individually as a web designer and set up their own business	100
		CO4	Get the job opportunities in most companies for professional web designers and build websites more visually elegant and interactive	100
		CO5	Implement interactive web page(s) using HTML, CSS and JavaScript.	100

### PO/PSO attainment

PO/PSO ID	PO/PSO	
PO1	Identify, formulate, and solve computer science problems	70.56
PO2	Design, implement, test, and evaluate a computer system, component, or algorithm to meet desired needs	66.97
PO3	Receive the broad education necessary to understand the impact of computer science solutions in a global and societal context	65.03
PO4	Communicate effectively	72.17
PO5	Success in research or industry related to computer science	52.80
PSO1	Programmers or the Software Engineers with the sound knowledge of practical and theoretical concepts for developing software.	72.12
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.	70.12
PSO3	Work as the System Engineers and System integrators Serve as the System Administrators with thorough knowledge of DBMS.	79.82
PSO4	Work as the Support Engineers and the Technical Writers	73.72
PSO5	Work as IT Sales and Marketing person.	56.84
PSO6	Serve as the IT Officers in Banks and cooperative societies.	65.07
PSO7	Computer Scientist in research and R & D laboratories.	57.21



JSS College of Arts, Commerce and Science					
Ooty Road, Mysuru – 570 025, Karnataka, India					
Outcome Attainment Reports					
Postgraduate Department of English					
Programme:		MA in English			
Course Outcomes (% Attainments)					
Semester	Course Title	Course ID	CO ID	Course Outcome	% Attainment
1	Realism and Fiction	ENA250	CO1	Explain realism as a literary movement	100
1	Realism and Fiction	ENA250	CO2	Analyse narrative techniques employed by the realistic novelists	100
1	Realism and Fiction	ENA250	CO3	Formulate the use of symbolisms in the prescribed novels	100
1	Realism and Fiction	ENA250	CO4	Judge the realistic novels of British, American, and Indian writers	100
1	Realism and Fiction	ENA250	CO5	Evaluate the novels of Charlotte Bronte, George Eliot, William Makepeace, Hawthorne, Henry James, Steinbeck, Premchand, Tagore and Kamal Markandaya	100
2	20th Century Women's Writing: Theory & Practice	ENB050	CO1	Explain the history and growth of feminism as a movement, and the waves of feminism	100
2	20th Century Women's Writing: Theory & Practice	ENB050	CO2	Analyse the phrases such as Sex and Gender, women's rights	100
2	20th Century Women's Writing: Theory & Practice	ENB050	CO3	Evaluate feminist issues in the novels of Buchi Emecheta, Margaret Atwood and Mahasweta Devi	100
2	20th Century Women's Writing: Theory & Practice	ENB050	CO4	Criticise the feminist ideas in the works of Simone de Beauvoir, Virginia Woolf and Showalter	100
2	20th Century Women's Writing: Theory & Practice	ENB050	CO5	Compare and analyse the poems of Kamala Das and Maya Angelou	100
3	New Literatures in English	ENC030	CO1	Explain the emergence of New Literatures from Commonwealth literature	100
3	New Literatures in English	ENC030	CO2	Analyse the thematic concerns in New Literatures	100
3	New Literatures in English	ENC030	CO3	Evaluate the cultural conflict in New literatures such as African, Australian, Canadian and Caribbean and the impact of colonization on native cultures	100
3	New Literatures in English	ENC030	CO4	Formulate essays on the novels of Chinua Achebe, Wole Soyinka, Alice Munro, Patrick White, and V S Naipaul	100
3	New Literatures in English	ENC030	CO5	Judge the use of various literary devices in the poetry of Dennis Brutus, David Diop, AJM Smith, Judith Wright, Derek Walcott, and Braithwaite	100
3	Indian English Poetry After Independence	ENC230	CO1	Explain the use of Indianness in the modern Indian poetry	100
3	Indian English Poetry After Independence	ENC230	CO2	Analyse the themes, imagery, symbolism in the poems of Ezekiel, Ramanujan, Daruwalla, de Souza, Mahapatra, Parthasarathy, Anita Nair and Vikram Seth	100
3	Indian English Poetry After Independence	ENC230	CO3	Evaluate the human values and human predicament in modern Indian poetry	100
3	Indian English Poetry After Independence	ENC230	CO4	Formulate the trend setting themes explored in contemporary Indian poetry	100
4	American Literature	END020	CO1	Explain the significance of Renaissance, Transcendentalism and journey metaphor in American literature	100
4	American Literature	END020	CO2	Analyse the poems of Emily Dickinson, Wallace Stevens, Walt Whitman and Robert Frost	100
4	American Literature	END020	CO3	Compare and analyse the themes, narrative techniques, character analysis in the novels of Mark Twain, Douglas, Toni Morrison and Ray Bradbury	100
4	American Literature	END020	CO4	Judge the human condition in the plays of Arthur Miller, Eugene O'Neill and Edward Albee	100
4	Major Project Work leading to Dissertation	END030	CO1	Analyse the area of topic chosen for project work in detail	100
4	Major Project Work leading to Dissertation	END030	CO2	Create research skills and demonstrate scholarly expertise in exploring the subject to prepare the dissertation for the project work	100
4	Major Project Work leading to Dissertation	END030	CO3	Produce the skills of research analysis in writing thesis	100
4	Major Project Work leading to Dissertation	END030	CO4	Explain logically and relate the issues and findings to real life scenario	100
4	African Fiction	END230	CO1	Explain the social, political and cultural milieu of the African society represented in fiction.	100
4	African Fiction	END230	CO2	Produce critical essays on contemporary African novels such as Anthills of the Savannah, Purple Hibiscus, The Bride Price and Changes: A Love Story	100
4	African Fiction	END230	CO3	Analyse the latest developments in the specific fields of postcolonial African writings to bring gender justice in the society	100
4	African Fiction	END230	CO4	Evaluate the role of the characters in the novels of Achebe, Adichie, Emecheta and Aidoo	100

PO Attainments:

<b>PO/PSO ID</b>	<b>Programme outcome/Programme Specific Outcome</b>	<b>% Attainment</b>
<b>PO1</b>	Develop skills to write logically relating the real-life scenario with the issues depicted in literary texts	<b>92.00</b>
<b>PO2</b>	Formulate critical reading and thinking skills in writing analytical essays	<b>92.00</b>
<b>PO3</b>	Explain figurative language in literary works of various literatures	<b>83.00</b>
<b>PO4</b>	Appraise students to understand theoretical developments in literary studies	<b>92.67</b>
<b>PO5</b>	Develop skills of criticism in reading literary works of different periods of various genres	<b>92.00</b>
<b>PO6</b>	Organise focused, well-developed text-based essay	<b>84.00</b>
<b>PSO1</b>	Create basic knowledge needed to get global level research opportunities to pursue Ph.D. programme, targeted approach to NET and competitive civil service examinations	<b>91.00</b>
<b>PSO2</b>	Develop the competence to work as English Language teacher at Primary, Secondary, Higher secondary and Pre-University level	<b>82.76</b>
<b>PSO3</b>	Formulate good communication skills for specific placements in teaching, publishing and many other industries	<b>88.33</b>
<b>PSO4</b>	Produce the skills to train the English language trainers	<b>94.33</b>
<b>PSO5</b>	Inculcate the scientific temperament in the students using the skills of critical thinking and creative writing	<b>84.67</b>
<b>PSO6</b>	Learnt to analyse emphatically in discussions and debates demonstrating good communication skills	<b>89.33</b>



## SS College of Arts Commerce and Science

Autonomous under University of Mysore  
Reaccredited by NAAC with 'A' Grade and CGPA 3.21

### PG Department of Commerce

Overall CO, PO and PSO Attainment 2022-23

#### CO ATTAINMENT

#### Semester: I

Sl.No	Course title	Course Code	CO No./Id	CO Statement	CO Attainment	% Attainment
1	Accounting Theory	MCA010	MCA010.1	Acquaint a set of logical principles for evaluation and development of sound accounting practices.	3	100
			MCA010.2	knowledge on conceptual framework of accounting theory	2.4	80
			MCA010.3	Critical thinking skills to analyse and interpret accounting transactions.	3	100
			MCA010.4	Understand the recognition, measurement and disclosure principles of elements of financial statements.	2.4	80
2	Corporate Governance And Business Ethics	MCA080	MCA080.1	Understand the concept of corporate governance	3	100
			MCA080.2	knowledge about corporate ethics and cultural influences	2.1	70
			MCA080.3	Acquire knowledge of corporate social responsibility and accountability	3	100
			MCA080.4	Analyze the role of E-governance in present scenario.	2.1	70
3	Advanced Financial Management	MCA090	MCA090.1	Understand financial management concepts and its important functions.	3	100
			MCA090.2	Learn the process of evaluation of projects	3	100
			MCA090.3	Understand capital structure theories	3	100
			MCA090.4	Identify the dynamics of financial markets	3	100
4	Strategic Marketing	MCA100	MCA100.1	Understand the marketing strategy formulation	3	100
			MCA100.2	Learn the steps in implementation of marketing strategies.	3	100
			MCA100.3	Analyze different marketing strategy	3	100
			MCA100.4	Learn about formulation and evaluation of marketing strategy	3	100
5	Business Policy And Environment	MCA210	MCA210.1	Insight on policy formation	3	100
			MCA210.2	Understand the environmental factors that influence business	3	100
			MCA210.3	Knowledge and significance of corporate social responsibility	3	100
			MCA210.4	Identify the Principles of Business ethics	3	100
6	Statistics For Business Decisions	MCA220	MCA220.1	Knowledge about application of probability theory and sampling in different areas of commerce	3	100
			MCA220.2	Analyze the various methods of theoretical probability distribution	3	100
			MCA220.3	Application of different tools in taking business decisions	3	100
			MCA220.4	Learn the advanced application oriented tests – F Distribution and Anova	3	100

**Semester: II**

Sl.No	Course title	Course Code	CO No./Id	CO Statement	CO Attainment	% Attainment
1	Organisational Behaviour	MCB030	MCB030.1	Understand individual behaviour in the organization	3	100
			MCB030.2	Acquire the knowledge about foundation of individual behaviour	3	100
			MCB030.3	Learn and apply skills in motivation	3	100
			MCB030.4	Evaluate individual behaviour in group and resolve the conflicts	3	100
2	Entrepreneurial Development	MCB050	MCB050.1	Analyze the foundations and different dimensions of Entrepreneurial Develo	1.97	66
			MCB050.2	Acquaint the skills of an young entrepreneurs	1.97	66
			MCB050.3	Analyze the techniques of project planning, implementation and execution.	1.97	66
			MCB050.4	Identify the institutional support to entrepreneurs.	1.97	66
3	Capital Market Instruments	MCB010	MCB010.1	Understand the role of capital markets	3	100
			MCB010.2	Critically evaluate the various capital market instruments like Stock, bonds etc	3	100
			MCB010.3	Identify the dynamics of global capital markets	3	100
			MCB010.4	Understand the concept and use of Derivatives in risk management.	3	100
4	Human Resource Management	MCB240	MCB240.1	Knowledge about human resources, their significance and management in organizations	1.97	66
			MCB240.2	Analyze human resource planning	1.97	66
			MCB240.3	Learn the steps in HRD	1.97	66
			MCB240.4	Understand reward system and appraisal of individual	1.97	66
5	Banking Technology	MCB250	MCB250.1	Understand the recent developments in banking technology	3	100
			MCB250.2	Assess the impact of technology on banks	3	100
			MCB250.3	Identify the available payment channels and their delivery system.	3	100
			MCB250.4	Verify the global developments in banking technology.	3	100

**Semester: III**

Sl.No	Course title	Course Code	CO No./Id	CO Statement	CO Attainment	% Attainment
1	International Business	MCC010	MCC010.1	Understand the scope of international business along with drivers of globalization	0.9	30
			MCC010.2	Analyze different aspects of International Business environment and the issues associated with them.	0.9	30
			MCC010.3	Identify policy and practice skills related to international business	0.9	30
			MCC010.4	Identify the various modes of entry in international business.	0.9	30
2	Business Research Methods	MCC030	MCC030.1	Evaluate various research decisions	3	100
			MCC030.2	Learn the methods of data collection	3	100
			MCC030.3	Analysis and interpretation of data	3	100
			MCC030.4	Equip the skills of report writing	3	100
3	Security Analysis And Portfolio Management	MCC040	MCC040.1	Knowledge about practical aspects of investment analysis	3	100
			MCC040.2	Understand the functions of SEBI	3	100
			MCC040.3	Analyze the various investment alternatives	3	100
			MCC050.4	Learn the skills to construct investment portfolio	3	100

4	Indirect Tax Law and Practice	MCC230	MCC230.1	Understand the significance and contribution of indirect taxes (GST) in the Indian and global economy.	0.9	30
			MCC230.2	Comprehend the principles of taxation and incidence process of indirect taxes in market orientated economy.	0.9	30
			MCC230.3	Understand the implications of indirect taxes on the taxable capacity of consumers, dealers and society at large.	0.9	30
			MCC230.4	Become tax consultants for tax planning, tax management, payment of tax and filling of tax returns	0.9	30
5	Cost Accounting for Decision Making	MCC250	MCC250.1	Understand the basic concept of marginal costing.	0.9	30
			MCC250.2	Analyze and apply of profitability and cost concept.	0.9	30
			MCC250.3	Evaluate the managerial decisions-make or buy decisions.	0.9	30
			MCC250.4	Examine the cost accounting techniques.	0.9	30

### Semester: IV

Sl.No	Course title	Course Code	CO No./Id	CO Statement	CO Attainment	% Attainment
1	International Accounting	MCD010	MCD010.1	Understand international accounting issues related to global financial reporting.	0.9	30
			MCD010.2	Examine, analyze and assess theoretical and practical aspects of accounting harmonization.	0.9	30
			MCD010.3	Identify major diversities and challenges of financial reporting in the global arena and IFRS.	0.9	30
			MCD010.4	Learn the techniques of international financial statement analysis	0.9	30
2	Current Trends In Business And Commerce	MCD020	MCD020.1	Understand changing business and financial environment	2.77	92
			MCD020.2	Equip the skills required for competitive examinations and JRF, NET and SLET	2.77	92
			MCD020.3	Develop analysing and decision making skills on current topics of business	2.77	92
			MCD020.4	Identify the reforms in areas of banking, insurance, capital markets and taxation.	2.77	92
3	Innovations In Accounting	MCD210	MCD210.1	To make students familiar with various innovations taking place in accounting	1.97	66
			MCD210.2	To learn valuation of human resource	1.97	66
			MCD210.3	To learn valuing the brand	1.97	66
			MCD210.4	To understand the concepts of Responsibility accounting	1.97	66
4	Corporate Tax Law And Planning	MCD230	MCD230.1	Understand the incidence of tax on residential status of the companies	0.9	30
			MCD230.2	Understand the different types of companies under corporate income tax act.	0.9	30
			MCD230.3	Know the different sources of income for corporate assesses.	0.9	30
			MCD230.4	Become a manger of a company/tax consultant and reduce the tax burden and maximize the company's wealth	0.9	30
5	Cost Management	MCD250	MCD250.1	Understand the scope and need for cost control and management.	3	100
			MCD250.2	Familiarize with the basic cost control and management tools.,	3	100
			MCD250.3	Know the manufacturing industries cost system and analysis through the statistical tool.	3	100
			MCD250.4	Understand the importance of operation research in cost control and management	3	100

**PO ATTAINMENT**

<b>Sl.No</b>	<b>PO ID</b>	<b>PO Statement</b>
1	PO1	Understand role of accounting and finance in the present business scenario.
2	PO2	Identify the latest trends in banking and finance
3	PO3	Use wide varieties of tools and techniques to meet the emerging opportunities and challenges
4	PO4	Become an entrepreneur based on the knowledge gained.
5	PO5	Strengthen the knowledge base to take up CA/ICWA/ICS and other competitive examination
6	PO6	Acquire the ability to engage in independent & lifelong learning in the broader context of social and technological changes.
7	PO7	Accept the challenges of business world
8	PO8	Enhance logical thinking and decision making ability

**PSO ATTAINMENT**

<b>Sl.No</b>	<b>PSO ID</b>	<b>PSO Statement</b>
1	PSO1	Inculcate the knowledge of business and the techniques of managing the Business with special focus on Accounting, finance, and financial services
2	PSO2	Identify knowledge based accounting principles and the latest application oriented corporate accounting methods.
3	PSO3	Develop decision making skill through costing methods and practical application of management accounting principles.
4	PSO4	Enhance taxation skills through a thorough understanding of tax laws



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Autonomous, 'A' Grade and College with Potential for Excellence

**Ooty Road, Mysuru-570 025**

Ph: 0821-2548236, 2548379 & 2548380. FAX: 0821-2548238

E-mail: [jssautonomous@gmail.com](mailto:jssautonomous@gmail.com) Website: [jsscacs.edu.in](http://jsscacs.edu.in)

**Outcome Attainment Reports**

Department: PG Department of Botany

Assessment Year: 2022-23

Programme: M.Sc. in Botany

**Course Outcomes (% Attainment)**

**Semester: I**

Course title	Course Code	CO No./Id	CO Statement	% Attainment
Virology, Bacteriology, Mycology and Plant Pathology	BOA040	BOA0401	Learn the classification and characteristics of viruses, viroids, Prions and diseases of it	73.73
		BOA0402	Deliberate in details with examples of Bacteria, archeobacteria, actinomycetes and mycoplasma and its economic importance	73.73
		BOA0403	Specify the Fungal diversity, life cycle and economic importance of fungi	76.66
		BOA0404	Understand in details of etiology, distribution and management of plant disease	76.66
Phycology, Bryophytes, Pteridophytes and Gymnosperms	BOA050	BOA0501	Understand the details of diversity, distribution, pigmentation and life cycle of algae	86.40
		BOA0502	Deliberate in depth of Bryophytes life cycle, classification, phylogeny and Economic importance	86.40
		BOA0503	Understand the details of Pteridophytes life cycle, phylogeny, classification, economic importance and anatomy	84.00
		BOA0504	Write down in details with examples Gymnosperms history, reproduction, economic importance and interrelationship	84.00
Systematics of Angiosperms	BOA060	BOA0601	Understand the principles and applications of Taxonomy of Angiosperms	75.33
		BOA0602	Specify the details of taxonomic literature	75.33
		BOA0603	Deliberate in details with examples Dicot and monocot family and features of classification systems	76.40

		BOA0604	Specify in details molecular systematics with examples of softwares and databases	76.40
Algal Biology and Biotechnology	BOA230	BOA2301	Specify in depth of thallus organization and phylogeny in algae	83.60
		BOA2302	Understand the details of toxins, blooms and distributions of algae	83.60
		BOA2303	Deliberate in depth about cultivation and marketing algae	87.60
		BOA2304	Specify the details of Algal products and uses	87.60
Phytopathology	BOA240	BOA2401	Learn the details of the concept, causative agents and disease cycle of plant pathogens	84.93
		BOA2402	Deliberate the details of defence mechanisms in plants and its genetics	84.93
		BOA2403	Study of Management of plant diseases	80.93
		BOA2404	Identify in details with examples of diseases in crop plants	80.93

### Semester: II

Course title	Course Code	CO No./Id	CO Statement	% Attainment
Reproductive Biology of Angiosperms and Plant Morphogenesis	BOB010	BOB0101	Understanding the microsporogenesis and historical overview	82.67
		BOB0102	Specify in details with examples about megasporogenesis, fertilization, endosperm and embryo	82.67
		BOB0103	Specify the details of models and concepts of plant morphogenesis	82.67
		BOB0104	Understand in details with examples of plant growth and development, photo morphogenesis	82.67
Cell Biology and Genetics	BOB020	BOB0201	Learn in detail about cell membranes transport and proteins	88.93
		BOB0202	Deliberate the Functions of cell organelles, programmed cell death	88.93
		BOB0203	Specify the extensions of Mendelian principles	86.00
		BOB0204	Learn about Sex determination and dosage compensation	86.00
	BOB030	BOB0301	Learn in depth about	70.27



Plant Breeding and Evolutionary Biology			plant breeding methods and techniques	
		BOB0302	Understand the details of breeding for specific purposes	70.27
		BOB0303	Learn the details of Nature of evolution	71.73
		BOB0304	Identify the characteristics of variation and speciation	71.73
Plant Anatomy and Histochemistry	BOB210	BOB2101	Learn in details of primary vegetative body of the plants	78.00
		BOB2102	Deliberate in details of differentiation in vascular tissues and study of apical meristems in shoot and root	78.00
		BOB2103	Deliberate the characteristics of secondary growth	72.27
		BOB2104	Understand the details of plant histochemistry	72.27
Economic Botany	BOB220	BOB2201	Specify the details of cereals, millets, pulses, oil yielding plants and study of horticultural plants and floriculture	87.33
		BOB2202	Deliberate the characteristics of sugar yielding plants, spices and condiments	87.33
		BOB2203	Understand the importance of fibre, timber and gum yielding plant	91.07
		BOB2204	Deliberate on the medicinal plants and their applications	91.07

### Semester: III

Course title	Course Code	CO No./Id	CO Statement	% Attainment
Biochemistry and Plant Physiology	BOC030	BOC0301	Learn in details with biomolecules and their function	87.20
		BOC0302	Understand in depth about solute transport and photosynthesis in plants	87.20
		BOC0303	Specify the details of metabolism of nitrogen, lipids and plant hormones	88.67
		BOC0304	Understand in depth about Stress physiology	88.67
Molecular Biology	BOC040	BOC0401	Identify the characteristics of genetic materials and its replication	80.80
		BOC0402	Learn the details of molecular basis of mutation, repair and recombination	80.80

		BOC0403	Deliberate the details of RNA formation, processing of RNA and post-RNA	82.93
		BOC0404	Understand in depth of gene regulation in prokaryotes and eukaryotes	82.93
Plant Biotechnology	BOC050	BOC0501	Understand in depth about plant tissue culture and its techniques	82.27
		BOC0502	Specify the genetic engineering and tools used in it	82.27
		BOC0503	Understand the details of genetic manipulation, transgenic approaches to produce resistant plants	88.67
		BOC0504	Learn the details of engineering of crop plants for production of secondary metabolites	88.67
Plant Propagation and Plant Breeding	BOC230	BOC2301	Learn the details of importance of plant propagation, vegetative propagation and micro propagation	77.07
		BOC2302	Understanding of basic concepts of plant breeding and genetics	77.07
		BOC2303	Study types, purposes of plant breeding	85.07
		BOC2304	Deliberate study of advanced breeding aspects	85.07
Plant Propagation Techniques	BOC640	BOC6401	Learn the details of importance of plant propagation	77.07
		BOC6402	Understand in depth about types of vegetative propagation	77.07
		BOC6403	Learn the techniques of budding and layering	85.07
		BOC6404	Deliberate in details with examples of micropropagation in forestry and horticulture plants	85.07

#### Semester: IV

Course title	Course Code	CO No./Id	CO Statement	% Attainment
Ecology, Conservation Biology and Phytogeography	BOD010	BOD0101	Understand the diversity of ecosystem and types of ecosystems	88.93
		BOD0102	Learn the in details of pollution and environmental biology	88.93

		BOD0103	Study the importance of biodiversity and conservation biology	89.47
		BOD0104	Detailed study of phytogeography and crop distribution	89.47
Major Project	BOD020	BOD0201	Learn the details of literature survey and methodology in research	92.87
Seed Technology	BOD210	BOD2101	Understand the seed science and concepts	86.67
		BOD2102	Study the seed production and processing methods	86.67
		BOD2103	Learn about seed quality parameters and tests	95.07
		BOD2104	Deliberate the procedure of seed certification	95.07

### Programme Outcomes (% Attainment)

PO ID	PO Statement	% Attainment
BOT20PO1	Conduct investigations of complex problems by the use of research-based knowledge on an independent term project.	78.86
BOT20PO2	Transfer of appropriate knowledge and methods from one topic to another within the subject.	88.74
BOT20PO3	Carry out practical work, in the field and in the laboratory, with minimal risk.	85.82
BOT20PO4	Able to think logically and organize tasks into a structured form and assimilate knowledge and ideas based on wide reading of text books and through the internet.	87.95
BOT20PO5	Apply the scientific knowledge of basic science, life sciences and fundamental process of plants to study and analyze any plant form.	89.08
BOT20PO6	Knowledge and understanding of the range of plant biology in terms of structure, function and environmental relationships.	89.53
BOT20PO7	Apply reasoning informed by the contextual knowledge to assess plant diversity, and the consequent responsibilities relevant to the biodiversity conservation practice.	80.07

### Programme Specific Outcomes (% Attainment)

PSO ID	PSO Statement	% Attainment
BOA230PSO01	Phylogeny, thallus organisation, economic and ecological importance of algal community	92.17
BOC030PSO02	Biomolecules, metabolic pathways and stress physiology in plants	98.67

BOB020PSO03	Cell originals and Mendelian principles	90.67
BOD010PSO04	Diversity of vegetation, distribution and its conservation	92.00
BOB220PSO05	Economic values of different crop plants and their applications	91.50
BOD020PSO06	Hands on experience in various fields of plant science	97.83
BOC040PSO07	Molecular level organisation in prokaryotes and eukaryotes with respect to various mechanisms involved	88.67
BOB210PSO08	Anatomical features and organisation of cells in plants	91.50
BOB030PSO09	Plant breeding methods, procedures and their application for crop improvement	92.83
BOC050PSO010	Tissue culture techniques and its application in development of resistant varieties	89.67
BOC230PSO011	Propagation methods and plant breeding procedures and their application in different fields	92.67
BOC640PSO012	Propagation methods and procedures and their application in different fields	92.17
BOA050PSO013	Distribution, classification and phylogeny of lower plant communities	91.00
BOA240PSO014	Concepts of plant diseases defence mechanisms in plants and study of plant diseases	88.83
BOB010PSO015	Embryological study of growth and development using plant models	87.83
BOD210PSO016	Industrial scale processing of seeds up to marketing	88.50
BOA060PSO017	Angiospermic plant family study with their phylogeny	98.50
BOA040PSO018	Diversity, distribution of microorganism with respect to their economic aspects	97.83



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**Outcome Attainment Reports**

Department: PG Department of Zoology

Assessment Year: 2022-23

Programme: M.Sc. in Zoology

**Course Outcomes (% Attainment)**

**Semester: I**

Course title	Course Code	CO No./Id	CO Statement	% Attainment
<b>Biosystematics and Non Chordata</b>	<b>ZOA050</b>	ZOA050.1	Understand the classification of major and minor invertebrate phyla	100
		ZOA050.2	Give some examples and basic characteristics of each phylum	100
		ZOA050.3	Understand the evolutionary pathway and its significance	100
		ZOA050.4	Adaptive characters of animals coming under different invertebrate phyla	100
<b>Biological Chemistry</b>	<b>ZOA060</b>	ZOA060.1	Identify the five classes of polymeric biomolecules and their monomeric building blocks.	100
		ZOA060.2	Explain the specificity of enzymes (biochemical catalysts), and the chemistry involved in enzyme action.	90
		ZOA060.3	Understand types, Structure, biochemical properties, and functions of vitamins.	90
		ZOA060.4	Explain how the metabolism of organic compounds leads ultimately to the generation of large quantities of ATP.	80
<b>Cytogenetics</b>	<b>ZOA070</b>	ZOA070.1	Describe the fundamental molecular principles of genetics	90
		ZOA070.2	Understand the structure and function of DNA & RNA	100
		ZOA070.3	Understand about the transmission, distribution, arrangement, and alteration of genetic information and how it functions and is maintained in populations	100
		ZOA070.4	Describe the basics of genetic mapping	80

		ZOA070.5	Explain basic structure of animal cell and its organelles	70
		ZOA070.6	Describe the functions and organization of cell organelles	100
<b>Tools and Techniques in Biology</b>	<b>ZOA220</b>	ZOA220.1	Describe the methodology involved in biotechniques.	70
		ZOA220.2	Describe the applications of bioinstruments	67
		ZOA220.3	Demonstrate knowledge and practical skills of using instruments in biology and medical field.	80
		ZOA220.4	Perform techniques involved in molecular biology and diagnosis of diseases	100
		ZOA220.5	Update current knowledge regarding biomedical engineering involving new methods and the instrumentation.	90
<b>Histology and Histopathology</b>	<b>ZOA230</b>	ZOA230.1	Understand the applications of dyes and its classification.	70
		ZOA230.2	Know the functional morphology of various mammalian organs.	67
		ZOA230.3	Imbibe the knowledge on histochemical techniques.	70
		ZOA230.4	Describe the etiology and pathology of liver cirrhosis and atherosclerosis.	100
		ZOA230.5	Explain histopathology of breast and prostate tumours.	70

### Semester: II

<b>Course title</b>	<b>Course Code</b>	<b>CO No./Id</b>	<b>CO Statement</b>	<b>% Attainment</b>
<b>Chordata</b>	<b>ZOB050</b>	ZOB050.1	Understand the classification of chordates	100
		ZOB050.2	Give some examples and basic characteristics of protochordates	90
		ZOB050.3	Give some examples and basic characteristics of vertebrates	100
		ZOB050.4	Understand the evolutionary pathway and its significance	100
		ZOB050.5	Analyze adaptive characters of animals coming under different vertebrate classes	100
<b>Animal Physiology</b>	<b>ZOB060</b>	ZOB060.1	Understand the mechanism of transport of molecules, stepwise release of energy, aerobic and anaerobic respiration	90

		ZOB060.2	Describe the physiology of digestive and respiratory system of human beings.	100
		ZOB060.3	Understand the blood composition, types, groups and circulatory system.	100
		ZOB060.4	Describe the physiology of excretory system and nervous system of human beings.	100
		ZOB060.5	Know the physiology of sense organs, muscles, and reproductive system.	90
<b>Entomology</b>	<b>ZOB070</b>	ZOB070.1	Understand insects encountered in agricultural fields.	70
		ZOB070.2	Envisage an insight on economically important pests of various foods, fiber and household	100
		ZOB070.3	Understand various insect pest management methods and its significance	80
		ZOB070.4	Learn to apply various agricultural equipment and understand the effect of chemicals and its dosages in agricultural pest management	100
		ZOB070.5	Learn to apply the pest control methods wisely to minimise ecological backlash	100
		ZOB070.6	Discuss the evolutionary significance of insect plant interaction and insect animal interaction.	100
<b>Developmental Biology</b>	<b>ZOB220</b>	ZOB220.1	Understand the molecular concepts of developmental biology during fertilization	100
		ZOB220.2	Know about Noble prize concepts during frog development viz., Nucleocytoplasmic interactions	100
		ZOB220.3	Explain on axis development in drosophila	100
		ZOB220.4	Describe endocrine and molecular control in metamorphosis of insects and amphibians	70
		ZOB220.5	Explain the various stages of chick embryonic development	80
<b>Immunology</b>	<b>ZOB230</b>	ZOB230.1	Outline the key components of the innate and adaptive immune responses.	100
		ZOB230.2	Describe about cell types and organs which are involved in an immune response	100
		ZOB230.3	Describe the Infectious diseases, hypersensitivity, autoimmune disorders, immunodeficiency diseases	100

Semester: III

Course title	Course Code	CO No./Id	CO Statement	% Attainment
<b>Molecular Biology and Biotechnology</b>	<b>ZOC040</b>	ZOC040.1	Know nucleic acids, DNA replication and its mechanism.	100
		ZOC040.2	Understand transcription and its modifications.	70
		ZOC040.3	Explain genetic code, enzymes, factor and the process of translation.	90
		ZOC040.4	Analyse gene regulation, lytic and lysogenic cycles in prokaryotes.	70
		ZOC040.5	Understand gene regulation in eukaryotes.	70
		ZOC040.6	Explain molecular mechanism of DNA damage repair.	70
<b>Reproductive Biology</b>	<b>ZOC050</b>	ZOC050.1	Understand structure and function of reproductive organs	100
		ZOC050.2	Explain the structure of reproductive cells	100
		ZOC050.3	Describe the role of internal cues in reproduction	90
		ZOC050.4	Describe the role of external factors in reproduction	90
		ZOC050.5	Analyse the role of endocrine glands and their secretions in reproduction	100
		ZOC050.6	Identify the factors affecting fertility	100
		ZOC050.7	Know different types of assisted reproductive technologies.	100
<b>Ecology and Wildlife</b>	<b>ZOC060</b>	ZOC060.1	Demonstrate and Understand ecological relationships between organisms and their environment.	100
		ZOC060.2	Present an overview of diversity of life forms in an ecosystem.	70
		ZOC060.3	Explain and identify the role of the organism in energy transfers	100
		ZOC060.4	Describe the Habitat ecology and Resource ecology	100
		ZOC060.5	Understand the types of environmental Pollution and their management	70
		ZOC060.6	Scope, Values and Conservation strategies of wildlife.	100
<b>Ethology</b>	<b>ZOC230</b>	ZOC230.1	1. Evaluate the learning and instinct behavior.	100
		ZOC230.2	Explain the mechanisms in instinct and behaviour	70



		ZOC230.3	Explain how animals learn	70
		ZOC230.4	Compare learning and instinct behaviour.	90
		ZOC230.5	Analyse any problem about animal behaviour	70
		ZOC230.6	Explain the importance of evolution for animal behaviour.	100
		ZOC230.7	Explain evolution and behaviour.	70
		ZOC230.8	Explain natural selection and behaviour.	100
		ZOC230.9	Explain the relationship between predators and prey	100
		ZOC230.10	Explain social behaviour.	100

#### Semester: IV

Course title	Course Code	CO No./Id	CO Statement	% Attainment
<b>Advanced Genetics and Computational Biology</b>	<b>ZOD030</b>	ZOD030.1	Understand the genomic organization of prokaryotes and eukaryotes.	100
		ZOD030.2	Know the applications of various model organisms in genomic research.	90
		ZOD030.3	Able to analyze the pedigree, psychosomatic disorders, prenatal diagnosis and genetic counselling.	90
		ZOD030.4	Recognize few heritable diseases in man.	100
		ZOD030.5	Understand the basic concepts of genomics	100
		ZOD030.6	Understand the basic concepts of proteomics	70
		ZOD030.7	Understand the nucleic acid and protein databases and tools.	70
<b>Applied Zoology</b>	<b>ZOD040</b>	ZOD040.1	Explain plant insect interaction, origin of pest and its control.	100
		ZOD040.2	Understand vectors and its communicable diseases.	100
		ZOD040.3	Explain races of silkworm their disease and its control.	100
		ZOD040.4	Know about the importance of insects in forensic science and medicine.	100
		ZOD040.5	Know about aquaculture and its practices in India.	100
<b>Major Project</b>	<b>ZOD020</b>	ZOD020.1	Understand the concepts of Project Management for planning to execution of projects	100

		ZOD020.2	Find importance of reference work Using tools of information such as periodical ,journals, online resources	100
		ZOD020.3	Break work down the tasks of project and determine handover procedures	100
		ZOD020.4	Interpret, analyze and presentation of the results obtained and compare with similar works and draw conclusion.	100

### Programme Outcomes (% Attainment)

PO ID	PO Statement	% Attainment
ZOO17.PO1	Imbibe the knowledge with facts and figures related Zoology.	92
ZOO17.PO2	Understand the basic concepts, fundamental principles, and the scientific theories related to various scientific phenomena and their relevancies in the day-to-day life.	87
ZOO17.PO3	Identify, formulate, research literature, and analyze complex problems reaching substantiated conclusions using first principles of mathematical, biological, physical and chemical sciences.	90
ZOO17.PO4	Will be able to think creatively to propose novel ideas in explaining facts and figures or providing new solution to the problems.	55
ZOO17.PO5	Develop scientific outlook not only with respect to Zoology but also in all aspects related to life.	80
ZOO17.PO6	Realize that interdisciplinary knowledge in other faculties can have greatly and effectively influence which inspires in evolving new scientific theories and inventions.	89
ZOO17.PO7	Imbibe ethical, moral and social values in personal and social life leading to highly cultured and civilized personality.	86
ZOO17.PO8	Develop various communication skills such as reading, listening, speaking, etc.	85
ZOO17.PO9	Realize that acquiring knowledge is a continuous process and in combination with untiring efforts and positive attitude and other necessary qualities leads towards a successful life.	42

### Programme Specific Outcomes (% Attainment)

<b>PSO ID</b>	<b>PSO Statement</b>	<b>% Attainment</b>
ZOO17.PSO1	Understand the classification and taxonomic aspects of the animal world (chordates and non-chordates). The students will be able to identify the taxonomic group of a given animal based on the external characteristics.	88
ZOO17.PSO2	Understand the basic concepts of Animal physiology. The students will be able to identify and understand the important life processes which are essential for continuation of life on earth.	81
ZOO17.PSO3	Understand the nature and structure of biomolecules and basic concepts of Biological chemistry.	87
ZOO17.PSO4	Understand the concepts of Genetics, Cell Biology and Molecular Biology.	85
ZOO17.PSO5	Understand the basic principles and concepts of environmental science, ecology and nature conservation.	87
ZOO17.PSO6	Understand the importance of knowledge of wildlife and animal behaviour for conservation and balancing the nature.	89
ZOO17.PSO7	Understand the tools and techniques employed in Biological research and experiments.	75
ZOO17.PSO8	Understand the process of evolution.	82
ZOO17.PSO9	Understand the concept and applications of sericulture, apiculture, animal husbandry, Lac culture etc.	98

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 Ooty Road, Mysuru – 570 025, Karnataka, India

**2022-23**

**Name of the Department: PG Department of Biotechnology**

**Programmes offered: M.Sc. in Biotechnology**

**Course outcomes (%Attainments)**

<b>COURSE</b>	<b>COURSE CODE</b>	<b>COID</b>	<b>CO'S</b>	<b>ATTAINMENT (%)</b>
BIOMOLECULES AND BIOENERGETICS	BTA040	CO1	Study of different biomolecules	92.32
		CO2	Metabolism and their regulation	67.85
		CO3	Enzymes and their role in metabolism	90.24
		CO4	Application of thermodynamics to understand the basic concepts of life.	72.53
		CO5	To study the integrated metabolism of all the biomolecules.	68.05
BIOANALYTICAL TECHNIQUES	BTA050	CO1	To understand the separation of molecules by different chromatography, centrifugation and electrophoretic techniques	90.24
		CO2	Analysis and characterization of molecules by spectroscopy techniques	77.8
		CO3	Use of radioactive material in understanding metabolic pathways	81.35

		CO4	To study the imaging techniques to explore the basics of cell	81.50
LAB – I	BTA060	CO1	Course objective is to introduce the students to the fundamental experiments in the field of Biochemistry, Microbiology and Genetics.	77.80
		CO2	Students get the insight to operate simple equipments like colorimeter and spectrophotometer	91.68
		CO3	Identification of microorganisms by morphology and staining techniques and study of growth kinetics.	83.4
		CO4	In genetics students are exposed to know about culture and maintenance of <i>Drosophila melanogaster</i> (model organism), Study of mutants, salivary gland chromosome and karyotyping techniques.	86.68
		CO5	To understand the different enzyme kinetics.	90.49
MOLECULAR GENETICS	BTA230	CO1	To understand the molecular mechanism of inheritance	88.24
		CO2	Mutation and DNA repair mechanism	85.31
		CO3	Gene mapping and study of chromosomal abnormalities	75.22
		CO4	Phylogenetics and micro-	77.61

			evolution	
		CO5	Development of an organism	80.24
MICROBIOLOGY	BTA240	CO1	To understand the microbial taxonomy	92.56
		CO2	Handling, preservation and sterilization of microbes	88.05
		CO3	Microbial interactions with different hosts	82.93
		CO4	-Application of microorganisms in the field of agriculture, environment and health sciences	76.34
MOLECULAR BIOLOGY	BTB020	CO1	The student will get an idea about the genomic organization of prokaryotes and eukaryotes.	82.93
		CO2	To obtain in depth knowledge of genetic code, DNA replication and transcription.	80.98
		CO3	Understand principles, concepts of translation, post translation mechanism	82.93
		CO4	Regulation of gene expression in prokaryotes and eukaryotes	53.41
		CO5	Gain the insight into molecular mechanism of antisense molecules, inhibition of splicing and application of antisense and ribozyme technologies	68.05
IMMUNOLOGY AND IMMUNOTECHNOLOGY	BTB050	CO1	Study basic concepts of immunology	86.98
		CO2	MHC and their role in transplantation	85.37
		CO3	Cytokines and their role in immune system, Tumor Immunology	92.68
		CO4	Autoimmune diseases , causes and treatment	80.49
		CO5	Hypersensitivity, Vaccine production	67.80
LAB – II	BTB060	CO1	Students are trained to get the skills in the field of Molecular biology and Genetic engineering	53.66
		CO2	Isolation and purification of nucleic acids and their quantification	92.68
		CO3	Study of antigen and antibody interactions	90.24

		CO4	Preparation of wine and analysis of food samples	88.54
		CO5	Visit to Bio-tech Industries	80.73
CELL SIGNALLING AND COMMUNICA TION	BTB220	CO1	Understanding the multi-cellularity of organisms	95.38
		CO2	role of extracellular matrix in signalling	62.31
		CO3	various signalling pathways from the cell surface to the nucleus	73.85
		CO4	cell signalling in plants	86.15
		CO5	microbe-plant and insect-plant interaction.	64.62
				CO1
FOOD AND ENVIRONME NTAL BIOTECHNOL OGY	BTB210	CO2	Obtain knowledge of functional foods, genetically modified foods and nutraceuticals	57.69
		CO3	Students will be able to understand current status of biotechnology in environment protection.	93.85
		CO4	Understand the principles of bioremediation and significance of GMO to the environment.	87.69
		CO5	waste management.	90.77
				CO1
BIOPROCESS ENGINEERING AND TECHNOLOG Y	BTC040	CO2	To have the comprehensive insight into the different type of fermenter	88.46
		CO3	To obtain knowledge of media design and industrial culture	76.92
		CO4	Students will be able to understand different type of fermenter and bioreactor	86.15
		CO5	Understand the principles of downstream processing, To understand the enzyme technology and their applications in industry.	91.20

GENETIC ENGINEERING	BTC050	CO1	To have the comprehensive insight into the different enzymes used in Genetic engineering lab	80.53
		CO2	To obtain knowledge of construction of vectors	63.75
		CO3	Students will be able to understand different type of cloning methods.	84.63
		CO4	Understand the principles of PCR& types	61.25
		CO5	To know the different sequence methods	73.38
LAB- III	BTC060	CO1	To have the comprehensive insight into the different enzymes kinetics	96.21
		CO2	Production of different compounds by fermentation	84.98
		CO3	to study the plant tissue culture methods	90.76
		CO4	Estimation of different bio active compounds	96.97
		CO5	Preparation of animal cell culture media and anti-angiogenic activity	87.09
BIOSTATISTICS, BIOINFORMATICS AND BIOENTERPRENURSHIP	BTC220	CO1	Application of statistics to understand and analyse the experimental results of biological sciences	65.31
		CO2	Retrieval of biological data	59.14
		CO3	phylogenetic analysis	61.22
		CO4	Primer designing, Insight into start-up companies.	44.49
		CO5	drug discovery and molecular docking	56.94
APPLIED BIOTECHNOLOGY		CO1	Scope of Biotechnology in India	66.0
		CO2	Use of plant tissue culture to society	61.60



		CO3	Applications of animal cell culture in medical field	56.0
		CO4	Applications of Bio-technology in solving agricultural problems	88.98
		CO5	Production of bio-pesticides and bio-fertilizers.	78.43
PLANT BIOTECHNOLOGY	BTD010	CO1	General Introduction to tissue culture	82.97
		CO2	Use of plant tissue culture to society	91.97
		CO3	Haploid technology to produce seedless crops	56.97
		CO4	Applications of Bio-technology in solving agricultural problems	87.91
		CO5	Applications of recombinant technology to produce disease free crops	88.94
ANIMAL BIOTECHNOLOGY	BTD020	CO1	General Introduction to Animal cell culture	66.97
		CO2	Use of different media to culture animal cells	76.97
		CO3	Different methods of cell separation	87.88
		CO4	Tissue Engineering using different matrices	60.91
		CO5	Cloning of animals	70.80
Project work	BTD030	CO1	Making the students to think about current scientific problems	96.15
		CO2	Designing the objectives and writing the synopsis	98.00
		CO3	Understanding the research articles	88.62
		CO4	Designing the experiments	81.54
		CO5	Analysing the data, interpretation of results and writing research papers	82.23

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

**PO-ATTAINMENT (Direct)**

<b>SUBJECT</b>	<b>COID</b>	<b>PO'S</b>	<b>ATTAINMENT (%)</b>
MSc Biotechnology	PO1	Acquire knowledge on the fundamentals of biotechnology for sound and solid base which enables them to understand the emerging and advanced engineering concepts in life sciences	<b>84.34525</b>
	PO2	To make the students develop interpersonal skills, written and oral communication and also to improve their body language and eye contact during presentations.	<b>76.10714</b>
	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.	<b>79.49075</b>
	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	<b>84.616</b>
	PO5	Upon completion of course students will have the ability to design the experiments to solve the current problems in the society related to health, environment and industries,	<b>85.60</b>
	PO6	Upon completion of course students will have the ability to design the experiments to solve the current problems in the society related to health, environment and industries	<b>81.12</b>

**JSS COLLEGE OF ATRS, COMMERCE AND SCIENCE**  
**OOTY ROAD MYSURU-25**  
**PG DEPARTMENT OF BIO-TECHNOLOGY**  
**PO-ATTAINMENT (Indirect)**

<b>SUBJECT</b>	<b>COID</b>	<b>PO'S</b>	<b>ATTAINMENT (%)</b>
MSc Biotechnology	PO1	Acquire knowledge on the fundamentals of biotechnology for sound and solid base which enables them to understand the emerging and advanced engineering concepts in life sciences	<b>85.2</b>
	PO2	To make the students develop interpersonal skills, written and oral communication and also to improve their body language and eye contact during presentations.	<b>77.6</b>
	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.	<b>80.912</b>
	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	<b>84.09</b>
	PO5	Upon completion of course students will have the ability to design the experiments to solve the current problems in the society related to health, environment and industries,	<b>86</b>
	PO6	Upon completion of course students will have the ability to design the experiments to solve the current problems in the society related to health, environment and industries	<b>81.97</b>



**JSS MAHAVIDYAPEETHA**  
**JSS COLLEGE OF ARTS, COMMERCE & SCIENCE**  
Autonomous, 'A' Grade and College with Potential for Excellence  
**Ooty Road, Mysuru-570 025**  
Ph: 0821-2548236, 2548379 & 2548380. FAX: 0821-2548238  
E-mail: [jssautonomous@gmail.com](mailto:jssautonomous@gmail.com) Website: [jsscacs.edu.in](http://jsscacs.edu.in)

**Outcome Attainment Reports**

Department: PG Department of Biochemistry

Assessment Year: 2022-23

Programme: M.Sc. in Biochemistry

**Course Outcomes (% Attainment)**

**Semester: I**

Course title	Course Code	CO No./Id	CO Statement	% Attainment
Analytical Biochemistry-I	BCA040	47911	Specify in depth cell fractionation techniques	100
		47912	Write down in details with application, if applicable, chromatography and spectroscopy	100
		47913	Write down in details with application, if applicable, principle and applications of electrophoresis	100
		47914	Understand the classification and characteristics of centrifugation and microscopy	80
Chemistry and Metabolism of Proteins and Nucleic Acids	BCA050	47922	Identify the details of amino acids and proteins	80
		47923	Understand in details with application, if applicable, nitrogen metabolism and degradation	80
		47924	Write down the classification and characteristics of synthesis of amino acids and proteins	80
		47925	Write down in details with application, if applicable, metabolism of nucleic acids	100
Experiments in Biochemical Techniques and Enzymology and Seminar	BCA060	47926	Identify the details of spectrophotometer	100
		47927	Identify the details of specific activity of enzymes	100
		47928	Deliberate the characteristics of gel electrophoresis	100
		47929	Deliberate the characteristics of use of pipettes	100
Enzymology	BCA230	47930	Write down in details with examples enzyme kinetics	80
		47931	Identify in details with examples enzyme catalysed reactions	80

		47932	Identify the characteristics of cooperativity reactions	80
		47933	Learn the classification and characteristics of multienzyme complex reactions	80
Chemical Principles and Biochemical Reactions	BCA250	47934	Specify in details with examples chemical principles and bonding	100
		47935	Write down in depth thermodynamics	80
		47936	Learn in details with application, if applicable, stereochemistry	80
		47937	Deliberate in depth secondary metabolites	80

### Semester: II

Course title	Course Code	CO No./Id	CO Statement	% Attainment
Analytical Biochemistry–II	BCB040	47938	Identify in details with application, if applicable, flow cytometry	100
		47940	Specify the characteristics of biosensor technology	90
		47941	Understand in details with examples spectroscopy	80
		47942	Write down the details of x-ray crystallography	80
Chemistry and Metabolism of Carbohydrates and Lipids	BCB050	47943	Understand the classification and characteristics of chemistry of carbohydrates	80
		47944	Deliberate the classification and characteristics of bioenergetics	80
		47945	Write down the characteristics of chemistry of lipids	80
		47946	Learn in depth metabolism of lipids	80
Experiments in Immunology and Biochemical Estimations and Seminar Experiments in Immunology and Biochemical Estimations and Seminar	BCB060	47947	Understand in details with examples antigen antibody reactions	100
		47949	Specify in details with application, if applicable, oils and fats estimation	100
		47950	Understand in depth acid value principle and determination	100
		47951	Identify in details with examples mitosis and meiosis	80
Immunology and Microbiology	BCB250	47952	Identify in details with examples antigens and antibodies	80

		47953	Understand the details of cellular basis of immunity	80
		47954	Identify the classification and characteristics of MHC Complex	80
		47955	Learn in depth basic concepts of microbiology	100
Human Physiology and Nutrition	BCB260	47956	Specify the classification and characteristics of blood and respiratory systems	80
		47957	Identify in depth digestive and excretory systems	80
		47958	Learn in details with application, if applicable, concepts of nutrition	80
		47959	Specify the details of vitamins and minerals	100

### Semester: III

Course title	Course Code	CO No./Id	CO Statement	% Attainment
Cell Biology, Endocrinology and Cell Signaling	BCC070	47961	Specify in details with examples cellular organization	80
		47962	Learn the characteristics of endocrinology	80
		47963	Learn in depth cell signaling	80
		47964	Write down the characteristics of membrane biology	80
Clinical Biochemistry	BCC050	47965	Identify in details with application, if applicable, specimen collection and analysis	80
		47966	Specify in details with application, if applicable, metabolic disorders	80
		47967	Write down the characteristics of hormonal disorders	100
		47968	Write down in details with application, if applicable, hematology	80
Biotechnology and Research Methodology	BCC230	47973	Understand the concepts of biotechnology	100
		47974	Provide examples of current applications of biotechnology	90
		47975	Explain the concept and application of enzyme technology	80
		47976	Explain the general principles of generating transgenic plants, animals and microbes	80

Experiments in Clinical Biochemistry and Molecular Biology	BCC060	47977	Specify the details of urine and blood analysis	100
		47978	Specify the characteristics of determination of enzyme activity	100
		47979	Identify the classification and characteristics of DNA quantification and analysis	100
		47980	Deliberate the details of isolation of nucleic acids from plant, animal and microbial sources	100
Nutrition and Health	BCC740	47990	Identify the details of basic concepts of nutrition	90
		47991	Learn in details with application, if applicable, nutrients	80
		47992	Deliberate in details with application, if applicable, nutrition associated problems	80
		47993	Write down in depth social health problems	90

#### Semester: IV

Course title	Course Code	CO No./Id	CO Statement	% Attainment
Molecular Biology and Gene Regulation	BCD010	47981	Write down the characteristics of DNA characteristics and replication	80
		47982	Write down in depth Transcription and regulation	80
		47983	Learn in depth translation	80
		47985	Identify in depth translational regulation	100
Genetics and Genetic Engineering	BCD070	47987	Understand the principle of Mendelism and gene development	100
		47988	Describe how mutations occur and scope of population genetics	100
		47989	Explain the principle of genetic engineering	100
Project Work OR Dissertation	BCD060	47994	Identify the classification and characteristics of literature survey	100
		47995	Learn in depth define of objective of project work	100
		47996	Write down the classification and characteristics of design of experimental methods	100

		47997	Understand the details of result analysis and interpretation	100
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### Programme Outcomes (% Attainment)

PO ID	PO Statement	% Attainment
48032	Provides with the necessary knowledge and skills to undertake a career in research, either in industry or in an academic setting	76.29
48035	Provides the breadth and depth of scientific knowledge in Biochemistry and allied areas	80.97
48036	Equips to apply for a Ph.D. or to gain employment in biochemistry and allied areas	70.05
48016	Provides a substantial element of hands-on research experience, with enhanced experimental skills	62.40
48022	Demonstrates detailed knowledge and understanding of the principles and theories of biochemistry	76.01
48017	Helps to understand the principle techniques of biomolecular structural characterization, including spectroscopy	61.78

### Programme Specific Outcomes (% Attainment)

PSO ID	PSO Statement	% Attainment
48044	Global level research opportunities to pursue Ph.D. programme targeted approach of CSIR-NET examination	70.48
48052	Enormous job opportunities at all level of chemical, pharmaceutical, food products, life oriented material industries	74.55
48061	Specific placements in R&D and quality control or analysis division of nutraceutical, pharmaceutical industries and allied division	74.29



**Department: Kannada**

1. Direct Assessment								
Use the PO/PSO attainment in the worksheet for calculation								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
MA KANNADA	91.66	75	91.66	91.66	83.33	83.33	100	83.33
	91.66	75	91.66	91.66	83.33	83.33	100	83.33
	91.66	75	91.66	91.66	83.33	83.33	100	83.33
	91.66	75	91.66	91.66	83.33	83.33	100	83.33
	91.66	75	91.66	91.66	83.33	83.33	100	83.33
	91.66	75	91.66	91.66	83.33	83.33	100	83.33
	91.66	75	91.66	91.66	83.33	83.33	100	83.33
	91.66	75	91.66	91.66	83.33	83.33	100	83.33
Average	91.66	75	91.66	91.66	83.33	83.33	100	83.33
Attainment (Direct) = 0.8* Average above	73.32 8	60	73.32 8	73.32 8	66.66 4	66.66 4	80	66.66 4
				Rubric:	1	2	3	
2. Indirect Assessment					>50%	>60%	>70%	
Attainment as responded by students, Alumni, teachers, parents and Employer								
Response by	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
Students	87	76	69	87	78	87	87	76

Teachers	98	98	78	98	75	98	98	98
Parents	87	87	75	87	89	87	87	87
Alumni	59	69	98	59	69	59	59	69
Employers	67	76	87	69	76	69	67	76
Average	79.6	81.2	81.4	80	77.4	80	79.6	81.2
Attainment (In-direct) = 0.2* Average above	15.92	16.2 4	16.28	16	15.48	16	15.9 2	16.24
Convert the responses given in 1/2/3 to %attainment using the formula: <b>%Attainment = {response/3 *100}</b>								
Overall PO/PSO attainment = Attainment (Direct)+Attainment (In-direct)	89.24 8	76.2 4	89.60 8	89.32 8	82.14 4	82.66 4	95.9 2	82.90 4

**JSS COLLEGE OF ATRS, COMMERCE AND SCIENCE  
OOTY ROAD MYSURU-25  
PG DEPARTMENT OF KANNADA  
PO-ATTAINMENT-DIRECT**

SUBJECT	COID	PO'S	ATTAINMENT (%)
MA Kannada	PO1	Demonstrate critical reading, writing, and thinking skills. Write welldeveloped, focussed and effective paragraphs, which support a clear thesis statement, and demonstrate competence in Standard Kannada usage.	<b>91.66</b>
	PO2	Get the opportunity to opt for career in the field of social media	<b>75.00</b>
	PO3	Helps to pursue reserach work at M.phil and Doctoral level	<b>91.66</b>
	PO4	Help to communicate effectively and fluently at various occassions	<b>91.66</b>
	PO5	Analyse and interpret text written in Dravidian Language.	<b>83.33</b>

	PO6	Learn to write logical and informative papers	<b>83.33</b>
	PO7	Imbibe good ethics explored in the works of great writers.	<b>100</b>
	PO8	Learn to participate effectively in debates, group discussions, seminars.	<b>83.33</b>

**JSS COLLEGE OF ATRS, COMMERCE AND SCIENCE  
OOTY ROAD MYSURU-25  
PG DEPARTMENT OF KANNADA  
PO-ATTAINMENT-INDIRECT**

<b>SUBJECT</b>	<b>COID</b>	<b>PO'S</b>	<b>ATTAINMENT (%)</b>
MA Kannada	PO1	Demonstrate critical reading, writing, and thinking skills. Write welldeveloped, focussed and effective paragraphs, which support a clear thesis statement, and demonstrate competence in Standard Kannada usage.	89.248
	PO2	Get the opportunity to opt for career in the field of social media	76.24
	PO3	Helps to pursue reserach work at M.phil and Doctoral level	89.608
	PO4	Help to communicate effectively and fluently at various occassions	89.328
	PO5	Analyse and interpret text written in Dravidian Language.	82.144
	PO6	Learn to write logical and informative papers	82.664
	PO7	Imbibe good ethics explored in the works of great writers.	95.92
	PO8	Learn to participate effectively in debates, group discussions, seminars.	82.904

**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

**Department: KANNADA**

**Programme: BA**

**PO Attainment**

Programme Code: BAKG43 (NEP)

POID	PO	80 % Attainment	20 % Attainment	OVERALL ATTAINMENT
BAKG431	GET THE LITERARY AWARENESS , ADOPT SCIENTIFIC & RATIONAL THINKING.	45.833%	15.832%	61.665%
BAKG432	GAIN THE KNOWLEDGE OF CLASSICAL,MEDIVEL & MODERN KANNADA LITERATURE	46.110%	17.916%	63.193%
BAKG433	GAIN LANGUAGE SKILLS IN READING & WRITING	38.332%	16.666%	54.998%
BAKG434	GAIN KNOWLEDGE OF CONTEMPORARY PREVAILINGS	41.388%	14.166%	55.971%
BAKG435	AWARENESS OF SOCIO-RELIGIOUS ,POLITICAL & GEOGRAPHICAL BACKGROUND OF KANNADA	44.166%	18.333%	62.082%
BAKG436	KNOWLEDGE OF CULTURAL RICHNESS OF KANNADA LANGUAGE & LITERATURE	43.333%	17.082%	58.332%
BAKG437	BECOME A CREATIVE WRITER BY STUDYING KANNADA LITERATURE	37.221%	14.582%	50.138%

Programme Code: BA23(CBCS)

POID	PO	80 % Attainment	20 % Attainment	OVERALL ATTAINMENT
BA231	DEVELOP HUMAN VALUES & A SENSE OF SOCIAL SERVICE	49.999%	14.999%	64.999%
BA232	BECOME A RESPONCIBLE & DUTIFUL CITIZEN	51.110%	18.333%	69.443%

BA233	ABLE TO ENHANCE CRITICAL TEMPER & CREATIVE ABILITY	41.110%	16.666%	57.776%
BA234	UNDERSTAND & APPRECIATE RELATIONSHIP BETWEEN MAN AND ENVIRONMENT	36.666%	16.666%	53.332%
BA235	TO READ & INTERPRIT ,GENERATE MAPS AND OTHER GEOGRAPHIC REPRESENTATIONS	56.666%	17.499%	74.165%
BA236	UNDERSTAND PHYSICAL- GEOGRAPHIC PROCESS, THE GLOBAL DISTRIBUTION OF LANDFORMS AND ECOSYSTEMS	42.221%	16.666%	58.887%
BA237	ROLE OF THE PHYSICAL ENVIRONMENT ON HUMAN POPULATION	44.444%	13.333%	57.777%

### CO Attainment

Programme Code: BAKG43 (NEP)

Course Title: PRACHINA KANNADA SAHITHYA CHARITRE

I SEM

COID	CO	% ATTAINMENT
FHA 490	<ol style="list-style-type: none"> <li>1. Salient features of old kannada literature</li> <li>2. Importance of inscription Literature (Halmidi , Badami )</li> <li>3. Introducing the Works of Classical poets (Pampa,Ranna Nagachandra)</li> <li>4. First prose work ‘ vaddaaradhane’</li> </ol>	100 %

Course Title: MADHYA KALINA KANNADA SAHITHYA CHARITRE

I SEM

COID	CO	% ATTAINMENT
FHA 500	<ol style="list-style-type: none"> <li>1.Characterstics of medieval kannada literature</li> <li>2. importance of vachanas &amp; vachanakara’s</li> <li>3. Features of keerthana (Purandaradasa,Kanakadasa)</li> <li>4.Introducing the Works of medieval kannada poets (Kumaravyasa , Harihara Ragahvanka)</li> </ol>	100 %

Course Title: AADHUNIKA POORVA KANNADA SAHITHYA CHARITRE

II SEM

COID	CO	% ATTAINMENT
FHB490	<ol style="list-style-type: none"> <li>1.Characterstics of early modern kannada literature</li> <li>2. Contributions of shishunala sharifa , Muddana,</li> <li>3. Contributions of Helavana katte Giriyamma, kadakola Madivalappa</li> <li>4. works of Muddana,Kempu Narayana,Basavappashastri</li> </ol>	100 %

Course Title: AADHUNIKA KANNADA SAHITHYA CHARITRE II SEM

COID	CO	% ATTAINMENT
FHB500	1.Influence of English literature on Kannada literature 2. Characterstics of different literary movements 3. Salient features of modern kannada literature 4. Introducing the Works of modern kannada poets (B.M. Shri ,Kuvempu ,Bendre , Pu.Ti.Na, Maasti)	100 %

Course Title: BHARATHIYA MATTU PASCHATHYA KAVYA MIMAMSE III SEM

COID	CO	% ATTAINMENT
FHC490	1.Origen & development of Indian Poetics 2.Definitions of 'Kavya' & its use 3. Definition of Alankara, Dhvani ,Rasa 4. Theory of Imitation,catharsis, I.A.Richards &T.S.EliOT	100 %

Course Title: KANNADA KAVYA MIMAMSE-AADHUNIKA ROOPAGALU III SEM

COID	CO	% ATTAINMENT
FHC500	1.Different Theories of modern kannada poetics 2.Features of dalith poetics 3.Importance of feminist theory of poetics 4. Poetics in the view of Kuvempu,pu.ti.na. & Adiga	100 %

Course Title: SAMSHODHANE MATTU VIMARSHE IV SEM

COID	CO	% ATTAINMENT
FHD490	1.Knowledge of research methodology 2. Qualities of a researcher 3. Characterstics of & criticism 4. Qualities of a critic	100 %

Course Title: JAANAPADA HAGU MAHILA SAHITHYA IV SEM

COID	CO	% ATTAINMENT
FHD500	1. Features & importance of folk literature. 2. Biferations in folk literature 3. Introduction of folk Epics(Maleya madeshwara,Manteswamy) 4.Introduction of feminist writers of modern kannada literature (kodagina govramma, vaidehi ,sara abubakkar,	100 %

CO Attainment

Programme Code: BA 23 (CBCS)

Course Title: KANNADA JAANAPADA ADHYAYANA (DSE)

V SEM

COID	CO	% ATTAINMENT
ELE258 (DSE)	1. Features ,importance of folk literature & Culture 2. Bifercations in folk literature 3. Introdution of folk Epics(Maleya madeshwara,Manteswamy) 4. Types of folk literature with examples	100 %

Course Title: KANNADA SAHITHYA PARICHAYA (GE)

V SEM

COID	CO	% ATTAINMENT
ELE259 (GE)	1.Brief knowledge of kannada litrtature & its tradition 2. Introduction of Kannada great poets,vachanakaras & keerthanakaras.	100 %

Course Title: VISHESHA KAVI- KAVYA ADHYAYANA (DSE)

VI SEM

COID	CO	% ATTAINMENT
ELF252 (DSE)	1.PAMPA as Adikavi & his history 2. Introduction of his poetries ,its sources & study of Characters 3.Content & Form of his Poetries 4.Importance of Pampa's Style & Originalities	100 %

Course Title: KANNADA KALIKE- GALIKE (GE)

VI SEM

COID	CO	% ATTAINMENT
ELF252 (DSE)	1.Introduction of Short Stories & Modern Poems 2. Origen of words, kannada grammer & types of sentences	100 %

**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

Department: **UG Department of English**

Programme: **BA**

**PO Attainment**

**(NEP)**

<b>POID</b>	<b>PO</b>	<b>80 % Attainment</b>	<b>20 % Attainment</b>	<b>OVERALL ATTAINMENT</b>
PO1	Students should be familiar with representative literary and cultural texts within a significant number of historical, geographical, and cultural contexts.	<b>63.32875</b>	<b>18.33</b>	<b>81.65875</b>
PO2	Students should be able to apply critical and theoretical approaches to the reading and analysis of literary and cultural texts in multiple genres	<b>66.10875</b>	<b>14.58</b>	<b>80.68875</b>
PO3	Students should be able to identify, analyze, interpret and describe the critical ideas, values and themes that appear in literary and cultural texts and understand the way these ideas, values and themes inform and impact culture and society, both now and in the past.	<b>56.66375</b>	<b>17.07875</b>	<b>73.7425</b>
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.	<b>61.38625</b>	<b>17.495</b>	<b>78.88125</b>
PO5	Students should be able to ethically gather, understand, evaluate and synthesize information from a variety of written and electronic sources.	<b>62.21875</b>	<b>17.49625</b>	<b>79.715</b>
PO6	Students should be able to understand the process of communicating and interpreting human experiences through literary representation using	<b>58.88625</b>	<b>17.4975</b>	<b>76.38375</b>



	historical contexts and disciplinary methodologies.			
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**(CBCS)**

<b>POID</b>	<b>PO</b>	<b>80 % Attainment</b>	<b>20 % Attainment</b>	<b>OVERALL ATTAINMENT</b>
PO1	Students should be familiar with representative literary and cultural texts within a significant number of historical, geographical, and cultural contexts.	66.66	18.33	84.99
PO2	Students should be able to apply critical and theoretical approaches to the reading and analysis of literary and cultural texts in multiple genres	71.11	16.66	87.77
PO3	Students should be able to identify, analyze, interpret and describe the critical ideas, values and themes that appear in literary and cultural texts and understand the way these ideas, values and themes inform and impact culture and society, both now and in the past.	53.33	14.995	68.325
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.	62.22	18.33	80.55
PO5	Students should be able to ethically gather, understand, evaluate and synthesize information from a variety of written and electronic sources.	53.33	14.995	68.325
PO6	Students should be able to understand the process of communicating and interpreting human experiences through literary representation using historical contexts and disciplinary methodologies.	62.22	18.33	80.55

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### CO Attainment

NEP PAPERS

Course Code: FHA510

**Course Title: Introduction to Literature**

CO ID	CO	%Attainment
CO1	Acquire knowledge of Indian writing	100%
CO2	Interpret ideas of the past and contemporary writers	100%
CO3	Understand the impact of Indian writers	100%
CO4	Express history through prose and poetry	100%
CO5	Illustrate the literary background	100%

Course Code: FHA520

**Course Title: Indian Writing in English-Part I**

CO ID	CO	%Attainment
CO1	Acquire knowledge of Indian writing	100%
CO2	Interpret ideas of the past and contemporary writers	100%
CO3	Understand the impact of Indian writers	100%
CO4	Express history through prose and poetry	100%
CO5	Illustrate the literary background	100%

Course Code: FHB510

**Course Title: Introduction to Phonetics and Linguistics**

CO ID	CO	%Attainment
CO1	Define and explain different literary terms and forms	100%

CO2	Acquire knowledge of the genres of literature	100%
CO3	Apply the basic stylistics of literary texts in original writings	100%
CO4	Study the English Language scientifically.	100%
CO5	Understand the different patterns and sound system of the language.	100%

Course Code: FHB520

**Course Title: Indian Writing in English (Part 2)**

<b>CO ID</b>	<b>CO</b>	<b>%Attainment</b>
CO1	Acquire knowledge of Indian writing	100%
CO2	Interpret ideas of the past and contemporary writers	100%
CO3	Understand the impact of Indian writers	100%
CO4	Express history through prose and poetry	100%
CO5	Illustrate the literary background	100%

Course Code: FHC510

**Course Title: British Literature up to 1800  
From Chaucer to the Age of Transition**

<b>CO ID</b>	<b>CO</b>	<b>%Attainment</b>
CO1	Acquire knowledge about the social, historical and political background of Chaucer and Elizabethan Age.	100%
CO2	Analyse and apply these background information in interpreting and understanding a literary text.	100%

CO3	The Leaner will identify the different themes and characteristic of Chaucer and Elizabethan Age.	100%
CO4	Enhance their inventive skills by understanding the different proportions of British Literature	100%
CO5	Scrutinize and apply knowledge in sensible circumstances	100%

Course Code: FHC520

**Course Title: Indian Literature in Translation**

CO ID	CO	%Attainment
CO1	Analyze the importance of translation of literary works in a cross-cultural country like India.	100%
CO2	Familiarize themselves with the form, the style and thematic concern of 20th Century Indian Literature, and assess the emergence of modernity in Indian Literature.	100%
CO3	Identify the relevance of modernity in Indian social fabric and the approach to class and gendering Modern Indian Writing	100%
CO4	Know basic translations	100%
CO5	Know translation, transliteration	100%

Course Code: FHD510

**Course Title: British Literature - 19th And 20th Century (Part 2)**

CO ID	CO	%Attainment
CO1	Gain knowledge and have clear idea about Victorian Age and its literature	100%

CO2	Develop the aesthetic sense to comprehend and critically appreciate.	100%
CO3	Trace the Major Issues and analyze the unique features of literature of Victorian Age.	100%
CO4	Evaluate the merits of Victorian literature and cultivate creative fervour.	100%
CO5	Enhance Critical and analytical skills to evaluate the artistic merits of literary art of Victorian Age.	100%

Course Code: FHD520

**Course Title: Gender Studies**

<b>CO ID</b>	<b>CO</b>	<b>%Attainment</b>
CO1	Identify the problems of women.	100%
CO2	Demonstrate the essentiality of women in society.	100%
CO3	Survey the gender issues and the links between male female relationships.	100%
CO4	Validate the transformed attitude towards women in society.	100%
CO5	Approach women's issues logically and find viable solutions to their problems to better society with gender equity	100%

CBCS Papers

Course Code: ELE22224, 225

**Course Title: Modern Literature**

<b>CO ID</b>	<b>CO</b>	<b>%Attainment</b>
CO1	Have better understanding of life.	100%

CO2	Develop analytical and critical quality.	100%
CO3	Be creative in his day to day life and face the problems	100%
CO4	Relation between literature and real life.	100%
CO5	Compare and contrast the historical and modern works	100%

Course Code: ELF22224, 225

**Course Title: English Writing in Third World Countries**

<b>CO ID</b>	<b>CO</b>	<b>%Attainment</b>
CO1	Understand the problems the of third world countries	100%
CO2	Know the rift between colonised and coloniser	100%
CO3	Understand the spirit of independence and limitations of freedom.	100%
CO4	Get the knowledge of pre and post independent socio-political and economic aspects of India.	100%
CO5	Develop critical and rational thinking.	100%

**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**  
**Department: Hindi**

**Programme: BA**

PO ID	PO (BA) (FHA-31 to 35)	% Attainment
PO 1	Understand culture and heritage	93.33
PO 2	Manage business affairs	96.66
PO 3	Create interest in literature	66.66
PO 4	Report and edit public events effectively	93.33
PO 5	Develop reading writing communication and reasoning skills	93.33

**Programme Code: FHA 040 (FHA-31 to 35)**

Course title : **Hindi Kahani sahetya Aur Vyakarna**

**Paper 1**

CO ID	CO	% Attainment
CO 1	1 . Identify in details with examples kahani of 20th century	100 %
CO 2	2. Write down in depth kahani of 20th century	100 %
CO 3	3. Deliberate in depth kahani of 20th century	100 %
CO 4	4. Specify the classification and characteristics of Hindi vyakaran	100 %
CO 5	5. Identify the characteristics of Hindi vyakaran	100 %

**Programme Code: FHB 040 (FHA-31 to 35)**

Course title : **Hindi Lagu upanyasa Aur prayojan mulak Hindi**

**Paper 2**

CO ID	CO	% Attainment
CO 1	1.Learn in details with examples Novel- by kamaleshwra	100 %
CO 2	2Understand in details with examples Novel-by kamaleshwra	100 %
CO 3	3.Understand the details of Novel-by kamaleshwra	100 %
CO 4	4. Identify the classification and characteristics of Prayojan Mulak Hindi	100 %

CO 5	5. Identify the characteristics of Hindi vyakaran	100 %
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**Programme Code: FHC 040 (FHA-31 to 35)**

**Course title : Hindi Nibandha Sangraha Aur Anuvada Kala**

**Paper 3**

CO ID	CO	%Attainment
CO 1	1. Learn in details with examples Nibandha - by Vithi-Sampa	100 %
CO 2	2. Understand in details with examples Nibandha - by Vithi-Sampa	100 %
CO 3	3. Understand the details of Nibandha - by Vithi- Sampa	100 %
CO 4	4. Identify the classification and characteristics of Anuvad Kala	100 %
CO 5	5. Write down the characteristics of Anuvad Kala	100 %

**Programme Code: FHD (FHA-31 to 35)**

**Course title : Hindi Khanda-kavya Tatha Patra-Lekhan Aur Alekan**

**Paper 4**

CO ID	CO	%Attainment
CO 1	1. Learn in details with examples Hindi Khanda Kavya	100 %
CO 2	2. Understand in details with examples Khanda Kavya Ekalavya	100 %
CO 3	3. Understand the details of Ekalavya	100 %
CO 4	4. Identify the classification and characteristics of Patra	100 %
CO 5	5. Write down the characteristics of Patra	100 %

### 1. Direct Assessment

2. Use the PO/PSO attainment in the worksheet for calculation

	PO1	PO2	PO3	PO4	PO5
Course 1	100	100	66.66	100	100
Course 2	66.66	100	100	100	100
Course 3	100	100	66.66	100	100
Course 4	100	100	100	66.66	100
Average above	91.66	100	83.33	91.66	100



Attainment (Direct) = 0.8* Average above	73.33	80	66.66	73.33	80
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## 2. Indirect Assessment

### Course 4

#### Attainment as responded by students, teachers

Response by	PO1	PO2	PO3	PO4	PO5
Students	3	2	3	3	1
Teachers	3	3	3	3	3
Average	3	2.5	3	3	2
Attainment (In-direct) = 0.2* Average above	100	83.33	100	100	66.66
Convert the responses given in 1/2/3 to % attainment using the formula: <b>%Attainment</b> ={response/3 *100)	20	16.66	20	20	13.33

Overall PO/PSO attainment = Attainment (Direct)+Attainment (In-direct)	93.33	96.66	66.66	93.33	93.33
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### JSS Mahavidyapeetha

JSS College of Arts, Commerce and Science (Autonomous)

Ooty Road, Mysuru - 570025

Outcome Attainments 2022-23

Department: Hindi

#### Programme: BCOM

PO ID	PO (BCOM) (11)	% Attainment
PO 1	Inculcate human values	86.66
PO 2	Avail job opportunities in translation	86.66
PO 3	Create interest in literature	93.33

#### Programme Code: FCA 040 (11)

Course title : Gadya ki vidhiya aur Vyakarna

#### Paper 1

CO ID	CO	% Attainment
CO 1	1.Deliberate in details with application, if applicable, short stores of 20 <sup>th</sup> century	100 %

CO 2	<b>2. Deliberate in details with application, if applicable, gadya by manoja guptha</b>	100 %
CO 3	<b>3. Understand the classification and characteristics of gadya by manoja guptha</b>	100 %
CO 4	<b>4. Understand in details with application, if applicable, Hindi vyakaran</b>	100 %
CO 5	<b>5. Learn the details of Hindi vyakaran</b>	100 %
CO 6	<b>6. Specify in details with application, if applicable, Hindi vyakaran</b>	100 %

**Programme Code: FCB 040 (11)**

**Course title : Hindi Kahani Sangrah aur Midiya lekan**

**Paper 2**

CO ID	CO	% Attainment
CO 1	1 . Specify in details with application, if applicable, Midiya lekan	100 %
CO 2	2 . Understand the details of kahani of 20th cenury	100 %
CO 3	3 . Learn in details with application, if applicable, kahani of 20th cenury	100 %
CO 4	4 . Identify the classification and characteristics of Midiya lekan	100 %
CO 5	5. Deliberate the details of Hindi vyakaran	100 %
CO 6	6. Understand in details with application, if applicable, Midiya lekan	100 %

**Programme Code: FCC 040 (11)**

**Course title : Hindi KavitaSangra Our SarkariPatrachar, ParibhashikShabdawali**

**Paper 3**

CO ID	CO	% Attainment
CO 1	1. Deliberate the classification and characteristics of modern Hindi kavya	100 %
CO 2	2 . Deliberate the characteristics of modern Hindi kavya	100 %
CO 3	3 . Understand the details modern Hindi kavya	100 %
CO 4	4 .Understand in details with application, if applicable, Hindi Sarkari Patrachar	100 %
CO 5	5. Learn the details of Hindi Paribhashik Shabdawali	100 %
CO 6	6. Specify in details with application, if applicable, Hindi Sarkari Patrachar	100 %

**Programme Code: FCD 040 (11)**

**Course title : Hindi NatakTathaComputer aur Hindi**

**Paper 4**

CO ID	CO	% Attainment
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CO 1	<b>1. Deliberate the classification and characteristics of HindiNatak</b>	100 %
CO 2	<b>2 . Deliberate the characteristics of HindiNatak</b>	100 %
CO 3	<b>3 . Understand the details HindiNatak</b>	100 %
CO 4	<b>4 .Understand in details with application, if applicable, Computer aur Hindi</b>	100 %
CO 5	<b>5. Learn the details of Computer aur Hindi</b>	100 %
CO 6	<b>6. Specify in details with application, if applicable, Computer aur Hindi</b>	100 %

### 1. Direct Assessment

2. Use the PO/PSO attainment in the worksheet for calculation

	PO1	PO2	PO3
Course 1	100	100	100
Course 2	66.66	100	100
Course 3	100	100	66.66
Course 4	66.66	100	100
Average above	83.33	100	91.66
Attainment (Direct) = 0.8* Average above	66.66	80	73.33

### 2. Indirect Assessment

#### Course 4

Attainment as responded by students, teachers

Response by	PO1	PO2	PO3
Students	3	2	3
Teachers	3	3	3
Average	3	2.5	3
Attainment (In-direct) = 0.2* Average above	100	83.33	100
Convert the responses given in 1/2/3 to %attainment using the formula: <b>%Attainment</b> ={response/3 *100}	20	16.66	20

Overall PO/PSO attainment = Attainment (Direct)+Attainment (In-direct)	86.66	86.66	93.33
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**Programme: BBA**

PO ID	PO (BCOM) (11)	% Attainment
PO 1	Inculcate human values	100
PO 2	Avail job opportunities in translation	89.99
PO 3	Create interest in literature	86.66

**Programme Code: FBA 040 (11)**

Course title : Gadya ki vidhiya aur Vyakarna

**Paper 1**

CO ID	CO	% Attainment
CO 1	1. Deliberate in details with application, if applicable, short stories of 20 <sup>th</sup> century	100 %
CO 2	2. Deliberate in details with application, if applicable, gadya by manoja guptha	100 %
CO 3	3. Understand the classification and characteristics of gadya by manoja guptha	100 %
CO 4	4. Understand in details with application, if applicable, Hindi vyakaran	100 %
CO 5	5. Learn the details of Hindi vyakaran	100 %
CO 6	6. Specify in details with application, if applicable, Hindi vyakaran	100 %

**Programme Code: FBB 040 (11)**

**Course title : Hindi Kahani Sangrah aur Midiya lekan**

**Paper 2**

CO ID	CO	% Attainment
CO 1	1 . Specify in details with application, if applicable, Midiya lekan	100 %
CO 2	2 . Understand the details of kahani of 20th cenyury	100 %
CO 3	3 . Learn in details with application, if applicable, kahani of 20th cenyury	100 %
CO 4	4 . Identify the classification and characteristics of Midiya lekan	100 %
CO 5	5. Deliberate the details of Hindi vyakaran	100 %
CO 6	6. Understand in details with application, if applicable, Midiya lekan	100 %

**Programme Code: FBC 040 (11)**

**Course title : Hindi KavitaSangra Our SarkariPatrachar, ParibhashikShabdawali  
Paper 3**

CO ID	CO	% Attainment
CO 1	1. Deliberate the classification and characteristics of modern Hindi kavya	100 %
CO 2	2 . Deliberate the characteristics of modern Hindi kavya	100 %
CO 3	3 . Understand the details modern Hindi kavya	100 %
CO 4	4 .Understand in details with application, if applicable, Hindi Sarkari Patrachar	100 %
CO 5	5. Learn the details of Hindi Paribhashik Shabdawali	100 %
CO 6	6. Specify in details with application, if applicable, Hindi Sarkari Patrachar	100 %

**Programme Code: FBD 040 (11)**

**Course title : Hindi NatakTathaComputer aur Hindi  
Paper 4**

CO ID	CO	% Attainment
CO 1	1. Deliberate the classification and characteristics of HindiNatak	100 %
CO 2	2 . Deliberate the characteristics of HindiNatak	100 %
CO 3	3 . Understand the details HindiNatak	100 %
CO 4	4 .Understand in details with application, if applicable, Computer aur Hindi	100 %
CO 5	5. Learn the details of Computer aur Hindi	100 %
CO 6	6. Specify in details with application, if applicable, Computer aur Hindi	100 %

### 1. Direct Assessment

2. Use the PO/PSO attainment in the worksheet for calculation

	PO1	PO2	PO3
Course 1	100	100	100
Course 2	100	100	66.66
Course 3	100	66.66	100
Course 4	100	100	66.66
Average above	100	91.66	83.33
Attainment (Direct) = 0.8* Average above	80	73.33	66.66

### 2. Indirect Assessment

#### Course 4

Attainment as responded by students, teachers

Response by	PO1	PO2	PO3
Students	3	2	3
Teachers	3	3	3
Average	3	2.5	3
Attainment (In-direct) = 0.2* Average above	100	83.33	100
Convert the responses given in 1/2/3 to %attainment using the formula: <b>%Attainment</b> <b>= {response/3 *100}</b>	20	16.66	20

Overall PO/PSO attainment = Attainment (Direct)+Attainment (In-direct)	100	89.99	86.66
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#### Programme: BCA

PO ID	PO (BCOM) (11)	% Attainment
PO 1	Inculcate human values	100
PO 2	Avail job opportunities in translation	83.32
PO 3	Create interest in literature	93.33

#### Programme Code: FAA 040 (11)

Course title : Gadya ki vidhiya aur Vyakarna

#### Paper 1



CO ID	CO	% Attainment
CO 1	1. Deliberate in details with application, if applicable, short stories of 20 <sup>th</sup> century	100 %
CO 2	2. Deliberate in details with application, if applicable, gadya by manoja guptha	100 %
CO 3	3. Understand the classification and characteristics of gadya by manoja guptha	100 %
CO 4	4. Understand in details with application, if applicable, Hindi vyakaran	100 %
CO 5	5. Learn the details of Hindi vyakaran	100 %
CO 6	6. Specify in details with application, if applicable, Hindi vyakaran	100 %

**Programme Code: FAB 040 (11)**

**Course title : Hindi Kahani Sangrah aur Midiya lekan**

**Paper 2**

CO ID	CO	% Attainment
CO 1	1 . Specify in details with application, if applicable, Midiya lekan	100 %
CO 2	2 . Understand the details of kahani of 20th cenyury	100 %
CO 3	3 . Learn in details with application, if applicable, kahani of 20th cenyury	100 %
CO 4	4 . Identify the classification and characteristics of Midiya lekan	100 %
CO 5	5. Deliberate the details of Hindi vyakaran	100 %
CO 6	6. Understand in details with application, if applicable, Midiya lekan	100 %

**Programme Code: FAC 040 (11)**

**Course title : Hindi KavitaSangra Our SarkariPatrachar, ParibhashikShabdawali**

**Paper 3**

CO ID	CO	% Attainment
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CO 1	<b>1.</b> Deliberate the classification and characteristics of modern Hindi kavya	100 %
CO 2	<b>2 .</b> Deliberate the characteristics of modern Hindi kavya	100 %
CO 3	<b>3 .</b> Understand the details modern Hindi kavya	100 %
CO 4	<b>4 .</b> Understand in details with application, if applicable, Hindi Sarkari Patrachar	100 %
CO 5	<b>5.</b> Learn the details of Hindi Paribhashik Shabdawali	100 %
CO 6	<b>6.</b> Specify in details with application, if applicable, Hindi Sarkari Patrachar	100 %

**Programme Code: FAD 040 (11)**

Course title : **Hindi NatakTathaComputer aur Hindi**

**Paper 4**

CO ID	CO	% Attainment
CO 1	<b>1.</b> Deliberate the classification and characteristics of HindiNatak	100 %
CO 2	<b>2 .</b> Deliberate the characteristics of HindiNatak	100 %
CO 3	<b>3 .</b> Understand the details HindiNatak	100 %
CO 4	<b>4 .</b> Understand in details with application, if applicable, Computer aur Hindi	100 %
CO 5	<b>5.</b> Learn the details of Computer aur Hindi	100 %
CO 6	<b>6.</b> Specify in details with application, if applicable, Computer aur Hindi	100 %

### 1. Direct Assessment

2. Use the PO/PSO attainment in the worksheet for calculation

	PO1	PO2	PO3
Course 1	100	100	100
Course 2	100	66.66	100
Course 3	100	100	66.66
Course 4	100	66.66	100
Average above	100	83.33	91.66
Attainment (Direct) = 0.8* Average above	80	66.66	73.33

### 2. Indirect Assessment

#### Course 4

Attainment as responded by students, teachers

Response by	PO1	PO2	PO3
Students	3	2	3
Teachers	3	3	3
Average	3	2.5	3
Attainment (In-direct) = 0.2* Average above	100	83.33	100
Convert the responses given in 1/2/3 to %attainment using the formula: <b>%Attainment</b> <b>= {response/3 *100}</b>	20	16.66	20

Overall PO/PSO attainment = Attainment (Direct)+Attainment (In-direct)	100	83.32	93.33
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Programme: BSC

PO ID	PO (BSA) (FSA-31 to 43)	% Attainment
PO 1	Inculcate human values	86.66
PO 2	Avail job opportunities in translation	100
PO 3	Create interest in literature	89.99

**Programme Code: FSA 040 (FSA – 31 to 43)**

**Course title : Hindi Kahani sahetya Aur Vyakarna**

**Paper 1**

CO ID	CO	% Attainment
CO 1	1 . Identify in details with examples kahani of 20th century	100 %
CO 2	2. Write down in depth kahani of 20th century	100 %
CO 3	3. Deliberate in depth kahani of 20th century	100 %
CO 4	4. Specify the classification and characteristics of Hindi vykaran	100 %
CO 5	5. Identify the characteristics of Hindi vykaran	100 %

**Programme Code: FSB 040 (FSA – 31 to 43)**

**Course title : Hindi Lagu upanyasa Aur prayojan mulak Hindi**

**Paper 2**

CO ID	CO	%Attainment
CO 1	1.Learn in details with examples Novel- by kamaleshwra	100 %
CO 2	2Understand in details with examples Novel-by kamaleshwra	100 %
CO 3	3.Understand the details of Novel-by kamaleshwra	100 %
CO 4	4. Identify the classification and characteristics of Prayojan Mulak Hindi	100 %
CO 5	5. Identify the characteristics of Hindi vykaran	100 %

**Programme Code: FSC 040 (FSA – 31 to 43)**

**Course title : Hindi Nibandha Sangraha Aur Anuvada Kala**

**Paper 3**

CO ID	CO	%Attainment
CO 1	1. Learn in details with examples Nibandha - by Vithi-Sampa	100 %
CO 2	2. Understand in details with examples Nibandha - by Vithi-Sampa	100 %
CO 3	3. Understand the details of Nibandha - by Vithi- Sampa	100 %

CO 4	4. Identify the classification and characteristics of Anuvad Kala	100 %
CO 5	5. Write down the characteristics of Anuvad Kala	100 %

**Programme Code: FSD 040 (FSA – 31 to 43)**

**Course title : Hindi Khanda-kavya Tatha Patra-Lekhan Aur Alekan**

**Paper 4**

CO ID	CO	% Attainment
CO 1	1. Learn in details with examples Hindi Khanda Kavya	100 %
CO 2	2. Understand in details with examples Khanda Kavya Ekalavya	100 %
CO 3	3. Understand the details of Ekalavya	100 %
CO 4	4. Identify the classification and characteristics of Patra	100 %
CO 5	5. Write down the characteristics of Patra	100 %

### 1. Direct Assessment

- Use the PO/PSO attainment in the worksheet for calculation

	PO1	PO2	PO3
Course 1	100	100	100
Course 2	66.66	100	100
Course 3	100	100	66.66
Course 4	66.66	100	100
Average above	83.33	100	91.66
Attainment (Direct) = 0.8* Average above	66.66	80	73.33

### 2. Indirect Assessment

**Course 4**

**Attainment as responded by students, teachers**

Response by	PO1	PO2	PO3
Students	3	3	2
Teachers	3	3	3
Average	3	3	2.5
Attainment (In-direct) = 0.2* Average above	100	100	83.33

Convert the responses given in 1/2/3 to %attainment using the formula: <b>%Attainment = {response/3 *100}</b>	20	20	16.66
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Overall PO/PSO attainment = Attainment (Direct)+Attainment (In-direct)	86.66	100	89.99
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**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**  
**Department: Sanskrit**

**Programme: BA/BSC**

**Programme Code: FHA/FSA 030 (FHA-31 to 35) (FSA – 31 to 43)**

**Course title : Sanskrit Poetry and Grammar**

**Paper 1**

CO ID	CO	% Attainment
CO 1	1. The student gets motivated to compose poems.	100 %
CO 2	2. The student imbibes the noble qualities.	100 %
CO 3	3. The student develops conviction in scriptures.	100 %
CO 4	4. The student learns Sanskrit speaking skills.	100 %
CO 5	5. The student will be confident in learning new texts of Sanskrit.	100 %

**Programme Code: FHB/FSB 030 (FHA-31 to 35) (FSA – 31 to 43)**

**Course title : Sanskrit Prose and Grammar**

**Paper 2**

CO ID	CO	% Attainment
CO 1	1. The student gets motivated to make out similar works in Sanskrit literature.	100 %
CO 2	2. The student imbibes the noble qualities depicted in Sanskrit literature.	100 %
CO 3	3. The student acquires grammatical skills.	100 %
CO 4	4. The student learns Sanskrit speaking skills.	100 %
CO 5	5. The student will be confident in learning new texts of Sanskrit.	100 %

**Programme Code: FHC/FSC 030 (FHA-31 to 35) (FSA – 31 to 43)**

**Course title : Champu Literature and Grammar**

**Paper 3**

CO ID	CO	% Attainment
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CO 1	1. The student gets motivated to compose poems.	100 %
CO 2	2. The student imbibes the noble qualities.	100 %
CO 3	3. The student develops conviction in scriptures.	100 %
CO 4	4. The student learns Sanskrit speaking skills.	100 %
CO 5	5. The student will be confident in learning new texts of Sanskrit.	100 %

**Programme Code: FHD/FSD 030 (FHA-31 to 35) (FSA – 31 to 43)**

**Course title : Sanskrit Drama and Dramaturgy**

**Paper 4**

CO ID	CO	% Attainment
CO 1	1. The student gets motivated to make out similar works in Sanskrit Drama.	100 %
CO 2	2. The student imbibes the noble qualities depicted in Sanskrit literature.	100 %
CO 3	3. The student acquires grammatical skills.	100 %
CO 4	4. The student learns Sanskrit speaking skills.	100 %
CO 5	5. The student will be confident in learning new texts of Sanskrit.	100 %



PO ID	PO (BA) (FHA-31 to 35)	% Attainment
PO 1	Understand culture and heritage	66.66
PO 2	Manage business affairs	62.75
PO 3	Create interest in literature	50.25
PO 4	Report and edit public events effectively	64.25
PO 5	Develop reading writing communication and reasoning skills	66.66

PO ID	PO (BSC) (FSA – 31 to 43)	% Attainment
PO 1	In culture human values	66.66
PO 2	It assists in comprehension skills	58.5
PO 3	Create interest in literature	70.66

**Programme: BCOM/BBA/BCA**

**Programme Code: FCA/FBA/ FAA 030 (11)**

**Course title : Sanskrit Poetry and Grammar**

**Paper 1**

CO ID	CO	% Attainment
CO 1	1. The student gets motivated to compose poems.	100 %
CO 2	2. The student imbibes the noble qualities.	100 %
CO 3	3. The student develops conviction in scriptures.	100 %
CO 4	4. The student learns Sanskrit speaking skills.	100 %
CO 5	5. The student will be confident in learning new texts of	100 %

**Programme Code: FCB/FBB/ FAB 030 (11)**

**Course title : Sanskrit Prose and Grammar**

**Paper 2**

CO ID	CO	% Attainment
CO 1	1. The student gets motivated to make out similar works in Sanskrit	100 %
CO 2	2. The student imbibes the noble qualities depicted in Sanskrit literature.	100 %
CO 3	3. The student acquires grammatical skills.	100 %
CO 4	4. The student learns Sanskrit speaking skills.	100 %
CO 5	5. The student will be confident in learning new texts of Sanskrit.	100 %

**Programme Code: FCC/FBC/ FAC 030 (11)**

Course title : **Champu Literature and Grammar**

**Paper 3**

CO ID	CO	% Attainment
CO 1	1. The student gets motivated to compose poems.	100 %
CO 2	2. The student imbibes the noble qualities.	100 %
CO 3	3. The student develops conviction in scriptures.	100 %
CO 4	4. The student learns Sanskrit speaking skills.	100 %
CO 5	5. The student will be confident in learning new texts of Sanskrit.	100 %

**Programme Code: FCD/FBD/ FAD 030 (11)**

Course title : **Sanskrit Drama and Dramaturgy**

**Paper 4**

CO ID	CO	% Attainment
CO 1	1. The student gets motivated to make out similar works in Sanskrit Drama.	100 %
CO 2	2. The student imbibes the noble qualities depicted in Sanskrit literature.	100 %
CO 3	3. The student acquires grammatical skills.	100 %
CO 4	4. The student learns Sanskrit speaking skills.	100 %
CO 5	5. The student will be confident in learning new texts of Sanskrit.	100 %

PO ID	PO (BCOM) (11)	% Attainment
PO 1	Motivated for their higher education	55.5
PO 2	Write resume, latter of application and business letters	66.75
PO 3	Improve spoken and written communication	55.55

PO ID	PO (BBA) (11)	% Attainment
PO 1	Motivated for their higher education	62.75
PO 2	Write resume, latter of application and business letters	66.66
PO 3	Improve spoken and written communication	55.55

PO ID	PO (BCA) (11)	% Attainment
PO 1	Motivated for their higher education	66.66
PO 2	Write resume, latter of application and business letters	64.5
PO 3	Improve spoken and written communication	53

**JSS MAHAVIDYAPEETHA**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

**Department: History**  
**Program Code: BAHE44**

**Program: BA**

<b>PO ID</b>	<b>PO</b>	<b>80% Attainment</b>	<b>20% Attainment</b>	<b>Overall Attainment</b>
BAHE44P01	Critically recognize the social, political, economic and cultural aspects of History	59.42	19.33	78.76
BAHE44P02	Demonstrate thinking skills by analyzing, synthesizing, and evaluating historical information from multiple sources	56	19.67	75.67
BAHE44P03	Correctly extract evidence from primary sources by analyzing and evaluating them in relation to their cultural and historical context	58	18.67	76.67
BAHE44P04	Develop an informed familiarity with multiple cultures	60.22	18.33	78.56
BAHE44P05	Emerge as a multifaceted personality who is self-dependent	54.66	19.33	74
BAHE44P06	Spread the messages of equality, nationality, social harmony and other human values	60.69	18.67	79.35
BAHE44P07	Comprehend the basic structures and processes of government systems and/or theoretical underpinnings	54.22	17.67	71.89
BAHE44P08	Analyze political problems, arguments, information, and/or theories	64.46	15.84	80.29
BAHE44P09	Apply methods appropriate for accumulating and interpreting data applicable to the Discipline of political science & English	57.37	18.67	76.03
BAHE44P10	Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes	58.76	17	75.76

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**Outcome Attainments 2022-23**

**Department: History**

**Program: BA**

**Program Code: BAHE44 & BAHP42**

**Course Title: Introduction to Ancient World Civilization**

Course Code	COs	Attainment
FHA450CO1	Understand the birth of Ancient Civilizations across the world.	100
FHA450CO2	Obtain an idea of the geographical influences which aided the establishment of these Civilizations	100
FHA450CO3	Trace the evolution of political history and socio-economic characteristics of the different Civilizations	100
FHA450CO4	Analyze the ideas of theocracy and statehood during this time	100
FHA450CO5	Gather information on the various contributions in the fields on religion, law, education, language, literature, science mathematics, art and architecture	100

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**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

**Department: History**

**Program: BA**

**Program Code: BAHE44 & BAHP42**

**Course Title: History of Ancient India (From Earliest times to 1206 CE)**

Course Code	COs	Attainment
FHA460CO1	Gain an extensive insight of the political developments in Ancient India.	100
FHA460CO2	Become familiar with development of Human evolution and material culture in the Indian subcontinent	100
FHA460CO3	Analyze sources in different forms to study the history of Ancient India	100
FHA460CO4	Capture a glimpse of the evolving socio-cultural and religious diversities and dissents of Ancient India	100
FHA460CO5	Understand the progress of early State formations and political structures in Ancient India	100

**Department: History**

**Program: BA**

**Program Code: BAHE44 & BAHP42**

**Course Title: Introduction to Medieval World Civilization**

Course Code	COs	Attainment
FHB450CO1	Understand the geographic limitations and advantages that contributed to the rise of different civilizations in the medieval world	100
FHB450CO2	Get information on the development of religious traditions and organizations in the Medieval world	100
FHB450CO3	Understand the growth of Feudalism and European towns in the middle ages	100
FHB450CO4	Indicate the causes and impact of the Crusades in the Medieval Europe	100
FHB450CO5	Derive the influences of Oriental Civilizations on Medieval Europe	100
FHB450CO6	Illuminate the aspects of Economy and its development in Medieval Western Europe	

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**Ooty Road, Mysuru - 570025**

**Outcome Attainments 2022-23**

**Department: History**

**Program: BA**

**Program Code: BAHE44 & BAHP42**

**Course Title: History of Medieval India (1206 to 1761)**

Course Code	COs	Attainment
FHB460CO1	The students will get the knowledge of the political history of Delhi Sultanate, Mughals and Marathas	100
FHB460CO2	To analyze the changes in state and society under the Delhi Sultanates with respect to their administrative structure and theory of state/kingship of the Delhi Sultanate	100
FHB460CO3	Understand the critical historiographical approaches on the State and also the Decline of the Delhi Sultans and Mughal Empire	100
FHB460CO4	To understand the significance of the Bhakti and Sufi Movements and their impact on the socio-cultural sphere	100
FHB460CO5	To understand the fusion of art, architecture, literature, language and fine arts in medieval India under Islamic and Hindu styles	100

**Program Code: BAHE44 & BAHP42**

**Course Title: Rise of Modern West (1600-1871)**

Course Code	COs	Attainment
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FHC450CO1	Understand how the geographical discoveries impact on the economy, polity and society of Western countries	100
FHC450CO2	Students would have developed an understanding of the significant transformations in European polity and society between sixteenth to nineteenth century	100
FHC450CO3	They would have explored various themes like capitalism, mercantilism, Renaissance and Reformation	100
FHC450CO4	Understand how scientific view helps western countries to achieve scientific revolution and Industrial Revolution	100
FHC450CO5	Understand how the liberal and democratic ideas helped to achieve all round developments in western world	100

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**Outcome Attainments 2022-23**

**Department: History**

**Program: BA**

**Program Code: BAHE44 & BAHP42**

**Course Title: History of Modern India 1761-1947**

Course Code	COs	Attainment
FHC460CO1	The Students will be able to trace the British colonial expansion in the political contacts of 18 <sup>th</sup> century India. They will learn about the changes in society, politics, religion and economy during the period. They will also acquire knowledge about the freedom struggle	100
FHC460CO2	The contents of the syllabus are designed to cover core issues pertaining to vast canvass of nationalist history so that the student at the under graduate level is equipped to focus upon the core ideas of national movement in its conceptuality	100
FHC460CO3	To understand India's quest for independence and nation building are interwoven script of history, debated most widely at global level with various angles, indeed, India's national movements has vast and divergent ideological base with inner contradictions	100
FHC460CO4	Understand how the colonial rule was overthrown by the Indian nationalists	100
FHC460CO5	Identify the various phases of National Movement	100
FHC460CO6	Understand the Gandhian Era	100
FHC460CO7	Appreciate the ideals and values of Gandhi that resulted in freedom	100



**Department: History**

**Program: BA**

**Program Code: BAHE44 & BAHP42**

**Course Title: History of Karnataka (From Earliest times to 10<sup>th</sup> Century CE)**

Course Code	COs	Attainment
FHD450CO1	Develop a bird view on the historical development of Polity, economy and culture of Karnataka	100
FHD450CO2	To understand the cultural transitions of Karnataka from earliest times to 10 <sup>th</sup> century CE	100
FHD450CO3	To understand how the different ruling powers develop a harmony in society through their religious policies	100
FHD450CO4	Develop a strong cultural understanding of Karnataka's language, literature and different cultural aspects	100
FHD450CO5	To identify the makers of Karnataka and how they helped to preserve the continuity of long cultural heritage	100

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**JSS College of Arts, Commerce and Science (Autonomous)**

**Ooty Road, Mysuru - 570025**

**Outcome Attainments 2022-23**

**Department: History**

**Program: BA**

**Program Code: BAHE44 & BAHP42**

**Course Title: History of Modern Europe (1871-1945)**

Course Code	COs	Attainment
FHD460CO1	It provides a critical overview of the Europe from 1871 to 1945. It shall also trace the patterns and outcomes of social upheaval throughout Europe in the first half of 19th century	100
FHD460CO2	To understand the debates on the development and impact of industrial capitalism. The birth of new social movements, political ideas and structures shall be contextualised within developing capitalism of the nineteenth century. And investigates the political, social, and economic developments that shaped and continue to shape the modern age	100
FHD460CO3	To understand the evolution of the nation state, industrialization and its impact on society and politics	100
FHD460CO4	To develop an understanding of the significant transformations in European polity and society till the mid nineteenth century	100
FHD460CO5	Students would be expected to develop on her/his understanding of the social and economic dimensions of the Industrial revolution in eighteenth century Britain to compare and understand the specific case studies of France, Germany and Russia in the nineteenth century	100

FHD460CO6	Examined changes since the 18 <sup>th</sup> century in European social ,economic and political structure, locating Europe's place in world history its development	
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**Outcome Attainments 2022-23**

**Department: History**

**Program: BA**

**Program Code: BA21 BA22 & B24**

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

Course Code	COs	Attainment
ELF240CO1	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	100
ELF240CO2	the knowledge of Consolidation of the British rule regulating Act 1773, subsidiary allianace, doctrine of lapse and land revenue policies.	100
ELF240CO3	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	100
ELF240CO4	Gain knowledge about foundation of Indian National congress. Role of moderates, extremists and Ghandhian era., to the students	100

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**Outcome Attainments 2022-23**

**Department: History**

**Program: BA**

**Program Code: BA21 BA22 & B24**

**Course Title: HISTORY OF MODERN ASIA (1900 – 1995)**

Course Code	COs	Attainment
ELF242CO1	Analyze the progress of Asian countries like China and Japan from insular nations to their present Dynamic position	100
ELF242CO2	Understand to trace their role in world affairs in the last 3 decades of the 20 <sup>th</sup> Century	100
ELF242CO3	Develop the knowledge about diverse countries of the region and provide an insight into the historical background	100
ELF242CO4	Evaluate the basics of colonization and decolonization and analyse the areas of conflict in this vital region. Historical background of	100

	Iran, Arabs and Jews. Rise and growth of Arab nationalism, Zionist movement	
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**JSS COLLEGE OF ARTS, COMMERCE & SCIENCE, OOTY ROAD, MYSORE-25  
(AUTONOMOUS)**

**UG DEPARTMENT OF ECONOMICS  
OUTCOME ATTAINMENT 2022-23**

**Name of the Department: ECONOMICS**

**Programme offered: BA**

**Programme code : EG-31**

**I Semester Course code: FHA410**

Course title	CO ID	CO	% Attainment
<b>BASIC ECONOMICS-I</b>	<b>CO1</b>	Identify the facets of an economic problem.	<b>100</b>
	<b>CO2</b>	Learn basic economic concepts and terms.	<b>100</b>
	<b>CO3</b>	Explain the operation of a market system;	<b>100</b>
	<b>CO4</b>	Analyse the production and cost relationships of a business firm;	<b>100</b>
	<b>CO5</b>	Evaluate the pricing decisions under different market structures; and	<b>100</b>
	<b>CO6</b>	Use basic cost-benefit calculations as a means of decision making (i.e., thinking like an economist)	<b>100</b>

PO-ID	PO After completion of your study in the college:	Attainment
<b>PO1</b>	Students will be able to understand economic vocabulary, methodologies, tools and analysis procedures.	<b>75</b>
<b>PO2</b>	Students will be familiar with the knowledge and application of micro economics for the formulation of policies and planning.	<b>66.66667</b>
<b>PO3</b>	Students will learn to apply economic theories and concepts to contemporary social issues, as well as analysis of policies.	<b>66.66667</b>
<b>PO4</b>	Students will be able to understand the impact of government policies and will be able to assess the consequences of the policies on the parties involved.	<b>77.77778</b>
<b>PO5</b>	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 of savings and investments and social security measures adopted in the country.	<b>100</b>
<b>PO6</b>	Understand the basics of Quantitative techniques their applications	<b>66.66667</b>
<b>PO7</b>	Critically evaluate the ongoing economic developments in India and abroad	<b>83.33333</b>
<b>PO8</b>	Understand research methods in economics	<b>66.66667</b>

<b>PO9</b>	Student develops an awareness of career choices and the option for higher studies.	<b>66.66667</b>
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**I Semester Course code: FHA420**

<b>Course title</b>	<b>CO ID</b>	<b>CO</b>	<b>% Attainment</b>
<b>CONTEMPORARY INDIAN ECONOMY</b>	<b>CO1</b>	Understand the current problems of Indian Economy	<b>100</b>
	<b>CO2</b>	Identify the factors contributing to the recent growth of the Indian Economy	<b>100</b>
	<b>CO3</b>	Evaluate impact of LPG policies on economic growth in India	<b>100</b>
	<b>CO4</b>	Analyze the sector specific policies adopted for achieving the as rational goals	<b>100</b>
	<b>CO5</b>	Review various economic policies adopted	<b>100</b>
<b>PO-ID</b>	<b>PO</b> <b>After completion of your study in the college:</b>		<b>Attainment</b>
<b>PO1</b>	Students will be able to understand economic vocabulary, methodologies, tools and analysis procedures.		<b>88.88889</b>
<b>PO2</b>	Students will be familiar with the knowledge and application of micro economics for the formulation of policies and planning.		<b>66.66667</b>
<b>PO3</b>	Students will learn to apply economic theories and concepts to contemporary social issues, as well as analysis of policies.		<b>66.66667</b>
<b>PO4</b>	Students will be able to understand the impact of government policies and will be able to assess the consequences of the policies on the parties involved.		<b>80</b>
<b>PO5</b>	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 of savings and investments and social security measures adopted in the country.		<b>100</b>
<b>PO6</b>	Understand the basics of Quantitative techniques their applications		<b>66.66667</b>
<b>PO7</b>	Critically evaluate the ongoing economic developments in India and abroad		<b>83.33333</b>
<b>PO8</b>	Understand research methods in economics		<b>66.66667</b>
<b>PO9</b>	Student develops an awareness of career choices and the option for higher studies.		<b>66.66667</b>

**II Semester Course code: FHB410**

<b>Course title</b>	<b>CO ID</b>	<b>CO</b>	<b>% Attainment</b>
<b>BASIC ECONOMICS-II</b>	<b>CO1</b>	Understand the operation of the overall economic system;	<b>100</b>
	<b>CO2</b>	Calculate national income and related aggregates	<b>100</b>
	<b>CO3</b>	Explain the relationship between macroeconomic aggregates;	<b>100</b>

	<b>CO4</b>	Analyse the nature of business cycles and policies towards controlling them;	<b>100</b>
	<b>CO5</b>	Evaluate the macroeconomic policies for solving major problems like poverty and unemployment	<b>100</b>

<b>PO-ID</b>	<b>PO</b> <b>After completion of your study in the college:</b>	<b>Attainment</b>
<b>PO1</b>	Students will be able to understand economic vocabulary, methodologies, tools and analysis procedures.	<b>88.88889</b>
<b>PO2</b>	Students will be familiar with the knowledge and application of micro economics for the formulation of policies and planning.	<b>66.66667</b>
<b>PO3</b>	Students will learn to apply economic theories and concepts to contemporary social issues, as well as analysis of policies.	<b>66.66667</b>
<b>PO4</b>	Students will be able to understand the impact of government policies and will be able to assess the consequences of the policies on the parties involved.	<b>80</b>
<b>PO5</b>	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 of savings and investments and social security measures adopted in the country.	<b>100</b>
<b>PO6</b>	Understand the basics of Quantitative techniques their applications	<b>66.66667</b>
<b>PO7</b>	Critically evaluate the ongoing economic developments in India and abroad	<b>83.33333</b>
<b>PO8</b>	Understand research methods in economics	<b>66.66667</b>
<b>PO9</b>	Student develops an awareness of career choices and the option for higher studies.	<b>66.66667</b>

## II Semester Course code: FHB420

<b>Course title</b>	<b>CO ID</b>	<b>CO</b>	<b>% Attainment</b>
<b>KARNATAKA ECONOMY</b>	<b>CO1</b>	Understand the nature of economic growth and problems of Karnataka state.	<b>100</b>
	<b>CO2</b>	Explain the process of structural growth in Karnataka Economy;	<b>100</b>
	<b>CO3</b>	Evaluate the policies and programmes undertaken by the Govt. of Karnataka for bringing about socio-economic development	<b>100</b>

<b>PO-ID</b>	<b>PO</b> <b>After completion of your study in the college:</b>	<b>Attainment</b>
<b>PO1</b>	Students will be able to understand economic vocabulary, methodologies, tools and analysis procedures.	<b>77.77778</b>
<b>PO2</b>	Students will be familiar with the knowledge and application of micro economics for the formulation of policies and planning.	<b>66.66667</b>

<b>PO3</b>	Students will learn to apply economic theories and concepts to contemporary social issues, as well as analysis of policies.	<b>77.77778</b>
<b>PO4</b>	Students will be able to understand the impact of government policies and will be able to assess the consequences of the policies on the parties involved.	<b>77.77778</b>
<b>PO5</b>	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 of savings and investments and social security measures adopted in the country.	<b>100</b>
<b>PO6</b>	Understand the basics of Quantitative techniques their applications	<b>66.66667</b>
<b>PO7</b>	Critically evaluate the ongoing economic developments in India and abroad	<b>100</b>
<b>PO8</b>	Understand research methods in economics	<b>66.66667</b>
<b>PO9</b>	Student develops an awareness of career choices and the option for higher studies.	<b>66.66667</b>

### III Semester Course code: FHC410

Course title	CO ID	CO	% Attainment
<b>MICRO ECONOMICS</b>	<b>CO1</b>	Understand introductory economic concepts.	<b>100</b>
	<b>CO2</b>	Recognize basic supply and demand analysis.	<b>100</b>
	<b>CO3</b>	Recognize the structure and the role of costs in the economy.	<b>100</b>
	<b>CO4</b>	Describe, using graphs, the various market models: perfect competition, monopoly, monopolistic competition, and oligopoly.	<b>100</b>
	<b>CO5</b>	Explain how equilibrium is achieved in the various market models.	<b>100</b>
	<b>CO6</b>	Identify problem areas in the economy, and possible solutions, using the analytical tools developed in the course.	<b>100</b>

PO-ID	PO After completion of your study in the college:	Attainment
<b>PO1</b>	Students will be able to understand economic vocabulary, methodologies, tools and analysis procedures.	<b>66.66667</b>
<b>PO2</b>	Students will be familiar with the knowledge and application of micro economics for the formulation of policies and planning.	<b>80</b>
<b>PO3</b>	Students will learn to apply economic theories and concepts to contemporary social issues, as well as analysis of policies.	<b>73.33333</b>
<b>PO4</b>	Students will be able to understand the impact of government policies and will be able to assess the consequences of the policies on the parties involved.	<b>66.66667</b>
<b>PO5</b>	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	<b>83.33333</b>

	pattern, and rate of development with pattern of savings and investments and social security measures adopted in the country.	
<b>PO6</b>	Understand the basics of Quantitative techniques their applications	<b>66.66667</b>
<b>PO7</b>	Critically evaluate the ongoing economic developments in India and abroad	<b>66.66667</b>
<b>PO8</b>	Understand research methods in economics	<b>66.66667</b>
<b>PO9</b>	Student develops an awareness of career choices and the option for higher studies.	<b>66.66667</b>

### III Semester Course code: FHC420

Course title	CO ID	CO	% Attainment
<b>MATHEMATICS FOR ECONOMICS</b>	<b>CO1</b>	Perform basic operations in Sets and functions and Matrix algebra.	<b>100</b>
	<b>CO2</b>	Calculate limits, derivatives of Economic functions and identify the nature of relationship	<b>100</b>
	<b>CO3</b>	Calculate maxima and minima of function	<b>100</b>

PO-ID	PO After completion of your study in the college:	Attainment
<b>PO1</b>	Students will be able to understand economic vocabulary, methodologies, tools and analysis procedures.	<b>77.77778</b>
<b>PO2</b>	Students will be familiar with the knowledge and application of micro economics for the formulation of policies and planning.	<b>0</b>
<b>PO3</b>	Students will learn to apply economic theories and concepts to contemporary social issues, as well as analysis of policies.	<b>0</b>
<b>PO4</b>	Students will be able to understand the impact of government policies and will be able to assess the consequences of the policies on the parties involved.	<b>0</b>
<b>PO5</b>	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 of savings and investments and social security measures adopted in the country.	<b>88.88889</b>
<b>PO6</b>	Understand the basics of Quantitative techniques their applications	<b>88.88889</b>
<b>PO7</b>	Critically evaluate the ongoing economic developments in India and abroad	<b>0</b>
<b>PO8</b>	Understand research methods in economics	<b>88.88889</b>
<b>PO9</b>	Student develops an awareness of career choices and the option for higher studies.	<b>66.66667</b>

### IV Semester Course code: FHD410

Course title	CO ID	CO	% Attainment
<b>MACRO ECONOMICS</b>	<b>CO1</b>	Understand the Theories of National Income Accounting	<b>100</b>



	<b>CO2</b>	Explain the process of Consumption and Investment Functions	<b>100</b>
	<b>CO3</b>	Evaluate the Concept of Multiplier and Inflation, Understand the Theories of National Income Accounting	<b>100</b>

<b>PO-ID</b>	<b>PO</b> <b>After completion of your study in the college:</b>	<b>Attainment</b>
<b>PO1</b>	Students will be able to understand economic vocabulary, methodologies, tools and analysis procedures.	<b>66.66667</b>
<b>PO2</b>	Students will be familiar with the knowledge and application of micro economics for the formulation of policies and planning.	<b>0</b>
<b>PO3</b>	Students will learn to apply economic theories and concepts to contemporary social issues, as well as analysis of policies.	<b>66.66667</b>
<b>PO4</b>	Students will be able to understand the impact of government policies and will be able to assess the consequences of the policies on the parties involved.	<b>77.77778</b>
<b>PO5</b>	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 of savings and investments and social security measures adopted in the country.	<b>83.33333</b>
<b>PO6</b>	Understand the basics of Quantitative techniques their applications	<b>66.66667</b>
<b>PO7</b>	Critically evaluate the ongoing economic developments in India and abroad	<b>77.77778</b>
<b>PO8</b>	Understand research methods in economics	<b>66.66667</b>
<b>PO9</b>	Student develops an awareness of career choices and the option for higher studies.	<b>66.66667</b>

#### **IV Semester Course code: FHD420**

<b>Course title</b>	<b>CO ID</b>	<b>CO</b>	<b>% Attainment</b>
<b>STATISTICS FOR ECONOMICS</b>	<b>CO1</b>	Understand the nature of Data and their presentation	<b>100</b>
	<b>CO2</b>	Calculate Descriptive statistics like measures of central tendency and dispersion	<b>100</b>
	<b>CO3</b>	Apply statistical techniques like correlation and regression in Economic analysis	<b>100</b>

<b>PO-ID</b>	<b>PO</b> <b>After completion of your study in the college:</b>	<b>Attainment</b>
<b>PO1</b>	Students will be able to understand economic vocabulary, methodologies, tools and analysis procedures.	<b>77.77778</b>
<b>PO2</b>	Students will be familiar with the knowledge and application of micro economics for the formulation of policies and planning.	<b>66.66667</b>
<b>PO3</b>	Students will learn to apply economic theories and concepts to contemporary social issues, as well as analysis of policies.	<b>66.66667</b>

<b>PO4</b>	Students will be able to understand the impact of government policies and will be able to assess the consequences of the policies on the parties involved.	<b>0</b>
<b>PO5</b>	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 of savings and investments and social security measures adopted in the country.	<b>77.77778</b>
<b>PO6</b>	Understand the basics of Quantitative techniques their applications	<b>66.66667</b>
<b>PO7</b>	Critically evaluate the ongoing economic developments in India and abroad	<b>0</b>
<b>PO8</b>	Understand research methods in economics	<b>77.77778</b>
<b>PO9</b>	Student develops an awareness of career choices and the option for higher studies.	<b>66.66667</b>

**V Semester Course code: ELE210**

<b>Course title</b>	<b>CO ID</b>	<b>CO</b>	<b>% Attainment</b>
<b>ECONOMICS OF DEVELOPMENT</b>	<b>CO1</b>	Understand the Concept of Economic development and factors affect Development.	<b>100</b>
	<b>CO2</b>	Awareness about Indicators of Economic Development-PQLI, HDI, MDPI etc	<b>100</b>
	<b>CO3</b>	Clarify the Factors in Economic Development such as Capital, Technology & Institutional Factors.	<b>100</b>
	<b>CO4</b>	Practically evaluated General Theories & Partial theory of Economic Growth & Development	<b>100</b>
	<b>CO5</b>	Evaluate Poverty Eradication Measures and Measures to reduce Unemployment.	<b>100</b>
	<b>CO6</b>	Differentiate structure of organized and unorganized sector.	<b>100</b>

<b>PO-ID</b>	<b>PO</b>	<b>Attainment</b>
	<b>After completion of your study in the college:</b>	
<b>PO1</b>	Students will be able to understand economic vocabulary, methodologies, tools and analysis procedures.	<b>75</b>
<b>PO2</b>	Students will be familiar with the knowledge and application of micro economics for the formulation of policies and planning.	<b>66.66667</b>
<b>PO3</b>	Students will learn to apply economic theories and concepts to contemporary social issues, as well as analysis of policies.	<b>66.66667</b>
<b>PO4</b>	Students will be able to understand the impact of government policies and will be able to assess the consequences of the policies on the parties involved.	<b>77.77778</b>
<b>PO5</b>	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 of savings and investments and social security measures adopted in the country.	<b>100</b>

<b>PO6</b>	Understand the basics of Quantitative techniques their applications	<b>66.66667</b>
<b>PO7</b>	Critically evaluate the ongoing economic developments in India and abroad	<b>77.77778</b>
<b>PO8</b>	Understand research methods in economics	<b>77.77778</b>
<b>PO9</b>	Student develops an awareness of career choices and the option for higher studies.	<b>66.66667</b>

**VI Semester Course code: ELF210**

<b>Course title</b>	<b>CO ID</b>	<b>CO</b>	<b>% Attainment</b>
<b>INDIAN ECONOMY</b>	<b>CO1</b>	Understand the characteristics of Indian Agricultural policies.	<b>100</b>
	<b>CO2</b>	Identify the classification and characteristics of Regional variation.	<b>100</b>
	<b>CO3</b>	Write down the classification and characteristics of New Industrial Policy.	<b>100</b>
	<b>CO4</b>	Specify in depth Public and Private Sector.	<b>100</b>
	<b>CO5</b>	Identify in depth Monetary Policy. FDI and WTO	<b>100</b>
	<b>CO6</b>	Identify the details of Effects of Parallel Economy	<b>100</b>

<b>PO-ID</b>	<b>PO</b> <b>After completion of your study in the college:</b>	<b>Attainment</b>
<b>PO1</b>	Students will be able to understand economic vocabulary, methodologies, tools and analysis procedures.	<b>75</b>
<b>PO2</b>	Students will be familiar with the knowledge and application of micro economics for the formulation of policies and planning.	<b>66.66667</b>
<b>PO3</b>	Students will learn to apply economic theories and concepts to contemporary social issues, as well as analysis of policies.	<b>66.66667</b>
<b>PO4</b>	Students will be able to understand the impact of government policies and will be able to assess the consequences of the policies on the parties involved.	<b>77.77778</b>
<b>PO5</b>	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 of savings and investments and social security measures adopted in the country.	<b>77.77778</b>
<b>PO6</b>	Understand the basics of Quantitative techniques their applications	<b>77.77778</b>
<b>PO7</b>	Critically evaluate the ongoing economic developments in India and abroad	<b>77.77778</b>
<b>PO8</b>	Understand research methods in economics	<b>66.66667</b>
<b>PO9</b>	Student develops an awareness of career choices and the option for higher studies.	<b>66.66667</b>

**Overall PO & CO Attainment**

<b>PO-ID</b>	<b>PO</b> <b>After completion of your study in the college:</b>	<b>Attainment</b>
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<b>PO1</b>	Students will be able to understand economic vocabulary, methodologies, tools and analysis procedures.	<b>81.55556</b>
<b>PO2</b>	Students will be familiar with the knowledge and application of micro economics for the formulation of policies and planning.	<b>63.73334</b>
<b>PO3</b>	Students will learn to apply economic theories and concepts to contemporary social issues, as well as analysis of policies.	<b>69.42222</b>
<b>PO4</b>	Students will be able to understand the impact of government policies and will be able to assess the consequences of the policies on the parties involved.	<b>65.91112</b>
<b>PO5</b>	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 of savings and investments and social security measures adopted in the country.	<b>92.88889</b>
<b>PO6</b>	Understand the basics of Quantitative techniques their applications	<b>72.66667</b>
<b>PO7</b>	Critically evaluate the ongoing economic developments in India and abroad	<b>77.77778</b>
<b>PO8</b>	Understand research methods in economics	<b>76.88889</b>
<b>PO9</b>	Student develops an awareness of career choices and the option for higher studies.	<b>70.00001</b>

**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2018-19**

**Department: GEOGRAPHY**

**Programme: B.A.**

**Faculty Name: SATHEESHA K R**

Course Code: DLA23011

Course title	CO ID	CO	% Attainment
Physical Geography	DLA23011	• Understand the classification and characteristics of Components of the Earth system	63.77 %
		• Learn the details of theories regarding origin of the earth system	74 %
		• Learn in details with examples geomorphic agents	65 %
		• Understand in details with application if applicable, atmospheric structure and composition	79.5 %
		• Understand in details with application, if applicable, relief of the ocean floor	65 %
Human Geography	DLB23011	• Write down the details of human geography importance	82.04 %
		• Deliberate in details with examples race, religion and language study	83.17 %
		• Specify the details of demographic age transition	87 %
		• Understand in details with application, if applicable, population composition	80.67%
		• Learn in details with application, if applicable human settlement study	86%

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**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2019-20**

**Department: GEOGRAPHY**

**Programme: B.A.**

**Faculty Name: SATHEESHA K R**

Course Code: DLB23011

Course title	CO ID	CO	% Attainment
General Cartography	DLC23011	• Understand in details with application, if applicable, evolution of cartography	72%
		• Identify in details with examples maps study Specify the classification and characteristics of map projection	88.4 %
		• Understand the details of representation of date	89.57 %
		• Write down in details with example map scale	85%
ENVIRONMENTAL GEOGRAPHY	DLD23011	• Deliberate the characteristics of interdisciplinary nature of Environmental geography	79%
		• Learn in depth ecosystem study	82%
		• Understand in depth conservation and management of environment	86%
		• Learn in depth Biodiversity study	87%

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**Outcome Attainments 2020-21**

**Department: GEOGRAPHY**

**Programme: B.A**

**Faculty Name: SATHEESHA K R**

Course Code: FHA430

Course title	CO ID	CO	% Attainment
Principles of Geomorphology	FHA430	• Improve communication skills and prepare personal profile	56.88 %
		• Understand physical- geographic processes, the global distribution of landforms and ecosystems, and the role of the physical environment on human populations	66.96%
		• To under stand the conceptual and dynamic aspect of landform development	87%
		• To study the impact human on geomorphic system	82%
		• Understand physical- geographic processes, the global distribution of landforms and ecosystems, and the role of the physical environment on • human populations	84.74 %
INTRODUCTION TO CLIMATOLOGY	FHB430	• Understand and appreciate relationship between man and Environment	70.87 %
		• define the field of climatology and to understand the atmospheric composition and structure	83%
		• To outline the mechanism and process of solar radiation transfer to earth surface and to explain the temperature distribution and variation according to time and space	78%
		• To understand and compute the air humidity as well as to explain the process of Condensation and formation of precipitation and its types	86%

**JSS Mahavidyapeetha**  
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**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2021-22**

**Department: GEOGRAPHY**

**Programme: B.A**

**Faculty Name: SATHEESHA K R**

Course Code: FHC430

Course title	CO ID	CO	% Attainment
HUMAN GEOGRAPHY	FHC430	• Students will learn how human, physical, and environmental components of the world interact	80%
		• Students will be familiarized with economic processes such as globalization, trade and their impacts on economic, cultural and social activities	82%
		• The student will describe what geography and human geography are	81%
		• Understand population dynamics and migration	79%
India-Resources and Sustainability	FHD430	• Students will learn about the physical setting of India	87%
		• Students will be familiarized with the water and Agricultural Resources of India and they will understand the importance of these resources in the national development and prosperity	84%
		• The student will be able understand the factors affecting, location and distribution of Industries and different modes of Transport	83%

**JSS Mahavidyapeetha**  
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**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

**Department: GEOGRAPHY**

**Programme: B.A**

**Faculty Name: SATHEESHA K R**

Course Code: FHE430

Course title	CO ID	CO	% Attainment
Fundamentals of Remote Sensing	FAE430	• Define and describe the components of remote sensing and explain the history of remote sensing	85%
		• Differentiate between the types of remote sensors and platforms and analyze	78%



		<ul style="list-style-type: none"> <li>• Interpret aerial photographs and identify and compare digital and analog data</li> </ul>	90%
		<ul style="list-style-type: none"> <li>• Evaluate the applications of remote sensing, including the new satellite programs of India</li> </ul>	95%
		<ul style="list-style-type: none"> <li>• Analyze ground truth verification using Google Earth and evaluate its usefulness</li> </ul>	80%
Fundamentals of Geographical Information Systems	FHF430	<ul style="list-style-type: none"> <li>• Understand the definition, components, and interdisciplinary domains of GIS</li> </ul>	82%
		<ul style="list-style-type: none"> <li>• Apply geodesy and spatial mathematics for measuring distances and coordinates</li> </ul>	84%
		<ul style="list-style-type: none"> <li>• Analyze and evaluate spatial data structures, sources, errors, and scales for precision and accuracy</li> </ul>	82%
		<ul style="list-style-type: none"> <li>• Perform geo-processing and visualization techniques including spatial and non-spatial queries</li> </ul>	80%
		<ul style="list-style-type: none"> <li>• Collect and integrate spatial and non-spatial data for a case study using online resources</li> </ul>	83%

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

**OUTCOME ATTAINMENT 2022-23**

Name of the Department: POLITICAL SCIENCE

Programme offered: B A

Programme code:HP/JP 32/35

**I SEMESTER**

**Course code: FHA47032 /FHA47035**

Course title	CO Id	CO	%Attainment
<b>BASICCONCEPTS OF POLITICAL SCIENCE</b>	CO1	Political Science, theoretically and will gain knowledge to explain and analyse politics at large	100
	CO2	The dynamics of politics.	100
	CO3	To inculcate the democratic spirit	100

PO/Id	PO	%Attainment
PO1	Spread the messages of equality, nationality, social harmony and other human values.	100
PO2	Understand the papers such as Ancient Indian Political Ideas and Institutions throws light on the wisdom of Indian Political Thought bringing along its side the Modern Political Analysis which is skill based paper.	100
PO3	Understand voluminously about the dimensions of Indian Government, its Parliamentary Procedures, the concerns of Gender in Politics, Gandhian Philosophy and an understanding of the citizens duties and responsibilities	83.33

**I SEMESTER Course code:FHA48032/FHA48035**

Course title	CO ID	CO	%Attainment
<b>POLITICAL THEORY</b>	CO1	The nature and relevance of Political Theory.	100
	CO2	The different concepts like Liberty, Equality, Justice and Rights.	100
	CO3	To reflect upon some of the important debates in Political Theory.	100

PO/Id	PO	%Attainment
PO1	Spread the messages of equality, nationality, social harmony and other human values.	66.66
PO2	Understand the papers such as Ancient Indian Political Ideas and Institutions throws light on the wisdom of Indian Political Thought bringing along its side the Modern Political Analysis which is skill based paper.	100
PO3	Understand voluminously about the dimensions of Indian Government, its Parliamentary Procedures, the concerns of Gender in Politics,	83.33

	Gandhian Philosophy and an understanding of the citizens duties and responsibilities	
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**II SEMESTER Course code:FHB47032/FHB47035**

Course title	CO Id	Cos	%Attainment
<b>WESTERN POLITICAL THOUGHT</b>	CO1	And get an introduction to the Schools of Political Thought and Theory making in the West.	100
	CO2	And get an introduction to the Schools of Political Thought and Theory making in the West.	100
	CO3	And familiarize themselves to the Thought and Theory of Western Philosophy.	100

PO/Id/No.	PO	%Attainment
PO1	Spread the messages of equality, nationality, social harmony and other human values.	100
PO2	Understand the papers such as Ancient Indian Political Ideas and Institutions throws light on the wisdom of Indian Political Thought bringing along its side the Modern Political Analysis which is skill based paper.	100
PO3	Understand voluminous about the dimensions of Indian Government, its Parliamentary Procedures, the concerns of Gender in Politics, Gandhian Philosophy and an understanding of the citizens duties and responsibilities	100

**II SEMESTER Course Code:FHB48032/FHB48035**

Course title	COI D	CO	%Attainment
<b>INDIAN NATIONAL MOVEMENT AND CONSTITUTIONAL DEVELOPMENT</b>	CO1	Understand how the colonial rule was overthrown by the Indian nationalists.	100
	CO2	Appreciate the ideals and values of Gandhi that resulted in freedom.	100
	CO3	Examine the problem of Independent India and the role played by great leaders in solving them.	100

PO/Id/No.	PO	%Attainment
PO1	Spread the messages of equality, nationality, social harmony and other human values.	100
PO2	Understand the papers such as Ancient Indian Political Ideas and Institutions throws light on the wisdom of Indian Political Thought bringing along its side the Modern Political Analysis which is skill based paper.	83.33

PO3	Understand voluminously about the dimensions of Indian Government, its Parliamentary Procedures, the concerns of Gender in Politics, Gandhian Philosophy and an understanding of the citizens duties and responsibilities	100
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III SEMESTER

COURSE CODE:FHC47032/FHC47035

Course title	CO /Id	CO Statement	%Attainment
INDIAN GOVERNMENT AND POLITICS	CO1	Learn how the governments both at the union as well state level operates and what are its challenges.	100
	CO2	Understand the characteristics of power structures in India and the response of the political parties to the socio-political dynamics.	100
	CO3	Measure and understand the effects of judicial decisions on policy making and social development in India.	100

PO/Id/No.	PO	%Attainment
PO1	Spread the messages of equality, nationality, social harmony and other human values.	66.66
PO2	Understand the papers such as Ancient Indian Political Ideas and Institutions throws light on the wisdom of Indian Political Thought bringing along its side the Modern Political Analysis which is skill based paper.	100
PO3	Understand voluminously about the dimensions of Indian Government, its Parliamentary Procedures, the concerns of Gender in Politics, Gandhian Philosophy and an understanding of the citizens duties and responsibilities	100

III SEMESTER COURSE CODE :FHD4803/FHD48035

Course title	CO Id	CO Statement	%Attainment
PARLIAMENTARY PROCEDURES IN INDIA	C01	Aim at understanding the procedural aspects of Parliamentary system of governments.	100
	CO2	Learn about the privileges of people's representatives and match it with their performance.	100
	CO3	Understand the working of committees, budgetary aspects and deliberative mechanism within the parliament	100

PO/Id/No.	PO	%Attainment
PO1	Spread the messages of equality, nationality, social harmony and other human values.	100

PO2	Understand the papers such as Ancient Indian Political Ideas and Institutions throws light on the wisdom of Indian Political Thought bringing along its side the Modern Political Analysis which is skill based paper.	100
PO3	Understand voluminously about the dimensions of Indian Government, its Parliamentary Procedures, the concerns of Gender in Politics, Gandhian Philosophy and an understanding of the citizens duties and responsibilities	100

IV SEMESTER

COURSE CODE:FHD47032FHD47035

Course title	CO Id	CO Statement	%Attainment
ANCIENT INDIAN POLITICAL IDEAS AND INSTITUTIONS	CO1	Aim at understanding the procedural aspects of parliamentary system of governments.	100
	CO2	Learn about the privileges of people's representatives and match it with their performance.	100
	CO3	Understand the working of committees, budgetary aspects and deliberative mechanism within the parliament	100

PO/Id/No.	PO	%Attainment
PO1	Spread the messages of equality, nationality, social harmony and other human values.	100
PO2	Understand the papers such as Ancient Indian Political Ideas and Institutions throws light on the wisdom of Indian Political Thought bringing along its side the Modern Political Analysis which is skill based paper.	100
PO3	Understand voluminously about the dimensions of Indian Government, its Parliamentary Procedures, the concerns of Gender in Politics, Gandhian Philosophy and an understanding of the citizens duties and responsibilities	100

IV SEMESTER

COURSE CODE:FHD47032/47035

Course title	CO Id	CO Statement	%Attainment
MODERN POLITICAL ANALYSIS	CO1	Understand the key concepts of Political Institutional working and science within them.	100
	CO2	Be familiar with the Phenomenon of politics and various explanations relating to the influences that mould the decision making process.	100
	CO3	Help the students to visualize the working of political institutions and the process of decision making through diagrammatic presentations.	100

PO/Id/No.	PO	%Attainment
PO1	Spread the messages of equality, nationality, social harmony and other human values.	100
PO2	Understand the papers such as Ancient Indian Political Ideas and Institutions throws light on the wisdom of Indian Political Thought bringing along its side the Modern Political Analysis which is skill based paper.	100
PO3	Understand voluminously about the dimensions of Indian Government, its Parliamentary Procedures, the concerns of Gender in Politics, Gandhian Philosophy and an understanding of the citizens duties and responsibilities	100

V SEMESTER COURSE CODE :ELE260

Course title	CO Id	CO Statement	%Attainment
Themes on Comparative Political Theory	CO1	Understand in details with application, if applicable, Indian political thought	100
	CO2	Specify in depth Indian political thought	100
	CO3	Identify the classification and characteristics of western political thought	100
	CO4	Understand in details with examples western political thought	100
	CO5	Understand in depth local government Learn the details of regulatory institutions	100

PO/Id	PO	%Attainment
PO1	Spread the messages of equality, nationality, social harmony and other human values.	100
PO2	Comprehend the basic structures and processes of government systems and/or theoretical underpinnings.	33.3
PO3	Analyse political problems, arguments, information, and/or theories	33.3
PO4	Apply methods appropriate for accumulating and interpreting data applicable to the discipline of political science.	66.6667
PO5	Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes	33.33

VI SEMESTER COURSE CODE ELF260

Course title	CO Id	CO Statement	%Attainment
Modern Governments(U K,USA,SWISS)	CO1	Understanding the world politics	100
	CO2	Enlighting the world governmental system	100

	CO3	Develop comparative study on governmental systems	100
	CO4	Deliberate the details with examples fundamental rights	100
	CO5	Understand the details of comparative study on judiciary system	100
<b>PO/Id</b>	<b>PO</b>		<b>%Attainment</b>
PO1	Spread the messages of equality, nationality, social harmony and other human values.		55.55
PO2	Comprehend the basic structures and processes of government systems and/or theoretical underpinnings.		50
PO3	Apply methods appropriate for accumulating and interpreting data applicable to the discipline of political science.		77.77
PO4	Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes		100

V SEMESTER

COURSE CODE :ELE262

Course title	CO No./ Id	CO Statement	%Attainment
GE:Reading Gandhi	CO1	Specify the details of reading Gandhi	100
	CO2	Deliberate in depth Gandhi and hind swaraj	100
	CO3	Learn the details of Gandhi's views on nationalism	100

PO/Id	PO	%Attainment
PO1	Analyse political problems, arguments, information, and/or theories	66.6666667
PO2	Apply methods appropriate for accumulating and interpreting data applicable to the discipline of political science.	100
PO3	Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes	100

### 1. Direct Assessment:

	PO1	PO2	PO3	PO4	PO5
BASICCONCEPTSOF POLITICAL SCIENCE	100	100	83.33		
POLITICAL THEORY	66.66	100	83.33		
WESTERN POLITICAL THOUGHT	100	100	100		

INDIAN NATIONAL MOVMENT AND CONSTITUTIONAL DEVELOPMENT	100	83.33	100		
INDIAN GOVERNMENT AND POLITICS	100	100	100		
PARLIAMENTARY PROCEDURES IN INDIA	100	100	100		
ANCIENT INDIAN POLITICAL IDEAS AND INSTITUTIONS	100	100	100		
MODERN POLITICAL ANALYSIS	100	100	100		
THEMES ON COMPARATIVE POLITICAL THEORY	100	100	100	100	100
MODERN GOVERNMENTS	55.5	50	77.77	100	
READING GANDHI	66.66	100	100		
<b>Average</b>	89.89	93.93	94.94	100	100
<b>Av*0.8</b>	71.91	75.15	75.95	80	80

## 2. Indirect Assessment

Response by	PO1	PO2	PO3	PO4	PSO1
Students	100	100	100	100	100
Teachers	100	100	100	100	100
Average	100	100	100	100	100
<b>Av*0.2</b>	20	20	20	20	20

### % Attainment

	PO1	PO2	PO3	PO4	PO5
Overall PO/PSO attainment = Attainment (Direct)+Attainment (In-direct)	91.91418	95.15127	95.95855	100	100



**JSS College of Arts, Commerce and Science**

Ooty Road, Mysuru - 570 025

**Outcome attainment reports**Department: commerce and  
Management

Programme: BBA

**Course outcomes (%Attainments)**

Semester:

Course Title	Course ID	COID	<b>On successful completion of the course, the Students will demonstrate</b>	% Attainment
Management Principles & Practice	FBA410	C01	The ability to understand concepts of business management, principles and function of management.	100
		C02	The ability to explain the process of planning and decision making.	86
		C03	The ability to create organization structures based on authority, task and responsibilities	80
		C04	The ability to explain the principles of direction, importance of communication, barrier of communication, motivation theories and leadership styles.	90
Fundamentals of Business Accounting	FBA420	CO1	The ability to understand the requirement of good control system and control techniques	100
		CO2	Understand the framework of accounting as well accounting standards.	95
		CO3	The Ability to pass journal entries and prepare ledger accounts	89
		CO4	The Ability to prepare subsidiaries books	76
		CO5	The Ability to prepare trial balance and final accounts of proprietary concern.	78
Marketing Management	FBA430	CO1	Understand the concepts and functions of marketing.	92
		CO2	Analyse marketing environment impacting the business.	89
		C03	Segment the market and understand the consumer behaviour	87

		CO4	Enable students learn to media decision	69
		CO5	The ability to prepare and evaluate vertical and horizontal analysis of financial statements	100
Human Resource Management	FBB420	CO1	Ability to describe the role and responsibility of Human resources management functions on business	86
		CO2	Ability to describe HRP, Recruitment and Selection process	85
		C03	Ability to describe to induction, training, and compensation aspects.	88
		CO4	Ability to explain performance appraisal and its process.	93
		CO5	Ability to demonstrate Employee Engagement and Psychological Contract.	94
Business Environment	FBB430	CO1	An Understanding of components of business environment.	85
		CO2	Ability to analyse the environmental factors influencing business organisation.	86
		C03	Ability to demonstrate Competitive structure analysis for select industry	87
		CO4	Ability to explain the impact of fiscal policy and monetary policy on business.	88
		CO5	Ability to analyse the impact of economic environmental factors on business.	94
Financial Accounting and Reporting	FBB410	CO1	The ability to prepare final accounts of partnership firms	85
		CO2		96
		C03	The ability to understand the process of public issue of shares and accounting for the same	93
		CO4	The ability to prepare final accounts of joint stock companies.	92
		CO5	The ability to prepare and evaluate vertical and horizontal analysis of financial statements	93

Cost Accounting	FBC410	CO1	The ability to understand company's annual reports.	85
		CO2	Understand the elements of costing and preparation of cost sheet	87
		CO3	The ability to prepare material requisitions and management of store.	88
		CO4	The ability to compare and contrast labour cost techniques.	98
		CO5	Ability to differentiate kinds of overhead costing.	82
Organizational behaviour	FBC420	CO1	Ability to reconcile the cost.	78
		CO2	To recall role of OB in business organization.	94
		CO3	Able to understand group dynamics in an organization.	85
		CO4	Able to understand the change management	88
		CO5	Able to construct the process of organizational development	76
<b>Statistics for Business Decisions</b>	FBC430	CO1	Ability to understand the kinds of Interventions in OB.	77
		CO2	To understand the requirements of statistical framework	90
		CO3	To construct and visualize the data.	92
		CO4	To determine the data adequacy for analysis.	69
		CO5	To Review the data by using various tools.	82
<b>Management accounting</b>	FBD410	CO1	To understand and analyze the impact of probability	84
		CO2	Able to understand the concept of Management Accounting.	85
		CO3	To Understand and recall ratios and apply the same on given case.	92
		CO4	To construct cash flow statement	95
		CO5	Should be able to apply Marginal cost ratios to make business decisions.	85
<b>Financial Markets &amp; Services</b>	FBD420	CO1	Student should be able to analyze business problems through applicatio ns.	88

		CO2	To able to recall concepts of financial system.	78
		C03	Able to differentiate the roles of financial institutions.	87
		CO4	Able understand concept of financial services.	98
		CO5	To understand the trading process of Instruments.	76
<b>Financial management</b>	FBD430	CO1	Able to Summarize the concept of stock market	76
		CO2	To identify the goals of financial management.	100
		C03	To appraise the concepts of time value of money.	92
		CO4	To understand the different models of dividend policy.	98
		CO5	Able to analyze the business problem related to investments.	80
ENTREPRENEURSHIP DEVELOPMENT	CDF210	CO1	Able to appraise the working capital requirements in an organization.	89
		CO2	Learn in depth qualities of an entrepreneur and able to become an entrepreneur	97
		C03	Write down the details of financial schemes offered by banks and government agencies and able to access them easily	99
		CO4	Learn the details of mobilization of resources	100
		CO5	Learn in depth the characteristics of customer and able to identify the customer	87
BUSINESS STATISTICS - II	CDF22001	CO1	Understand in depth the components of time series analysis and measurement of trend	88
		CO2	Learn in detail the features of linear programming and apply to solve business problem	100
		C03	Understand the statistical decision making process under certainty and uncertainty	95
		CO4	Learn in detail the theories of probability	87
		CO5	Understand in depth the properties of theoretical	88

			distributions and their application to business problem	
TAX MANAGEMENT – II	CDF23 001	CO1	Understand the concept of Depreciation and rates of depreciation	92
		CO2	Understand and identify the types of Capital Assets	92
		CO3	Understand in detail the concept of Income from other Sources	89
		CO4	Learn in depth the computation of Total Income and Tax Liability	90
		CO5	Learn in depth the concept of Tax deducted at Source	92
HUMAN RESOURCE MANAGEMENT T-I(Elective)	CDF27 401	CO1	Understand and identify the objectives, principles, factors influencing wage and salary Administration	90
		CO2	Understand the concept of wage policy in India	100
		CO3	Learn in depth the objectives of fringe benefits.	90
		CO4	Learn in depth the Methods of performance appraisal	92
		CO5	Understand and identify the essentials of an effective appraisal system	93
FINANCIAL MANAGEMENT T-I(Elective)	CDF28 401	CO1	Understand and identify the features, importance, contribution of financial service in promoting industry and service	93
		CO2	Understand the concept of money market and capital market.	94
		CO3		100
		CO4	Learn in depth the growth of merchant banking in India	88
		CO5	Learn in depth the Scope of merchant banking services	92
HRM-II (Elective)- Employee Empowerment and Industrial Relations	CDF27 601	CO1	Understand and identify conditions necessary for employee empowerment	90
		CO2	Understand the concept of Quality circles	95
		CO3	Learn in depth the types of social Security	96
		CO4		100

		CO5	Understand the concept of trade unions and problems of Trade Union.	85
		P05	Understand and identify the measures to strengthen trade Union movement in India	89
FM-II (Elective) Investment Analysis and Portfolio Management	CDF28 601	CO1	Understand the concept of Investment	87
		CO2	Understand the concept of Portfolio Management Process- Approaches to Investment Decision making Portfolio Management Process- Approaches to Investment Decision making	90
		CO3	Understand the concept of Risk and Return	100
		CO4	Understand and identify the features, importance, contribution of financial service in promoting industry and service	100
		CO5	Understand the concept of Portfolio Return and Risk-Measurement	100

### 1. Direct Assessment

Use the PO/PSO attainment in the worksheet for calculation

	PO1	PO2	PO3	PO4	PO 2	PO 3
Course 1	70	79	78	76	79	78
Course 2	70	72	69	70	72	69
Course 3	65	70	75	78	70	75
Course 4	72	76	75	78	76	75
Course 5	70	72	78	79	72	78
Course 6	72	76	75	78	76	75
Course 7	76	74	73	76	74	73
Course 8	70	79	78	76	79	78
Course 9	70	72	69	70	72	69
Course 10	65	70	75	78	70	75
Course 11	72	76	75	78	76	75
Course 12	68	75	69	70	75	69

Course 13	70	70	75	78	70	75
Course 14	65	70	75	78	70	75
Course 15	70	72	69	70	72	69
Course 16	65	70	75	78	70	75
Course 17	70	75	69	70	75	69
Course 18	70	72	69	70	72	69
Course 19	70	70	75	78	70	75
Average	69.47	73.16	73.47	75.21	73.16	73.47
Attainment (Direct) = 0.8* Average above	55.58	58.53	58.78	60.17	58.53	58.78

				Rubric:	1	2
<b>2. Indirect Assessment</b>					>50%	>60%
Attainment as responded by students, Alumni, teachers, parents and Employer						
Response by	PO1	PO2	PO3	PO4		
Students	70	60	70	60		
Teachers	70	70	60	60		
Average	70	65	65	60		
Attainment (In-direct) = 0.2* Average above	14	13	13	12		

Convert the responses given in 1/2/3 to %attainment using the formula:

$$\% \text{Attainment} = \left\{ \frac{\text{response}}{3} * 100 \right\}$$

Overall PO/PSO attainment = Attainment (Direct)+Attainment (In-direct)	70	72	72	72
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**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

Department: **Journalism**

Programme: **BA**

**PO Attainment**

Programme Code: **BAJP45 (NEP)**

<b>POID</b>	<b>PO</b>	<b>80 % Attainment</b>	<b>20 % Attainment</b>	<b>OVERALL ATTAINMENT</b>
BAJP451	The programme aims to churn out responsible media professionals who would contribute positively to the society.	66.11	18.34	84.45
BAJP452	The programme aims to facilitate better career opportunities for all those students of this course and get them to tackle challenges in the professional setup.	57.78	16.67	74.45
BAJP453	The programme aims to strike a balance between the dynamic working environment and professional ethics in the field of journalism and mass communication.	70	17.5	87.5

Programme Code: **BA25(CBCS)**

<b>POID</b>	<b>PO</b>	<b>80 % Attainment</b>	<b>20 % Attainment</b>	<b>OVERALL ATTAINMENT</b>
BA251	Acquire a functional knowledge of the underlying principles and recent emerging trends of the media industry.	68.15	16.67	84.82
BA252	Create a design emerging audio media production.	80	13.33	93.33
BA253	Conceptualize, create, design and strategies high-quality media content for various digital platforms.	66.67	20	86.67
BA254	Appreciate and demonstrate the ability to produce reliable outcome.	80	16.67	96.67
BA255	Demonstrate critical reading, writing and thinking skills.	80	20	100
BA256	Locate, evaluate, organize and incorporate information effectively.	80	13.33	93.33



BA257	Develop and carry out research project.	80	16.67	96.67
BA258	Demonstrate competence in Standard English Language and usage in documentation.	80	16.67	96.67

### CO Attainment

Programme Code: **BAJP45 (NEP)**

**Course Title:** Introduction to Journalism

CO ID	CO	%Attainment
FHA5301	To identify the distinct nature of journalism and its professional aspects, including career opportunities.	100%
FHA5302	To familiarize and use terms specific to Media.	100%
FHA5303	To acquaint the students about the historical perspective of Indian journalism.	100%
FHA5304	To upgrade the students with the current practices.	100%

**Course Title:** Computer Application For Media

CO ID	CO	%Attainment
FHB5301	Students will be equipped with computer related media skills.	100%
FHB5302	Students will get hands on experience on various computer applications .	100%
FHB5303	Students will independently be able to create new media content.	100%

**Course Title:** News Reporting and Analysis

CO ID	CO	%Attainment
FHC5301	To identify events and issues and turn them into news.	100%
FHC5302	To make use of the skills and techniques in reporting.	100%

FHC5303	Explore career opportunities in reporting.	100%
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**Course Title:** News Processing and Editing

CO ID	CO	%Attainment
FHD5301	To understand editing and publication process.	100%
FHD5302	To write and edit news stories.	100%
FHD5303	To design newspaper/ magazine pages.	100%

Programme Code: **BA25**

**Course Title:** Media Gender and Human Rights (GE)

CO ID	CO	%Attainment
<b>DLE276151</b>	Become as Social Activist	100%
<b>DLE276152</b>	Appear for Competitive Examination	100%
<b>DLE276153</b>	Know the Media Impact on the communities	100%
<b>DLE276154</b>	Gain Knowledge on Media Culture.	100%

**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2023-24**

**Department:** Physics

**Programme:**

**BSc**

**I SEM**

Course title	CO ID	CO	%Attainment
Mechanics and Properties of matter	FSA41031	Will learn fixing units, tabulation of observations, analysis of data (graphical/analytical)	97.5
	FSA41032	Will learn about accuracy of measurement and sources of errors, importance of significant figures.	97.5
	FSA41033	Will know how g can be determined experimentally and derive satisfaction.	51.21

	FSA41034	Will see the difference between simple and torsional pendulum and their use in the determination of various physical parameters.	51.21
	FSA41035	Will come to know how various elastic moduli can be determined.	97.56

<b>PO ID</b>	<b>PO</b>	<b>%Attainment</b>
PO1	Discipline Knowledge: Knowledge of science and ability to apply to relevant areas.	33.3
PO2	Problem solving: Execute a solution process using first principles of science to solve problems related to respective discipline.	33.3
PO3	Modern tool usage: Use a modern scientific, engineering and IT tool or technique for solving problems in the areas of their discipline.	86.6
PO4	Ethics: Apply the professional ethics and norms in respective discipline.	28.8
PO5	Individual and teamwork: Work effectively as an individual as a team member in a multidisciplinary team.	33.3

**Overall mapping strength = 1.4**

**Overall attainment of PO = 1.293**

## **II SEM**

<b>Course title</b>	<b>CO ID</b>	<b>CO</b>	<b>%Attainment</b>
Electricity and Magnetism	FSB41031	Demonstrate Gauss law, Coulomb's law for the electric field, and apply it to systems of point charges as well as line, surface, and volume distributions of charges.	82.92
	FSB41032	Explain and differentiate the vector (electric fields, Coulomb's law) and scalar (electric potential, electric potential energy) formalisms of electrostatics.	90.24
	FSB41033	Apply Gauss's law of electrostatics to solve a variety of problems.	68.29
	FSB41034	Describe the magnetic field produced by magnetic dipoles and electric currents.	68.29
	FSB41035	Explain Faraday-Lenz and Maxwell laws to articulate the relationship between electric and magnetic fields.	90.24

PO ID	PO	%Attainment
PO1	Discipline Knowledge: Knowledge of science and ability to apply to relevant areas.	33.3
PO2	Problem solving: Execute a solution process using first principles of science to solve problems related to respective discipline.	33.3
PO3	Modern tool usage: Use a modern scientific, engineering and IT tool or technique for solving problems in the areas of their discipline.	100
PO4	Ethics: Apply the professional ethics and norms in respective discipline.	100
PO5	Individual and teamwork: Work effectively as an individual as a team member in a multidisciplinary team.	33.3

**Overall mapping strength = 2.2**

**Overall attainment of PO = 2.2**

### III SEM

Course title	CO ID	CO	%Attainment
Wave Motion and Optics	FSC41031	Identify different types of waves by looking into their characteristics.	88.73
	FSC41032	Formulate a wave equation and obtain the expression for different parameters associated with waves.	88.73
	FSC41033	Explain and give a mathematical treatment of the superposition of waves under different conditions such as when they overlap linearly and perpendicularly with equal or different frequencies and equal or different phases	95.77
	FSC41034	Describe the formation of standing waves and how the energy is transferred along the standing wave in different applications, and mathematically model in the case of stretched string and Vibration of a rod.	80.28
	FSC41035	Give an analytical treatment of resonance in the case of open and closed pipes in general and Helmholtz Resonators in particular.	97.18

PO ID	PO	%Attainment
PO1	Discipline Knowledge: Knowledge of science and ability to apply to relevant areas.	33.3
PO2	Problem solving: Execute a solution process using first principles of science to solve problems related to respective discipline.	33.3
PO3	Modern tool usage: Use a modern scientific, engineering and IT tool or technique for solving problems in the areas of their discipline.	100

PO4	Ethics: Apply the professional ethics and norms in respective discipline.	100
PO5	Individual and teamwork: Work effectively as an individual as a team member in a multidisciplinary team.	100

**Overall mapping strength = 2.2**

**Overall attainment of PO = 2.2**

IV SEM

Course title	CO ID	CO	%Attainment
Thermal Physics and Electronics	FSD41031	Apply the laws of thermodynamics and analyze the thermal system.	91.54
	FSD41032	Apply the laws of kinetic theory and radiation laws to the ideal and practical thermodynamics systems through derived thermodynamic relations.	91.54
	FSD41033	Use the concepts of semiconductors to describe different Semiconductor devices like diode transistors, BJT, FET etc and explain their functioning.	100
	FSD41034	Explain the functioning of OP-AMPS and them as the building blocks of logic gates.	81.69
	FSD41035	Give the use of logic gates using different theorems of Boolean Algebra followed by	100

PO ID	PO	%Attainment
PO1	Disciplinary Knowledge	33.3
PO2	Communication Skills	33.3
PO3	Critical thinking, Reflective thinking, Analytical reasoning, Scientific reasoning	100
PO4	Problem-solving	33.3
PO5	Research-related skills	33.3

**Overall mapping strength = 1.4**

**Overall attainment of PO = 1.4**

V SEM (DSE)

Course title	CO ID	CO	%Attainment
Solid state physics	DME29201	Write down in detail with application of crystal structure	71.42
	DME29202	Write down the details of elementary lattice dynamics	87.85
	DME29203	Deliberate in detail with examples magnetic properties of matter	78.57
	DME29204	Identify the characteristics of elementary band theory	90

PO ID	PO	% Attainment
PO1	Demonstrate proficiency in mathematics and the mathematical concepts needed for a proper understanding of physics	100
PO2	Demonstrate the ability to justify and explain their thinking and/or approach	100
PO3	Develop state of the art laboratory and professional communication skills	100
PO4	Apply the scientific method to design, execute and analyse an experiment	33.3

**Overall mapping strength = 2.5**

**Overall attainment of PO = 2.5**

### V SEM (SEC)

Course title	CO ID	CO	%Attainment
Renewable energy	DME29601	Understand the characteristics of fossil fuel	87.85
	DME29602	Learn in detail with application of wind energy	77.14
	DME29603	Specify in detail with application of ocean energy and hydro energy	84.28

PO ID	PO	% Attainment
PO1	Demonstrate proficiency in mathematics and the mathematical concepts needed for a proper understanding of physics	100
PO2	Demonstrate the ability to justify and explain their thinking and/or approach	100
PO3	Apply the scientific method to design, execute and analyse an experiment	33.3

**Overall mapping strength = 3**

**Overall attainment of PO = 3**

Course title	CO ID	CO	%Attainment
Nuclear and particle physics	DMF29201	Write down in detail with application and properties of nuclei	66.6
	DMF29202	Learn in detail with application and nuclear models	66.6
	DMF29203	Understand in detail with examples radioactivity	66.6
	DMF29204	Identify the details of particle accelerators	100

PO ID	PO	% Attainment
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PO1	Demonstrate proficiency in mathematics and the mathematical concepts needed for a proper understanding of physics	66.66
PO2	Demonstrate the ability to justify and explain their thinking and/or approach	66.66
PO3	Develop state of the art laboratory and professional communication skills	66.66
PO4	Apply the scientific method to design, execute and analyse an experiment	100

**Overall mapping strength = 2.25**

**Overall attainment of PO = 2.25**

### 1. Direct Assessment

Course	PO1	PO2	PO3	PO4	PO5	PO1	PO2	PO3	PO4	PO5	PO1	PO2	PO3	PO4
Attainment 100%	33.3	33.3	95.53	76.2	55.53	33.3	33.3	100	33.3	33.3	88.86	88.86	66.65	66.65
.8*Attainment	26.64	26.64	76.42	60.96	44.44	26.64	26.64	80	26.64	26.64	71.00	71.00	53.32	53.32

Rubric:	1	2	3
	>50%	>60%	>70%

### 2. Indirect Assessment

Attainment as responded by students, Alumni, teachers, parents and Employer

Response by	PO1	PO2	PO3	PO4	PO5	PO1	PO2	PO3	PO4	PO5	PO1	PO2	PO3	PO4
Student	3	2	2	3	3	3	2	3	2	2	3	2	2	3
Teachers	3	3	2	2	2	3	3	3	3	2	3	3	2	3
Average	3	2.5	2	2.5	2.5	3	2.5	3	2.5	2	3	2.5	2	3
Attainment 100%	100	83.3	66.6	83.3	83.3	100	83.3	100	66.6	66.6	100	83.3	66.6	100
Attainment (Indirect) = 0.2* Average above	20	16.66	13.32	16.66	16.66	20	16.66	20	13.32	13.32	20	16.66	13.32	20

Overall PO/PSO attainment = Attainment (Direct)+Atta inment (In- direct)	46.64	43.3	89.74	77.62	61.0 6	46.6 4	43.2 4	10 0	43.2 4	39.9 6	91	87.6 6	66.64	73.32
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**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

**Department: CHEMISTRY**

**Programme: BSc-PC,CBt,CZ,CB**

**Programme Code: BSc031, BSc037, BSc037, BSC043**

<b>Course title</b>	<b>CO ID</b>	<b>CO</b>	<b>%Attainment</b>
CHEMISTRY - 1	FSA420311	The concepts of chemical analysis, accuracy, precision and statistical data treatment	96.07
	FSA420312	Understand basic concept of organic reaction mechanism, types of organic reactions.	90.09
	FSA420313	Explain the existence of different states of matter in terms of balance between intermolecular forces and thermal energy of the particles. Explain the laws governing behaviour of ideal gases and real gases. Understand cooling effect of gas on adiabatic expansion	90.19
	FSA420314	To understand the concept Quantum mechanics. Derivation of Schrodinger's wave equation. Radial and angular Orbital shapes of s, p, d and f atomic orbitals, nodal planes. Electronic configurations of the atoms.	82.35
	FSA420315	Understand the properties of liquids in terms of intermolecular attractions	78.43

## PO Attainment

Course title	POID	PO	%Attainment
CHEMISTRY - 1	PO1	To create enthusiasm among students for chemistry and its application in various fields of life	33.33
	PO2	To provide students with broad and balanced knowledge and understanding of key concepts in chemistry	33.33
	PO3	To develop in students a range of practical skills so that they can understand and assess risks and work safely measures to be followed in the laboratory.	33.33
	PO4	To develop in students the ability to apply standard methodology to the solution of problems in chemistry	33.33
	PO5	To provide students with knowledge and skill towards employment or higher education in Analytical chemistry or multi-disciplinary areas involving chemistry.	33.33
	PO6	To provide students with the ability to plan and carryout experiments independently and assess the significance of outcomes and to cater to the demands of chemical Industries of well-trained graduates	33.33
	PO7	To develop in students the ability to adapt and apply methodology to the solution of unfamiliar types of problems.	33.33
	PO8	To instill critical awareness of advances at the forefront of chemical sciences, to prepare students effectively for professional employment or research degrees in chemical sciences and to develop an independent and responsible work ethics.	33.33

Course title	CO ID	CO	%Attainment
CHEMISTRY - II	FSB420311	Understand principles of titrimetric analysis	80
	FSB420312	Understand titration curves, indicators for precipitation titrations involving silver nitrate- Volhard's and Mohr's methods and their differences.	98
	FSB420313	Understand periodic table, classification and properties of s p d and f block elements  Understand periodic table, classification and properties of s p d and f block elements	74
	FSB420314	Understand nucleophilic substitution at saturated carbon, energy profile diagram stereochemistry and factors affecting SN1 and SN2 reactions .	74
	FSB420315	Understand the different forms of solids, laws of crystallography , miller indices and its calculation, X-ray diffraction studies. Brags law and its equation	98

**PO attainment :**

Course title	POID	PO	%Attainment
CHEMISTRY - II	PO1	To create enthusiasm among students for chemistry and its application in various fields of life	100
	PO2	To provide students with broad and balanced knowledge and understanding of key concepts in chemistry	0
	PO3	To develop in students a range of practical skills so that they can understand and assess risks and work safely measures to be followed in the laboratory.	50
	PO4	To develop in students the ability to apply standard methodology to the solution of problems in chemistry	67
	PO5	To provide students with knowledge and skill towards employment or higher education in Analytical chemistry or multi-disciplinary areas involving chemistry.	0
	PO6	To provide students with the ability to plan and carryout experiments independently and assess the significance of outcomes and to cater to the demands of chemical Industries of well-trained graduates	33.33

	PO7	To develop in students the ability to adapt and apply methodology to the solution of unfamiliar types of problems.	66.7
	PO8	To instill critical awareness of advances at the forefront of chemical sciences, to prepare students effectively for professional employment or research degrees in chemical sciences and to develop an independent and responsible work ethics.	0
<b>Course title</b>	<b>CO ID</b>	<b>CO</b>	<b>%Attainment</b>
Chemistry III	FSC420311	Apply solvent extraction method for quantitative determination of metal ions in different samples.	87.2
	FSC420312	Utilize the ion exchange chromatography for domestic and industrial applications.	87.2
	FSC420313	Write born-Haber cycle for different ionic compounds.	87.2
	FSC420314	Explain mechanism for a given reaction.	87.2
	FSC420315	Understand the concept of rate of a chemical reaction integrated rate equations, energy of activation and determination of order of a reaction based on experimental data.	87.2

**PO Attainment:**

Course title	POID	PO	%Attainment
Chemistry III	PO4	To provide students with knowledge and skill towards employment or higher education in analytical chemistry multi-disciplinary areas involving chemistry.	100
	PO3	To develop in students the ability to apply standard methodology to the solution of problems in chemistry.	100
	PO5	To develop in students the ability to adopt and apply methodology to the solution of unfamiliar types of problems.	33.33
	PO2	To provide students with broad and balanced knowledge and understanding of key concepts in chemistry.	33.33
	PO1	To create enthusiasm among students for chemistry and its application in various fields of life.	100

Course title	CO ID	CO	%Attainment
Chemistry IV	FSD420311	Know how different analytes in different matrices can be determined by spectrophotometric, nephelometric and turbidimetric methods.	61.6
	FSD420312	Write the M.O energy diagrams for simple molecules.	93.02
	FSD420313	Differentiate bonding in metals from their compounds.	93.02
	FSD420314	Explain the importance of stereochemistry in predicting the structures and property of organic molecules.	90.69
	FSC420315		
		Learn importance laws of thermodynamics and their applications to various thermodynamics system.	68.60

#### PO Attainment

Course title	POID	PO	%Attainment
Chemistry IV	PO4	To provide students with knowledge and skill towards employment or higher education in analytical chemistry multi-disciplinary areas involving chemistry.	100
	PO5	To develop in students the ability to apply standard methodology to the solution of problems in chemistry.	100
	PO3	To develop in students the ability to adopt and apply methodology to the solution of unfamiliar types of problems.	33.33
	PO2	To provide students with broad and balanced knowledge and understanding of key concepts in chemistry.	100
	PO1	To create enthusiasm among students for chemistry and its application in various fields of life.	33.33

**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

**Department: CHEMISTRY**

**Programme: BSc-PCM,CBZ,CZBt**

**Programme Code: BSc01, BSc05, BSc08**

Course title	CO ID	CO	%Attainment
Inorganic materials of industrial importance	FSE42031 1	Understand the synthesis and applications Vitamins hormones ,soaps and detergents and higher aspects of spectroscopy tion of glass and ceramics	98.2
	FSE42031 2	Understand the types of and manufacture of different fertilisers	64.1
	FSE42031 3	Understand the different method of prevention of corrosion	98.2

**PO Attainment:**

Course title	POID	PO	%Attainment
Inorganic materials of industrial importance	PO4	Understand the synthesis and applications Vitamins hormones ,soaps and detergents and higher aspects of spectroscopy tion of glass and ceramics	98.2
	PO3	Understand the types of and manufacture of different fertilisers	64.1
	PO5	Understand the different method of prevention of corrosion	98.2

Course title	CO ID	CO	%Attainment
Organometallics, Bioinorganic Chemistry, Polynuclear hydrocarbons and UV, IR, Spectroscopy	FSF42031 1	Understand the techniques involved in metallurgy	94.8
	FSF42031 2	Understand the role of ions in different biological systems	89.7
	FSF42031 3	Understand the application of spectroscopy	96.5

PO Attainment

Course title	POID	PO	%Attainment
Bioinorganic Chemistry, Polynuclear hydrocarbons and UV, IR, Spectroscopy	PO1	Demonstrate the ability to justify explain and or approach the concept both in written and oral forms	100
	PO3	Develop the state of the art laboratory skills	100
	PO4	Apply the scientific method to design execute and analyse an experiment	100

**1. Direct Assessment:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
<b>Chemistry I</b>	33.33	33.33	33.33	33.33	33.33	33.3	33.3	33.33
Chemistry II	100	0	50	67	0	33.3	66.7	0
Chemistry III	100	33.33	100	100	33.33			
Chemistry IV	33.33	100	33.33	100	100			
Inorganic materials of industrial importance			64	98.2	98.2			
Bioinorganic Chemistry, Polynuclear hydrocarbons and UV, IR, Spectroscopy	100		100	100				
Fuel Chemistry	100		100		100	100		
<b>Average</b>	100	27.78	68.67	83.09	100	11.1	16.6	5.56
<b>Av*0.8</b>	80	22.22	50.75	66.47	35.31	8.88	13.3	4.44

**2. Indirect Assessment**

Response by	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
Students	100	100	100	100	100	100	100	100
Teachers	100	100	100	100	100	100	100	100
Average	100	100	100	100	100	100	100	100
<b>Av*0.2</b>	20	20	20	20	20	20	20	20

**% Attainment**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
Overall PO/PSO attainment = Attainment	<b>100</b>	<b>63.89</b>	<b>81.72</b>	<b>91.54</b>	<b>72.07</b>	<b>55.55</b>	<b>58.33</b>	<b>52.78</b>

(Direct)+Attainment (In-direct)								
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**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

**Department: Mathematics Programme: B.Sc (PM) Programme Code: BScPhMa32**  
**I SEMESTER**

Course title	CO ID	CO	% Attainment
Algebra-I and Calculus-I	CO1	Learn to solve system of linear equations.	100
	CO2	Solve the system of homogeneous and non homogeneous linear of $m$ equations in $n$ variables by using concept of rank of matrix.	100
	CO3	Students will be familiar with the techniques of integration and differentiation of function with real variables.	100
	CO4	Students learn to solve polynomial equations.	100
	CO5	Learn to apply Reduction formulae.	100

PO ID	PO	% Attainment
PO1	<b>Disciplinary Knowledge:</b> Bachelor degree in Mathematics is the culmination of in-depth knowledge of Algebra, Calculus, Geometry, differential equations and several other branches of pure and applied Mathematics. This also leads to study the related areas such as computer science and other allied subjects	100
PO2	<b>Communication Skills:</b> Ability to communicate various mathematical concepts effectively using examples and their geometrical visualization. The skills and knowledge gained in this program will lead to the proficiency in analytical reasoning which can be used for modeling and solving of real life problems.	33.33333
PO3	<b>Critical Thinking and Analytical Reasoning:</b> The students undergoing this programme acquire ability of critical thinking and logical reasoning and capability of recognizing and distinguishing the various aspects of real life problems.	33.33333



PO4	<b>Problem Solving:</b> The Mathematical knowledge gained by the students through this programme develop an ability to analyze the problems, identify and define appropriate computing requirements for its solutions. This programme enhances students overall development and also equip them with mathematical modeling ability, problem solving skills.	66.66667
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## II SEMESTER

Course title	CO ID	CO	% Attainment
Algebra-II and Calculus-II	CO1	Learn the concept of Divisibility.	100
	CO2	Learn about prime and composite numbers.	86.66667
	CO3	Learn the concept of congruences and its applications	100
	CO4	Identify and apply the intermediate value theorems and L'Hospital rule.	100
	CO5	Understand the concept of differentiation and fundamental theorems in differentiation and various rules.	100
	CO6	Find the extreme values of functions of two variables.	100
	CO7	Students learn to find areas and volumes using integration.	100

PO ID	PO	% Attainment
PO1	<b>Disciplinary Knowledge:</b> Bachelor degree in Mathematics is the culmination of in-depth knowledge of Algebra, Calculus, Geometry, differential equations and several other branches of pure and applied Mathematics. This also leads to study the related areas such as computer science and other allied subjects	33.33333
PO2	<b>Communication Skills:</b> Ability to communicate various mathematical concepts effectively using examples and their geometrical visualization. The skills and knowledge gained in this program will lead to the proficiency in analytical reasoning which can be used for modeling and solving of real life problems.	33.33333
PO3	<b>Critical Thinking and Analytical Reasoning:</b> The students undergoing this programme acquire ability of critical thinking and logical reasoning and capability of recognizing and distinguishing the various aspects of real life problems.	33.33333

PO4	<b>Problem Solving:</b> The Mathematical knowledge gained by the students through this programme develop an ability to analyze the problems, identify and define appropriate computing requirements for its solutions. This programme enhances students overall development and also equip them with mathematical modeling ability, problem solving skills.	100
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### III SEMESTER

Course title	CO ID	CO	%Attainment
Algebra-III and Differential equations-I	CO1	Enhance learning in Algebra and Differential Equations.	100
	CO2	Apply the concepts of algebra in practical problems	100
	CO3	Solve various differential equations of practical interest.	100

PO ID	PO	%Attainment
PO1	<b>Disciplinary Knowledge:</b> Bachelor degree in Mathematics is the culmination of in-depth knowledge of Algebra, Calculus, Geometry, differential equations and several other branches of pure and applied Mathematics. This also leads to study the related areas such as computer science and other allied subjects	100
PO3	<b>Critical Thinking and Analytical Reasoning:</b> The students undergoing this programme acquire ability of critical thinking and logical reasoning and capability of recognizing and distinguishing the various aspects of real life problems.	100
PO4	<b>Problem Solving:</b> The Mathematical knowledge gained by the students through this programme develop an ability to analyze the problems, identify and define appropriate computing requirements for its solutions. This programme enhances students overall development and also equip them with mathematical modeling ability, problem solving skills.	100

#### IV SEMESTER

Course title	CO ID	CO	% Attainment
Real analysis -I and Differential equations-II	CO1	Enhance learning in Analysis and Differential Equations.	100
	CO2	Apply the concepts of analysis in practical problems	100
	CO3	Solve various differential equations of practical interest	100

PO ID	PO	% Attainment
PO1	<b>Disciplinary Knowledge:</b> Bachelor degree in Mathematics is the culmination of in-depth knowledge of Algebra, Calculus, Geometry, differential equations and several other branches of pure and applied Mathematics. This also leads to study the related areas such as computer science and other allied subjects	100
PO3	<b>Critical Thinking and Analytical Reasoning:</b> The students undergoing this programme acquire ability of critical thinking and logical reasoning and capability of recognizing and distinguishing the various aspects of real life problems.	100
PO4	<b>Problem Solving:</b> The Mathematical knowledge gained by the students through this programme develop an ability to analyze the problems, identify and define appropriate computing requirements for its solutions. This programme enhances students overall development and also equip them with mathematical modeling ability, problem solving skills.	100

**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

**Department: Mathematics**

**Programme: B.Sc**

**Programme Code: BScPCM01/BScPMCs02/BScPMcm03/BScPME04**

**V SEMESTER**

Course title	CO ID	CO	% Attainment
Linear Algebra	CO1	Understand the concept of vector space	100
	CO2	Understand Euclidian geometry with the help of real inner products.	100
	CO3	Understand the orthogonal projection	100
	CO4	Distinguish between linear and non-linear transformations	100
	CO5	Understand the importance of Matrices in the study of linear transformations..	100

PO ID	PO	% Attainment
PO1	Demonstrate proficiency in Mathematics and the Mathematical concepts needed for a proper understanding of Physics.	100
PO2	Demonstrate the ability to justify and explain their thinking and/or approach	33.33333
PO3	Demonstrate the ability to think , express and present in a clear, logical and succinct arguments	33.33333
PO4	Develop state – of – the –art laboratory skills and professional communication skills	100
PO5	Use this has a basis for ethical behavior in issues facing chemist/drugs	100

**VI SEMESTER**

Course title	CO ID	CO	% Attainment
Complex Analysis	CO1	Understand the importance of complex numbers and their geometrical representation	100
	CO2	Find the equations of geometrical figures in complex form	100
	CO3	Distinguish between differentiability and analyticity of a function.	100
	CO4	Study the properties of various transformations.	100
	CO5	Understand the importance of conformal mappings.	100

PO ID	PO	% Attainment
PO1	Demonstrate proficiency in Mathematics and the Mathematical concepts needed for a proper understanding of Physics.	33.33333
PO2	Demonstrate the ability to justify and explain their thinking and/or approach	33.33333
PO3	Demonstrate the ability to think, express and present in a clear, logical and succinct arguments	100
PO4	Develop state – of – the –art laboratory skills and professional communication skills	100
PO5	Use this as a basis for ethical behavior in issues facing chemist/drugs	100

## VI SEMESTER

Course title	CO ID	CO	% Attainment
Vector calculus	CO1	Understand the concepts of differentiation and partial differentiation of a vector function.	100
	CO2	<i>Study the properties of vectors</i>	100

PO ID	PO	% Attainment
PO1	Demonstrate proficiency in Mathematics and the Mathematical concepts needed for a proper understanding of Physics.	100
PO2	Demonstrate the ability to justify and explain their thinking and/or approach	100

### JSS Mahavidyapeetha

JSS College of Arts, Commerce and Science (Autonomous)

Ooty Road, Mysuru - 570025

Outcome Attainments 2022-23

Department: Mathematics Programme: BBA

## I SEMESTER

Course title	CO ID	CO	% Attainment
Business Mathematics-I	CO1	Translate the real word problems through appropriate mathematical modelling	60
	CO2	Explain the concepts and use equations, formulae and mathematical expression and relationship in a variety of context	60
	CO3	Finding the extreme values of functions	60

	CO4	Analyze and demonstrate the mathematical skill require in mathematically intensive areas in economics and business	60
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PO ID	PO	% Attainment
PO1	<b>Disciplinary Knowledge:</b> Bachelor degree in Mathematics is the culmination of in-depth knowledge of Algebra, Calculus, Geometry, differential equations and several other branches of pure and applied Mathematics. This also leads to study the related areas such as computer science and other allied subjects	60
PO2	<b>Communication Skills:</b> Ability to communicate various mathematical concepts effectively using examples and their geometrical visualization. The skills and knowledge gained in this program will lead to the proficiency in analytical reasoning which can be used for modeling and solving of real life problems.	40
PO3	<b>Critical Thinking and Analytical Reasoning:</b> The students undergoing this programme acquire ability of critical thinking and logical reasoning and capability of recognizing and distinguishing the various aspects of real life problems.	40
PO4	<b>Problem Solving:</b> The Mathematical knowledge gained by the students through this programme develop an ability to analyze the problems, identify and define appropriate computing requirements for its solutions. This programme enhances students overall development and also equip them with mathematical modeling ability, problem solving skills.	60

## II SEMESTER

Course title	CO ID	CO	% Attainment
Business Mathematics-II	CO1	Integrate concept in international business concept with functioning of global trade.	80
	CO2	Evaluate the legal, social and economic environment of business.	80
	CO3	Apply decision-support tools to business decision making	80
	CO4	Will be able to apply knowledge of business concepts and functions in an integrated manner.	80

PO ID	PO	% Attainment
PO1	<b>Disciplinary Knowledge:</b> Bachelor degree in Mathematics is the culmination of in-depth knowledge of Algebra, Calculus, Geometry, differential equations and several other branches of pure and applied Mathematics. This also leads to study the related areas such as computer science and other allied subjects	80
PO2	<b>Communication Skills:</b> Ability to communicate various mathematical concepts effectively using examples and their geometrical visualization. The skills and knowledge gained in this program will lead to the proficiency in analytical reasoning which can be used for modeling and solving of real life problems.	80
PO3	<b>Critical Thinking and Analytical Reasoning:</b> The students undergoing this programme acquire ability of critical thinking and logical reasoning and capability of recognizing and distinguishing the various aspects of real life problems.	53.33
PO4	<b>Problem Solving:</b> The Mathematical knowledge gained by the students through this programme develop an ability to analyze the problems, identify and define appropriate computing requirements for its solutions. This programme enhances students overall development and also equip them with mathematical modeling ability, problem solving skills.	53.33

### III SEMESTER

Course title	CO ID	CO	% Attainment
Mathematical Aptitude-III	CO1	Have a strong base in the fundamental mathematical concepts.	100
	CO2	Grasp the approaches and strategies to solve problems with speed and accuracy	100
	CO3	Gain appropriate skills to succeed in preliminary selection process for recruitment	100

PO ID	PO	% Attainment
PO1	<b>Disciplinary Knowledge:</b> Bachelor degree in Mathematics is the culmination of in-depth knowledge of Algebra, Calculus, Geometry, differential equations and several other branches of pure and applied Mathematics. This also leads to study the related areas such as computer science and other allied subjects	100
PO2	<b>Communication Skills:</b> Ability to communicate various mathematical concepts effectively using examples and their geometrical visualization. The skills and knowledge gained in this program will lead to the proficiency in analytical reasoning which	100

	can be used for modeling and solving of real life problems.	
PO3	<b>Critical Thinking and Analytical Reasoning:</b> The students undergoing this programme acquire ability of critical thinking and logical reasoning and capability of recognizing and distinguishing the various aspects of real life problems.	100

**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

**Department: Mathematics      Programme: BCA**

**I SEMESTER**

Course title	CO ID	CO	% Attainment
Mathematical foundation	CO1	Study and solve problems related to connectives , predicates and quantifiers under different situations	100
	CO2	<i>Develop basic knowledge of matrices and to solve equations using cramer's rules</i>	100
	CO3	Know the concept of eigen values	100
	CO4	To develop the knowledge about derivatives and know various applications of differentiation	100
	CO5	Understand the basic concepts Mathematical reasoning , set and functions	100

PO ID	PO	% Attainment
PO1	Discipline knowledge: Acquiring knowledge on basics of computer science and ability to apply to design principles in the development of solutions for problems of varying complexity	66.6667
PO2	Problem solving: Improved reasoning with strong Mathematical ability to identify, formulate and analyze problems related to computer science and exhibiting a sound knowledge on data structures and algorithms	100
PO3	Design and development of solutions: Ability to design and development of algorithmic solutions to real world problems and acquiring a minimum knowledge on statistics and optimization problems. Establishing excellent skills in applying various design	66.6667



	stargies for solving complex problems.	
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## II SEMESTER

Course title	CO ID	CO	% Attainment
Discrete Mathematical structures	CO1	To understand the basic concept of Mathematical reasoning, set and function	100
	CO2	<i>To understand various counting techniques and principle of inclusion and exclusions</i>	100
	CO3	Understand the concepts of various types of relations, partial ordering and equivalence relation	100
	CO4	Apply the concepts of generating functions to solve the recurrences relations	100
	C05	Familiarise the fundamental concepts of graph theory and shortest path algorithm	100

PO ID	PO	% Attainment
PO1	<b>Discipline knowledge:</b> Acquiring knowledge on basics of computer science and ability to apply to design principles in the development of solutions for problems of varying complexity	83.3333
PO2	<b>Problem solving:</b> Improved reasoning with strong Mathematical ability to identify, formulate and analyze problems related to computer science and exhibiting a sound knowledge on data structures and algorithms	66.6667
PO3	<b>Design and development of solutions:</b> Ability to design and development of algorithmic solutions to real world problems and acquiring a minimum knowledge on statistics and optimization problems. Establishing excellent skills in applying various design stargies for solving complex problems.	100

## V SEMESTER (CBCS)

Course title	CO ID	CO	% Attainment
Business Mathematics	CO1	Specify the characteristic of Matrices and determinants	100
	CO2	<i>Write down in details with examples</i> Matrices and determinants	100
	CO3	Deliberate the characteristics of algebra	100
	CO4	Learn the classification and characteristic of permutation and combination	100
	CO5	Deliberate in details with examples Mathematical induction	100

PO ID	PO	% Attainment
PO1	Get expected skills to be placed in Is sector and self-employment	77.7778
PO2	To develop abilities for data analysis and interpretation using ICT	66.6667
PO3	Acquire comprehensive knowledge with equal emphasis on theory and practice	100

### 1. Direct Assessment:

	PO1	PO2	PO3	PO4	PSO1	PSO2	PSO3	PSO4
Algebra-I and Caculus-I	100	33.33	33.33	66.667	100	33.33	33.33	66.66
Algebra-II and Calculus-II	33.33	33.33	33.33	100	33.33	33.33	33.33	100
Algebra-III and Differential equations-I	100	100	100		100	100	100	
Real analysis -I and Differential equations-II	100	100	100		100	100	100	
Linear Algebra	100	100	100	33.33	100	100	100	33.33
Complex Analysis	33.33	100	100	100	33.33	100	100	100
Vector calculus	100	100			100	100		
Mathematical foundation	66.667	100	66.667		66.667	100	66.66	
Discrete Mathematical structures	83.33	66.667	100		83.33	66.66	100	
Business Mathematics	77.778	66.667	100		77.778	66.667	100	
Business Mathematics-I	60	40	60	40	60	40	60	40
Business Mathematics-II	80	80	53.33	53.33	80	80	53.33	53.33

Mathematical Aptitude-III	100	100	100		100	100	100	
<b>Average</b>	79.57	78.46		79.34	79.57	78.4		79.34
	2	1	80	4	2	61	80	4
<b>Av*0.8</b>	63.66	62.77	64	63.48	63.66	62.7	64	63.48
						7		

## 2. Indirect Assessment

Response by	PO1	PO2	PO3	PO4	PSO1	PSO2	PSO3	PSO4
Students	100	100	100	100	100	100	100	100
Teachers	100	100	100	100	100	100	100	100
Average	100	100	100	100	100	100	100	100
<b>Av*0.2</b>	20	20	20	20	20	20	20	20

### % Attainment

	PO1	PO2	PO3	PO4	PSO1	PSO2	PSO3	PSO4
Overall PO/PSO attainment = Attainment (Direct)+Attainment (Indirect)	<b>81.83</b>	<b>81.38</b>	<b>82</b>	<b>81074</b>	<b>81.83</b>	<b>81.38</b>	<b>82</b>	<b>81074</b>

JSS COLLEGE OF ARTS, COMMERCE AND SCIENCE  
OOTY ROAD, MYSURU-

Department: BIOCHEMISTRY  
PROGRAMME: BSc- BBM, BMBt, BcBt & BcMb  
**Course outcomes (%Attainments)**  
Semester: I, II, III, IV, V & VI

Course Title	Course ID	CO ID	CO: After completion of this course student will be able to	%Attainment
Chemical Foundations of Biochemistry -1	FSA 490	CO Id1	Understand in detail Scope of Biochemistry and Units of measurement	100
	FSA 490	CO Id2	Specify the characteristics of Atomic structure and Chemical bonds	100
	FSA 490	CO Id3	Learn the characteristics of Buffers and Colligative properties	100
	FSA 490	CO Id4	Understand the types and characteristics of Electrochemistry and Redox reactions	100

PO  
ATTAINMENT

Course Title	Course ID	CO ID	CO: After completion of this course student will be able to	%Attainment
Chemical Foundations of Biochemistry -1		POI d1	Demonstrate the ability to justify and explain their thinking and/or approach	66.66 667
		POI d2	Develop state-of-the-art laboratory and professional communication skills	66.66 667
		POI d3	Apply the scientific method to design, execute, and analyze an experiment	66.66 667
		POI d4	Explain scientific procedures and their experimental observations	66.66 667
		POI d5	Demonstrate an understanding of fundamental biochemical principles, structure and function	66.66 667
		POI d6	Work as a laboratory technician, biochemists or medical scientist	50

		POI d7	Explain the processes used by microorganisms for the growth	66.66 667
		POI d8	Explain the theoretical basis of tools, technologies and methods of biochemist	50

SEMESTER  
II

Course Title	Course ID	CO ID	CO: After completion of this course student will be able to	%Attainment
Chemical Foundations of Biochemistry -2	FSB 490	CO Id1	Understand in depth Chemical Catalysis	100
	FSB 490	CO Id2	Specify the Nomenclature of Organic Compounds	100
	FSB 490	CO Id3	Deliberate the detail of Organometallic Compounds	100
	FSB 490	CO Id4	Learn the detail of Inorganic Chemistry	100

PO  
ATTAINMENT

Course Title	Course ID	CO ID	CO: After completion of this course student will be able to	%Attainment
Chemical Foundations of Biochemistry -2		POI d1	Demonstrate the ability to justify and explain their thinking and/or approach	66.66 667
		POI d2	Develop state-of-the-art laboratory and professional communication skills	66.66 667
		POI d3	Apply the scientific method to design, execute, and analyze an experiment	66.66 667
		POI d4	Explain scientific procedures and their experimental observations	66.66 667
		POI d5	Demonstrate an understanding of fundamental biochemical principles, structure and function	33.33 333
		POI d6	Work as a laboratory technician, biochemists or medical scientist	66.66 667

	POI d7	Explain the processes used by microorganisms for the growth	66.66 667
	POI d8	Explain the theoretical basis of tools, technologies and methods of biochemist	66.66 667

SEMESTER  
III

Course Title	Course ID	CO ID	CO: After completion of this course student will be able to	%Attainment
Bio-organic chemistry	FSC 490	CO Id1	Learn the characteristics of Reaction mechanisms & aliphatic hydrocarbons	100
	FSC 490	CO Id2	Learn in depth Mechanism of substitution, elimination, and addition reactions	100
	FSC 490	CO Id3	Specify in detail with examples Mechanism of electrophilic aromatic substitution reactions	100
	FSC 490	CO Id4	Understand the classification and characteristics of Bio-organic compounds	100

PO  
ATTAINMENT

Course Title	Course ID	CO ID	CO: After completion of this course student will be able to	%Attainment
Bio-Organic Compounds		POI d1	Demonstrate the ability to justify and explain their thinking and/or approach	55.55 556
		POI d2	Develop state-of-the-art laboratory and professional communication skills	55.55 556
		POI d3	Apply the scientific method to design, execute, and analyze an experiment	66.66 667
		POI d4	Explain scientific procedures and their experimental observations	66.66 667
		POI d5	Demonstrate an understanding of fundamental biochemical principles, structure and function	66.66 667
		POI d6	Work as a laboratory technician, biochemists or medical scientist	66.66 667
		POI d7	Explain the processes used by microorganisms for the growth	50
		POI d8	Explain the theoretical basis of tools, technologies and methods of biochemistry	66.66 667

Semester IV

Course Title	Course ID	CO ID	CO: After completion of this course will be able to	% Attainment
Analytical Biochemistry	FSD 490	CO ID1	Understand the concept of biological sample preparation Appreciate chemistry and application of analytical instruments Get acquainted with care and maintenance of equipment and chemicals Understand clinically relevant biochemical analysis of all biochemical components i.e., proteins, electrolytes, hormones etc.,	100
	FSD 490	CO ID2		100
	FSD 490	CO ID3		100
	FSD 490	CO ID4		100

PO  
ATTAINMENT

Course Title	Course ID	CO ID	CO: After completion of this course student will be able to	% Attainment
Analytical Biochemistry	FSD 490	POI d1	Demonstrate the ability to justify and explain their thinking and/or approach	73.33 333
		POI d2	Develop state-of-the-art laboratory and professional communication skills	75
		POI d3	Apply the scientific method to design, execute, and analyze an experiment	88.88 889
		POI d4	Explain scientific procedures and their experimental observations	88.88 889
		POI d5	Demonstrate an understanding of fundamental biochemical principles, structure and function	66.66 667
		POI d6	Work as a laboratory technician, biochemists or medical scientist	66.66 667
		POI d7	Explain the processes used by microorganisms for the growth	83.33 333
		POI d8	Explain the theoretical basis of tools, technologies and methods of biochemistry	66.66 667

SEMESTER  
V

Course Title	Course ID	CO ID	CO: After completion of this course will be able to	% Attainment
Nutritional biochemistry	DM E 210	CO ID1	Understand the concept of biological sample preparation	100

		CO ID2	Appreciate chemistry and application of analytical instruments	100
		CO ID3	Get acquainted with care and maintenance of equipment and chemicals	100
		CO ID4	Understand clinically relevant biochemical analysis of all biochemical components i.e., proteins, electrolytes, hormones etc.,	100

PO & PSO  
ATTAINMENT

Course Title	Course ID	CO ID	CO: After completion of this course student will be able to	% Attainment
Nutritional biochemistry	DM E210	POI d1	Demonstrate the ability to justify and explain their thinking and/or approach	
		POI d2	Develop state-of-the-art laboratory and professional communication skills	55.55 556
		POI d3	Apply the scientific method to design, execute, and analyze an experiment	66.66 667
		POI d4	Explain scientific procedures and their experimental observations	
		POI d5	Demonstrate an understanding of fundamental biochemical principles, structure and function	33.33 333
		POI d6	Work as a laboratory technician, biochemists or medical scientist	50
		POI d7	Explain the processes used by microorganisms for the growth	
		POI d8	Explain the theoretical basis of tools, technologies and methods of biochemistry	50

PSO  
ATTAINMENT

Nutritional Biochemistry	DM E210	PS OI D1	Gain and understand biochemical and molecular processes	66.66 667
		PS OI D2	Communicate scientific information effectively, relating to microbes and their role in ecosystem and health	50
		PS OI D3	Acquire, articulate, retain and demonstrate laboratory safety skills	
		PS OI D4	Demonstrate applications of biochemical and biological sciences	



		PS OI D5	Apply appropriate tools and techniques in biotechnological manipulation	
		PS OI D6	Understand the responsibilities of biotechnological practices	50

SEMESTER  
V

Course Title	Course ID	CO ID	CO: After completion of this course will be able to	% Attainment
Tools and techniques in Biochemistry	DM E 214	CO ID1	Understand in depth chromatography	100
		CO ID2	Learn in depth electrophoresis technique	100
		CO ID3	Deliberate the characteristics of centrifugation	100
		CO ID4	Understand in detail with examples spectrophotometry	100

PO  
ATTAINMENT

Course Title	Course ID	CO ID	CO: After completion of this course student will be able to	% Attainment
Tools and techniques in Biochemistry	DM E214	POI d1	Demonstrate the ability to justify and explain their thinking and/or approach	0
		POI d2	Develop state-of-the-art laboratory and professional communication skills	55.55 556
		POI d3	Apply the scientific method to design, execute, and analyze an experiment	66.66 667
		POI d4	Explain scientific procedures and their experimental observations	33.33 333
		POI d5	Demonstrate an understanding of fundamental biochemical principles, structure and function	50
		POI d6	Work as a laboratory technician, biochemists or medical scientist	50
		POI d7	Explain the processes used by microorganisms for the growth	50

		POI d8	Explain the theoretical basis of tools, technologies and methods of biochemistry	44.44 444
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PSO  
ATTAINME  
NT

Tools and techniques in Biochemistry	DM E21 4	PS OI D1	Gain and understand biochemical and molecular processes	66.66 667
		PS OI D2	Communicate scientific information effectively, relating to microbes and their role in ecosystem and health	44.44 444
		PS OI D3	Acquire, articulate, retain and demonstrate laboratory safety skills	33.33 333
		PS OI D4	Demonstrate applications of biochemical and biological sciences	33.33 333
		PS OI D5	Apply appropriate tools and techniques in biotechnological manipulation	55.55 556

Semester VI

Course Title	Course ID	CO ID	CO: After completion of this course will be able to	% Attainment
Plant Biochemistry	DM F 210	CO ID1	Specify the characteristics of plant cell structure	100
		CO ID2	Deliberate in detail with examples photosynthesis	100
		CO ID3	Understand the detail of nitrogen metabolism	100
		CO ID4	Learn in detail with examples secondary metabolites	100

PO & PSO  
ATTAINME  
NT

Course Title	Course ID	CO ID	CO: After completion of this course student will be able to	% Attainment
Plant Biochemistry	DM F21 0	POI d1	Demonstrate the ability to justify and explain their thinking and/or approach	77.77 778

	POI d2	Develop state-of-the-art laboratory and professional communication skills	66.66 667
	POI d3	Apply the scientific method to design, execute, and analyze an experiment	77.77 778
	POI d4	Explain scientific procedures and their experimental observations	77.77 778
	POI d5	Demonstrate an understanding of fundamental biochemical principles, structure and function	77.77 778
	POI d6	Work as a laboratory technician, biochemists or medical scientist	
	POI d7	Explain the processes used by microorganisms for the growth	77.77 777
	POI d8	Explain the theoretical basis of tools, technologies and methods of biochemistry	

PSO  
ATTAINME  
NT

Plant Biochemistry	DM F21 0	PS OI D1	Gain and understand biochemical and molecular processes	88.88 889
		PS OI D2	Communicate scientific information effectively, relating to microbes and their role in ecosystem and health	66.66 667
		PS OI D3	Acquire, articulate, retain and demonstrate laboratory safety skills	66.66 667
		PS OI D4	Demonstrate applications of biochemical and biological sciences	66.66 667
		PS OI D5	Apply appropriate tools and techniques in biotechnological manipulation	100

JSS COLLEGE OF ARTS, COMMERCE AND SCIENCE, OOTY ROAD MYSORE												
Subject:	Electronics											
Programme	BSc Physcis, Electronics ,Maths											
Programme code	BSc04		Year	III BSc								
YEAR:2022-23												
Rubric:	1	2	3									
	>50%	>60%	>70%									
<b>1. Direct Assessment</b>												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2.769	1.694		1.694			2.7					
CO2	3		2.87	2.87				2.84				
CO3		2.381	2.416		2.49	2.284					2.77	
CO4		2.696							2.72	2.87		2.94
Average	2.8845	2.257	2.643	2.282	2.49	2.284	2.7	2.84	2.72	2.87	2.77	2.94
Attainment (Direct)=0.8*	2.3	1.8	2.11	1.82	1.99	1.827	0.914	2.072	1.8	1.568	1.613	1.692
<b>2. Indirect Assessment</b>												
Attainment as responded by students & teachers												
Response by	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Students	2.6	2.4	2.2	2.2	1.6	2	2.6	2.6	2.2	2.6	1.8	2
Teachers	3	3	2	3	2	2	3	3	3	3	3	3
Average	2.8	2.7	2.1	2.6	1.8	2	2.8	2.8	2.6	2.8	2.4	2.5
Attainment (Indirect)=0.2	0.56	0.54	0.43	0.52	0.36	0.4	0.56	0.56	0.52	0.56	0.48	0.5
Overall PO/PSO Attainment= Attainment (Direct)+Attainment (Indirect)												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.3	1.8	2.11	1.82	1.99	1.827	0.914	2.072	1.8	1.568	1.613	1.692
Indirect Attainment	0.56	0.54	0.43	0.52	0.36	0.4	0.56	0.56	0.52	0.56	0.48	0.5
Overall PO/PSO Attainm	2.86	2.34	2.54	2.34	2.35	2.227	1.474	2.632	2.32	2.128	2.093	2.192
% Attainment	95.33	78	84.6	78	78.33	74.22	49	87.7	77.3	70.93	69.76	73.06
Overall PO/PSO Attainment= Attainment (Direct)+Attainment (Indirect)												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
% Attainment	95.33	78	84.6	78	78.33	74.22	49	87.7	77.3	70.93	69.76	73.06
CO Attainments												
CO ID	%Attainment											
CO1	76.66667											
CO2	60											
CO3	70.3											
PO	%Attainment											
PO1	95.33											
PO2	78											
PO3	84.6											
PO4	78											
PO5	78.33											
PO6	74.22											
PO7	49											
PO8	87.7											
PO9	77.3											
PO10	70.93											
PO11	69.76											
PO12	73.06											

**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**  
**Department: Sanskrit**

**Programme: BBA**

PO ID	PO (BCOM) (11)	% Attainment
PO 1	Motivated for their higher education	66.826
PO 2	Write resume, latter of application and business letters	73.32
PO 3	Improve spoken and written communication	64.44

**Programme Code: FBA 030 (11)**

**Course title : Sanskrit Poetry and Grammar**

**Paper 1**

CO ID	CO	% Attainment
CO 1	1. The student gets motivated to compose poems.	100 %
CO 2	2. The student imbibes the noble qualities.	100 %
CO 3	3. The student develops conviction in scriptures.	100 %
CO 4	4. The student learns Sanskrit speaking skills.	100 %
CO 5	5. The student will be confident in learning new texts of	100 %

**Programme Code: FBB 030 (11)**

**Course title : Sanskrit Prose and Grammar**

**Paper 2**

CO ID	CO	% Attainment
CO 1	1. The student gets motivated to make out similar works in Sanskrit	100 %
CO 2	2. The student imbibes the noble qualities depicted in Sanskrit literature.	100 %
CO 3	3. The student acquires grammatical skills.	100 %
CO 4	4. The student learns Sanskrit speaking skills.	100 %
CO 5	5. The student will be confident in learning new texts of Sanskrit.	100 %

**Programme Code: FBC 030 (11)**

Course title : **Champu Literature and Grammar**  
**Paper 3**

CO ID	CO	% Attainment
CO 1	1. The student gets motivated to compose poems.	100 %
CO 2	2. The student imbibes the noble qualities.	100 %
CO 3	3. The student develops conviction in scriptures.	100 %
CO 4	4. The student learns Sanskrit speaking skills.	100 %
CO 5	5. The student will be confident in learning new texts of Sanskrit.	100 %

**Programme Code: FBD 030 (11)**

Course title : **Sanskrit Drama and Dramaturgy**

**Paper 4**

CO ID	CO	% Attainment
CO 1	1. The student gets motivated to make out similar works in Sanskrit Drama.	100 %
CO 2	2. The student imbibes the noble qualities depicted in Sanskrit literature.	100 %
CO 3	3. The student acquires grammatical skills.	100 %
CO 4	4. The student learns Sanskrit speaking skills.	100 %
CO 5	5. The student will be confident in learning new texts of Sanskrit.	100 %

### 1. Direct Assessment

2. Use the PO/PSO attainment in the worksheet for calculation

	PO1	PO2	PO3
Course 1	66.66	66.66	55.55
Course 2	66.66	66.66	55.55
Course 3	50	66.66	55.55
Course 4	66.66	66.66	55.55
Average above	62.75	66.66	55.55
Attainment (Direct) = 0.8* Average above	50.2	53.32	44.44

### 2. Indirect Assessment

#### Course 4

Attainment as responded by students, teachers

Response by	PO1	PO2	PO3
Students	2	3	3
Teachers	3	3	3
Average	3	3	2.5
Attainment (In-direct) = 0.2* Average above	83.33	100	100
Convert the responses given in 1/2/3 to %attainment using the formula: <b>%Attainment</b> ={response/3 *100}	16.66	20	20

Overall PO/PSO attainment = Attainment (Direct)+Attainment (In-direct)	66.826	73.32	64.44
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JSS Mahavidyapeetha  
**JSS College of Arts, Commerce and Science**  
 Ooty Road, Mysuru – 570 025, Karnataka, India  
**Outcome Attainments 2022-23**

**Name of the Department:** Botany UG

**Programmes offered:** B.Sc. (CBZ & BBM ) NEP- (BZ & CB)

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

<b>PO/PSO Id/No.</b>	<b>PO/PSO</b>	<b>Overall Attainment</b>
PO1	Identify the taxonomic position of plants using principles and methods of nomenclature and classification in Botany	96.6
PO2	Understand the impact of the plant diversity in societal and environmental context	86.6
PO3	Demonstrate the knowledge of, and need for sustainable development	96.6
PO4	Use interdisciplinary approaches with quantitative skills to work on biological problems	98.6
PO5	Demonstrate the ability to justify and explain their thinking and/or approach	98
PO6	Develop state-of-the-art laboratory and professional communication skills. Work as a laboratory technician, biochemists or medical scientist	93.3
PO7	Apply the scientific method to design, execute, and analyze an experiment	95.3
PO8	Explain scientific procedures and their experimental observations	98.6

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

<b>PO/PSO Id/No.</b>	<b>PO/PSO</b>	<b>Overall Attainment</b>
PO1	Identify the taxonomic position of plants using principles and methods of nomenclature and classification in Botany	96.6
PO2	Understand the impact of the plant diversity in societal and environmental context	86.6
PO3	Demonstrate the knowledge of, and need for sustainable development	96.6
PO4	Use interdisciplinary approaches with quantitative skills to work on biological problems	98.6



PO5	Demonstrate the ability to justify and explain their thinking and/or approach	98
PO6	Develop state-of-the-art laboratory and professional communication skills. Work as a laboratory technician, biochemists or medical scientist	93.3
PO7	Apply the scientific method to design, execute, and analyze an experiment	95.3
PO8	Explain scientific procedures and their experimental observations	98.6

### B.Sc. BBM

Course title	CO No./Id	CO Statement	Overall Attainment
<b>Cell and Molecular Biology</b>	DME230081	Understand in depth microscopy Learn the details of cell	100
	DME230082	Specify the details of DNA	100
	DME230083	Learn the details of gene regulation	100
<b>Floriculture</b>	DME2360081	Specify the classification and characteristics of gardening	100
	DME2360082	Understand in depth nursery management	100
	DME2360083	Identify in details with examples ornamental plants	100
<b>Genetics and Plant Breeding</b>	DMF230081	Specify the details of heredity	100
	DMF230082	Identify in details with examples linkage	100
	DMF230083	Write down the classification and characteristics of mutations	100
	DMF230084	Learn the details of plant breeding	100

### B.Sc. CBZ

Course title	CO No./Id	CO Statement	Overall attainment
<b>Cell and Molecular Biology</b>	DME230071	Understand in depth microscopy Learn the details of cell	100
	DME230072	Specify the details of DNA	100
	DME230073	Learn the details of gene regulation	100
<b>Floriculture</b>	DME236071	Specify the classification and characteristics of gardening	100
	DME236072	Understand in depth nursery management	100
	DME236073	Identify in details with examples ornamental plants	100
<b>Genetics and Plant Breeding</b>	DMF230071	Specify the details of heredity	100
	DMF230072	Identify in details with examples linkage	100
	DMF230073	Write down the classification and characteristics of mutations	100
	DMF230074	Learn the details of plant breeding	100

### NEP BZ & CB

PO ID	PO	Overall attainment
<b>P01</b>	Skill development for the proper description using botanical terms, identification, naming and classification of life forms especially plants and microbes.	96.6
<b>P02</b>	Acquisition of knowledge on structure, life cycle and life processes that exist among plant and microbial diversity through certain model organism studies.	86.6
<b>P03</b>	Understanding of various interactions that exist among plants and microbes; to develop the curiosity on the dynamicity of nature.	96.6
<b>P04</b>	Understanding of the major elements of variation that exist in the living world through comparative morphological and anatomical study.	98.6
<b>P05</b>	Ability to explain the diversity and evolution based on the empirical evidences in morphology, anatomy, embryology, physiology, biochemistry, molecular biology and life history.	98
<b>P06</b>	Skill development for the collection, preservation and	93.3

	recording of information after observation and analysis- from simple illustration to molecular database development.	
<b>PO7</b>	Making aware of the scientific and technological advancements- Information and Communication, Biotechnology and Molecular Biology for further learning and research in all branches of Botany	95.3
<b>PO8</b>	Internalization of the concept of conservation and evolution through the channel of spirit of inquiry.	98.6

### NEP CB and BZ

<b>Course title</b>	<b>CO No./Id</b>	<b>CO Statement</b>	<b>Overall attainment</b>
Microbial Diversity and Technology	FSA9401	To make the students familiar with economic importance of diverse plants that offer resources to human life	96.9
	FSA9402	To make the students known about the plants used as-food, medicinal value and also plant source of different economic value.	93.9
	FSA9403	To generate interest amongst the students on plants importance in day today life, conservation, ecosystem and sustainability.	100
Plants and human welfare	FSA9401	To make the students familiar with economic importance of diverse plants that offer resources to human life	100
	FSA9402	To make the students known about the plants used as-food, medicinal value and also plant source of different economic value.	100
	FSA9403	To generate interest amongst the students on plants importance in day today life, conservation, ecosystem and sustainability.	100
Diversity of Non flowering Plants	FSB480391	Understand the diversity and affinities among Algae, Bryophytes, Pteridophytes and Gymnosperms.	88.23

	FSB480392	Understand the morphology, anatomy, reproduction and life cycle across Algae, Bryophytes, Pteridophytes and Gymnosperms, and their ecological and evolutionary significance.	100
	FSB480393	Obtain laboratory skills/explore non-flowering plants for their commercial applications.	94.11
Plant propagation, nursery management and gardening	FSB9401	To gain knowledge of gardening, cultivation, multiplication, raising of seedlings of garden plants.	100
	FSB9402	To get knowledge of new and modern techniques of plant propagation	100
	FSB9403	To develop interest in nature and plant life.	100
Plant Anatomy and Developmental Biology	FSC480391	Observation of variations that exist in internal structure of various parts of a plant and as well as among different plant groups in support for the evolutionary concept.	100
	FSC480392	Skill development for the proper description of internal structure using botanical terms, their identification and further classification.	100
	FSC480393	Understanding the basic concepts in plant morphogenesis, embryology and organ development.	100
Landscaping and Gardening	FSC9401	Apply the basic principles and components of gardening	100
	FSC9402	Conceptualize flower arrangement and bio-aesthetic planning	100
	FSC9403	Design various types of gardens according to the culture and art of bonsai	100
	FSC9404	Distinguish between formal, informal and free style gardens	100

	FSC9405	Establish and maintain special types of gardens for outdoor and indoor land scaping	100
Ecology and Conservation Biology	FSD480391	Understanding the fundamental concepts in ecology, environmental science and phyto geography.	100
	FSD480392	Concept development in conservation, global ecological crisis, Sustainable development and pros and cons of human intervention.	100
	FSD480393	Enable the student to appreciate bio diversity and the importance of various conservation strategies, laws and regulatory authorities and global issues related to climate change and sustainable development.	100

**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

**Department: ZOOLOGY**

**Programme: I B.Sc**

**Programme**

**Code: BScChZo58, BScBoZo59, BScBtZo56,**

**I SEMESTER**

Course title	CO ID	CO	%Attainment
Cytology, Genetics and infectious diseases	CO1	The structure and function of the cell organelles.	46.2
	CO2	The basic principle of life, how a cell divides leading to the growth of an organism and also reproduces to form a new organism	76.9
	CO3	The principles of inheritance, Mendel's laws and the deviations.	41.0
	CO4	Detect chromosomal aberrations in humans and study of pedigree analysis	66.7

PO ID	PO	%Attainment
POs1	The Programme offers both classical as well as modern concepts of Zoology in higher education.	69.333
POs2	It enables the students to study animal diversity in both local and global environments.	80
POs3	To make the study of animals more interesting and relevant to human studies more emphasis is given to branches like behavioural biology, evolutionary biology and economic zoology.	80
POs4	More of upcoming areas in cellbiology, genetics, molecular biology, biochemistry,genetic engineering and bioinformatics have been also included.	69.333
POs5	Equal importance is given to practical learning and presentation skills of students.	58.666
POs6	The lab courses provide the students necessary skills required for their employability.	69.333
POs7	Skill enhancement courses in classical and applied branches of Zoology enhance enterprising skills of students.	69.333
POs8	The global practices in terms of academic standards and evaluation strategies.	80
POs9	Provides opportunity for the mobility of the student both within and across the world.	80
POs10	The uniform grading system will benefit the students to move across institutions within India to begin with and across countries.	58.666
POs11	It will also enable potential employers in assessing the performance of the candidates across the world.	80

Direct	69.333	80	80	69.333	58.666	69.333	69.333	80	80	58.666	80
Indirect	16.666	20	20	16.666	13.333	20	16.666	16.666	13.333	16.666	16.666
Direct+indirect	86	100	100	86	71.999	89.333	85.999	96.666	93.333	75.333	96.666

## II SEMESTER

Course title	CO ID	CO	%Attainment
Biochemistry and physiology	CO1	To develop a deep understanding of structure of biomolecules like proteins, lipids and carbohydrates	83.7
	CO2	Mechanism of energy production at cellular and molecular levels.	67.4
	CO3	To understand various functional components of and organism	60.5
	CO4	To comprehend the regulatory mechanisms for maintenance of function in the body	48.8

PO ID	PO	%Attainment
POs1	The Programme offers both classical as well as modern concepts of Zoology in higher education.	80
POs2	It enables the students to study animal diversity in both local and global environments.	80
POs3	To make the study of animals more interesting and relevant to human studies more emphasis is given to branches like behavioural biology, evolutionary biology and economic zoology.	69.333
POs4	More of upcoming areas in cellbiology, genetics, molecular biology, biochemistry,genetic engineering and bioinformatics have been also included.	80
POs5	Equal importance is given to practical learning and presentation skills of students.	80
POs6	The lab courses provide the students necessary skills required for their employability.	80
POs7	Skill enhancement courses in classical and applied branches of Zoology enhance enterprising skills of students.	80
POs8	The global practices in terms of academic standards and evaluation strategies.	80
POs9	Provides opportunity for the mobility of the student both within and across the world.	80
POs10	The uniform grading system will benefit the students to move across institutions within India to begin with and across countries.	69.333
POs11	It will also enable potential employers in assessing the performance of the candidates across the world.	69.333

Direct	80	80	69.333	80	80	80	80	80	80	69.333	69.333
Indirect	16.666	20	20	16.666	13.333	20	16.666	16.666	13.333	16.666	16.666
Direct+indirect	96.666	100	89.333	96.666	93.333	100	96.666	96.666	93.333	85.999	85.999

**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

**Department: ZOOLOGY      Programme: B.Sc Hons in Zoology      Programme Code: BScChZo58, BScBoZo59, BScBtZo56,**

**III SEMESTER**

Course title	CO ID	CO	% Attainment
Gene technology immunology and computational Biology	CO1	Acquaint knowledge on versatile tools and techniques employed in genetic engineering and recombinant DNA technology	51.6
	CO2	An understanding on application of genetic engineering techniques in Basic and applied experimental biology.	50
	CO3	To acquire a fundamental working knowledge of the basic principles of immunology.	72.6
	CO4	To understand how these principles, apply to the process of immune function.	74.2

Direct	69.3333	69.333	80	69.333	69.333	80	80	80	69.333	80	69.333
Indirect	16.6667	16.666	20	20	20	20	16.666	16.666	20	16.666	16.666
Direct+indirect	86	85.999	100	89.333	89.333	100	96.666	96.666	89.333	96.666	85.999



PO ID	PO	% Attainment
POs1	The Programme offers both classical as well as modern concepts of Zoology in higher education.	69.333
POs2	It enables the students to study animal diversity in both local and global environments.	69.333
POs3	To make the study of animals more interesting and relevant to human studies more emphasis is given to branches like behavioural biology, evolutionary biology and economic zoology.	80
POs4	More of upcoming areas in cellbiology, genetics, molecular biology, biochemistry,genetic engineering and bioinformatics have been also included.	69.333
POs5	Equal importance is given to practical learning and presentation skills of students.	69.333
POs6	The lab courses provide the students necessary skills required for their employability.	80
POs7	Skill enhancement courses in classical and applied branches of Zoology enhance enterprising skills of students.	80
POs8	The global practices in terms of academic standards and evaluation strategies.	80
POs9	Provides opportunity for the mobility of the student both within and across the world.	69.333
POs10	The uniform grading system will benefit the students to move across institutions within India to begin with and across countries.	80
POs11	It will also enable potential employers in assessing the performance of the candidates across the world.	69.333

#### IV SEMESTER

Course title	CO ID	CO	% Attainment
Molecular Biology, Bioinstrumentation & Techniques in Biology	CO1	At the end of the course, students will be able to understand the applications of biophysics and principle involved in bio-instruments.	87.1
	CO2	Understand the methodology involved in bio techniques.	62.9
	CO3	Students can demonstrate knowledge and practical skills of using instruments in biology and medical field.	50
	CO4	They can perform techniques involved in molecular biology and diagnosis of diseases	75.8

PO ID	PO	% Attainment
POs1	The Programme offers both classical as well as modern concepts of Zoology in higher education.	80
POs2	It enables the students to study animal diversity in both local and global environments.	80
POs3	To make the study of animals more interesting and relevant to human studies more emphasis is given to branches like behavioural biology, evolutionary biology and economic zoology.	80
POs4	More of upcoming areas in cell biology, genetics, molecular biology, biochemistry, genetic engineering and bioinformatics have been also included.	58.666
POs5	Equal importance is given to practical learning and presentation skills of students.	80
POs6	The lab courses provide the students necessary skills required for their employability.	69.333

POs7	Skill enhancement courses in classical and applied branches of Zoology enhance enterprising skills of students.	80
POs8	The global practices in terms of academic standards and evaluation strategies.	58.666
POs9	Provides opportunity for the mobility of the student both within and across the world.	58.666
POs10	The uniform grading system will benefit the students to move across institutions within India to begin with and across countries.	80
POs11	It will also enable potential employers in assessing the performance of the candidates across the world.	80

Direct	80	80	80	58.666	80	69.333	80	58.666	58.666	80	80
Indirect	16.6667	16.666	20	20	20	20	16.666	16.666	20	16.666	16.6
Direct+indirect	96.666	96.666	100	78.666	100	89.333	96.666	75.333	78.666	96.666	96.6

**JSS Mahavidyapeetha**  
**JSS College of Arts, Commerce and Science (Autonomous)**  
**Ooty Road, Mysuru - 570025**  
**Outcome Attainments 2022-23**

**Department: ZOOLOGY**

**Programme: B.Sc (CBZ&CZBt)**

**Programme**

**Code: BSC05/08**

**V SEMESTER**

Course title	CO ID	CO	%Attainment
Applied Zoology	CO1	Understand the detail of Communicable Diseases	47.5
	CO2	Classification and Characteristics Of Medical Zoology	84.2
	CO3	Characteristics of Applied Zoology	73.3
	CO4	Understand in detail with Examples Applied Zoology	60.8
	CO5	Know About the importance of insects in Forensic Science and Medicine	56.7

PO ID	PO	%Attainment
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PO1	Demonstrate the ability to justify, explain and/or approach the concept both in written and oral forms	69.3333
PO2	Demonstrate the ability to present clear logical and succinct argumants.	80
PO3	Developing State of Art laboratory Skills And Professional Communication Skilss	69.333
PO4	Apply the Scientific Method to Design Execute And Analysis of Experiment	80
PO5	Understanding Chemistry As an integral part for Addressing Social, Economic And Environmental Problems	80
PO6	Identify the major groups of organisms with an emphasis on animals and plants	80
PSO1	Find jobs at all level of chemical,pharmaceutical,food products and life oriented material industries	69.333
PSO2	Apply appropriate techniques for the Qualitative And Quantitative analysis of Chemicals in Laboratories And in Industries	80
PSO3	Recognize the Relationship between different Structures and functions at Different Levels	80
PSO4	Characteristics the Biological, Chemical and physical Features of Environments that Animals inhabit	80
PSO5	Recognize the relationship between different structures and functions at different levels	69.333

Direct	69.3333	80	69.3333	80	80	80	69.3333	80	80	80	69.3333
Indirect	13.3333	20	16.666	16.666	20	20	16.666	16.666	20	16.666	16.666
Direct+indirect	82.666	100	75.326	96.666	100	100	75.326	96.666	100	96.666	75.326

#### VI SEMESTER(DSE)

Course title	CO ID	CO	%Attainment
Aquatic Biology	CO1	Learn in Detail with Examples Aquatic biology.	53.3
	CO2	Write down the Detail with Examples aquatic Biology.	68.3
	CO3	Identify and Characteristics and classifications of Aquatic Biology	54.2
	CO4	Identify in Depth Aquatic biology	63.3

PO ID	PO	%Attainment
PO1	Demonstrate the ability to justify, explain and/or approach the concept both in written and oral forms	69.333
PO2	Demonstrate the ability to present clear logical and succinct arguments.	80
PO3	Developing State of Art laboratory Skills And Professional Communication Skilss	69.333
PO4	Apply the Scientific Method to Design Execute And Analysis of Experiment	69.333
PO5	Understanding Chemistry As an integral part for Addressing Social, Economic And Environmental Problems	69.333
PO6	Identify the major groups of organisms with an emphasis on animals and plants	80
PSO1	Find jobs at all level of chemical,pharmaceutical,food products and life oriented material industries	69.333
PSO2	Apply appropriate techniques for the Qualitative And Quantitative analysis of Chemicals in Laboratories And in Industries	80
PSO3	Recognize the Relationship between different Structures and functions at Different Levels	80
PSO4	Characteristics the Biological, Chemical and physical Features of Environments that Animals inhabit	80
PSO5	Recognize the relationship between different structures and functions at different levels	69.333

Direct	69.3333	80	69.3333	69.3333	69.3333	80	69.3333	80	80	80	69.3333
Indirect	13.3333	20	16.666	16.666	20	20	16.666	16.666	20	16.666	16.666
Direct+indirect	82.666	100	85.999	85.999	89.333	100	85.999	96.666	100	96.666	85.999

#### VI SEMESTER(SEC)

Course title	CO ID	CO	%Attainment
Medical Diagnostics	CO1	Write down the Characteristics of Medical Diagnosis	52.5
	CO2	Write down in Depth of Medical Diagnosis	57.6
	CO3	Specify the Details of Non infectious Diseases	76.3

PO ID	PO	% Attainment
PO1	Demonstrate the ability to justify, explain and/or approach the concept both in written and oral forms	69.333
PO2	Demonstrate the ability to present clear logical and succinct argumants.	69.333
PO3	Developing State of Art laboratory Skills And Professional Communication Skilss	80
PO4	Apply the Scientific Method to Design Execute And Analysis of Experiment	69.333
PO5	Understanding Chemistry As an integral part for Addressing Social, Economic And Environmental Problems	69.333
PO6	Identify the major groups of organisms with an emphasis on animals and plants	69.333
PSO1	Find jobs at all level of chemical,pharmaceutical,food products and life oriented material industries	69.333
PSO2	Apply appropriate techniques for the Qualitative And Quantitative analysis of Chemicals in Laboratories And in Industries	80
PSO3	Recognize the Relationship between different Structures and functions at Different Levels	69.333
PSO4	Characteristics the Biological, Chemical and physical Features of Environments that Animals inhabit	80
PSO5	Recognize the relationship between different structures and functions at different levels	80

Direct	69.33 33	69.33 33	80	69.33 33	69.33 33	69.33 33	69.33 33	80	69.33 33	80	80
Indirect	16.66 67	16.66 6	20	20	13.33 33	16.66 6	20	16.6 66	16.66 6	20	20
Direct+i ndirect	86	85.99 9	100	89.33 3	82.66 6	85.99 9	89.32 8	96.6 66	85.99 9	100	100

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**Outcome Attainments 2022-23**

**Department: Microbiology**

**Programme: B.Sc**

**Programme Code: BScMbBt41**

<b>Course title</b>	<b>CO ID</b>	<b>CO</b>	<b>%Attainment</b>
<b>I year, I Semester :</b> <b>General Microbiology</b> <b>Course code:FSA500</b>	<b>FSA500411</b>	Thorough knowledge and understanding of concepts of microbiology.	<b>92.3</b>
	<b>FSA500412</b>	Learning and practicing professional skills in handling microbes.	<b>36</b>
	<b>FSA500413</b>	Thorough knowledge and application of good laboratory and good manufacturing practices in microbial quality control.	<b>41</b>
<b>II Semester:</b> <b>Microbial Biochemistry and Physiology</b> <b>Course code:FSB500</b>	<b>FSB500411</b>	Inculcate the knowledge regarding microbial growth, functions, physiology and metabolism	<b>100</b>
	<b>FSB500412</b>	Know the microbial growth in response to environmental factors	<b>87</b>
	<b>FSB500413</b>	Get equipped with various methods of bacterial growth measurement	<b>95.7</b>
<b>II year , III Semester:</b> <b>Microbial Diversity</b> <b>Course code:FSC500</b>	<b>FSC500411</b>	Knowledge about microbes and their diversity.	<b>85.86</b>
	<b>FSC500412</b>	Knowledge about viruses and their diversity	<b>80.55</b>
	<b>FSC500413</b>	Study, characters, classification and economic importance of Pro-eukaryotic and Eukaryotic microbes.	<b>71.71</b>
<b>II year, IV Semester:</b> <b>Microbial Enzymology and Metabolism</b> <b>Course code:FSD500</b>	<b>FSD500411</b>	Differentiating concepts of chemo heterotrophic metabolism and chemo lithotrophic metabolism.	<b>89</b>
	<b>FSD500412</b>	Describing the enzyme kinetics, enzyme activity and regulation	<b>75</b>

	<b>FSD500413</b>	Differentiating concepts of aerobic and anaerobic respiration and how these are manifested in the form of different metabolic pathways in microorganisms	<b>81</b>
<b>III year ,V Semester: Environmental Microbiology Course code:DME280</b>	<b>DME280061</b>	Know the role of microorganisms in soil, air, water, waste water and bioremediation	<b>65</b>
	<b>DME280062</b>	Learn the occurrence, abundance and distribution of microorganisms in the environment and their role in the environment	<b>65</b>
	<b>DME280063</b>	Understand various biogeochemical cycles – Carbon, Nitrogen, Phosphorus cycles etc. and microbes involved in these cycles	<b>65</b>
	<b>DME280064</b>	Understand various plant microbes interactions and their applications.	<b>64</b>
	<b>DME280065</b>	Understand the basic principles of bioremediation	<b>64</b>
	<b>DME280066</b>	The various methods to determine the Sanitary quality of water and sewage treatment methods employed in waste water treatment	<b>65</b>
	<b>DME280067</b>	The various methods to determine the sanitary quality of water and sewage treatment methods employed in waste water treatment	<b>64</b>
	<b>VI Semester: Industrial, Food &amp; Medical Microbiology Course code:DMF280</b>	<b>DMF280061</b>	Understand food related microorganisms, their contamination, spoilage and preservation



	<b>DMF280062</b>	Understand the beneficial role of microorganisms in fermented dairy products	<b>56.5</b>
	<b>DMF280063</b>	Understand how microbiology is applied in manufacture of industrial products	<b>50.8</b>
	<b>DMF280064</b>	The underlying principles in downstream processing	<b>58.5</b>
	<b>DMF280065</b>	Know the human immune response towards microbes, Know the relationship between microorganism and human disease, pathogenicity, Laboratory diagnosis, treatment and prophylaxis	<b>55.2</b>
	<b>DMF280066</b>	Demonstrate an understanding of key concepts in immunology	<b>50.2</b>
<b>VI Semester(SEC): Microbial Diagnosis in Health Clinics Course code:DMF282</b>	<b>DMF282061</b>	Gain experience in health clinics such as examination, collection of clinical samples and diagnosis	<b>83.5</b>
	<b>DMF282062</b>	Demonstrate scientific quantitative skills, the ability to evaluate experimental design, read graphs	<b>81.3</b>
	<b>DMF282063</b>	Understand and use information from scientific papers/Journals	<b>80.3</b>

<b>PO ID</b>	<b>PO</b>	<b>%Attainment</b>
PO1	Knowledge and understanding of concepts of microbiology and its application in pharma, food, agriculture, beverages, nutraceutical industries.	<b>96</b>
PO2	Understand the distribution, morphology and physiology of microorganisms and demonstrate the skills in aseptic handling of microbes including isolation, identification and maintenance.	<b>75</b>

PO3	Competent to apply the knowledge gained for conserving the environment and resolving the environmental related issues.	<b>88</b>
PO4	Learning and practicing professional skills in handling microbes and contaminants in laboratories and production sectors.	<b>76</b>
PO5	Exploring the microbial world and analysing the specific benefits and challenges.	<b>82</b>
PO6	Applying the knowledge acquired to undertake studies and identify specific remedial measures for the challenges in health, agriculture, and food sectors.	<b>76</b>
PO7	Thorough knowledge and application of good laboratory and good manufacturing practices in microbial quality control.	<b>38</b>
PO8	Understanding biochemical and physiological aspects of microbes and developing broader perspective to identify innovative solutions for present and future challenges posed by microbes.	<b>83</b>
PO9	Understanding and application of microbial principles in forensic and working knowledge about clinical microbiology.	<b>81</b>
PO10	Demonstrate the ability to identify ethical issues related to recombinant DNA technology, GMOs, intellectual property rights, biosafety and biohazards.	<b>57</b>
PO11	Demonstrate the ability to identify key questions in microbiological research, optimize research methods, and analyse outcomes by adopting scientific methods, thereby improving the employability.	<b>85</b>
PO12	Enhance and demonstrate analytical skills and apply basic computational and statistical techniques in the field of microbiology	<b>66</b>