



J.S.M. COLLEGE ALIBAG RAIGAD

2.6.1

**Programme outcome (POS)
Programme Specific Outcomes (PSO)
and Course Outcomes (COS)**

DEPARTMENT OF BOTANY

Programme Outcome: On completion of B.Sc. Botany, students will learn:

PO1 Specific core discipline knowledge: Students can recall details and information about the evolution, anatomy, morphology, systematics, genetics, physiology, ecology, and conservation of plants and all other forms of life. Students can recall details of the unique ecological and evolutionary features of the local and Indian flora.

PO2 Communication skills: Students can communicate effectively using oral and written communication skills

PO3: Problem solving and research skills: Students can generate and test hypotheses, make observations, collect data, analyze and interpret results, derive conclusions, and evaluate their significance within a broad scientific context

PROGRAMME SPECIFIC OUTCOMES FOR B.Sc. BOTANY

- To recognize and identify major groups of non-vascular and vascular plants and their phylogenetic relationships.
- To understand the phylogeny of plants and study various systems of classification.
- To explore the morphological, anatomical, embryological details as well as economic importance of algae, fungi, bryophytes, pteridophytes, gymnosperms and angiosperms.
- To understand physiological processes and adaptations of plants.
- To provide knowledge about environmental factors and natural resources and their importance in sustainable development.
- To be able to carry out phytochemical analysis of plant extracts and application of the isolated compounds for treatment of diseases.
- To be able to deal with all microbes and the technologies for their effective uses in industry and mitigation of environmental concerns.
- To explain how current medicinal practices are often based on indigenous plant knowledge and to get introduced to different perspectives on treating ailments according to ethnomedicinal principles.
- To understand patterns of heredity and variation among individuals, species and populations and apply principles for improvement of quality and yield.
- To be able to apply statistical tools to gain insights into significantly different data from different sources.
- To acquire recently published knowledge in molecular biology, such as rDNA technology; PTC and bioinformatics and their applications.
- Students acquire knowledge about Basic horticultural science terminology.
- Students will gain knowledge on post harvesting techniques which will explore the possibility of entrepreneurship in this field.
- Focus of the Horticulture program is the development of a well-rounded Horticulturist.
- Demonstrate knowledge and understanding in Current applications of horticultural principles and practices: propagation, pest management, production, maintenance, and business practices.

PROGRAMME SPECIFIC OUTCOMES FOR M.Sc. BOTANY

- Students will be able to identify the major groups of organisms amongst plants and be able to classify them within a phylogenetic framework. Students will be able to compare and contrast the characteristics of Cryptogams and Phanerogams that differentiate them from each other and from other forms of life.
- Students will be able to explain how organisms function at the level of the gene, genome, cell, tissue, organ and organ-system. Drawing upon this knowledge, they will be able to give specific examples of the physiological adaptations, development, reproduction and behaviour of different forms of life.
- Students will be able to explicate the ecological interconnectedness of life on earth by studying ecological principles and nutrient flow through the environment. They will be able to relate the physical features of the environment to the structure of populations, communities, and ecosystems.
- Students will be able to use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth. They will be able to use specific examples to explicate how descent with modification has shaped plant morphology, physiology, and life history.
- Students will be able to carry out a thorough study of the active constituents of medicinal plants with an emphasis on the use of plant based food as medicine.
- Students will be able to demonstrate proficiency in the experimental techniques and methods of analysis appropriate for understanding the above.

Course Outcomes:

F.Y.B.Sc. Sem I & II		
Paper I Plant Diversity I	CO1	The students will learn about the diversity, identification, classification and economic importance of some specific algae, fungi, bryophytes and gymnosperm.
	CO2	Students will also become familiar with various taxonomic aspects like how to identify the plants on the basis of morphological characters like root, stem, leaves and flowers.
	CO3	Students will also become familiar with specific plant families with study of economic important plants.
Paper II Form and Function I	CO1	The students will acquire knowledge about some important cell organelles like chloroplast and endoplasmic reticulum and their function under broad topic of cell biology.
	CO2	Students will also learn about basic concepts of ecology like energy pyramids, how energy flows in an ecosystem and various types of biotic and abiotic factors in different ecosystems.
	CO3	Students will also learn about basic concepts of Mendelism and how genes interact under topic genetics.
	CO4	Students will also solve basic biostatistics problems based on mean mode and median, standard deviation and frequency distribution.

	CO5	Students will go through basic plant physiological processes like photosynthesis and its importance.
	CO6	Students will learn about grandma's pouch containing various medicinally important plants and their uses.
S.Y.B.Sc. SEM III & IV		
Paper I Plant Diversity II	CO1	The syllabus is designed to train the students in all areas of the plant sciences with some applied areas of the subject.
	CO2	The students will learn about the diversity, identification, classification and economic importance of lower plants like algae, fungi, bryophytes and gymnosperm.
	CO3	Students will also become familiar with various taxonomic aspects like how to identify the plants on the basis of morphological characters and will also become familiar with various plant families with study of economic important plants.
	CO4	The students will learn about some important instrumentation techniques. • The students will also acquire knowledge about palaeobotany and various plants fossils.
Paper II Form and Function II	CO1	Students will also learn about basic concepts of cytogenetics like how sex is determined in different organisms, variation in chromosome number and concept of extra nuclear genetics.
	CO2	Students will be able to learn about the central dogma of life basis of molecular biology. • Students will go through basic plant physiological processes like respiration, Photoperiodism, photorespiration and its importance.
	CO3	Students will acquire knowledge about various biogeochemical cycles of nature and how soil formation occurs.
	CO4	The students will acquire knowledge about some important cell organelles and their function under broad topic of cytology.
Paper III Current Trends in Plant Sciences I	CO1	Students will also get exposed to various hands on practical of various tissue culture techniques and biotechnology based techniques and horticulture based practices like bonsai, dish garden, terrarium making.
	CO2	The students will also gain knowledge about the latest molecular biology techniques for isolation and characterization of genes.
	CO3	Students will learn about important bioinformatics-based practicals.
T.Y.B.Sc. SEM V & VI		
Paper I Plant Diversity III	CO1	The syllabus is designed to train the students in all areas of the plant sciences with some applied areas of the subject.
	CO2	The students will learn about the diversity, identification, classification and economic importance of lower organisms and plants like viruses, bacteria, algae, bryophytes, fungi and gymnosperms.

	CO3	The students will also develop understanding in different diseases caused by viruses, bacteria and fungi.
Paper II Plant Diversity IV	CO1	The students will also acquire knowledge about palaeobotany and various plants fossils.
	CO2	Students will also become familiar with various taxonomic aspects like how to identify the plants on the basis of morphological characters and will also become familiar with various plant families with study of economic important plants.
	CO3	Students will also develop understanding in plant anatomy.
	CO4	Students will also learn how biodiversity is important, what threats are there to biodiversity and how to conserve biodiversity.
	CO5	The students will understand the growth, development and reproduction in plants
Paper III Form and Function III	CO1	The students will acquire knowledge about few cell organelles and their function under broad topic of cytology.
	CO2	They will be understand some important physiological processes like osmosis, imbibition etc.
	CO3	Students will also get exposed to various hands on practical of various tissue culture techniques and biotechnology based techniques.
	CO4	The students would be able learn the technique of mushroom cultivation and explore the possibility of entrepreneurship in the same.
	CO5	Students will able to understand how nitrogen cycle occurs in nature and why nitrogen is so important for plants and how it is assimilated in nature.
	CO6	The students will be able to draw genetic chromosome maps on the basis of three point test cross and will also learn about mutations, its sources.
	CO7	Students will be able to solve biostatistics-based problems based on students t test, regression analysis and ANOVA.
Paper IV Current Trends in Plant Sciences II	CO1	Students will gain knowledge on post harvesting techniques which will explore the possibility of entrepreneurship in this field.
	CO2	The students will also gain knowledge about the latest molecular biology techniques for isolation and characterization of genes.
	CO3	Students will learn about important bioinformatics-based practicals.
M.Sc. SEM I, II, III & IV		
Plant Diversity- Cryptogams I (Algae and Fungi)	CO1	Classify algae into various groups, understand the importance in various fields and will be able to collect and identify them
	CO2	Classify fungi into various groups, understand the role of fungi in various fields and will be able to collect and identify fungi, fungal pathogens and culture them.

Plant Diversity- Cryptogams I (Algae and Fungi)	CO1	The students will be able to differentiate between gymnosperms and angiosperms , study their origin and nomenclature, understand evolutionary theories for origin of Angiosperms, understand characteristics of selected Angiosperm families and learn the rules governing the code of botanical nomenclature, also learn the recent developments as in molecular systematics.
Plant Physiology	CO1	Students should be able to understand how to apply the basic concepts of Plant Physiology in other fields and also to know and discuss the concept of physiological processes of plants.
Cytogenetics, Molecular Biology and Biotechnology	CO1	Students will be able to understand the control points in a cell cycle, Study and apply principles of microbial genetics, understand recombinant DNA technology and study applications of the same for the improvement of crops.
Plant Diversity- Cryptogams II (Bryophyta and Pteridophyta)	CO1	Classify Bryophytes into various groups, study their importance
	CO2	Classify Pteridophytes into various groups, study their importance and multiplication of important ferns
Plant Diversity: Spermatophyta II	CO1	Students will be able to understand the development of pollen, spore, fertilization and to apply palynological information to plant systematics
Plant Physiology and Environmental Botany	CO1	Distinguish key physiological processes underlying the seed germination <ul style="list-style-type: none"> • Identify the physiological factors that regulate growth and developmental processes of plants • Demonstrate clear understanding of crop-environment interaction and its implication on crop growth and yield • Integrate and apply their knowledge of crop physiology for analytical thinking and solving practical problems experienced in agricultural systems
	CO2	To understand and apply ecological principles and understand legislation and measures to solve environmental problems.
Medical Botany And Dietetics	CO1	Students will be able to identify medicinal plants and understand the effects of plant chemical constituents on humans and the use of plants in Dietetics and as nutraceuticals.

DEPARTMENT OF CHEMISTRY

Programme Outcome: On completion of B.Sc. Chemistry, students will acquire:

PO1: Core competency: Students will acquire core competency in the subject Chemistry, and in allied subject areas.

PO2: A systematic and coherent understanding of the fundamental concepts in Physical, Organic, inorganic and Analytical Chemistry and all other related allied chemistry subjects.

PO3: Students will be able to characterize, identify and separate components of organic or inorganic origin and will also be able to analyze them by making use of the modern instrumental methods learned.

PO4: Students will be able to use the evidence-based comparative chemistry approach to explain chemical synthesis and analysis.

PO5: Students will be able to understand the basic principle of equipment and instruments used in the chemistry laboratory.

PO6: Students will be able to demonstrate the experimental techniques and methods of their area of specialization in Chemistry.

PO7: The course curriculum also includes components that can be helpful to graduate students to develop critical thinking ability by way of solving problems/numerical using basic chemistry knowledge and concepts.

PO8: Appreciate the central role of chemistry in our society and use this as a basis for ethical behaviour in issues facing chemists including an understanding of safe handling of chemicals, environmental issues, and key issues facing our society in terms of energy, health and medicine.

PO9: Lifelong Learner: The course curriculum is designed to inculcate a habit of learning continuously through use of advanced ICT techniques and other available techniques/books/journals for personal academic growth as well as for increasing employability opportunity.

PROGRAMME SPECIFIC OUTCOMES

- Students acquire knowledge about Basics of Drugs and Dyes
- Students will gain knowledge of synthesis of many drugs.
- They understand therapeutic actions of many drugs and their use in day to day life.
- Demonstrate knowledge and understanding in Current applications of different Dyes.
- Practically students will prepare Dyes and its use for colouring cloth through projects.
- They also understand the analysis of many drugs through practicals.

Course Outcomes:

F.Y.B.Sc. Sem I & II		
Paper I	CO1	To understand reaction kinetics, rate constant, order of reaction.
	CO2	To identify stereochemistry of various chemicals. To provide best practices of semi-micro qualitative analysis
	CO3	To define specific terms of states of matter, oxidation and reduction.
Paper II	CO1	To understand purification method for solid compounds
	CO2	To solve numericals on Molarity, Normality and Molality
	CO3	To understand basics of Inorganic chemistry
	CO4	To identify unknown organic compound
S.Y.B.Sc. SEM III & IV		
Paper I	CO1	To become proficient in analysing the various observations and chemical phenomena presented to student during the course.
	CO2	To understand & solve problems related to thermodynamics and kinetics.
	CO3	To understand the preparation and reactions of alcohol, phenols
	CO4	To understand the preparation and reactions of carboxylic acid, diazonium compounds, sulphonic acids, amines and carbonyl compounds.
Paper II	CO1	To know specific principles of Inorganic chemistry.
	CO2	To know specific facts about instrumental methods of analysis
	CO3	To know specific trends of transition metals, catalysis and electrochemistry
	CO4	To understand the concepts of Gravimetry and Volumetry
Paper III	CO1	To find basics calculations of mean, mode, median
	CO2	To understand basic analytical chemistry
	CO3	To solve numericals based on analytical methods for understanding concepts in detail.
T.Y.B.Sc. SEM V & VI		
Paper I	CO1	To understand details about spectroscopic techniques, stereochemistry.
	CO2	To know specific terms involved in organic and inorganic reaction mechanisms.
	CO3	To understand concepts of molecular spectroscopy
Paper II	CO1	To know specific terms of symmetry, molecular orbital theory, solid state chemistry, inner transition metals.
	CO2	To know the various types of methods for analysis of compounds.
	CO3	To know various methods of preparation of Inorganic compounds
	CO4	To solve numericals

Paper III	CO1	To know about various chemotherapeutic agents, dyes and dye-stuff intermediates.
	CO2	To understand concept of stereochemistry
	CO3	To solve numericals on spectroscopy
	CO4	To know about natural products, heterocycles, photochemistry, pericyclic reactions.
	CO5	To identify unknown organic compound
Paper IV	CO1	To understand concepts of Atomic absorption and emission spectroscopy
	CO2	To find details of various types of titrations
	CO3	To solve numericals based on various topics of analytical chemistry
M.Sc. SEM I, II, III & IV		
Paper I	CO1	To know specific techniques: disconnection of molecules, synthesis of target molecules..
	CO2	To know new name reactions, reagents and rearrangements.
	CO3	To know in detail about natural products, group theory and solid state chemistry.
Paper II	CO1	To know more specific terms involved in asymmetric synthesis, pericyclic reactions and photochemistry.
	CO2	To solve critical problems spectroscopy and two-dimensional spectroscopy
	CO3	To know new name reactions, reagents and rearrangements.
Paper III	CO1	To know about drug discovery, green chemistry, biomolecules.
	CO2	To study the behaviour of inorganic solids, their bonding, preparation and reactions including mechanisms.
	CO3	To understand thermal and magnetic properties of inorganic materials.
Paper IV	CO1	To understand ternary mixture separation and identification
	CO2	To perform organic synthesis

DEPARTMENT OF MATHEMATICS

Programme Outcome: On completion of B.Sc. Mathematics, students will learn:

PO1 The knowledge with facts and figures related to Mathematics, Physics and Chemistry, Computer Science.

PO2 To understand the basic concepts, fundamental principles and scientific theories related to various scientific phenomena and their relevance in the day-to-day life.

PO 3 To understand application mathematics in different fields like Mechanics ,Astronomy, Astrology , Information technology etc

PO 4 To analyze given data and draw the conclusion.

PO 5 To think creatively to propose novel ideas in explaining facts and figures or providing new solutions to the problems

PO 6 To pursue higher studies in Mathematics and Computer Application

PO 7 To work in different Scientific Institution

PROGRAMME SPECIFIC OUTCOMES

- Understand the limit of functions, use to prove properties of continuous functions and derivative of functions
- Understand the concept of Riemann integrability , improper integrals , application of integration like area Volume, Surface area
- Demonstrate when a binary algebraic structure forms Group and Group properties
- Treat special types of Rings such as Euclidean domain and Principal ideal domain
- Solve System linear and nonlinear equations and their application in Chemistry and physics to balance chemical reactions and circuits respectively
- Calculate definite integral using an appropriate numerical method
- Derive methods for various mathematical operations and tasks such as interpolation, differentiation and integration.
- Solution of first order differential equations system by using Numerical methods.
- Be able to use the facility with mathematical and computational modeling of real decision making Use the methods to design experiments, analysis and interpretation of data and synthesize the information to provide valid conclusion.

Course Outcomes:

F.Y.B.Sc. Sem I & II		
Paper I CALCULUS I	CO1	To understand Real Number System and properties of real numbers
	CO2	To understand Sequences in \mathbb{R} and convergence ,divergence of sequences
	CO3	To understand how to solve first order first degree differential equations and different types
CALCULUS II	CO 4	To Understand the concept of limits and continuity of functions
	CO 5	To understand differentiability of functions
	CO 6	To Understand application of derivatives
Paper II ALGEBRA I	CO1	To understand integers ,divisibility, congruence relation, equivalence relation and its application
	CO2	To understand functions, bijective functions, binary relations, properties of binary relation
	CO3	To get the knowledge of polynomials , their algebraic structure , divisibility , gcd of polynomials
Discrete Mathematics	CO 1	To Understand the concept of Preliminary counting
	CO 2	To Understand Advanced Counting
	CO 3	To get the knowledge of Permutations and recurrence Relations of order n
S.Y.B.Sc. Sem III & IV		
Paper I CALCULUS II	CO1	To Understand the Concept of Infinite Series, Their Convergence and divergence
	CO2	To Understand Riemann Integration , properties of \mathbb{R} Integration
	CO3	To Understand Improper Integration , beta Gamma Functions and examples
Paper II Linear Algebra I	CO1	To Understand system of linear equations and applications in various fields
	CO2	To Understand vector spaces over \mathbb{R} , sub spaces, linear independence and linear dependence of vectors
	CO3	To Understand determinants and their properties
Paper III Ordinary differential equations	CO1	To Study higher order differential equations
	CO2	To Study system of linear differential equations
	CO3	Solution of differential equations by numerical methods
Paper I Multivariable Calculus I	CO1	To Study Functions of several variables
	CO2	To Study Differentiation of Scalar Fields
	CO3	To Understand Applications of Differentiation of Scalar Fields and Differentiation of vector fields
Paper II Linear algebra II	CO1	To Study Linear transformation, Isomorphism, Matrix associated with L.T.
	CO2	To Study Inner product spaces

	CO3	To study Eigen values, eigen vectors, diagonalizable matrix
Paper III Numerical Methods elective A	CO1	To Study Solutions of algebraic and transcendental equations
	CO2	To Study Interpolation, Curve fitting, Numerical integration
	CO3	To Study Solutions of linear system of Equations and eigen value problems

DEPARTMENT OF COMMERCE

On completion of B.Com., students will learn:

PO1: This program could provide Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, Warehousing etc., well trained professionals to meet the requirements.

PO2: After completing graduation, students can get skills regarding various aspects like Marketing Manager, Selling Manager, over all Administration abilities of the Company.

PO3: Capability of the students to make decisions at personal & professional level will increase after completion of this course.

PO4: Students can independently start up their own Business.

PO5: Students can get thorough knowledge of finance and commerce.

PO6: The knowledge of different specializations in Accounting, costing, banking and finance with the practical exposure helps the students to stand in organization.

PROGRAMME SPECIFIC OUTCOMES FOR COMMERCE

- The students can get the knowledge, skills and attitudes during the end of the B.com degree course.
- By goodness of the preparation they can turn into a Manager, Accountant , Management Accountant, cost Accountant, Bank Manager, Auditor, Company Secretary, Teacher, Professor, Stock Agents, Government employments and so on.,
- Students will prove themselves in different professional exams like C.A. , C S, CMA, MPSC, UPSC. As well as other coerces.
- The students will acquire the knowledge, skill in different areas of communication, decision making, innovations and problem solving in day to day business activities.
- Students will gain thorough systematic and subject skills within various disciplines of finance, auditing and taxation, accounting, management, communication, computer.
- Students can also get the practical skills to work as accountant, audit assistant, tax consultant, and computer operator. As well as other financial supporting services.
- Students will learn relevant Advanced accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.
- Students will be able to do their higher education and can make research in the field of finance and commerce.

Course Outcomes:

F.Y.B.COM. Sem I & II		
Accountancy and Financial Management	CO1	The curriculum enriches the students' knowledge on passing journal entries and preparing respective ledger accounts
	CO2	Identify and interpret accounting information to inform users and make decisions.
	CO3	Apply critical thinking skills by identifying and analysing accounting issues using relevant accounting frameworks.
	CO4	Analyse financial and contextual information to make decisions, estimate costs and determine tax implications, audit risk, and engagement procedures.
	CO5	Identify and interpret accounting information to inform users and make decisions. Apply critical thinking skills by identifying and analysing accounting issues using relevant accounting frameworks
	CO6	Identify and interpret accounting information to inform users and make decisions. Apply critical thinking skills by identifying and analysing accounting issues using relevant accounting frameworks
Commerce	CO1	It is expected that the learners become fully conversant with the aspects of business, elements of business environment, entrepreneurship and setting up of business unit.
	CO2	Learners appreciate the importance of business in a developing economy.
	CO3	Learners consider entrepreneurship as a career option.
	CO4	It is expected that the learners acquaint themselves with the opportunities and challenges in the services sector.
	CO5	The learners are expected to develop skills relating to marketing of services.
Business Economics	CO1	Students would know about the market economy and its composition.
	CO2	Students would know about the basic tools and principles used in the market economy with respect to production analysis and economies of scale.
	CO3	Students would learn about various cost concepts and its behavior in the short and long run.
	CO4	Students would be aware of rational decision making.
	CO5	Students would understand the functioning of the ideal market structures of perfect competition and monopoly.
	CO6	Students would learn the working of Monopolistic Competition and Oligopoly markets.

Business Communication	CO1	Various types of oral, written and digital communication modes
	CO2	Effective business writing & Effective presentations
	CO3	Effective interpersonal communication & Communication that maximizes team effectiveness
	CO4	Soft skills and employability skills & Communication that makes effective personality.
Environmental Studies	CO1	The successful completion of the course will create an environmental awareness among Commerce students.
	CO2	It will make students aware about various environmental factors and their relation to the field of Commerce.
	CO3	The course will highlight functional and spatial links between environment, economy and society.
	CO4	The course will create an insight into various environmental issues
Foundation Course	CO1	The successful completion of course will enable the learner to understand factual aspects of Indian society.
	CO2	It will help create awareness and empathy among learners about various issues faced by youth.
	CO3	It will help ingrain sense of social responsibility and participatory approval towards society.
Mathematical and Statistical Techniques	CO1	The students would get to know about the usage of permutations and combinations in different arrangements and selections
	CO2	The students would be able to understand the concepts of Linear Programming, technique to formulate LPP and geometrical concepts to solve LPP
	CO3	The students would be able to understand different measures of Central Tendencies, their merits, demerits and acquire the skill of calculating different measures of Central Tendencies and Dispersion
	CO4	The students would be able to understand the concepts of Probability, Events, Algebra of Events, Theorems on Probability and calculation of Probability, Calculation of Expectation and Variance of a random variable.
S.Y.B.COM. Sem III & IV		
	CO1	Learners are acquainted with theoretical as well as practical aspects of accounting of the Partnership Firms with respect to admission, retirement, death of Partner/s.
	CO2	Learners are acquainted with the process of payment of liabilities of the Partnership Firm upon its dissolution.

Accountancy and Financial Management III	CO3	Learners are acquainted with the accounting of conversion of Partnership Firm into a Limited Liability Partnership.
	CO4	Learners are acquainted with the accounting of conversion of Partnership Firm into a Limited Company.
Business Economics	CO1	Demonstrate an understanding of the nature of key macroeconomic variables.
	CO2	Understand the tenets of Keynesian Economics and apply the tenets through the aggregate demand and supply model
	CO3	Understand the key elements of, and problems created by, macroeconomic shocks.
	CO4	Define and Analyse the determinants of business cycles, long run economic growth, unemployment, inflation.
Business Law	CO1	Learner will understand the Indian contract act and importance of Contract act.
	CO2	Learners should able to file RTI forms and E-Contract Forms.
	CO3	This can help students to learn banking regulation and IRDA.
	CO4	Students will have a complete understanding of The Negotiable Instruments Act
Commerce	CO1	Learners are expected to know the meaning of management, evolution of management thoughts and be able to compare ancient and modern management approach.
	CO2	Learners are expected to apply the process of Planning in day-to-day activities. They should be able to use Decision Making Techniques while making decisions.
	CO3	Learners are expected to understand the bases of departmentation in various companies.
	CO4	They should also understand the importance of motivation and leadership with proper controls.
	CO1	The successful completion of course will enable the learner to understand the remedial measures taken to address human right issues.

Foundation Course	CO2	It will help create awareness and empathy among learners about various issues faced by marginalized sections of society.
	CO3	It will help ingrain social responsibility and participatory approval towards society.
Financial Accounting and Auditing- Introduction to Management Accounting I	CO1	Learners are acquainted with the various methods and their importance in analyzing the financial statements of an entity
	CO2	Learners are acquainted with the various ratios used in financial statements analysis by a stakeholder in a decision making process about an entity.
	CO3	Learners are acquainted with the knowledge and ability to use various capital budgeting techniques in a decision making process.
	CO4	Learners are acquainted with the knowledge and ability to understand and estimate the working capital requirements of different types of entities.
Advertising	CO1	Students are expected to know the meaning of advertising and its importance to brand building.
	CO2	They are also expected to get empowered as consumers and learn how to bring accountability to advertising.
	CO3	Students learn about the emergence of media as well as study about the technological advancements/ growth of media industry in India.
	CO4	To explain the different forms of advertising and stimulate interest among students on the new trends in advertising.
Company Secretarial Practice	CO1	The learners need to know the growing need for Governance professionals in India
	CO2	The learners discuss and form opinion about corporate governance practices in India.
	CO3	The learners emerge as able service providers by recognizing the requirements of various stakeholder.
	CO4	The learners become conversant with the process of liaising, arbitration and conciliation.

Co-Operation	CO1	Students are expected to know the meaning of Cooperation and its importance, Role of Cooperation in Economic Development
	CO2	Students are expected to know structure and organization of cooperation
	CO3	The learners should have a complete understanding about problems of co-operative banking in India.
	CO4	Student should be able to understand challenges of co-operative sector.
T.Y.B.COM. Sem V & VI		
Business Economics	CO1	Students would understand the impact of the New Economic Policy and the different policy measures for Sustainable Development and Foreign Investment.
	CO2	Students would understand the role of agriculture and the problems associated with the sector.
	CO3	Students would be aware of the recent trends, role and growth of the Secondary and Tertiary sector.
	CO4	Students would learn about the Structure, Growth and Reforms in Financial Markets.
Commerce-Marketing	CO1	Students would get knowledge about marketing concepts and latest marketing strategies.
	CO2	Students would get knowledge of CRM, consumer behavior and bases of market segmentation.
	CO3	Students would get knowledge about how to develop and launch a product.
	CO4	Students would get knowledge about green marketing, rural marketing, social marketing and other trends in marketing.
Financial Accounting and Auditing - Financial	CO1	The students will be able to prepare financial statements of a corporate entity.
	CO2	The students will be able to account for internal restructuring of a corporate entity.

Accounting	CO3	The students will be able to prepare Investment account for an investor.
	CO4	The students will be able to account for buy back of shares by a corporate entity.
Financial Accounting and Auditing - Cost Accounting	CO1	Students would be able to understand objectives and scope of Cost Accounting.
	CO2	Students should be able to prepare stock ledger and understand various aspects of inventory control.
	CO3	Students should be able to prepare labour cost statement, remuneration and incentive systems.
	CO4	Students should be able to account for overheads apportionment, absorption and computation of overhead rates.
	CO5	Students should be able to classify costs and prepare cost sheet & reconcile cost and financial statements.
Export Marketing	CO1	The students would understand the basics of exports and its contribution to economic development.
	CO2	The students would be acquainted with the various Trading Blocks in operation.
	CO3	The students would be able to explore the various incentives offered for promoting exports
Purchasing and Store Keeping	CO1	Students would get knowledge about Material Management, Material Requirement Planning, scientific purchasing methods.
	CO2	The students would be able to explore developing areas.
	CO3	Students would get knowledge about various inventory stock level, Economic Order Quantity, Store accounting

DEPARTMENT OF B.M.S.

Program Outcome: On completion of B.M.S Botany, students will learn:

PSO1: Acquire knowledge about management practices that facilitate them to become effective professionals.

PSO2: Be capable to pursue higher studies in diverse fields of Management such as Business Administration, Human Resource Management, Marketing and Finance.

PSO3: Be adequately trained to be entrepreneurs and communicate effectively.

PSO4: Develop a positive attitude towards lifelong learning and research.

PSO5: Acquire the required skills to develop business models and be responsible global citizens with cross-cultural competent behaviour and ethical values.

PROGRAMME-SPECIFIC OUTCOMES FOR:

- Ability to gain and apply knowledge of management principles, concepts, and theories.
- Ability to analyze problems and provide effective and meaningful solutions. To increase awareness of the factors influencing decisions & the risks involved.
- . To encourage enterprise culture through innovative & creative thinking & develop an attitude to provide solutions to the problems in the business world as well as address the needs of the society.
- To apply managerial skills by working effectively as an individual, as a member of a team or as a leader on multidisciplinary management projects.
- to understand and commit to personal and professional ethics, responsibilities and norms and code of conduct of management practices.
- To understand and be sensitive to the impact of management decisions from a sustainability and environmental context and take suitable measures to mitigate the emerging risks.
- An ability to recognize the need for and engage in independent and life-long learning
- To acquaint learners with practical approaches to motivation and leadership & its application in the Indian context.

Course Outcomes:

F.Y.B.M.S (SEMESTER-I)		
Introduction To Financial Accounts	CO1	Understand & interpret the preparation of basic financial data such as trading Profit & loss accounts & balance sheet
	CO2	Have a basic knowledge of Indian accounting standards.
Business Law	CO1	Identify the fundamental legal principles behind contractual agreements.
	CO2	Understand the legal and economic structure of different forms of business organizations and their responsibilities as an employer.
Business Statistics	CO1	To familiarize the students with fundamental statistical tools which can help them in analyzing the business data.
	CO2	To Annalise and contrast techniques and biases of quantitative methods within the context they are to be applied
Business Communication I	CO1	Understand the theory of communication, its concepts, channels and objectives
	CO2	Master in language and writing skills
	CO3	Draft business correspondence like mails, letters
Foundation Of Human Skills	CO1	Understand the basic behaviour pattern of human, which is the most important resource of a business, and deal with them in an apt manner.
	CO2	Deal & negotiate with different kinds of human nature with greater awareness of human behaviour.
Business Economics I	CO1	Evaluate the effects of government interventions in individual markets and in the macroeconomy.
	CO2	Exhibit competency in demonstrating both reasoning and analytical skills in determining optimal outcomes in contemporary economic situations.
Foundation Course I	CO1	To make students capable of understanding and studying the vibrant Indian culture classify the general characteristic of Indians
	CO2	To understand the general characteristics on the Indian constitution and local self-government and its implication on every Indian citizen.
Semester-Ii		
Principles Of Marketing	CO1	Critically Analyse the marketing theories & concepts and understand the relevance in perspective to the current business scenario in India
	CO2	To develop basic marketing skills among students in order to cater to the marketing industries.
Industrial Law	CO1	Understand the laws related to working conditions in different settings.
	CO2	Learn the laws relating to Industrial Relations, Social Security and Working conditions.

Business Mathematics	CO1	Demonstrate understanding of basic mathematics concepts.
	CO2	Apply graphs, equations, ratio and proportion, percentage, and measurement systems to solve typical business problems viz calculation of budget, cash discounts, taxes etc.
Business Environment	CO1	Critically assess the business environment of an organization using selected strategic tools.
	CO2	Construct and present scenarios that synthesize business environment information.
Principles Of Management	CO1	Analyze the business decisions made by organisations using various tools and techniques to remain competitive.
	CO2	Offer diverse learning opportunities to develop analytical and soft skills.
Business Communication Ii	CO1	Have clear understanding of effective principles of effective presentation tools
	CO2	Get exposure to Group discussions and various types of mock interviews.
Foundation Course - Value Education And Soft Skill Ii	CO1	Aware about the Indian society, human rights & the environment
	CO2	Understand the meaning of stress & conflict, its effects on humans & how can we manage & overcome them
S.Y.Bms (Semester-Iii)		
Introduction To Cost Accounting(Finance Elective)	CO1	This course exposes the students to the basic concepts and the tools used in Cost Accounting
	CO2	To enable the students to understand the principles and procedure of cost accounting and to apply them to different practical situations
Corporate Finance (Finance Elective)	CO1	The objectives of develop a conceptual frame work of finance function and to acquaint the participants with the tools techniques and process of financial management in the realm of financial decision making
	CO2	The course aims at explaining the core concepts of corporate finance and its importance in managing a busines
Consumer Behaviour (Marketing Elective)	CO1	To develop an understanding about the consumer decision making process and its applications in marketing function of firms
	CO2	To equip undergraduate students with basic knowledge about issues and dimensions of Consumer Behaviour.
Advertising (Marketing Elective)	CO1	To understand and examine the growing importance of advertisin
	CO2	To understand the future and career in advertising

Recruitment & Selection (Human Resource Management)	CO1	To familiarize the students with concepts and principles, procedure of Recruitment and Selection in an organization.
	CO2	To give an in depth insight into various aspects of Human Resource management and make them acquainted with practical aspect of the subject
Employees Relations & Welfare (Human Resource Management)	CO1	To understand the nature and importance of employee relations in an organization
	CO2	To understand the causes and effects of employee grievances as well as the procedure to solve the same
Business Planning & Entrepreneurship	CO1	To introduces Entrepreneurship to budding managers.
	CO2	To develop entrepreneurs & to prepare students to take the responsibility of full line of management function of a company with special reference to SME sector.
Information Technology In Business Management I	CO1	To learn basic concepts of Information Technology, its support and role in Management, for managers
	CO2	To recognize security aspects of IT in business, highlighting electronic transactions, advanced security features
Accounting For Managerial Decisions	CO1	To acquaint management learners with basic accounting fundamentals.
	CO2	To develop financial analysis skills among learners.
Strategic Management	CO1	Know, understand, and apply the strategic management process to analyze and improve organizational performance
	CO2	Critically examine the management of the entire enterprise from the top management viewpoints.
Foundation Course Iii- Environmental Management	CO1	Develop an activity using various strategies to control, reduce and monitor all environmental problems that might arise as a result.
	CO2	Be conversant with basic environmental legislation.
Semester-Iv		
Auditing (Finance Elective)	CO1	To examine the system of internal check
	CO2	To confirm the existence of assets & liability.
Strategic Cost Management (Finance Elective)	CO1	Learners should develop skills of analysis, evaluation and synthesis in cost and management accounting
	CO2	The subject covers the complex modern industrial organizations within which the various facets of decision-making and controlling operations take place.
Integrated Marketing Communication (Marketing)	CO1	To equip the students with knowledge about the nature, purpose and complex construction in the planning and execution of an effective Integrated Marketing Communication (IMC) program.
	CO2	To understand the various tools of IMC and the importance of co-ordinating them for an effective marketing communication program.

Rural Marketing (Marketing)	CO1	To explore the students to the Agriculture and Rural Marketing environment so that they can understand consumer's and marketing characteristics of the same for understanding and contributing to the emerging challenges in the upcoming global economic scenario.
Human Resource Planning & Information System (Human Resource Management)	CO1	To Understand the Concept and Process of HRP
	CO2	To Understand Ways of matching Job Requirements and Human Resource Availability
Training & Development In HRM (Human Resource Management)	CO1	To make the students acquainted with working of the two powerful media; i.e. radio and television
	CO2	The content is useful for both advertising and journalism students in order to further their careers in their respective fields
Information Technology In Business Management-II	CO1	To understand managerial decision-making and to develop perceptive of major functional area of MIS
	CO2	To learn outsourcing concepts. BPO/KPO industries, their structures , Cloud computing
Business Economics II	CO1	Understanding, through application of microeconomics, of the interaction of individuals and organizations in markets; and of the role of public policy in shaping those interactions
Business Research Methods	CO1	The course is designed to inculcate the analytical abilities and research skills among the students
	CO2	The course intends to give hands on experience and learning in Business Research
Foundation Course IV - Ethics & Governance	CO1	To understand the emerging need and growing importance of good governance and CSR by organisations
	CO2	To study the ethical business practices, CSR and Corporate Governance practiced by various organisations
Production & Total Quality Management	CO1	Implement the basic principles of TQM in manufacturing and service-based organization.
	CO2	To enable the learners to apply what they have learned theoretically.
T.Y.BMS (SEMESTER-V)		
Investment Analysis & Portfolio Management (Finance)	CO1	To acquaint the learners with various concepts of finance
	CO2	To understand various models and techniques of security and portfolio analysis
Wealth Management (Finance)	CO1	To study the relevance and importance of Insurance in wealth management
	CO2	To acquaint the learners with issues related to taxation in wealth management
Risk Management (Finance)	CO1	To familiarize the student with the fundamental aspects of risk management and control

	CO2	To give a comprehensive overview of risk governance and assurance with special reference to the insurance sector
Financial Accounting (Finance)	CO1	To acquaint the learners in preparation of final accounts of companies
	CO2	To study the accounting of foreign currency and investment
Services Marketing (Marketing)	CO1	To understand distinctive features of services and key elements in services marketing
	CO2	To provide insight into ways to improve service quality and productivity
E-Commerce & Digital Marketing (Marketing)	CO1	To understand the increasing significance of E-Commerce and its applications in Business and Various Sectors
	CO2	to understand Latest Trends and Practices in E-Commerce and Digital Marketing, along with its Challenges and Opportunities for an Organisation
Sales & Distribution Management (Marketing)	CO1	To develop understanding of the sales & distribution processes in organizations
	CO2	To get familiarized with concepts, approaches and the practical aspects of the key decision making variables in sales management and distribution channel management
Customer Relationship Mgmt. (Marketing)	CO1	To understand concept of Customer Relationship Management (CRM) and implementation of Customer Relationship Management
	CO2	To understand new trends in CRM, challenges and opportunities for organizations
Finance For Hr Professionals & Compensation Management (Human Resource Management)	CO1	To orient HR professionals with financial concepts to enable them to make prudent HR decisions
	CO2	To understand the various compensation plans
Strategic Human Resource Management & Hr Policies (Human Resource Management)	CO1	To understand the various compensation plans
	CO2	To understand the relationship between strategic human resource management and organizational performance
Performance Management & Career Planning (Human Resource Management)	CO1	To understand the concept of performance management in organizations
	CO2	To review performance appraisal systems
Stress Management(Human Resource Management)	CO1	To understand the nature and causes of stress in organizations
	CO2	To enable learners to adopt effective strategies, plans, and techniques to deal with stress
Logistics And Supply Chain Management	CO1	To provide students with basic understanding of concepts of logistics and supply chain management
	CO2	To provide an insight in to the nature of supply chain, its functions and supply chain systems

Corporate Communication & Public Relations	CO1	To provide the students with basic understanding of the concepts of corporate communication and public relations
	CO2	To introduce the various elements of corporate communication and consider their roles in managing organizations
SEMESTER-VI		
International Finance(Elective Finance)	CO1	The objective of this course is to familiarize the student with the fundamental aspects of various issues associated with International Finance
	CO2	The course aims to give a comprehensive overview of International Finance as a separate area in International Business
Innovative Financial Services(Elective Finance)	CO1	To familiarize the learners with the fundamental aspects of various issues associated with various Financial Services
	CO2	To introduce the basic concepts, functions, process, techniques and create an awareness of the role, functions and functioning of financial services
Project Management (Elective Finance)	CO1	The objective of this course is to familiarize the learners with the fundamental aspects of various issues associated with Project Management
	CO2	To give a comprehensive overview of Project Management as a separate area of Management
Strategic Financial Management (Elective Finance)	CO1	To match the needs of current market scenario and upgrade the learner's skills and knowledge for long term sustainability
	CO2	Changing scenario in Banking Sector and the inclination of learners towards choosing banking as a career option has made study of financial management in banking sector inevitable
Brand Management (Elective Marketing)	CO1	To understand the meaning and significance of Brand Management
	CO2	To Know how to build, sustain and grow brands
Retail Management (Elective Marketing)	CO1	To provide understanding of retail management and types of retailers
	CO2	To develop an understanding of retail management terminology including merchandize management, store management and retail strategy.
International Marketing (Elective Marketing)	CO1	To understand International Marketing, its Advantages and Challenges.
	CO2	To understand the relevance of International Marketing Mix decisions and recent developments in the Global Market
Media Planning And Management	CO1	To understand Media Planning, Strategy, and Management with reference to the current business scenario.

	CO2	To know the basic characteristics of all media to ensure the most effective use of the advertising budget.
HRM In Global Perspective (ELECTIVE HUMAN RESOURCE)	CO1	To understand the concepts, theoretical framework, and issues of HRM from a Global Perspective
	CO2	To get insights of the concepts of Expatriates and Repatriates
Organisational Development (Elective Human Resource)	CO1	To understand the concept of Organisational Development and its Relevance in the organisation
	CO2	To Study the Issues and Challenges of OD while undergoing Changes
HRM In Service Sector Management (Elective Human Resource)	CO1	To understand how to manage human resources in service sector
	CO2	To understand the significance of human element in creating customer satisfaction through service quality
Human Resource Accounting & Audit (Elective Human Resource)	CO1	To familiarize with the Human Resource Accounting Practices in India
	CO2	To familiarize the learners with the process and approaches of Human Resources Accounting and Audit
Operation Research	CO1	To help students to understand operations research methodologies
		To help students to solve various problems practically
Project Work	CO1	to inculcate the element of research analyse and scientific temperament challenging the potential of learner as regards to his/ her eager to enquire and ability to interpret a particular aspects of the study.

Department of Computer Science

At the end of three year Bachelor of Computer Science, the students will be able:

PSO 1 To formulate, to model, to design solutions, procedure and to use software tools to solve real world problems.

PSO 2 To design and develop computer programs/computer -based systems in the areas such as networking, web design, security, cloud computing, IoT, data science and other emerging technologies.

PSO 3 To familiarize with the modern-day trends in industry and research based settings and thereby innovate novel solutions to existing problems.

PSO 4 To apply concepts, principles, and theories relating to computer science to new situations.

PSO 5 To use current techniques, skills, and tools necessary for computing practice

PSO 6 To apply standard Software Engineering practices and strategies in real-time software project development

PSO 7 To pursue higher studies of specialization and to take up technical employment.

PSO 8 To work independently or collaboratively as an effective team member on a substantial software project.

PSO 9 To communicate and present their work effectively and coherently.

PSO 10 To display ethical code of conduct in usage of Internet and Cyber systems.

PSO 11 To engage in independent and life-long learning in the background of rapid changing IT industry.

Course Outcomes

F.Y.B.Sc. C.S. Semester I		
Course Name	Course Number	Course Outcomes
Digital Systems & Architecture	CO1	To learn about how computer systems work and underlying principles To understand the basics of digital electronics needed for computers
	CO2	To understand the basics of instruction set architecture for reduced and complex instruction sets To understand the basics of processor structure and operation
	CO3	To understand how data is transferred between the processor and I/O devices
Introduction to Programming with Python	CO1	Ability to store, manipulate and access data in Python Ability to implement basic Input / Output operations in Python
	CO2	Ability to define the structure and components of a Python program. Ability to learn how to write loops and decision statements in Python.
	CO3	Ability to learn how to write functions and pass arguments in Python. Ability to create and use Compound data types in Python
LINUX Operating System	CO1	Work with Linux file system structure, Linux Environment Handle shell commands for scripting, with features of regular expressions, redirections

	CO2	Implement file security permissions Work with vi, sed and awk editors for shell scripting using various control structures
	CO3	Install software like compilers and develop programs in C and Python programming languages on Linux Platform
Open Source Technologies	CO1	Differentiate between Open Source and Proprietary software and Licensing.
	CO2	Recognize the applications, benefits and features of Open-Source Technologies
	CO3	Gain knowledge to start, manage open-source projects.
Discrete Mathematics	CO1	Define mathematical structures (relations, functions, graphs) and use them to model real life situations. Understand, construct and solve simple mathematical problems.
	CO2	Solve puzzles based on counting principles. Provide basic knowledge about models of automata theory and the corresponding formal languages.
	CO3	Develop an attitude to solve problems based on graphs and trees, which are widely used in software.
Descriptive Statistics	CO1	Organize, manage and present data.
	CO2	Analyze Statistical data using measures of central tendency and dispersion. Analyze Statistical data using basics techniques of R.
	CO3	4. Study the relationship between variables using techniques of correlation and regression.
Soft Skills	CO1	Learners will be able to understand the importance and types soft skills
	CO2	Learners will develop skills for Academic and Professional Presentations. Learners will able to understand Leadership Qualities and Ethics.
	CO3	Ability to understand the importance of stress management in their academic & professional life.
F.Y.B.Sc. C.S. Semester II		
Design & Analysis of Algorithms	CO1	Students should be able to understand and evaluate efficiency of the programs that they write based on performance of the algorithms used.
	CO2	Students should be able to appreciate the use of various data structures as per need
	CO3	To select, decide and apply appropriate design principle by understanding the requirements of any real life problems
Advanced Python Programming	CO1	Ability to implement OOP concepts in Python including Inheritance and Polymorphism Ability to work with files and perform operations on it using Python.
	CO2	Ability to implement regular expression and concept of threads for developing efficient program

		Ability to implement exception handling in Python applications for error handling.
	CO3	Knowledge of working with databases, designing GUI in Python and implement networking in Python
Introduction to OOPs using C++	CO1	Work with numeric, character and textual data and arrays.
	CO2	Understand the importance of OOP approach over procedural language. Understand how to model classes and relationships using UML.
	CO3	Apply the concepts of OOPS like encapsulation, inheritance and polymorphism. Handle basic file operations.
Database Systems	CO1	To appreciate the importance of database design. Analyze database requirements and determine the entities involved in the system and their relationship to one another.
	CO2	Write simple queries to MySQL related to String, Maths and Date Functions. Create tables and insert/update/delete data, and query data in a relational DBMS using MySQL commands
	CO3	Understand the normalization and its role in the database design process. Handle data permissions. Create indexes and understands the role of Indexes in optimization search.
Calculus	CO1	Develop mathematical skills and enhance thinking power of learners.
	CO2	Understand mathematical concepts like limit, continuity, derivative, integration of functions, partial derivatives. Appreciate real world applications which uses the learned concepts.
	CO3	Skill to formulate a problem through Mathematical modelling and simulation.
Statistical Methods	CO1	Calculate probability, conditional probability and independence. Apply the given discrete and continuous distributions whenever necessary.
	CO2	Define null hypothesis, alternative hypothesis, level of significance, test statistic and p value. Perform Test of Hypothesis as well as calculate confidence interval for a population parameter for single sample and two sample cases.
	CO3	Apply non-parametric test whenever necessary. Conduct and interpret one-way and two-way ANOVA.
E-Commerce & Digital Marketing	CO1	Understand the core concepts of E-Commerce. Understand the various online payment techniques
	CO2	Understand the core concepts of digital marketing and the role of digital marketing in business. Apply digital marketing strategies to increase sales and

		growth of business
	CO3	Apply digital marketing through different channels and platforms Understand the significance of Web Analytics and Google Analytics and apply the same.

S.Y.B.Sc. C.S. Semester III		
Course Name	Course Number	Outcome
Theory of Computation	CO1	Understand Grammar and Languages
	CO2	Learn about Automata theory and its application in Language Design
	CO3	Learn about Turing Machines and Pushdown Automata Understand Linear Bound Automata and its applications
Core Java	CO1	Object oriented programming concepts using Java.
	CO2	Knowledge of input, its processing and getting suitable output.
	CO3	Understand, design, implement and evaluate classes and applets. Knowledge and implementation of AWT package.
Operating System	CO1	To provide a understanding of operating system, its structures and functioning
	CO2	Develop and master understanding of algorithms used by operating systems for various purposes.
	CO3	Understanding of algorithms used by operating systems for various purposes.
Database Management Systems	CO1	Master concepts of stored procedure and triggers and its use.

	CO2	Learn about using PL/SQL for data management
	CO3	Understand concepts and implementations of transaction management and crash recovery
Combinatorics and Graph Theory	CO1	Appreciate beauty of combinatorics and how combinatorial problems naturally arise in many settings.
	CO2	Understand the combinatorial features in real world situations and Computer Science applications.
	CO3	Apply combinatorial and graph theoretical concepts to understand Computer Science concepts and apply them to solve problems
Physical Computing and IoT Programming	CO1	Enable learners to understand System On Chip Architectures.
	CO2	Introduction and preparing Raspberry Pi with hardware and installation.
	CO3	Learn physical interfaces and electronics of Raspberry Pi and program them using practical's Learn how to make consumer grade IoT safe and secure with proper use of protocols.
Web Programming	CO1	To design valid, well-formed, scalable, and meaningful pages using emerging technologies.
	CO2	Understand the various platforms, devices, display resolutions, viewports, and browsers that render websites To develop and implement client-side and server-side scripting language programs.
	CO3	To develop and implement Database Driven Websites. Design and apply XML to create a markup language for data and document centric applications.

S.Y.B.Sc. C.S. Semester IV		
Fundamentals of Algorithms	CO1	Understand the concepts of algorithms for designing good program
	CO2	Implement algorithms using Python
	CO3	To develop application
Advanced Java	CO1	Understand the concepts related to Java Technology
	CO2	Explore and understand use of Java Server Programming
	CO3	To learn and developed Java based application
Computer Networks	CO1	Learner will be able to understand the concepts of networking, which are important for them to be known as a 'networking professionals'.
	CO2	Useful to proceed with industrial requirements and International vendor certifications.
	CO3	To learn network topologies
Software Engineering	CO1	Plan a software engineering process life cycle, including the specification, design, implementation, and testing of software systems that meet specification, performance, maintenance and quality requirements
	CO2	Analyze and translate a specification into a design, and then realize that design practically, using an appropriate software engineering methodology.
	CO3	Know how to develop the code from the design and effectively apply relevant standards and perform testing, and quality management and practice Able to use modern engineering tools necessary for software project management, time management and software reuse.

Linear Algebra using Python	CO1	Appreciate the relevance of linear algebra in the field of computer science.
	CO2	Understand the concepts through program implementation
	CO3	Install a computational thinking while learning linear algebra.
.Net Technologies	CO1	Understand the .NET framework
	CO2	Develop a proficiency in the C# programming language
	CO3	Proficiently develop ASP.NET web applications using C#. Use ADO.NET for data persistence in a web application
Android Developer Fundamentals	CO1	Understand the requirements of Mobile programming environment.
	CO2	Learn about basic methods, tools and techniques for developing Apps Explore and practice App development on Android Platform
	CO3	Develop working prototypes of working systems for various uses in daily lives.

TYBSc CS Sem V		
USCS501 Artificial Intelligence	CO1	After completion of this course, learner should get a clear understanding of AI and different search algorithms used for solving problems.
	CO2	The learner should also get acquainted with different learning algorithms and models used in machine learning.
	CO3	Artificial Intelligence (AI) and accompanying tools and techniques bring transformational changes in the world. Machines capability to match, and sometimes even surpass human capability, make AI a hot topic in Computer Science. This course aims to introduce the learner to this interesting area.
USCS502 Linux Server Administration	CO1	Learner will be able to develop Linux based systems and maintain.
	CO2	Learner will be able to install appropriate service on Linux server as per requirement.
	CO3	Learner will have proficiency in Linux server administration.
USCS503 Software Testing and Quality Assurance	CO1	Understand various software testing methods and strategies.
	CO2	Understand a variety of software metrics, and identify defects and managing those defects for improvement in quality for given software.
	CO3	Design SQA activities, SQA strategy, formal technical review report for software quality control and assurance
USCS504 Information and Network Security	CO1	Understand the principles and practices of cryptographic techniques.
	CO2	Understand a variety of generic security threats and vulnerabilities, and identify & analyze particular security problems for a given application.
	CO3	Understand various protocols for network security to protect against the threats in a network
USCS505 Architecting of	CO1	Learners are able to design & develop IoT Devices.

IoT	CO2	They should also be aware of the evolving world of M2M Communications and IoT analytics.
USCS506 Web Services	CO1	Emphasis on SOAP based web services and associated standards such as WSDL
	CO2	Design SOAP based / RESTful / WCF services Deal with Security and QoS issues of Web Services
	CO3	To understand WCF service. To design secure web services and QoS of Web Services
USCS507 Game Programming	CO1	Learner should study Graphics and gaming concepts with present working style of developers where everything remains on internet and they need to review it, understand it, be a part of community and learn.
	CO2	Along with the VR and AR they should also aware of GPU, newer technologies and programming using most important API for windows.
	CO3	Learner should get the understanding computer Graphics programming using Directx or Opengl.
T.Y.B.Sc. C.S. Semester VI		
USCS601 Wireless Sensor Networks and Mobile Communication	CO1	After completion of this course, learner should be able to list various applications of wireless sensor networks.
	CO2	Describe the concepts, protocols, design, implementation and use of wireless sensor networks.
	CO3	Implement and evaluate new ideas for solving wireless sensor network design issues.
USCS602 Cloud Computing	CO1	After successfully completion of this course, learner should be able to articulate the main concepts, key technologies, strengths, and limitations of cloud computing and the possible applications for state-of-the-art cloud computing using open source technology.
	CO2	Learner should be able to identify the architecture and infrastructure of cloud computing, including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud, etc.

	CO3	They should explain the core issues of cloud computing such as security, privacy, and interoperability.
USCS603 Cyber Forensics	CO1	To understand the procedures for identification, preservation, and extraction of electronic evidence, auditing and investigation of network and host system intrusions, analysis and documentation of information gathered
	CO2	The student will be able to plan and prepare for all stages of an investigation - detection, initial response and management interaction, investigate various media to collect evidence, report them in a way that would be acceptable in the court of law.
USCS604 Information Retrieval	CO1	After completion of this course, learner should get an understanding of the field of information retrieval and its relationship to search engines.
	CO2	It will give the learner an understanding to apply information retrieval models.
	CO3	To provide an overview of the important issues in classical and web information retrieval.
USCS605 Digital Image Processing	CO1	Learner should review the fundamental concepts of a digital image processing system.
	CO2	Analyze the images in the frequency domain using various transforms.
	CO3	Evaluate the techniques for image enhancement and image segmentation.
	CO4	Apply various compression techniques. They will be familiar with basic image processing techniques for solving real problems.
USCS606 Data Science	CO1	Understanding basic data science concepts. Learning to detect and diagnose common data issues, such as missing values, special values, outliers, inconsistencies, and localization.
	CO2	Making aware of how to address advanced statistical situations, Modeling and Machine Learning.
	CO3	After completion of this course, the students should be able to understand & comprehend the problem. To define suitable statistical method to be adopted.

USCS607 Ethical Hacking	CO1	To understand the ethics, legality, methodologies and techniques of hacking.
	CO2	Learner will know to identify security vulnerabilities and weaknesses in the target applications
	CO3	To test and exploit systems using various tools and understand the impact of hacking in real time machines.

DEPARTMENT OF I.T.

PROGRAM OUTCOME

B.Sc. Information Technology programs make the students employable and impart industry oriented training. The students will learn:

- **PO1:** To think analytically, creatively and critically in developing robust, extensible and highly maintainable technological solutions to simple and complex problems.
- **PO2:** To apply their knowledge and skills to be employed and excel in IT professional careers and/or to continue their education in IT and/or related post graduate programmes.
- **PO3:** To be capable of managing complex IT projects with consideration of the human, financial and environmental factors.
- **PO4:** To work effectively as a part of a team to achieve a common stated goal.
- **PO5:** To adhere to the highest standards of ethics, including relevant industry and organizational codes of conduct.
- **PO6:** To communicate effectively with a range of audiences both technical and non-technical.
- **PO7:** To develop an aptitude to engage in continuing professional development.

PROGRAMME SPECIFIC OUTCOMES

This program covers industry relevant courses. The students will be ready for the jobs available in different fields like:

- · Software Development (Programming)
- · Website Development
- · Mobile app development
- · Internet of Things
- · Software Testing
- · Networking
- · Database Administration
- · System Administration
- · Cyber Law Consultant
- · GIS (Geographic Information Systems)
- · IT Service Desk
- · Security
- · Technical communication skills
- · Green IT and many others

COURSE OUTCOMES

FYBSc IT (SEM I)

Course name	Number	Outcome
Paper 1 – Imperative Programming	CO1	Learn the basic principles of programming.
	CO2	Develop logic using algorithms and flowchart.
	CO3	Acquire the information about data types.
	CO4	Understanding of input and output functions.
	CO5	Enhance advanced concepts using programs.
Paper 2 – Digital Electronics	CO1	Apply number conversion techniques in real digital systems
	CO2	Solve boolean algebra expressions
	CO3	Derive and design logic circuits by applying minimization in SOP and POS forms
	CO4	Design and develop Combinational and Sequential circuits
	CO5	Understand and develop digital applications
Paper 3 – Operating System	CO1	Understand operating system and its types.
	CO2	Learn about memory management.
	CO3	Learn input output hardware and software and deadlock.
	CO4	Understand virtualization & multiprocessors
	CO5	Case studies on linux, android & widows

Paper 4 – Discrete Mathematics	CO1	Use logical notation and Perform logical proofs
	CO2	Apply recursive functions and solve recurrence relations
	CO3	Use graphs and trees
	CO4	Apply basic and advanced principles of counting
	CO5	Define sets and Relations
	CO6	Calculate discrete probabilities.
Paper 5 – Communication Skills	CO1	Analyze, synthesize and utilize the process and strategies from delivery to solving communication problems.
	CO2	Learn the communication methodologies at the workplace and learn about the importance of team collaboration.
	CO3	Learn about different technical communication such as presentations and interviews.
	CO4	Understand and apply the art of written communication in writing reports, proposals.
	CO5	Ground rules of ethical communication and MIS.
	CO6	Understand the functions of graphs, maps, charts.

FYBSc IT (SEM II)

Course name	Number	Outcome
Paper 1 – Object oriented Programming	CO1	Understand the concept of OOPs, features of C++ language.

	CO2	Understand and apply various types of Datatypes, Operators, Conversions while designing the program.
	CO3	Understand and apply the concepts of Classes & Objects, friend function, constructors & destructors in program design.
	CO4	Design & implement various forms of inheritance, String class, calling base class constructors.
	CO5	Apply & Analyze operator overloading, runtime polymorphism, Generic Programming.
	CO6	Analyze and explore various Stream classes, I/O operations and exception handling.
Paper 2 – Microprocessor Architecture	CO1	Understand the basic concepts of Micro Computer Systems
	CO2	Understand the architecture and hardware aspects of 8085
	CO3	Write assembly language programs in 8085
	CO4	Design elementary aspects of Micro Controller based systems
	CO5	Interfacing peripherals using Microcontroller
Paper 3 – Web Programming	CO1	Analyze the working of the Internet.
	CO2	Gain an insight into designing web pages.
	CO3	Use different ways of styling web pages using CSS.
	CO4	Implement basic and complex functionalities of JavaScript in a web page.

	CO5	Employ PHP Scripts to execute dynamic tasks in a web page.
	CO6	Perform various database tasks using PHP.
Paper 4 – Numerical and Statistical Methods	CO1	Understand numerical techniques to find the roots of nonlinear equations and solution of systems of linear equations.
	CO2	Understand the difference operators and the use of interpolation.
	CO3	Understand numerical differentiation and integration and numerical solutions of ordinary and partial differential equations.
	CO4	Find fast and accurate solutions to simple and complex numerical problems using different techniques.
Paper 5 – Green Computing	CO1	Understand the concept of Green IT and problems related to it.
	CO2	Know different standards for Green IT.
	CO3	Understand how power usage can be minimized in Technology.
	CO4	Learn about how the way of work is changing.
	CO5	Understand the concept of recycling.
	CO6	Know how information systems can stay Green Information systems.

SYBSc IT (SEM III)

Course name	Number	Outcome
Paper 1 – Python Programming	CO1	Learn about python programming and its structure.
	CO2	Learn implementation of function
	CO3	Understand different datatypes in python
	CO4	Implementation of OOP concepts in python
	CO5	Learn about GUI using python language
	CO6	Learn how to make database connectivity in python
Paper 2 – Data Structures	CO1	Learn about Data structures, its types and significance in computing
	CO2	Explore about Abstract Data types
	CO3	Abstract Data types implementation
	CO4	Ability to program various applications using different data structure
	CO5	Ability to various applications
Paper 3 – Computer Networks	CO1	Learn basics of computer network and its OSI model. Study Physical layer and its services.
	CO2	How does transmission occur? Its medium ad switching.
	CO3	Working of Data link layer, MAC & Virtual LAN
	CO4	Learn various services of network layer with routing/ router.
	CO5	Study transport and application layer through FTP, Email, Telnet, DNS.
Paper 4 – Database Management Systems	CO1	Define and describe the fundamental elements of relational database management systems.

	CO2	To relate the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra and SQL.
	CO3	Design ER-models to represent simple database application scenarios.
	CO4	Transform the ER-model to relational tables, populate relational databases and formulate SQL queries on data.
	CO5	Improve the database design by normalization
	CO6	Understand basic database storage structures and access techniques: file and page organizations, indexing methods and hashing.
Paper 5 – Applied Mathematics	CO1	Solve Matrices and Complex Numbers
	CO2	Calculate Equation of the first order and of the first degree
	CO3	Understand The Laplace Transform and Inverse Laplace Transform
	CO4	Calculate Multiple Integrals and Applications of integration
	CO5	Understand Beta and Gamma Functions and DUIS

SYBSc IT (SEM IV)

Course name	Number	Outcome
Paper 1 – Core Java	CO1	Understand about its history and structure of core java and its datatypes.
	CO2	How to implement control flow statement and iteration in core java
	CO3	Implementation of OOP concepts in core java
	CO4	GUI implements using core java
Paper 2 – Introduction to Embedded Systems	CO1	Understand the concept of embedded systems. Study hardware and software attributes of ES.
	CO2	Examples of Embedded systems. Improve knowledge about memory units used in any Embedded system.
	CO3	Study architecture of 8051 and programming in Embedded C.
	CO4	Understand the structure of Embedded programs and find the factors to be considered for selecting a controller.
	CO5	Learn about RTOS. Develop the knowledge about designing and development process of ES.
Paper 3 – Computer Oriented Statistical Techniques	CO1	Calculate The Mean, Median, Mode, and Other Measures of Central Tendency
	CO2	Perform The Standard Deviation and Other Measures of Dispersion
	CO3	Learn about Elementary Probability Theory
	CO4	Learn about Statistical Decision Theory
	CO5	Learn about The Chi-Square Test and Small Sampling Theory

	CO6	Understand about Curve Fitting and the Method of Least Squares
Paper 4 – Software Engineering	CO1	Plan a software engineering process life cycle, including the specification, design, implementation, and testing of software systems that meet specification, performance, maintenance and quality requirements
	CO2	Analyze and translate a specification into a design, and then realize that design practically, using an appropriate software engineering methodology.
	CO3	Know how to develop the code from the design and effectively apply relevant standards and perform testing, and quality management and practice
	CO4	Able to use modern engineering tools necessary for software project management, time management and software reuse.
	CO5	Able to develop software
Paper 5 – Computer Graphics and Animation	CO1	Understand computer graphics and scan conversion techniques.
	CO2	Learn 2D and 3D transformations.
	CO3	Understand viewing in 3D , Colour and Light
	CO4	Learn techniques for visible surface determination.
	CO5	Understand computer animation.

TYBSc IT (SEM V)

Course name	Number	Outcome
Paper 1 – Software Project Management	CO1	To learn and understand the Concepts of Software Project Management, Understand the project evaluation and programme management
	CO2	To learn and understand selection of an Appropriate Project Approach and choosing right methodology
	CO3	To apply the project management and analysis principles to software project development
	CO4	To learn and understand the Concepts of monitoring and controlling project
	CO5	Understand the concepts of project teams and quality
Paper 2 – Internet of Things	CO1	Take an overview of IoT. Understand the principles of connected devices and basics of internet system.
	CO2	Visualize the prototype making process of IoT product and the Embedded system
	CO3	Get started with prototyping online components for IoT.
	CO4	Study different software for writing embedded coding. Understand the business model in manufacturing and producing an IoT product
	CO5	Movement from conceptualization to production. Understand the ethics during the business process of an IoT product.
Paper 3 – Advanced Web Programming	CO1	Introduction to .NET and learn C# language.
	CO2	Understanding web form fundamentals.
	CO3	Learn Error handling and tracing , how to create master pages , skins and themes.

	CO4	Understanding ADO.NET fundamentals and data controls.
	CO5	Understand XML and AJAX.
Paper 4 – Linux System Administration	CO1	Learn about linux based operating system and its architecture
	CO2	To configure different network server in linux
	CO3	To configure different file sharing server in linux
	CO4	Understand how to manage users in linux operating system
Paper 5 – Enterprise Java	CO1	Understand the concepts related to Java Technology
	CO2	Explore and understand use of Java Server Programming
	CO3	Knowledge of input, its processing and getting suitable output.
	CO4	To develop JPA application
	CO5	To develop Hybernate application

TYBSc IT (SEM VI)

Course name	Number	Outcome
Paper 1 – Software Quality Assurance	CO1	Understand Historical Perspective of Quality
	CO2	To learn and understand the concepts of testing
	CO3	To learn unit testing and table based testing
	CO4	To learn and understand software verification and validation model
	CO5	To learn special tesitng and level of testing
Paper 2 – Security in Computing	CO1	Identify required security Methodology in any organization and risk analysis
	CO2	Understand the concepts of authentication and authorization, encryption in storing of data and its access
	CO3	Introduction to Secure Network Design, and study of hardware and software components used in it
	CO4	Learn about Intrusion Detection and Prevention Systems, VoIP and PBX.
	CO5	Understand Virtual Machines and Cloud Computing. Identify Secure Application Design and physical security.
Paper 3 – Business Intelligence	CO1	Understand the core concept of Business intelligence and Decision support systems
	CO2	Decide about the mathematical model used for decision making. Learn about data mining and data preparation
	CO3	Classify and cluster the methods for problem solving

	CO4	Understand different business intelligence applications.
	CO5	Study knowledge management in BI. Understand the benefits of using Artificial Intelligence in business.
Paper 4 – Enterprise Networking	CO1	Learn General network design and network design models.
	CO2	Learn Enterprise LAN design and data center design.
	CO3	Understand WAN design & WAN Technologies.
	CO4	Learn IPV4 and IPV6 design
	CO5	Understand how to manage security and related protocols.
Paper 5 – Cyber Laws	CO1	Study of power of arrest without warrant under the IT act 2000.
	CO2	To learn contracts in the infotech world.
	CO3	To study copyright protection in the cyber world.
	CO4	Understand e-commerce, digital signature, E-governance .
	CO5	Study the Indian Evidence Act of 1872 vs. Information Technology Act 2000.

DEPARTMENT OF ZOOLOGY

On completion of B.Sc. Zoology, students will learn:

PO1 - After completion of the program students will be able to understand basic and modern concepts of Zoology.

PO2 - Knowledge about different communicable and noncommunicable diseases, importance of personal hygiene, research ethics, genetics and biotechnology advancements will generate the awareness about human values in the learners mind.

PO3 - Problem solving and research skills of the students will be enhanced by study of biostatistics, scientific problems, research methodologies etc.

PO4 - Syllabus will inculcate good laboratory practices in students and train them about scientific handling of important instruments.

PO5 - Syllabus will also provide an insight to the basic nutritional and health aspects of human life.

Course Outcomes:

F.Y.B.Sc. Sem I		
USZO101 Wonders of Animal World, Biodiversity and its Conservation	CO1	Curiosity will be ignited in the minds of learners, to know more about the fascinating world of animals which would enhance their interest and love for the subject of Zoology.
	CO2	Learners would appreciate the treasure of Biodiversity, its importance and hence would contribute their best for its conservation.
	CO3	Minds of learners would be impulsed to think differently and would be encouraged ipso facto to their original crude ideas from the field of biological sciences.
USZO102 Instrumentation And Animal Biotechnology	CO1	Learners would work safely in the laboratory and avoid occurrence of accidents (mishaps) which will boost their scholastic performance and economy in use of materials / chemicals during practical sessions.
	CO2	Learners would understand recent advances in the subject and their applications for the betterment of mankind; and that the young minds would be tuned to think out of the box.
	CO3	Students will be skilled to select and operate suitable instruments for the studies of different components of Zoology of this course and also of higher classes including research.
F.Y.B.Sc. Sem II		
USZO201 Ecology and	CO1	It would allow learners to study about the nature of the animal population, specific factors affecting its growth and its impact on the population of other life forms.

Wildlife Management	CO2	Learners will grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment and will lead to better understanding about implications of loss of fauna specifically on human beings, erupting a spur of desire for conservation of all flora and fauna.
	CO3	Learners would be inspired to choose career options in the field of wildlife conservation, research, photography and ecotourism.
USZO202 Nutrition, Public Health And Hygiene	CO1	Healthy dietary habits would be inculcated in the lifestyle of learners in order to prevent risk of developing health hazards in the younger generation due to faulty eating habits.
	CO2	Promoting optimum conservation of water, encouragement for maintaining adequate personal hygiene, optimum use of electronic gadgets, avoiding addiction, thus facilitating achievement of the goal of healthy young India in true sense.
	CO3	Learners will be able to promptly recognize stress related problems at initial stages and would be able to adopt relevant solutions which would lead to a psychologically strong mind set promoting positive attitude important for academics and would be able to acquire knowledge of cause, symptoms and precautions of infectious diseases.
S.Y.B.Sc. Sem III		
USZO301 Fundamentals of Genetics, Chromosomes and Heredity, Nucleic acids	CO1	Learner would comprehend and apply the principles of inheritance to study heredity.
	CO2	Learners will understand the concept of multiple alleles, linkage and crossing over.
	CO3	Learner will comprehend the structure of chromosomes and its types.
	CO4	Learner will understand the mechanisms of sex determination.
	CO5	Learner would be able to correlate the disorders linked to a particular sex chromosome.
	CO6	Learner will understand the importance of nucleic acids as genetic material.
	CO7	Learner would comprehend and appreciate the regulation of gene expressions.
USZO302 Nutrition and Excretion, Respiration and Circulation, Control and Coordination of Life Processes, Locomotion and Reproduction.	CO1	Learner would understand the increasing complexity of nutritional, excretory and osmoregulatory physiology in evolutionary hierarchy.
	CO2	Learner would be able to correlate the habit and habitat with nutritional, excretory and osmoregulatory structures.
	CO3	Learner would understand the increasing complexity of respiratory and circulatory physiology in evolutionary hierarchy.
		Learner will be able to correlate the habit and habitat of animals with respiratory and circulatory organs.
		Learner would understand the process of control and coordination by nervous and endocrine regulation.

		Learner would be amazed by various locomotory structures found in the animal kingdom.
		Learner would be acquainted with various reproductive strategies present in animals.
USZOE1303 Ethology, Parasitology, Economic Zoology	CO1	Learner would gain insight into different types of animal behavior and their role in biological adaptations.
	CO2	Learner would be sensitized to the feelings which are instrumental in social behavior.
	CO3	Learner would understand the general epidemiological aspects of parasites that affect humans and take simple preventive measures for the same.
	CO4	Learner would comprehend the life cycle of specific parasites, the symptoms of the disease and its treatment.
	CO5	Learner would gain knowledge on animals useful to mankind and the means to make the most of it.
	CO6	Learner would learn the modern techniques in animal husbandry.
	CO7	Learner would pursue entrepreneurship as a career.
S.Y.B.Sc. Sem IV		
S.Y.B.Sc USZO401 Origin and evolution of life, Population genetics and evolution, Scientific attitude, methodology, scientific writing and ethics in scientific research.	CO1	Learner will gain insights into the origin of life.
	CO2	Learner will analyze and critically view the different theories of evolution.
	CO3	Learner would understand the forces that cause evolutionary changes in natural populations.
	CO4	Learner would comprehend the mechanisms of speciation
	CO5	Learner will be able to distinguish between microevolution, macroevolution and megaevolution.
	CO6	The learner would develop qualities such as critical thinking and analysis.
	CO7	The learner will imbibe the skills of scientific communication and he/she will understand the ethical aspects of research.
USZ0402 Cell Biology, Endomembrane System, and Biomolecules.	CO1	Learner would acquire insight into the composition of the transport mechanisms adopted by the cell and its organelles for its maintenance and composition.
	CO2	Learner would appreciate the intricacy of endomembrane system. Learner would understand the interlinking of endomembrane system for functioning of cell.
	CO3	The learner will realize the importance of biomolecules and their clinical significance.
USZOE1403 Comparative Embryology, Aspects of Human Reproduction, Pollution and its effect on organisms.	CO1	Learner will be able to understand and compare the different types of eggs and sperms.
	CO2	Learner will be able to understand and compare the different pre- embryonic stages
	CO3	Learners will be able to understand human reproductive physiology.
	CO4	Learners will become familiar with advances in ART and related ethical issues.
	CO5	The learners will be sensitized about the adverse effects of pollution and measures to control it.

DEPARTMENT OF ENGLISH

Course Outcomes:

F.Y.B.A. SEM I & II		
Critical Thinking, Reading and Writing	CO 1	Engage critically with non-literary texts from a variety of disciplines.
	CO 2	Construct a piece of argumentative writing.
	CO 3	Produce a piece of creative writing.
	CO 4	Communicate effectively in speech and writing.
	CO 5	Make presentations using technological and other teaching aids
The Elements of Fiction	CO 1	Identify the elements of fiction.
	CO 2	Apply concepts such as plot, structure, characterization, point of view and narrative technique in the context of a variety of fictional pieces.
	CO 3	Identify a variety of narrative genres e. g. stream of consciousness, epistolary, picaresque.
	CO 4	Do a close textual reading of the novel and short story.
	CO 5	Read critically short extracts from longer narratives.
Critical Thinking, Reading and Writing: Fiction	CO 1	Engage critically with post-colonial fiction and poetry.
	CO 2	Construct a piece of argumentative writing.
	CO 3	Produce a piece of creative writing.
	CO 4	Communicate effectively in speech and writing.
	CO 5	Make presentations using various teaching aids.
The Elements of Drama	CO 1	Gather acquaintance with the basic elements of drama.
	CO 2	Apply concepts such as plot, structure, characterization, point of view and narrative technique in the context of a variety of plays.
	CO 3	Read and critique a few of the classics of modern drama
	CO 4	Identify the dramatic genres such as tragedy and comedy.
	CO 5	Read two Shakespearean plays closely.
SYBA SEM III & IV		
The Elements of Poetry	CO 1	Learn the basic elements of poetry
	CO 2	Identify the thematic and formal elements for a choice of poems
	CO 3	Derive an understanding of imagery, symbolism, rhyme and meter.
	CO 4	Identify major poetic forms.
	CO 5	Read closely and critique a number of poems
A Survey of Mass Communication	CO 1	Have a critical understanding of media and society.
	CO 2	Evaluate various theories of mass communication.
	CO 3	Assess the ethical issues pertaining to mass communication
	CO 4	Explore the modus operandi of various media forms.
	CO 5	Create an ad film
Pre- and Post-Independence Indian Writing in English	CO 1	Demonstrate awareness of the emergence of Indian Writing in English.
	CO 2	Identify the thematic and formal elements of various texts.
	CO 3	Develop a critique of the themes and techniques of selected

		texts.
	CO 4	Relate the works to their socio-political background.
	CO 5	Relate the texts to changing social religious and political identities
American Literature	CO 1	Demonstrate familiarity with the major currents in American Literature.
	CO 2	Identify the major themes in a variety of prescribed texts.
	CO 3	Relate the texts to their socio-cultural background.
	CO 4	Read closely a number of poems and prose extracts as well as drama.
	CO 5	Appreciate the uniqueness as well as the universality of the texts.
An Introduction to Cinema	CO 1	Be familiar with the aesthetics of cinemas as an art form.
	CO 2	Have an understanding of basic film techniques.
	CO 3	Develop critical appreciation skills.
	CO 4	Explore various genres of films.
	CO 5	Learn to create a short film.
Literature and Resistance	CO 1	Acquire appropriate reading, writing, listening and speaking skills for college learning.
	CO 2	Read complex and thought-provoking multicultural readings.
	CO 3	Develop independent critical responses to texts.
	CO 4	Express critical responses in speech and writing
Contemporary Indian Writing in English	CO 1	Demonstrate awareness of the growth of contemporary Indian Writing in English.
	CO 2	Identify literary responses to issues in post colonialism, nativism and feminism.
	CO 3	Develop a critique of the textual themes and techniques in relation to trends in contemporary Indian Writing.
	CO 4	Appreciate the response of diasporic writers to a changed scenario.
TYBA SEM V & VI		
Fiction – Richardson to Hardy	CO 1	Demonstrate an awareness of the rise of the novel and short fiction in England.
	CO 2	Display a familiarity with the genres of 18th and 19th century fiction.
	CO 3	Derive an understanding of the changing socio-cultural context of the prescribed works.
	CO 4	Read the prescribed texts closely.
	CO 5	Critically analyse the themes and techniques of related literary and artistic works.
Twentieth Century British Poetry	CO 1	Demonstrate an awareness of important trends in 20th century British Poetry.
	CO 2	Relate modernist poetry to other thematically cognate art forms.
	CO 3	Understand the craft of the poet.
	CO 4	Analyse and interpret the poems with specific reference to time and space.

	CO 5	Examine common thematic patterns across the gamut of twentieth century poetry
Literature and the Self in Modernist European Literature	CO 1	Demonstrate familiarity with critical readings on the self in Modernist European Literature
	CO 2	Interrogate the biases and assumptions of constructions of the self in Modernist European Literature.
	CO 3	Derive an understanding of other ways of constructing the self.
	CO 4	Identify philosophical underpinnings of existential literature
	CO 5	Read closely and critique several texts from the Theatre of the Absurd.
English Poetry and Prose (1550 – 1750)	CO 1	Display knowledge of the seminal ideas of the Renaissance and the Enlightenment particularly with regard to their impact on English
	CO 2	Demonstrate familiarity with the history of the Reformation in England and its impact on the literature of the period.
	CO 3	Derive an understanding of the changing social, cultural, political and religious context of the prescribed works.
	CO 4	Read the prescribed texts closely.
	CO 5	Critically analyse the themes and techniques of related literary and artistic works.
Literary Theory and Criticism	CO 1	Demonstrate knowledge of the various approaches to literature.
	CO 2	Recall and apply appropriate theoretical frameworks while reading texts.
	CO 3	Demonstrate an understanding of the text, context, subtext and co-text
	CO 4	Compare, contrast and critique literary and visual texts.
	CO 5	Use the knowledge for research.
Narratives of Conflict	CO 1	Learn about the various conflict zones.
	CO 2	Show understanding of the theory of conflict writing.
	CO 3	Show understanding of the nature of a conflict - cause, effects, resolution.
English Poetry (1750-1900)	CO 1	Demonstrate knowledge of the main currents in 19th century British poetry and of the social, historical, cultural and aesthetic ideas in the background.
	CO 2	Trace the changing political, social and spiritual values and sensibilities from the Neoclassical to the Romantic.
	CO 3	Present a survey of the major poets' lives and works.
	CO 4	Analyse thematically and formalistically, some of the representative poems from the period.
	CO 5	Read from a critical perspective, the prescribed poems and related texts.
Twentieth Century Fiction and Drama	CO 1	Analyse the historical, social political, economic and cultural changes in the age and their effect on literature.
	CO 2	Recall the important writers and pioneering works of the age.
	CO 3	Display an understanding of the text, context, subtext and cotext of each text that is read in detail in class/ presented by students/ written as assignments.

	CO 4	Comparing and contrasting literary and visual texts using theoretical frameworks
	CO 5	Use the knowledge for creative writing.
Satire	CO 1	Demonstrate knowledge of the origin and development of satire as a genre in Europe from 1550 to the present.
	CO 2	Show familiarity with the nature and function of satire.
	CO 3	Identify the types of satire e.g. general, personal etc
	CO 4	Demonstrate familiarity with some well-known examples of European satiric prose, poetry and drama and trace their connections with the socio-cultural milieu.
	CO 5	Read critically other visual texts from across a variety of cultures and time periods.
Drama: Marlowe to Sheridan	CO 1	Display knowledge of English Drama in the Tudor Age including the Native tradition and the classical tradition and the theatre in the Elizabethan period
	CO 2	Demonstrate familiarity with the shift in sensibility brought about by the Stuart reign and lasting up until the closing of the theatres
	CO 3	Show forth an understanding of the changing social, cultural, political and religious context of the stage after the Restoration.
Approaches to Popular Culture	CO 1	Interrogate the distinctions between high culture, low culture and popular culture.
	CO 2	Examine the representation of gender in fiction, film and other visual media.
	CO 3	Apply theory to comprehend the structure of various genres.
	CO 4	Create and construct new meanings of a text.
	CO 5	Evaluate hyperrealism, metanarratives and nostalgic art forms.
Tales of the City	CO 1	Understand the theories of the development of the city
	CO 2	Read closely a set of chosen texts.
	CO 3	Analyse metropolitan cities in detail: using case studies.
	CO 4	Understand the condition of both real and fictional cities through an interdisciplinary critique.
	CO 5	Envision a utopian city in the midst of dystopian reality.

PROGRAMME SPECIFIC OUTCOMES

- Develop emotional, mental, spiritual, professional, and academic competencies
- Build awareness of self and society by adopting an inter-disciplinary approach to reading
- Enhance love for and understanding of literary and cultural texts, leading to research to enhance humane values.
- Comprehend the semiotics and thematic undercurrents of any given texts.
- Foster excellence and creativity in communication skills.

DEPARTMENT OF PHYSICS

Programme Specific Outcomes (PSOs) for B.Sc. Physics

- PSO 1 Comprehend physics principles and their applications in the problems of everyday life.
- PSO 2 Possess industry-specific skills for the existing industrial jobs, and for developing new technologies.
- PSO 3 Understand the advanced methods of scientific inquiry and develop skills for extensive research.
- PSO 4 Know mathematical methods and computer programming so as to model the advanced theories and provide deductions
- PSO 5 Develop skills for understanding scientific literature and creating scientific communication in the written, audio and video forms.
- PSO 6 Not only stitch a fragmented problem into a complete one, but also create alternate solutions in diverse fields of physical, biological and social sciences.

Course Outcomes (COs):

Semester I

Sr. No.	On completing the course, the student will be able to:
CO 1	Apply Newton's laws to any physical situation, and deduce its kinematical behaviour.
CO 2	Understand the concepts of work, power and energy, and apply them to industrial and day-to-day life situations.
CO 3	Understand and apply the concepts of momentum and its conservation to evaluate performance of machines.
CO 4	Understand and apply the concept of rotation and locomotives, and other revolving systems.
CO 5	Understand and apply the concept of fluid mechanics to systems involving gases and liquids.
CO 6	Understand the concept of gravitation and analyse its many consequences in the universe.

Course Title: Waves and Thermodynamics

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand the conditions for static equilibrium and solve rigid-body equilibrium problems.
CO 2	Understand simple harmonic oscillation and damped oscillations in various mechanical systems and their applications.
CO 3	Understand the properties of materials and heat transfer mechanisms.
CO 4	Understand the basic concepts of thermodynamics such as state variables, state of a system, work done and internal energy.
CO 5	Apply the laws of thermodynamics in various processes / systems (in day-to-day phenomena) to calculate the work done/ internal energy.
CO 6	Analyse the performance of heat engines, steam power plants and refrigerators, and their components using the first law of thermodynamics.

Course Title: Physics Practicals – I

Sr. No.	On completing the course, the student will be able to:
CO 1	Know video analysis technique for mechanics experiments, new software tools and error analysis techniques for the experimental data.
CO 2	Design and implement experimental projects in mechanics and thermodynamics.

Semester II Course Title: Electricity and Magnetism

Sr. No.	On completing the course, the student will be able to:
CO 1	Explain the concepts of electrical charge, field and force, and applications of Coulomb's law.
CO 2	Analyse the concepts of capacitor and explain the working principle of capacitors.
CO 3	Discuss the concepts of magnetism; apply the principles of electromagnetic induction.
CO 4	Apply Gauss's law and determine electric flux and charge.
CO 5	Apply Kirchoff's laws and analyse the electrical circuits.
CO 6	Recall and explain the concept of EMF; gain employment by applying knowledge of basic principles of electricity and magnetism.

Course Title: Optics and Electromagnetic Waves

Sr. No.	On completing the course, the student will be able to:
CO 1	Discuss the nature and propagation of light.
CO 2	Explain the working of different optical instruments such as camera, telescope, microscope etc.
CO 3	Explain the optical phenomena of interference and diffraction.
CO 4	Explain the domains of particle nature and wave nature of light.
CO 5	Discuss fundamentals of electromagnetic induction.
CO 6	Describe generation and properties of electromagnetic waves.

Course Title: Physics Practicals – II

Sr. No.	On completing the course, the student will be able to:
CO 1	Know video analysis technique for optics experiments, new software tools and error analysis techniques for the experimental data of electrical and optics experiments
CO 2	Design and implement experimental projects in electricity and magnetism, and in optics.

Semester III

Course Title: Waves and Quantum Optics

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand the concept of Fresnel's class of diffraction
CO 2	Understand the working of Fabry-Perot and Michleson's interferometer and their applications
CO 3	Understand the basic principles of polarized light.
CO 4	Explain the polarization-based phenomena such as optical activity, photoelasticity, etc.
CO 5	Be familiar with the working principle of lasers.
CO 6	Understand holography and its applications.

Course Title: Mathematical Physics

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand conics: ellipse, parabola and hyperbola, polar coordinates.
CO 2	Understand basic and advanced topics in matrices.
CO 3	Understand and apply the concepts of vector calculus, and understand and apply orthogonal curvilinear coordinate systems.
CO 4	Understand the concept of one- and three-dimensional Dirac Delta function
CO 5	Understand the 1st and 2nd order ordinary linear differential equations, and solve these equations using different methods.
CO 6	Understand and apply the concept of Fourier series, Fourier transform and Laplace transform.

Course Title: Electronics – I

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand the working, characteristics and applications of semiconductor diodes.
CO 2	Analyse the configuration of transistor (CE and CB) and transistor as an amplifier.
CO 3	Recollect different types of biasing methods for transistor.
CO 4	Understand the working, characteristics and applications of SCR.
CO 5	Understand the conversions of numbers in different base systems, and explain the working of digital electronic circuits using flip-flop logic.
CO 6	Know the basic principles of electronics.

Course Title: Physics Practicals – III

Sr. No.	On completing the course, the student will be able to:
CO 1	Write programs in Python/ Octave; perform laser-based experiments; design electronic circuits, and express results using scientific communication methods.
CO 2	Design and implement experimental/ computational projects in mathematical physics, wave optics and electronics.

Semester IV**Course Title: Thermodynamics**

Sr. No.	On completing the course, the student will be able to:
CO 1	Know the properties of real gases and ideal gases, the basic concepts of thermodynamics, and various parameters, viz; temperature, pressure, system, properties, process, state, cycles and equilibrium.
CO 2	Understand substances with the help of P-V diagram and T-S diagrams, and energy transfer through mass, heat and work for closed and control volume systems.
CO 3	Apply of first law and second law of thermodynamics and entropy concepts in analysing the thermal efficiencies of heat engines such as Carnot cycle, and the coefficients of performance for refrigerators.
CO 4	Apply the inequality of Clausius and establish the property entropy of a system; apply the principle of increase of entropy to evaluate the feasibility of a thermodynamic process.
CO 5	Understand different methods of liquefaction of various gases, Seebeck and Peltier effects and their potential industrial applications.
CO 6	Understand concepts in thermometry, and different theories of heat capacity of solids.

Course Title: Quantum Mechanics

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand physical situations where classical physics fails, and how quantum concepts explain it.
CO 2	Understand the mathematical basis of quantum theory and concept of probabilistic approach.
CO 3	Understand the concept of quantisation and discrete energy states.
CO 4	Apply the quantum theory to many idealistic situations and solve problems
CO 5	Apply quantum theory and perform mathematical analysis of more complicated systems.
CO 6	Apply quantum theory to a real world example of hydrogen atom and look at limitations of the quantum theory.

Course Title: Acoustics

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand the aural response of humans.
CO 2	Understand the quantification of sound and working of relevant instruments.
CO 3	Possess knowledge of various musical instruments.
CO 4	Understand the working of human vocal cord.
CO 5	Understand the workings of microphone, loudspeaker and sound processing system.
CO 6	Analyse the acoustics of a room, large or small; presence of noise and its elimination.

Course Title: Physics Practicals – IV

Sr. No.	On completing the course, the student will be able to:
CO 1	Interpret acoustic clues; use computer-based acoustic tools, numerical simulations for quantum mechanics problems and experimentation in the subject of thermodynamics.
CO 2	Design and implement experimental/ computational projects in acoustics, quantum mechanics and thermodynamics.

Semester V**Course Title: Classical Mechanics – II**

Sr. No.	On completing the course, the student will be able to:
CO 1	Apply the concepts of special theory of relativity to the various physical phenomena, and understand its significance.
CO 2	Understand fundamental concepts of Newtonian mechanics and its applications to various physical systems, natural and manmade
CO 3	Apply Lagrange's formulation to understand complex mechanical systems and solve quantitative problems in applied physics.
CO 4	Understand the fundamental concept of moment of inertia and inertia tensor of a rigid body.
CO 5	Apply critical thinking skills to describe the motion of the rigid body about its principal axis.
CO 6	Apply the theories learnt and the skills acquired to solve real time problems, both analytically and computationally

Course Title: Statistical Mechanics

Sr. No.	On completing the course, the student will be able to:
CO 1	Explain statistical physics and thermodynamics as logical consequences of the postulates of statistical mechanics.
CO 2	Remember and describe micro and macro states
CO 3	Analyse the differences in micro-canonical, macro-canonical and grand canonical ensembles.
CO 4	Analyse the phase transition of different systems.
CO 5	Distinguish between different types of particles, and understand particle statistics
CO 6	Distribute classical particles, bosons and fermions among energy levels.

Course Title: Electronics – II

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand the construction, working and industrial applications of FETs, UJT, DIACs, TRIACs, TTL devices and MOSFET devices.
CO 2	Understand transistorized differential amplifiers with DC - AC analysis, Op-Amps and Timer integrated circuits such as IC– 555 timer and its applications.
CO 3	Design amplifiers using various solid state devices
CO 4	Understand fundamentals of TTL and CMOS logic devices.
CO 5	Understand different types of feedback oscillators and their industrial applications; design regulated power supplies.
CO 6	Understand the fundamentals of microprocessors and their architecture.

Course Title: Atomic and Molecular Physics

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand general formalism and Dirac notation in quantum mechanics.
CO 2	Master the application of quantum mechanics to one-electron and two-electron atoms.
CO 3	Explain the details of perturbation theory and its applications to fine structure splitting, Zeeman effect, Stark effect and Paschen-Back effect.
CO 4	Understand the spectra of one-electron atom.
CO 5	Analyse vibrational, rotational and electronic spectra of diatomic molecules.
CO 6	Understand Raman spectra of different types of molecules, concepts of nuclear magnetic resonance and electron spin resonance and their applications.

Course Title: Physics Practicals – V

Sr. No.	On completing the course, the student will be able to:
CO 1	Carry out computations and numerical simulations; use advanced video analysis techniques, carry out analysis of data obtained online from research laboratories; design advanced electronic circuits for studying classical and statistical mechanics, atomic and molecular physics, and electronics.
CO 2	Design and implement experimental/computational projects for some branches of physics such as, classical and statistical mechanics, atomic and molecular physics and electronics.

Course Title: Digital Image Processing

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand the fundamental concepts of digital image processing.
CO 2	Analyse images in spatial domain using various transforms.
CO 3	Analyse images in frequency domain using different transforms
CO 4	Evaluate the techniques for image enhancement.
CO 5	Know the concepts of various image restoration techniques.
CO 6	Describe the fundamentals of colour imaging and its applications

Course Title: Applied Component Practicals – I

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand and process digital imaging using computational tools; learn image enhancement and analysis techniques.
CO 2	Design and implement a computational project for digital image processing.

Semester VI**Course Title: Modern Astrophysics**

Sr. No.	On completing the course, the student will be able to:
CO 1	Apply knowledge of physics to understand celestial bodies and their physical properties.
CO 2	Understand working of instruments and analyse nature of electromagnetic radiation coming from celestial bodies.
CO 3	Understand the solar system, structure of stars and the nature of the interstellar medium.
CO 4	Understand the life cycles of stars; formation and energy production in stars.
CO 5	Analyse and explain the end states of stars: white dwarfs, neutron stars and black holes.
CO 6	Understand the nature of galaxies and the large scale structure of the universe through study of cosmology.

Course Title: Electrodynamics

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand the concepts of divergence and curl of electrostatic fields, electric potential and boundary conditions, and uniqueness theorems and their applications.
CO 2	Understand multiple expansions of a dipole, and the electric field in matter.
CO 3	Understand divergence and curl of magnetic field, magnetic potential and its multipole expansion, and properties of magnetic field in matter.
CO 4	Apply Maxwell's correction to Ampere's law, understand Newton's third law in electrodynamics; conservation of momentum.
CO 5	Grasp the concepts of wave equation for e and b ; propagation, reflection and transmission of electromagnetic waves in linear medium and a conductor and wave guides.
CO 6	Understand potentials and fields; the fields of a moving point charge, electric and magnetic dipole radiation, relativity and electrodynamics.

Course Title: Nuclear Physics

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand different properties of the nucleus, binding energy, and the measurements of the size of the nucleus.
CO 2	Analyse the concept of Q-equation in different nuclear reactions, and understand the radioactive decay of alpha, beta and gamma rays, and their fine structure spectra.
CO 3	Analyse different nuclear models, viz., liquid drop model and shell model, and their applications.
CO 4	Understand generation of nuclear energy by nuclear fission and nuclear fusion processes; designing different types of fission and fusion reactors
CO 5	Design and analyse various nuclear detectors and their applications.
CO 6	Understand the concept of nuclear force, design different types of accelerators for production of elementary particles, and analyse different properties of elementary particles based on the Quark Model.

Course Title: Solid State Physics

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand crystal structures, crystal planes and directions, and Miller indices
CO 2	Understand Bragg's law and methods of crystal structure determination.
CO 3	Understand free electron gas model and band model (KronigPenney model).
CO 4	Apply the band theory to understand the motion of charge carriers in solids.
CO 5	Understand the concepts of magnetization and origin of magnetism in an atom, and differentiate between dia, para and ferromagnetic materials.
CO 6	Understand the quantum theory of dia, para and ferromagnetic materials.

Course Title: Physics Practicals – VI

Sr. No.	On completing the course, the student will be able to:
CO 1	Use astronomical databases for basic level research; carry out advanced experimentation in electrodynamics and solid state physics; carry out numerical simulations and data analysis in nuclear physics.
CO 2	Design and implement experimental/ computational projects for some branches of physics such as, astrophysics, electrodynamics, solid state physics and nuclear physics.

Course Title: Applied Physics

Sr. No.	On completing the course, the student will be able to:
CO 1	Write a research problem statement.
CO 2	Conduct Literature review.
CO 3	Write a synopsis of the project proposal.
CO 4	Create and construct a large project work.
CO 5	Write interim (experimental) report.
CO 6	Organise and write a thesis report.

Course Title: Applied Component Practicals – II

Sr. No.	On completing the course, the student will be able to:
CO 1	Design, execute and analyse projects that are industry oriented as well as related to environment sustainability.
CO 2	Write a thesis for dissertation work and defend it through an oral examination

DEPARTMENT OF POLITICAL SCIENCE

Programme Specific Outcomes (PSOs) for B.A. Political Science

- PO 1 Understand the trends in Indian and world Politics; analyse international political and economic issues such as international conflicts and peace, sustainable development and electoral process etc.
- PO 2 Understand the basic framework of political theory and ideologies, rights, basic political values and democratic models; study Western and Indian political thinkers, and analyse their political theories in terms of their relevance for various political systems.
- PO 3 Understand the basics of Indian Constitution and working of the governmental machinery; critically understand role of ethnicity, caste, and communal politics.
- PO 4 Analyse the nuances of public administration, functioning of the government and administrative set up in India; understand the process of recruitment, training and role of civil services in Indian administration; understand the significance of good governance, Right to Information and accountability in the system.
- PO 5 Understand the basics of law, particularly civil laws, i.e., laws pertaining to marriage, divorce, adoption and inheritance, contracts, torts and consumer protection; analyse the functioning of judicial institutions including the alternative dispute mechanism; be aware of Indian legal system, and become better and responsible citizens.
- PO 6 Be aware of community movements to assert their rights over natural and national resources; understand the rights of the marginalised sections of the society such as women, children, dalits and adivasis.

Semester I

Course Title: Introduction to Politics

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand the basic concepts of politics.
CO 2	Build a foundation for SYBA and TYBA courses.
CO 3	Elaborate upon the changing nature and relationship of state and government.
CO 4	Explain the differences between power, authority and legitimacy
CO 5	Teach select concepts.

Course Title: Political Theory

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand the basic framework of political theories and ideologies.
CO 2	Understand rights and its kinds
CO 3	Have enhanced understanding of basic political ideas.

CO 4	Elaborate upon democracy and its strengths and weaknesses.
CO 5	Learn various ideologies.

Semester III

Course Title: Indian Constitution – Theory and Practice

Sr. No.	On completing the course, the student will be able to:
CO 1	Be fully conversant with India's Constitution.
CO 2	Be familiar with the working of its government machinery
CO 3	Know the philosophy and features of the Indian constitution.
CO 4	Be well versed with the union legislature and the executive.
CO 5	Understand the Indian judicial system

Course Title: Introduction to Public Administration

Sr. No.	On completing the course, the student will be able to:
CO 1	Know the basics of public administration.
CO 2	Understand the relevance of theories of bureaucracy decision making and motivation in the administration
CO 3	Analyse the concept and significance of good governance.
CO 4	Unearth the consequences of implementing liberalisation, privatisation and globalisation on public administration in India
CO 5	Explore the possibilities of filing RTI, and enhance the accountability of administration.

Course Title: General Introduction to Law

Sr. No.	On completing the course, the student will be able to:
CO 1	Develop an orientation towards law and to build a foundation for degree in law.
CO 2	Analyse the role of components like ethical values, liberty and public opinion in shaping law.
CO 3	Examine the nuances of the Indian constitution, a cornerstone in law making.
CO 4	Understand the making and salient features of the Indian constitution.

Course Title: Indian Government and Politics

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand the functioning of the Indian polity
CO 2	Understand the challenges faced by the Indian polity.

CO 3	Understand the political parties and electoral process.
CO 4	Understand the intricacies of society and politics.
CO 5	Know the trends and challenges.

Course Title: Public Administration in India

Sr. No.	On completing the course, the student will be able to:
CO 1	Closely examine the salient features of Indian administration.
CO 2	Analyse the contemporary issues such as lateral entry in the civil services and privatisation of public sector.
CO 3	Understand an overview of personnel administration, recruitment and training.
CO 4	Introspect on the problem of corruption in the Indian administration and remedies for it
CO 5	Understand an overview of financial administration.

Course Title: Basics of Indian Laws

Sr. No.	On completing the course, the student will be able to:
CO 1	Know the basic framework of rights and constitutional safeguards.
CO 2	Understand an overview of personal law such as marriage, divorce, adoption and inheritance.
CO 3	Be aware of the general laws such law of torts, contracts and consumer protection.
CO 4	Closely examine the functioning of judicial institutions.

Course Title: Fundamentals of the Indian Constitution (Cross Faculty Course)

Sr. No.	On completing the course, the student will be able to:
CO 1	Know an individual's constitutional rights and duties
CO 2	Understand the functioning of the Indian government.
CO 3	Examine the functioning of judicial institutions and significance of PILs
CO 4	Develop a critical understandings and better perspectives in the realm of Indian political system

Course Title: Political Process in Maharashtra – Historical Background

Sr. No.	On completing the course, the student will be able to:
CO 1	Highlight the major historical events taken place in Maharashtra prior to the Independence.
CO 2	Closely examine factors supporting regionalism in India in general, and in Maharashtra in particular.

CO 3	Understand the regional backwardness in Maharashtra.
CO 4	Analyse the relationship between caste and politics in Maharashtra.

Course Title: Western Political Thinkers

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand the political thoughts of some western thinkers.
CO 2	Get an idea of the contribution of thinkers from different countries in the world.
CO 3	Develop analytical thinking regarding different political thought processes and ideologies.
CO 4	Appreciate the role of political thinkers in formation of the modern political thought.

Course Title: Issues in Indian Polity

Sr. No.	On completing the course, the student will be able to:
CO 1	Know the rights of the marginalized sections.
CO 2	Understand the protection and promotion of their rights
CO 3	Be aware of the various provisions, issues and conflicts with regard to rights.
CO 4	Be aware of judicial remedies and implementation problems with regard to rights

Course Title: American Political System – Constitutional Framework

Sr. No.	On completing the course, the student will be able to:
CO 1	Know the basics of American political system
CO 2	Examine the making and salient features of US constitution.
CO 3	Analyse the functioning of political institutions in US.
CO 4	Understand the electoral process, and powers of US president.

Course Title: International Politics – Major Developments

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand the basic nature, principles and practices of international relations.
CO 2	Understand the world system.

CO 3	Know the importance of the role of various international organizations.
CO 4	Understand the importance of foreign policy and diplomacy.

Course Title: Major Issues in Contemporary Politics – International Economic Issues

Sr. No.	On completing the course, the student will be able to:
CO 1	Know major issues in the contemporary politics such as poverty and health.
CO 2	Evaluate the impact of America’s hegemony on world politics
CO 3	Understand the international economic issues.
CO 4	Develop an understanding of sustainable development

Semester VI

Course Title: Political Process in Maharashtra – Contemporary Issues

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand ethnicity, religion and politics.
CO 2	Evaluate the functioning of political parties and election.
CO 3	Understand the role of cooperatives and civil society organizations.
CO 4	Understand movements for alternative models of development.

Course Title: Political Thinkers – Indian

Sr. No.	On completing the course, the student will be able to:
CO 1	Know the political thoughts of Indian thinkers.
CO 2	Have an idea about the contribution of various thinkers from all over the country.
CO 3	Develop analytical thinking regarding different political thought processes and ideologies in India.
CO 4	Appreciate the role of political thinkers in formation of the modern political thought.

Course Title: Issues in Indian Polity – Rights of Citizens of India

Sr. No.	On completing the course, the student will be able to:
CO 1	Know the concept of scientific research

CO 2	Have a comprehensive understanding of the process of social research both theoretical and practical.
CO 3	Have hands-on experience in conducting research.
CO 4	Understand the various issues in Indian polity.

Course Title: American Political System – Government and Politics

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand an overview of American democracy.
CO 2	Examine the functioning of political parties and pressure groups in US.
CO 3	Study election and voting patterns in US.
CO 4	Analyse the movement for racial equality and the civil rights movement in US.

Course Title: International Politics – Major Issues

Sr. No.	On completing the course, the student will be able to:
CO 1	Explain the nature and causes of war.
CO 2	Understand various approaches to peace.
CO 3	Explain the various international laws.
CO 4	Discuss the various issues in international politics.

Course Title: Major Issues in Contemporary Politics – International Social Issues

Sr. No.	On completing the course, the student will be able to:
CO 1	Understand human rights in general and the rights of refugees in particular.
CO 2	Introspect on feminist movement and develop sensitivity towards women's rights.
CO 3	Examine peace, and conflict resolutions.
CO 4	Build an understanding on the issue of terrorism.

DEPARTMENT OF ECONOMICS

Semester I

Course (Paper) Name and No.: Micro Economics- I

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will understand the concepts of micro economics.
CO 2	Learners will able to understand the ten principles of economics.
CO 3	Learners will understand the structure of market, as well as demand and supply.
CO 4	Learners will understand the nature of consumer's.

Semester II

Course (Paper) Name and No.: Macro Economics- I

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will understand the process of production analysis. CO2 Learners will get with the concepts of cost and Revenue analysis.
CO 2	Learners will understand the details about factor pricing and their rewards.
CO 3	Learners will understand equilibrium of different market structures.
CO 4	Learners will understand the process of production analysis. CO2 Learners will get with the concepts of cost and Revenue analysis.

Semester III

Course (Paper) Name and No.: Macro Economics - II

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will learn about various types of income.
CO 2	Learners will study the theories related to consumption.
CO 3	Learners will learn the supply of money and demand for money.

CO 4	Learners will understand the banking structure.
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Course (Paper) Name and No.: Public Finance - III

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will understand the basic concepts of public finance.
CO 2	Learners will get information about budget and tax structure.
CO 3	Learners will know public expenditure and debt.
CO 4	Learners will know the sources of income and ways to expenditure.

Course (Paper) Name and No.: Demography - Applied Economics

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will know the basic concepts of demography.
CO 2	Learners will learn sources of data.
CO 3	Learners will get ideas of Techniques of analysis.
CO 4	Learners will get Idea about the nature of study of demography

Semester IV

Course (Paper) Name and No.: Macro Economics - II

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will understand the detail concept of Inflation.
CO 2	Learners will understand fiscal and monetary policies.
CO 3	Learners will understand post Keynesian Economics.
CO 4	Learners will understand external sector and different exchange rates.

Course (Paper) Name and No.: Indian Economy -III

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will know the introductory part of the Indian Economy.
CO 2	Learners will understand the nature of agriculture sector of the Indian Economy.
CO 3	Learners will get the details about industrial sector of India.
CO 4	Learners will be able to know service sector of Indian Economy.

Course (Paper) Name and No.: Demography

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will get information about changing trends of fertility, Nuptiality, life Table and Mortality.
CO 2	Learners will aware about migration and urbanization.
CO 3	Learners will get idea how policy frames and work.
CO 4	Learners will get detail information about family planning.

Semester V**Course (Paper) Name and No.: Micro Economics -IV**

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners understand the monopoly situation.
CO 2	Learners are able to discriminate how the monopoly and oligopoly.
CO 3	Learners are studied the equilibrium concept and social welfare of the people.
CO 4	Learners are studied the Nash equilibrium

Course (Paper) Name and No.: Economics of Development -V

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will get familiar with concepts of growth and development.
CO 2	Learners will able to understand the role of factors of development.

CO 3	Learners will study effects of poverty, inequality on development.
CO 4	Learners will think about sustainable development

Course (Paper) Name and No.: Industrial & Labour Economics -VI

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will get with the nature of industries in India.
CO 2	Learners will know factors affecting location of industries and regional imbalance.
CO 3	Learners will aware about factors affecting of industrial productivity and sickness.
CO 4	Learners will get with history of developmental of industries in India.

Course (Paper) Name and No.: Economics of Agriculture and cooperation -VI

Sr. No.	On completing the course, the student will be able to:
CO 1	To get the role of agriculture in economic development.
CO 2	To know the institutional and non-institutional sources of credit and micro finance.
CO 3	To recognize the importance of marketing in agriculture.
CO 4	To understand various agriculture price and policy

Course (Paper) Name and No.: Research Methodology - VII

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will study the concepts of research.
CO 2	Learners will study the elements of research methodology.
CO 3	Learners will study the different sources of data for research.
CO 4	Learners will study the process and analysis of data

Course (Paper) Name and No.: Environmental Economics - VIII

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will study the environment and its importance in development.
CO 2	Learners will study the various environmental policies for sustainable development.
CO 3	Learners will study about environmental improvement.
CO 4	Learners will study the environmental problems.

Course (Paper) Name and No.: History of Economic Thought - IX

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners are studied the classical thought of economist.
CO 2	Learners are understand the Marshall and Schumpeter's historical thought
CO 3	Learners are studied the Keynesian views.
CO 4	Learners are able to discriminate the Keynesian and post Keynesian views.

Semester VI**Course (Paper) Name and No.: Macro Economics – IV**

Sr. No.	On completing the course, the student will be able to:
CO 1	To study the goods market and the open economy.
CO 2	To study the financial market.
CO 3	To study the exchange rate crisis.
CO 4	To study the international monetary situation

Course (Paper) Name and No.: International Economics - V

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners are studied the importance of international economics.

CO 2	Learners are studied the various modern theories of international trade.
CO 3	Learners are learned how trade is an engine of economic growth.
CO 4	Learners understand the trade policy and regionalism

Course (Paper) Name and No.: Industrial & Labour Economics - VI

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will study the nature of labour market.
CO 2	Learners will get with past, present and future of trade unions.
CO 3	Learners will be aware about industrial relations and its measures.
CO 4	Learners will get ways of labour welfare and social security

Course (Paper) Name and No.: Economics of Agriculture and cooperation -VI

Sr. No.	On completing the course, the student will be able to:
CO 1	To understand the important feature of co-operation.
CO 2	To get need, structure and progress of co-operative finance.
CO 3	To know the role and types of co-operative agro Industries.
CO 4	To know the role of co-operative organization in India

Course (Paper) Name and No.: Research Methodology - VII

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will study statistical applications in research.
CO 2	Learners will study index numbers.
CO 3	Learners will study hypothesis formulation and testing.
CO 4	Learners will study research report writing

Course (Paper) Name and No.: Development Theory and Experience -VIII

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will study statistical applications in research.
CO 2	Learners will study index numbers.
CO 3	Learners will study hypothesis formulation and testing.
CO 4	Learners will study research report writing CO1 Learners will study the relation between demography and development

Course (Paper) Name and No.: International trade policy and practice –IX

Sr. No.	On completing the course, the student will be able to:
CO 1	Learners will understand the difference between interregional and international trade.
CO 2	Learners will understand the GATT, WTO and Doha round.
CO 3	Learners will understand the international financial institutions and debt problem.
CO 4	Learners will study the foreign capital flow in economy

DEPARTMENT OF GEOGRAPHY

Semester I

Course (Paper) Name and No.: Paper No. I – Geomorphology

CO1 Understand comprehensibly the nature and scope of Geomorphology
CO2 Understanding the composition and structure of the interior of the earth and the types Rocks.
CO3 Understand the Diastrophic and catastrophic movements of the earth's surface
CO4 Understand the concept and types of weathering and erosion.
CO5 Understand the erosional and depositional landforms by the erosional agents.
CO6 Identification of contours, slopes and drawing of sections to depict contour landforms.

Semester II

Course (Paper) Name and No.: Paper No. I – Human Geography

CO1 Understand comprehensibly the nature, scope, approaches, branches and concepts in Human Geography
CO2 Understanding the concept, types and patterns of rural and urban settlements.
CO3 Understand the determinants on growth, distribution and problems of population.
CO4 Understand the concept, causes, types, trends and consequences of migration.
CO5 Able to construct and interpret of line graphs and flow diagrams and other techniques.

Semester III

Course (Paper) Name and No.: Paper No. II - An Introduction to Climatology

CO1 Understand the introduction to Climatology considering weather & climate, role of climate in human life, aims, nature, scope, and some other sub division of the course.
CO2 Understand weather phenomena winds, humidity, precipitation and winds.
CO3 Understand the process, methods of weather forecasting and climatic changes
CO4 Able to read and interpret the weather map and to construct the various graphs related to climatology.

Course (Paper) Name and No.: Paper No. III – Physical Geography of India

CO1 Understand importance of the location and the geographical personality of India.
CO2 Understand the variability of drainage pattern and climate in India.
CO3 Study of problems related to soil and forest depletion and their conservation methods.
CO4 Study of problems related to minerals and power resources and their conservation methods
CO5 Show the geographical features in the map of India.
CO6 Read, convert and prepare the map scale.

Semester IV

Course (Paper) Name and No.: Paper No. II - An Introduction to Oceanography

CO1 Understand importance and physical structure of ocean.
CO2 Knowledge about effect of ocean Currents.
CO3 Understand the relationship between man and ocean.
CO4 Study about movements of ocean water
CO5 Read and interpret the bathymetrical maps.

Course (Paper) Name and No.: Paper No. III – Agriculture Geography of India

CO1 Understand the introduction to agriculture, nature, scope, significance and approaches of agriculture geography.
CO2 Understand features, determinants, major crops and problems of Indian agriculture
CO3 Understand the history, components and impacts of green revolution in India.
CO4 Understand the development of recent trends in agriculture in India.
CO5 Interpret the thematic maps and draw the statistical diagrams and graphs

Semester V

Course (Paper) Name and No.: Geography of Settlements

CO1 Understand the nature and scope of Settlement Geography and the characteristics of rural and urban settlements.
CO2 Understand the structure of house and building materials, regional variations of rural settlement in India.
CO3 Understand the history of world settlements and factors responsible for world settlements.

CO4 Understand the classification and morphology, pattern and nature and process of rural and urban settlements

CO5 Understand the process of urbanization, urban problems and smart cities in India.

Course (Paper) Name and No.: Geography of Maharashtra

CO1 Understand the location, administrative setup and geographical personality of Maharashtra

CO2 Understand the drainage and climate in Maharashtra

CO3 Understand the natural and human resources of Maharashtra

CO4 Understand the agriculture, fishing and livestock resources in Maharashtra.

CO5 Understand the growth and development of industries, trade and transport in Maharashtra

Course (Paper) Name and No.: Population Geography

CO1 Understand the nature, scope, importance and relation with other social sciences of Population Geography

CO2 Understand the structure, growth, density & distribution of population in India and World.

CO3 Get knowledge about population theories.

CO4 Understand the causes, consequences and recent trends of migration in India

CO5 Understand the contemporary issues of population in India.

Course (Paper) Name and No.: Tools and Techniques In Geography For Spatial Analysis-I (Practical)

CO1 Understand the basic concept and types map projections.

CO2 Understand the Basic elements of map and able to area calculation.

CO3 Able to read and interpret of topographical maps.

CO4 Able to use the computer with basic Microsoft and SPSS software's.

CO5 Able to prepare the thematic maps by using different techniques

Course (Paper) Name and No.: Regional Planning and Development

CO1 Understand the concept, nature and problems of Regional Planning

CO2 Gain knowledge about definition of region, evolution and types of regional planning.

CO3 Understand the concept, strategies and measurements of regional disparities and different models of regional development.

CO4 Understand the regional planning of India.

Course (Paper) Name and No.: Geography of Resources

CO1 Understand the concept, factors, importance and classification of resources.
CO2 Know the over exploitation and conservation measures of natural resources.
CO3 Learn the importance, consumption, problems and Conservation methods of water, forest, soil and mineral resources.
CO4 Understand the concept and distribution of human resources.

Course (Paper) Name and No.: Geography of Health

CO1 Understand the nature, scope, approaches and evolution geography of Health Geography.
CO2 Understand the Causes, effects and remedial measures of air, water, radioactive and plastic pollution.
CO3 Learn the geographical background of diseases, types and case studies of communicable and non-communicable diseases
CO4 Understand the linkages of health with environment and health related issues.
CO5 Understand the Health care facilities, distribution, policies and health organisations in India.

Course (Paper) Name and No.: Geography Of Disaster Mitigation And Management

CO1 Understand the definition, classification and impacts of disasters and hazards.
CO2 Understand the concept and role of national and international organisations for disaster management.
CO3 Understand the causes, effects and distribution of natural disasters and its management in India
CO4 Understand the anthropogenic disasters and its management in India.

Course (Paper) Name and No.: Geospatial Technology

CO1 Understand the Concept, Components Importance and history of Geospatial Technology
CO2 Able to analyze and interpret the aerial photographs and satellite imageries.
CO3 Able to understand the concept and Applications GPS and capable to survey through GPS.
CO4 Understand the concept, Components and applications of GIS and capable to data analysis by using the GIS software

Semester VI

Course (Paper) Name and No.: Environmental Geography

CO1 Understand the nature, scope, importance and man-environment relationship in Environmental Geography
CO2 Understand the Structure, functions and types of ecosystem.
CO3 Acquire knowledge about biodiversity and its importance and Management.
CO4 Understand the concept, types, distribution and hotspots of biodiversity
CO5 Understand environmental problems there Cause, Effect and Remedies.
CO6 Understand the Sustainable Development and Environmental Management methods in India.

Course (Paper) Name and No.: Geography of Tourism and Recreation

CO1 Understand about nature, scope, development and factors of tourism development
CO2 Understand about infrastructure and ancillary services for tourism
CO3 They understand about types and impacts of tourism.
CO4 Understand Planning and organization about tourism
CO5 Understand the potential of tourism sectors in Maharashtra and India
CO6 Know about national tourism policy.

Course (Paper) Name and No.: Political Geography

CO1 Understand the nature, scope and historical development of Political Geography
CO2 Get knowledge about Evolution of states & nations.
CO3 Understand the frontiers and boundaries
CO4 Get knowledge of Geopolitical theories.
CO5 Investigate the problems and disputes in India
CO6 Understand about the Electoral Geography.

Course (Paper) Name and No.: Tools and Techniques in Geography for Spatial Analysis-II (Practical)

CO1 Understand the Meaning and types of data and its presentation.
CO2 Understand and able to solve the examples of measures of central tendency, dispersion and deviation and correlation, regression and hypothesis testing.
CO3 Able to collect and analysis of data sampling.
CO4 Able to collect the field data, its processing and writing of research report.

Course (Paper) Name and No.: Economic Geography

CO1 Understand the nature, scope branches and approaches of Economic Geography
CO2 Know the human economic activities
CO3 Understand the mineral resources and industrial development
CO4 Understand the Weber's industrial location theory
CO5 Understand the importance and pattern of transport and international trade
CO6 Understand the levels of economic development, Special Economic Zones and related issues in India.

Course (Paper) Name and No.: Biogeography

CO1 Understand the nature, scope, branches and approaches of Biogeography.
CO2 Understand the ecosystem and biosphere.
CO3 Understand the community and classification of plants.
CO4 Understand the marine biogeography
CO5 Understand the types, importance, loss and conservation of biodiversity.

Course (Paper) Name and No.: Social Geography

CO1 Understand the nature, scope, and concept, relationship between culture and social environment.
CO2 Understand the race, religion, language and tribes in India and the world.
CO3 Understand the social groups and its segregation.
CO4 Understand the contemporary social issues in India.

Course (Paper) Name and No.: Geography of Transport

CO1 Understand the concept, nature, scope and significance of Transport Geography.
CO2 Understand the transport network system.
CO3 Understand the evolution and pattern of modes of transport.
CO4 Understand the models about the transport.
CO5 Understand the issues of transportation in India.

Course (Paper) Name and No.: Research Methodology in Geography

CO1 Students will be able to understand the concept, types and stages in the research methodology, formulation of research and research design.
CO2 Students will know methods of data collection and its processing and role of internet in research.
CO3 Students will be able to prepare the hypothesis and also be able to do the hypothesis testing by using computer and statistical techniques.
CO4 Students will be able to spatial and non-spatial data analysis in GIS software's and competent for research writing.
CO5 Students will be able to prepare the research report on any one theme in Physical Geography or Human Geography.

DEPARTMENT OF HINDI

SEMESTER – I

NAME OF PROGRAM	: B.A.
NAME OF THE COURSE	: F.Y.B.A. Ancillary (ऐच्छिक हिन्दी)
COURSECODE	: UAHIN 101
TOTAL LECTURES	: 60
CREDITS	: 3

PSO 1. विद्यार्थियों को गद्य विधाओं की प्रचलित रचना कहानी, निबंध आदि के अतिरिक्त आत्मकथा, जीवनी, संस्मरण, यात्रा वृत्तांत और रेखाचित्र आदि नवीनतम विधाओं से परिचित कराना।
PSO 2. हिंदी कहानी के आरंभ से लेकर अद्यतन कहानी की प्रवृत्तियों एवं कहानी के विकास से अवगत कराना। विद्यार्थियों का नवीन गद्य विधाओं के स्वरूप-विवेचन तथा विशेषताओं से परिचय कराना।

SEMESTER – II

NAME OF PROGRAM	: B.A.
NAME OF THE COURSE	: F.Y.B.A. Ancillary (ऐच्छिक हिन्दी)
COURSECODE	: UAHIN 201
TOTAL LECTURES	: 60
CREDITS	: 3

PSO 1. विद्यार्थियों को गद्य विधाओं की प्रचलित रचना कहानी, निबंध आदि के अतिरिक्त आत्मकथा, जीवनी, संस्मरण, यात्रा वृत्तांत और रेखाचित्र आदि नवीनतम विधाओं से परिचित कराना।
PSO 2. हिंदी कहानी के आरंभ से लेकर अद्यतन कहानी की प्रवृत्तियों एवं कहानी के विकास से अवगत कराना। विद्यार्थियों का उपन्यास के स्वरूप-विवेचन तथा विशेषताओं से परिचय कराना।

PAPER II, SEMESTER – III

NAME OF PROGRAM	: B. A. (C.B.C.S)
NAME OF THE COURSE	: S. Y. B. A.
COURSECODE	: UAHIN301
TOTAL LECTURES	: 45
CREDITS	: 03

PSO1. विद्यार्थियों को हिन्दी की मध्यकालीन और आधुनिककालीन पद्य विधाओं की प्रसिद्ध, प्रचलित रचनाओं एवं परिवेश की जानकारी प्रदान करते हुए दार्शनिक, सामाजिक, राष्ट्रीय, मानवीय और नवीनतम आधुनिक जीवन-शैली संबंधी मूल्यों का परिचय कराना।

PSO2.. हिंदी काव्य के मध्यकाल से लेकर अद्यतन काव्य की प्रवृत्तियों एवं कविता के विकास से अवगत कराते हुए काव्य के सामाजिक, मानवीय सरोकारों के साथ पर्यावरण-चेतना को समृद्ध करना।

PSO3. काव्य के अंतर्गत प्रयुक्त विभिन्न शैलियों का परिचय कराते हुए उसकी शिल्पगत बनावट के साथ जीवन के क्षेत्र में काव्य की उपादेयता को दर्शाना।

परिणाम- Outcomes:

CO 1. विद्यार्थियों में मानवीय संवेदनाओं के विकास के साथ नवीन सामाजिक,सांस्कृतिक बोध और जीवन मूल्यों का विकास होगा।

CO 2.विद्यार्थियों में साहित्य के माध्यम से कलात्मक गुणों की अभिवृद्धि होगी, कलाकी साहित्यिक विधाओं के प्रति अभिरुचि जागृत होगी तथा रचनात्मक-कौशल को बढ़ावा मिलेगा।

CO 3. विद्यार्थियों में नयेवैश्विक-मूल्यों के प्रति सजगता को बढ़ावा मिलेगा एवं पर्यावरणीय चेतना के प्रति दायित्व-बोध उत्पन्न होगा।

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1. व्याख्यान,विश्लेषणतथा व्याख्यात्मक पद्धति का प्रयोग।
 2. दृश्य/श्रव्य माध्यमों और संगणक का प्रयोग।
 3. उदाहरण द्वारा पुष्टि एवं लेखकों केअतिथि व्याख्यान।
 4. स्वाध्याय / परियोजना।

PAPER II,SEMESTER –IV

NAME OF PROGRAM	:B. A. (C.B.C.S)
NAME OF THE COURSE	: S. Y. B. A.
COURSECODE	: UAHIN401
TOTAL LECTURES	: 45
CREDITS	: 03

PSO1. विद्यार्थियों को गद्य की व्यंग्य विधा की प्रसिद्ध,प्रचलित व्यंग्यात्मक रचनाओं एवं समकालीन परिवेश की जानकारी प्रदान करते हुए सामाजिक, मानवीय,संस्कृतिक और नवीनतम आधुनिक जीवन शैली संबंधी मूल्यों का परिचय कराना।

PSO 2. हिंदी गद्य के प्रारम्भिक काल में प्रस्फुटित व्यंग्य रचनाओं से लेकर अद्यतन व्यंग्यात्मक रचनाओं, प्रवृत्तियों एवं व्यंग्य के विकास से अवगत कराते हुए काव्य के सामाजिक, मानवीय संतुलन-असंतुलन को दर्शाते हुए सकारात्मक पक्षों को बल देना एवं समूहिक नैतिकता को समृद्ध करना।

PSO 3. व्यंग्य के अंतर्गत प्रयुक्त विभिन्न व्यंग्य दृष्टियों कोउजागर कराते हुए उसकी शिल्पगत बनावट के साथ आमजीवन के क्षेत्र में व्यंग्य की उपादेयता को दर्शाते हुए उसके विभिन्न सरोकारों से अवगत कराना।

परिणाम- Outcomes:

- CO 1. विद्यार्थियों में मानवीय संवेदनाओं के विकास के साथ नवीन सामाजिक, संस्कृतिक और राजनीतिक मूल्यों का गुणात्मक विकास होगा।
- CO 2. विद्यार्थियों में राष्ट्र-निर्माण हेतु नये सामाजिक, राजनीतिक, संस्कृतिक विचारों का प्रसार होगा और दायित्व-बोध निर्वहन का विकास होगा।
- CO 3. विद्यार्थियों में नये वैश्विक मूल्यों के प्रति सजगता को बढ़ावा मिलेगा एवं मूल्यवादी दृष्टि के प्रति दायित्व-बोध उत्पन्न होगा।
- CO 4. विद्यार्थियों में साहित्य-रसास्वादन के साथ कलात्मक अभिरुचि का निर्माण होगा, रचनात्मक-कौशल को बढ़ावा मिलेगा।

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1. व्याख्यान, विश्लेषण तथा व्याख्यात्मक पद्धति का प्रयोग।
 2. दृश्य/श्रव्य माध्यमों और संगणक का प्रयोग।
 3. उदाहरण द्वारा पुष्टि एवं लेखकों, अतिथियों के व्याख्यान।
 4. स्वाध्याय/परियोजना।

PAPER III, SEMESTER – III

NAME OF PROGRAM	: B. A. (C.B.C.S)
NAME OF THE COURSE	: S. Y. B. A.
COURSE CODE	: UAHIN302
TOTAL LECTURES	: 45
CREDITS	: 03

- PSO 1. विद्यार्थियों को प्रयोजनमूलक भाषा की जानकारी देते हुए कार्यालयीन तथा अन्य व्यवहार क्षेत्रों में हिंदी भाषा के व्यवहार एवं प्रयोग के लिए प्रशिक्षित करते हुए लेखन कौशल का विकास करना।
- PSO 2. विद्यार्थियों को प्रयोजनमूलक हिंदी तथा अंग्रेजी की पारिभाषिक शब्दावली से परिचित करवाना।
- PSO 3. विद्यार्थियों को व्यावसायिक/कार्यालयीन पत्राचार से अवगत करवाना।
- PSO 4. विद्यार्थियों को अंग्रेजी/मराठी भाषा से हिंदी भाषा में अनुवाद कौशल का विकास करना।
- PSO 5. विद्यार्थियों को जनसंचार माध्यमों में प्रयुक्त हिंदी भाषा की जानकारी से अवगत कराना।
- PSO 6. विद्यार्थियों को जनसंचार माध्यमों के विकास से परिचित करवाना।

परिणाम- Outcomes:

- CO 1. विद्यार्थियों को व्यावहारिक हिन्दी भाषा-दक्षता की प्रवीणता की प्राप्ति होगी।
- CO 2. विद्यार्थियों का व्यावसायिक रूप से आत्मनिर्भरता के योग्य बनाना।

CO 3. विद्यार्थियों/जनसंचार माध्यमों में रोजगार के अवसर, क्षेत्रों से अवगत होंगे।

1. व्याख्यान तथा विश्लेषण।
2. दृश्य/श्रव्य माध्यमों और संगणक का प्रयोग।
3. राजभाषा अधिकारियों/जनसंचार माध्यमों से संलग्न व्यक्तियों के अतिथि व्याख्यान।
4. स्वाध्याय/ परियोजना।

PAPER III, SEMESTER – IV

NAME OF PROGRAM	:B. A. (C.B.C.S)
NAME OF THE COURSE	: S. Y. B. A.
COURSECODE	: UAHIN402
TOTAL LECTURES	: 45
CREDITS	: 03

PSO 1. विद्यार्थियोंको जनसंचार-भाषा की जानकारी देते हुए व्यवहार क्षेत्रों मेंहिंदी भाषा के व्यवहार एवं प्रयोग के लिए प्रशिक्षित करना।

PSO 2. विद्यार्थियोंको परंपरागत जनसंचार माध्यमों से परिचयकराते हुए नव्य-संचार माध्यमों में प्रयुक्त तकनीक के आंतरिक और बाह्य पक्षों का सामाजिक सरोकारों को दर्शना।

PSO 3. विद्यार्थियोंको समाचार लेखन, संपादकीय लेखन, साक्षात्कार, फीचर लेखन लेखन से अवगत करवाना।

PSO 4. विद्यार्थियोंको सोशल मीडिया, कंप्यूटर, टेलीविज़न इत्यादि के भाषाई प्रयोगों का परिचय देना।

परिणाम- Outcomes:

CO 1. विद्यार्थियोंको तकनीकी और व्यावहारिक भाषा दक्षता की प्रवीणता प्राप्त होगी।

CO 2. व्यावसायिक रूप से आत्मनिर्भरता की संभावना बढ़ेगी।

CO 3. जनसंचार माध्यमों में रोजगार के क्षेत्रों से परिचय होगा।

1. व्याख्यान तथा विश्लेषण।
2. दृश्य/श्रव्य माध्यमों और संगणक का प्रयोग।
3. राजभाषा अधिकारियों/जनसंचार माध्यमों से संलग्न व्यक्तियों के अतिथि व्याख्यान।
4. स्वाध्याय/ परियोजना।
5. शैक्षणिक भ्रमण।

TY HINDI पाठ्यक्रम का अभिप्राय, उद्देश्य, परिणाम, अध्यापन प्रणालियाँ

- PSO 1. विद्यार्थियों को हिन्दी साहित्य के इतिहास, भाषा, विषय-ज्ञान से अवगत कराते हुए भाषा, काव्यशास्त्र एवं व्याकरण के अध्ययन के लिए प्रेरित करना ।
- PSO 2. विद्यार्थियों को भाषा के वैज्ञानिक अध्ययन के महत्व से अवगत कराते हुए भाषा विज्ञान की उपयोगिता तथा भाषा विज्ञान के विभिन्न अंगों का व्यावहारिक परिचय कराना ।
- PSO 3. विद्यार्थियों को हिन्दी की आधुनिककालीन गद्य-पद्य विधाओं की प्रसिद्ध, प्रचलित रचनाओं एवं परिवेश की जानकारी प्रदान करते हुए दार्शनिक, सामाजिक, राष्ट्रीय, मानवीय और नवीनतम आधुनिक जीवन शैली संबंधी मूल्यों का परिचय कराना।
- PSO 4. हिंदी की अद्यतन गद्य-पद्य की विधाओं, प्रवृत्तियों के विकास से अवगत कराते हुए साहित्य के सामाजिक, मानवीय सरोकारों के साथ पर्यावरण-चेतना को समृद्ध करना।
- PSO 5. जनसंचार, सूचना प्रौद्योगिकी, सोशल मीडिया के अधुनातन माध्यमों में हिन्दी के प्रयोग, प्रसार से अवगत कराते हुए हिन्दी के माध्यम से रोजगार की संभावनाओं को विद्यार्थियों के समक्ष लाना।
- PSO 6. सामाजिक परिवर्तन हेतु वैचारिक प्रसार को अवगत कराते हुए विविध सामाजिक वैचारिक आंदोलनों की पृष्ठभूमि को दर्शना तथा साहित्य पर प्रभावों को अवगत कराना।

परिणाम- OUTCOMES:

- CO 1. विद्यार्थी भाषा के विविध रूप तथा भाषा परिवर्तन के कारणों का ज्ञान प्राप्त कर सकेंगे। भाषा विज्ञान के विभिन्न अंगों से परिचित होते हुए उसकी उपयोगिता का ज्ञान प्राप्त कर सकेंगे ।
- CO 2. विद्यार्थी हिन्दी ध्वनियों के उच्चारण संबंधी तथा देवनागरी लिपि का वैज्ञानिक ज्ञान को प्राप्त कर सकेंगे।
- CO 3. विद्यार्थी हिन्दी व्याकरण से परिचित होंगे, विद्यार्थी भाषा विज्ञान एवं व्याकरण के अध्ययन से भाषा का व्यवस्थित प्रयोग कर सकेंगे ।
- CO 4. विद्यार्थी जनसंचार, सूचना प्रौद्योगिकी, सोशल मीडिया के अधुनातन माध्यमों, भाषा विज्ञान तथा व्याकरण के अध्ययन से मीडिया, कोश निर्माण आदि क्षेत्रों में रोजगार के अवसर प्राप्त कर सकेंगे ।
- CO 5. विद्यार्थियों में मानवीय संवेदनाओं के विकास के साथ नवीन सामाजिक, सांस्कृतिक बोध और जीवन मूल्यों का विकास होगा।
- CO 6. विद्यार्थियों में साहित्य के माध्यम से कलात्मक गुणों की अभिवृद्धि होगी, कला की साहित्यिक विधाओं के प्रति अभिरुचि जागृत होगी तथा रचनात्मक-कौशल को बढ़ावा मिलेगा।
- CO 7. विद्यार्थियों में नये वैश्विक-मूल्यों के प्रति सजगता को बढ़ावा मिलेगा एवं पर्यावरणीय चेतना के प्रति दायित्व-बोध उत्पन्न होगा।
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1. व्याख्यान तथा विश्लेषण
2. दृश्य/ श्रव्य माध्यमों और संगणक का प्रयोग।
3. राजभाषा अधिकारियों/ जनसंचार माध्यमों से संलग्न व्यक्तियों के अतिथि व्याख्यान।
4. स्वाध्याय/ परियोजना।
5. शैक्षणिक भ्रमण।

DEPARTMENT OF MARATHI

FYBA COMP. MARATHI

CO 1 Students will understand the literary form of Short-stories and Poetry.
CO 2 Students will understand historical development of literary genres like Short stories and Poetry.
CO 3 Students will master Skills like Essay writing, news writing, application writing, translation etc.

FYBA OPT. MARATHI (I)

CO 1 Students will understand the literary form of drama and travelogue.
CO 2 Students will understand historical development of literary forms like drama and travelogue.
CO 3 Students can compose plays by acquiring drama skills.
CO 4 Travelogues can be written by knowing the nature of this type of literature.

SYBA - MARATHI (II)

CO 1 By studying Narrative literature in Marathi literature, students will be able to analyze narrative literature.
CO 2 Students will gain knowledge of how to read stories and novels.
CO 3 Students will understand the literary forms of dramas and one-act plays.
CO 4 Students will understand historical development of drama literature in Marathi.
CO 5 Students can compose plays by acquiring drama knowledge and skills.

SYBA - MARATHI - (III)

CO 1 Students will understand the nature of Marathi language.
CO 2 Students will have knowledge of various dialects of Marathi.
CO 3 Study of Marathi dialects will get a boost.
CO 4 Students will be able to acquire language writing skills.
CO 5 Students will get Marathi writing skills.
CO 6 Students will gain skills to use Marathi language for computer.
CO 7 This course will be useful for students to pass competitive exams.

SYBA – JOURNALISM

CO 1 This course will be useful for students to write in various journalistic formats effectively.

CO 2 This course will be useful for students to become citizen reporters.

CO 3 This course will be useful for students to develop a career perspective in journalism.

TYBA PAPER – IV - History of medieval Marathi literature

CO 1 Students will know the history of medieval Marathi literature.

CO 2 Students will understand the various forms of poetry composition in medieval Marathi literature.

CO 3 Students will be proud of Marathi language and Marathi literature.

CO 4 Students will be introduced to Shahiri, Bakhar literature.

CO 5 Students will understand the nature Marathi literature created by different devotional sects(Sampraday).

CO 6 Students will get acquainted with the religious literature in Marathi by different religions like Muslim, Christian.

CO 7 Students will be able to understand the nature of medieval Marathi literature.

TYBA PAPER – V - Indian and Western theories of Literature

CO 1 Students will be introduced to Indian and Western literary Thoughts/Theories.

CO 2 Students will understand the process of aesthetic pleasure Indian and Western literature.

CO 3 Students will be introduced to the Indian and Western literary theories about process of Creation and purpose of literature.

TYBA PAPER – VI - Literature and Society

CO 1 Students will be introduced to the relationship between literature and society.

CO 2 Students will understand the relationship between metropolitan and rural literature and society.

CO 3 Students will be introduced to various literary streams with the help of books based on literary streams.

CO 4 Students will understand that social change has an effect on Marathi literature.

CO 5 Students will understand the process to creation of Dalit literature.

CO 6 Students will get knowledge of feminism, feminist movement and feminist literature.

TYBA PAPER – VII - Linguistics and Marathi grammar

CO 1 Students will be introduced to nature of language.

CO 2 Students will be introduced to modern and scientific methods of language study.

CO 3 Students will be introduced to Marathi grammar.

CO 4 Students will understand problems in Marathi grammar.

TYBA PAPER – VIII - Modern Marathi literature

CO 1 Students will be introduced to the features of modernism.

CO 2 Students will understand various literary streams.

CO 3 Students will understand the features of postmodernism.

CO 4 Understanding the nature of postmodernism will give students a new perspective on literature.

TYBA PAPER – IX -Occupational Marathi

CO 1 Students will have detailed knowledge about translation skills.

CO 2 Students will get translation skills, so they will get employment opportunities.

CO 3 Students will develop writing ability and creativity.

CO 4 Students will be introduced to the types of writing required for various media like T.V., Radio, Blog, Wikipedia etc. and will acquire the necessary skills.

CO 5 Employment opportunities in media will be available to students by acquiring writing skills.

M.A. – IPAPER – I / V -Theory of Literature

CO 1 Students will develop a vision to think from different perspectives on literature and literary creation.

CO 2 students will gain appropriate knowledge of important theories and concepts in Western, Indian and Marathi literature.

CO 3 Students will develop an understanding to literature.

CO 4 By gaining knowledge of different streams of literary thought, the scope of students' literary thought and criticism will increase.

PAPER – II / VI -Applied Criticism

CO 1 Students will develop an understanding to literary criticism and its various methods.
CO2 Considering the complexity of the literary artwork, the ability of students to read, comprehend, anesthetize and evaluate will increase.
CO 3 It will create in-depth knowledge about the necessary life vision, complexities in life, different criticism methods and literary approach.
CO 4 Students will gain systematic training of literary criticism.

PAPER – III / VII -History of Marathi Literature

CO 1 Students will understand the methods, format and concept of writing history of Marathi literature.
CO 2 Students will develop an attitude towards literary history from different perspectives and criticism methods.
CO 3 Students will understand changes in literature due to cultural and social environment.
CO 4 Students will understand the chronology of literary history writing, the nature, inspiration and purpose of literary history writing.
CO 5 By realizing the similarities between neo-literature and post-modern literature, students will be able to study the history of literary.

PAPER – IV / VIII - Linguistic Study of Marathi

CO 1 Students will be introduced to various concepts and approaches in historical, descriptive and socio linguistics.
CO 2 Students will be able to study different forms of the same language, changes in it according to geography, interrelationships of dialects, historicity and changes in language according to local cultural environment.
CO 3 Students' linguistic views will be clear.
CO 4 Students will develop the skill to analyse language on the basis of linguistics.

M.A. – IIPAPER - 9.5 - Dalit literature – दलित साहित्य

CO 1 Students will be able to understand Dalit literature, an important literary stream in modern Marathi literature.
CO 2 Students will be able to understand the literary and social / cultural background of Dalit literature.
CO 3 Students will be able to study the concept and nature of Dalit literature, its awareness of rebellion and its literary invention in various literary genres.
CO 4 Students will be able to make a systematic study of Dalit literature and the literary and social work of the Dalit literary movement.

PAPER – 10.4 – Grameen Sahitya – ग्रामीण मराठी साहित्य

CO 1 Students will be able to understand GrameenSahitya, an important literary stream in modern Marathi literature.

CO 2 Students will be able to understand the background of the rural movement behind the GrameenSahitya.

CO 3 Students will be able to study various stages in Marathi GrameenSahitya.

PAPER - 11.1 – Study of Form of Literature: Drama – साहित्य प्रकाराचा अभ्यास – नाटक

CO 1 Students will understand the literary genre of drama.

CO 2 Students will understand historical development of drama literature in Marathi.

CO 3 Students can compose plays by acquiring drama knowledge and skills.

PAPER - 12.2 – Study of specific Period – कालखंडाचा अभ्यास – शिवकाळ

CO 1 Students will be able to understand how to do Study of an Period.

CO 2 Students can study the literature of Shiv-Kal in terms of social, political, religious, cultural background and literary inspiration of Shiv-Kal.

CO 3 The students will be able to get acquainted with the poetry of the poets who wrote in the Warkari and Samarth sects of the Shiv-Kal.

PAPER - 13.1- Mahanagariy Sahitya – महानगरीय साहित्य

CO 1 Students will be able to understand MahanagariySahitya, an important literary stream in modern Marathi literature.

CO 2 Students will be able to study various stages in Marathi metropolitan literature.

CO 3 Students can study specific literature based on metropolis.

PAPER - 14.2 -Feminist Movement and Theorization- स्त्रीवादी चळवळ आणि सिद्धांतन

CO 1 Students will come to know the history of feminist movement and the principles that have been developed in this regard.

CO 2 Students can understand the background of feminist movement behind the stream of feminist literature.

CO 3 Students will be able to study various stages in Marathi feminist literature.

CO 4 Students can study specific literature based on feminism.

**PAPER - 15.1 - Mass media and Usage of Marathi Language –
प्रसार माध्यमे व मराठी भाषेचे उपयोजन**

CO 1 Students will be able to understand the nature and types of modern age media.

CO 2 According to the media, various skills of language application will be known to the students.

CO 3 Students can acquire various skills of language application and apply accordingly.

PAPER - 16 - Project Writing

CO 1 Students will get knowledge of how to do research on a subject thoroughly.

CO 2 Students can do scholarly research on a subject.

BHASHA And VANGMAY MANDAL

CO 1 Development of linguistic, Literary Critical and Reading skills.

CO 2 Development of social conversational skills and Literary Competence.

CO 3 Aesthetic Pleasure, novel thoughts approach and clarity of thoughts.

CO 4 Acquisition, presentation and communication of knowledge and information.

Department of History

Programme Specific Outcomes

PO1 To understand the background of social, economic, religious, cultural and political life of people and compare it with present to achieve overall development of society.

PO2 The study of history impart the knowledge of the significant historical events and past mistakes and create awareness for avoid the mistakes in present for better future with peace, progress in diverse and global community.

PO3 History instil the idea of national integration and harmony as well as generates the feeling of nationalism and patriotism.

PO4 History develop curious approach and interest for historical facts, art and architecture, archaeological sites, museums and archives as the sources for research in history

Course Outcomes Class: F.Y.B.A. (History) Semester I Course (Paper) Name and No.:

History of Modern India (1857 C.E- 1947 C.E)

CO1: The Learners will be able to understand the Modern History with regards to the struggles that their forefathers had undertaken to break the fetters of British Slavery.
--

CO2: The Learners will get well acquainted with the significant events, Freedom fighters, personas, political movements in the History of Modern India.

CO3: The Learners can envisage the whole process of Freedom struggle and learn from the mistakes in the past.

CO4: Learners will acquit an intensive and rare understanding of landmarks events and personality

Semester II Course (Paper) Name and No.: History of Modern India

CO1 To study how the seeds of Nationalism were sown in the Socio-Religious Reform Movements

CO2 Educational Development has enabled learners today to tests its sweet fruits
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CO3 Learners will comprehend about the impact of the British Rule on Indian Economy.
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CO4 To study the development of Subaltern factors in the History of Modern India.

Class: S.Y.B.A. (History) Semester III Course (Paper) Name and No.: Ancient India from Earliest Times to 1000 AD

CO1 Students will have better understanding of ancient period of Indian history.

CO2 They will be able to trace the continuity and change in historical perspective.

CO3 To understand the spiritual philosophy related to life through the study of ancient India

CO4 It will induce students to history of India In chronological framework.

Course (Paper) Name and No.: Landmarks in World History

CO1 The Learners will be able to understand the significant historical events of the world

CO2 The Learners understand how the whole world came out of the medieval dark ages.

CO3 The learners was aware of the Revolutions which gave very important concepts to world.

CO4 To understand the effects of global change on human life.

Course (Paper) Name and No.: History of Ancient India

CO1 The course will enable the students to study the history of ancient India from an analytical perspective

CO2 It will acquaint the student with various approaches and interpretation of ancient history of India

CO3 The learners are made aware of the glorious era in the history of ancient India

CO4 The learners can be introduced to the art and architecture of south India

Janata Shikshan Mandal's
Smt. Indirabai G. Kulkarni Arts College, J. B. Sawant Science College and
Sau. Janakibai D. Kunte Commerce, & J.S.M. Jr. College of Arts, Science and
Commerce Alibag, Dist-Raigad, 402 201.
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