

LOKNETE DR. BALASAHEB VIKHE PATIL (PADMA BHUSHAN AWARDEE)

PRAVARA RURAL EDUCATION SOCIETYS

ARTS, COMMERCE AND SCIENCE COLLEGE SATRAL

TAL-RAHURI, DIST.-AHMEDNAGAR, MAHARASHTRA

According to Savitribai Phule Pune University, Pune

- **Program Outcomes**
- **Program Specific Outcomes**
- **Course Outcomes**

DEPARTMENT OF CHEMISTRY

B.Sc. Chemistry	After successful completion of three year degree program in Chemistry a student should be able to;
Programme Outcomes	PO-1. Demonstrate, solve and an understanding of major concepts in all disciplines of chemistry. PO-2. Solve the problem and also think methodically, independently and draw a logical conclusion. PO-3. Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of chemical reactions. PO-4. Create an awareness of the impact of chemistry on the environment, society, and development outside the scientific community. PO-5. Find out the green route for chemical reaction for sustainable development. PO-6. To inculcate the scientific temperament in the students and outside the scientific community. PO-7. Use modern techniques, decent equipment's and Chemistry softwares
Programme Specific Outcomes	PSO-1. Gain the knowledge of Chemistry through theory and practicals. PSO-2. To explain nomenclature, stereochemistry, structures, reactivity, and mechanism of the chemical reactions. PSO-3. Identify chemical formulae and solve numerical problems. PSO-4. Use modern chemical tools, Models, Chem-draw, Charts and Equipments. PSO-6. Understand good laboratory practices and safety. PSO-7. Develop research oriented skills. PSO-8. make aware and handle the sophisticated instruments/equipments and chemicals

Course	Course Outcomes F.Y. B. Sc. Chemistry
	<u>Semester-I</u>
CH-101 Physical Chemistry	CO-1. Students will be able to apply thermodynamic principles to physical and chemical process CO-2. Understand the relation between Free energy and equilibrium and factors affecting on equilibrium constant and exergonic and endergonic reaction. CO-3. Understand the Concept to ionization process occurred in acids, bases and pH scale and related concepts such as Common ion effect hydrolysis constant, ionic product, solubility product CO-4. Degree of hydrolysis and pH for different salts , buffer solutions
CH-102 Organic Chemistry	CO-1.The students are expected to understand the fundamentals, principles, and recent developments in the subject area CO-2. To develop awareness of organic chemistry in day to day life. CO-3. To understand basic fundamental aspects of pharmaceutical and medicinal chemistry CO-4. To familiarize with current and recent developments in Chemistry.
	<u>Semester-II</u>
CH-201 Inorganic Chemistry	CO-1. Understand the various theories and principles applied to reveal atomic structure Origin of quantum mechanics and its need to understand structure of hydrogen atom CO-2. Understand the rules for filling electrons in various orbitals- Aufbau's principle, Pauli exclusion principle, Hund's rule of maximum multiplicity. CO-3. To understand and describe Block, group, modern periodic law and periodicity. CO-4. Write name, symbol, electronic configuration, trends and properties.
CH-202 Analytical Chemistry	CO-1. Calculations of mole, molar concentrations and various units of concentrations which will be helpful for preparation of solution CO-2. Units such as parts per million, parts per billion, parts per thousand, solution-dilatant volume ratio, function density and specific gravity of solutions CO-3. Basics of type determination, characteristic tests and classifications, reactions of different functional groups. CO-4. Basics of chromatography and types of chromatography
CH-103, 203 : Chemistry Practical	CO-1. Importance of chemical safety and Lab safety while performing experiments in laboratory CO-2. Determination of thermochemical parameters and related concepts and techniques of pH measurements CO-3. Preparation of buffer solutions, elemental analysis of organic compounds (non instrumental) CO-4. Chromatographic Techniques for separation of constituents of mixtures. CO-5. Inorganic Estimations using volumetric analysis

	CO-6. Synthesis of Inorganic compounds CO-7. Analysis of commercial products CO-8. Purification of organic compounds
Course	Course Outcomes S.Y. B. Sc. Chemistry <u>Semester-III</u>
CH-301 Physical and Analytical Chemistry	CO-1: Explain / discuss / derive integrated rate laws, characteristics, expression for half-life and examples of zero order, first order, and second order reactions. CO-2: Derivations of collision theory and transition state theory of bimolecular reaction and comparison. CO-3: Explain adsorption, classification of given processes into physical and chemical adsorption. CO-4: Apply adsorption process to real life problem. CO-5: Apply statistical methods to express his / her analytical results in
CH-302 Inorganic & Organic Chemistry	CO-1. Understand the terms related to molecular orbital theory (AO, MO, sigma bond, pi bond, bond order, magnetic property of molecules CO-2. Understand and explain and apply LCAO principle for the formation of MO's from AO's. CO-3. Terms related to the coordination chemistry (double salt, coordination compounds, coordinate bond, ligand, central metal ion, complex ion, coordination number, magnetic moment, crystal field stabilization energy, types of ligand, chelate effect, etc.) CO-4. Werner's theory of coordination compounds. CO-5. Identify, draw the structures, from structure name can be assign, synthesis, mechanism of reactions of aromatic hydrocarbons. CO-6. Identify and draw the structures alkyl / aryl halides, synthesis of alkyl / aryl halides, mechanism of Nucleophilic Substitution (SN ¹ , SN ² and SN _i) reactions alkyl / aryl halides. CO-7. Identify and draw the structures alcohols / phenols from their names or from structure name can be assigned, differentiate between alcohols and phenols.
	<u>Semester-IV</u>
CH-401 Physical and Analytical Chemistry	CO-1. Understand the the terms in phase equilibria such as-system, phase in system, components in system, degree of freedom, one two component system, phase rule, etc CO-2. Apply solvent extraction to separate the components of from mixture interest CO-3. Apply conductometric methods of analysis to real problem in analytical laboratory CO-4. Apply colorimetric methods of analysis to real problem in analytical laboratory CO-5. Apply column chromatographic process for real analysis in analytical laboratory

CH-402 Inorganic & Organic Chemistry	CO-1. Isomerism in coordination complexes different types of isomerism in coordination complexes. CO-2. Apply principles of VBT to explain bonding in coordination compound of different geometries. Correlate no of unpaired electrons and orbitals used for bonding, Identify / explain / discuss inner and outer orbital complexes. CO-3. Principle of CF, Apply crystal field theory to different type of complexes (Td, Oh, Sq. Pl complexes), strong field and weak field ligand approach in Oh complexes. CO-4. Identify and draw the structures aldehydes and ketones from their names or from structure name can be assigned, synthesis, the mechanism reactions aldehydes and ketones. CO -5. structures carboxylic acids and their derivatives from their names or from structure name can be assigned, synthesis of carboxylic acids and their derivatives, CO -6. Identify and draw the structures amines from their names or from structure name can be assigned, synthesis of carboxylic amines, mechanism reactions carboxylic amines, diazonium salt from amines and reactions of diazonium salt.
CH-303, 403 Practical Chemistry- III, IV	CO-1. Verify theoretical principles experimentally CO-2. Interpret the experimental data on the basis of theoretical principles CO-3. Correlate the theory to the experiments. Understand / verify theoretical principles by experiment or explain practical output with the help of theory and perform organic and inorganic synthesis and able to follow the progress of the chemical reaction. CO-4. Set up the apparatus properly for the designed experiments. CO-5. Systematic working skill in laboratory will be imparted in student.
Course Outcomes T.Y.B. Sc. Chemistry <u>Semester-III</u>	
Course B.Sc. Chemistry	Outcomes After completion of these courses students should be able to;
CH-331 Physical Chemistry	CO-1. To understand and write an expression for rate constant K for third order reaction CO-2. Solve the numerical problems based on Rate constant CO-3 Understand the term specific volume, molar volume and molar refraction CO-4. Know the meaning of phase, component and degree of freedom CO-5. Derive the expression for rotational spectra for the transition from J to J+1
CH-332 Inorganic Chemistry	CO-1. Know the meaning of various terms involved in co-ordination chemistry CO-2. To understand Werner's formulation of complexes and identify the types of valences

	<p>CO-3. Know the limitations of VBT</p> <p>CO-4. Know the shapes of d-orbitals and degeneracy of d-orbitals</p> <p>CO-5. Draw the geometrical and optical isomerism of complexes</p>
CH-333 Organic Chemistry	<p>CO-1. Define organic acids and bases.</p> <p>CO-2. Distinguish between geometrical and optical isomerism.</p> <p>CO-3. Discuss kinetics, mechanism and stereochemistry of SN¹ and SN² reactions.</p> <p>CO-4. Compare between E₁ and E₂ reactions.</p> <p>CO-5. Understand the evidences, reactivity and mechanism of various elimination and substitution reactions.</p>
CH-334 Analytical Chemistry	<p>CO-1. Know the principles of common ion effect and solubility product.</p> <p>CO-2. Study the methods of thermo-gravimetric analysis.</p> <p>CO-3. Understand the principles of Spectro-photometric analysis and properties of electromagnetic radiations.</p> <p>CO-4. Study the Voltammetry and Polarography as an analytical tool.</p> <p>CO-5. Measure the absorbance of atoms by AAS.</p>
CH-335 Industrial Chemistry	<p>CO-1. Know the importance of chemical industry.</p> <p>CO-2. Classify various insecticides.</p> <p>CO-3. Study the nutritive aspects of food constituents.</p> <p>CO-4. Understand the characteristics of some food starches. CO-5. Study the manufacture of cement, dyes, Glass, Soap and Detergents by modern methods.</p>
CH-336-D Environmental and Green Chemistry	<p>CO-1. Know the importance and conservation of environment</p> <p>CO-2. Understand the segments of atmosphere, hazards of flue gasses ozone depletion and ecological changes due to the hazardous gases.</p> <p>CO-3. Know the different water resources, quality of potable water and quality measures.</p> <p>CO-4. Understand the need of green technology, principles of green chemistry and its advantages.</p> <p>CO-5. Know the importance of catalytic route for sustainable development using green chemistry approach.</p>
	Course Outcomes B. Sc. Chemistry <u>Semester-IV</u>
CH-341 Physical Chemistry	<p>CO-1. Understand Mechanics of system particles.</p> <p>CO-2. Know the Redox reaction.</p> <p>CO-3 Study the Crystal Field Theory.</p> <p>CO-4. Solve the cell reaction and calculate EMF.</p> <p>CO-5. Calculate interplanar distance.</p> <p>CO-6. Understand De-Broglie hypothesis and Uncertainty principle</p> <p>CO-7. Derive Schrodinger's time dependent and independent equations</p> <p>CO-8. Know the nuclear reaction and its application</p>
CH-342 Inorganic Chemistry	<p>CO-1 Study the electronic configuration of lanthanides and actinides.</p> <p>CO-2. Get knowledge of Crystalline solid.</p> <p>CO-3. Understand different operation in stoichiometric molecule.</p> <p>CO-4. Study the Bio-inorganic chemistry.</p>

CH-343 Organic Chemistry	CO-1. To study UV, IR and NMR spectroscopy. CO-2. Discuss different types of rearrangement reactions. CO-3. Determine structure of compound by spectroscopic methods. CO-4. Understand the difference between carbocation and carbanion. CO-5. To study alkaloids, Ephedrine, citral molecule with their properties and application.
CH-344 Analytical Chemistry	CO-1. Know the different analytical techniques. CO-2. To understand different types of separation techniques. CO-3. To study principle, construction and working of GC and HPLC. CO-4. To give an extended knowledge about chromatographic techniques used for separation of amino acids. CO-5. Discuss the problem based on distribution coefficient and extraction techniques
CH-345 Industrial Chemistry	CO-1. Know the various pharmaceutical drugs, their application and synthesis. CO-2. To study the waste management. CO-3. To understand the function of dyes, paints and pigments. CO-4. To study the various type of surfactants. CO-5. To know about molasses and bagasse. CO-6. To study the different types of polymer.
CH-346-D Environmental and Green Chemistry	CO-1. Know methods of water purification, waste water treatment process and its advantages CO-2. Study of types of soil its components and types of solid waste and their disposal. CO-3. Study the techniques used to monitor hazardous materials present in the environment. CO-4. Understand the global warming climate change and greenhouse gases and their effects. CO-5. Study of importance of water as green solvent, natural resources of energy, conventional and non-conventional source and utilization of solar and wind energy.
CH-347 Physical Chemistry Practical	CO-1. Calculate molar and normal solution of various concentrations. CO-2. Determine specific rotations and percentage of optically active substances by polarimetry. CO-3. Study the energy of activation and second order reaction. CO-4. Study the stability of complex ion and standard free energy change and equilibrium constant by potentiometry. CO-5. Find out the acidity, basicity and pK_a value on pH meter.
CH-348 Inorganic Chemistry Practical	CO-1. Study the gravimetric and volumetric analysis of ores and alloy. CO-2. Prepare various inorganic complexes and determine its % purity. CO-3. To study binary mixture with removal of borate and phosphate. CO-4. To understand the chromatographic techniques
CH-349 Organic Chemistry Practical	CO-1. Perform the binary mixtures. CO-2. Preparation of organic compounds, their purifications and run TLC. CO-3. Determination of physical constant: Melting point, Boiling point. CO-4. Different separation techniques.

Programme Outcomes: M. Sc. Analytical Chemistry

M. Sc. Analytical Chemistry	After successful completion of two year degree programme in chemistry a student should be able to
Programme Outcomes	<p>PO-1. Demonstrate, solve and an understanding of major concepts in all disciplines of Chemistry.</p> <p>PO-2. Solve the problem and also think methodically, independently and draw a logical conclusion.</p> <p>PO-3. Create an awareness of the impact of chemistry on the society, and development outside the scientific community.</p> <p>PO-4. Become professionally trained in the area of Industry, material science, lasers and Nano-Technology.</p> <p>PO-5. Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of Chemistry experiments.</p> <p>PO-6. To inculcate the scientific temperament in the students and outside the scientific community.</p> <p>PO-7. Apply modern methods of analysis to chemical systems in a laboratory setting.</p>
Programme Specific Outcomes	<p>PSO-1. Learn about the potential uses of analytical industrial chemistry.</p> <p>PSO-2. Carry out experiments in the area of organic analysis, estimation, separation, derivation process, conduct metric and potentiometri analysis.</p> <p>PSO-3. Learn the classical status of thermodynamics.</p> <p>PSO-4. Gathers attention about the physical aspects of atomic structure, various energy transformation, molecular assembly in nano level and significance of electrochemistry.</p> <p>PSO-5. Understand good laboratory practices and safety.</p> <p>PSO-6. Introduce advanced techniques and ideas required in developing area of Chemistry.</p> <p>PSO-7. Make aware and handle the sophisticated instruments/equipments.</p> <p>PSO-8. Enhance students" ability to develop mathematical models for physical systems.</p>

	Course Outcomes M. Sc. Analytical Chemistry Semester-I
Course M. Sc. Analytical Chemistry	Outcomes After completion of these courses students should be able to;
CCTP-1 CHP-110- Physical Chemistry-I CCTP-Core Compulsory	<p>CO-1. Realize the terms State function, path function, exact differential and inexact differential, internal energy and enthalpy,</p> <p>CO-2. Know the Helmholtz and Gibbs function, Entropy and entropy change in an ideal gas with temperature and pressure</p> <p>CO-3. Learn Partial molar quantities, methods for determination of</p>

Theory Paper	<p>molar quantities, ideal solutions</p> <p>CO-4. Understand the Raoult's, Henry's law, Gibbs function, colligative properties, Elevation in boiling point, depression</p> <p>CO-5. Recognized the Chemical Kinetics and Reaction Dynamics,</p> <p>CO-6. Learn Valence bond theory, molecular orbital theory for di and tri atomic molecule,</p>
CCTP-2 CHI-130- Inorganic Chemistry-I	<p>CO-1. To understand the concept of symmetry and able to pass various symmetry elements through the molecule.</p> <p>CO-2. Understand the concept and point group and apply it to molecules</p> <p>CO-3. Known the Projection operators and their use of construct SALC</p> <p>CO-4. To understand the Application of Group theory to Infrared Spectroscopy.</p> <p>CO-5. understand the detail chemistry of S and P block elements w.r.t. their compounds, their reactions</p> <p>CO-6. To learn the advance chemistry of boranes, fullerene, zeolites, polymers etc.</p> <p>CO-7. Learn Organometallic chemistry of some important elements from the main groups and their applications</p>
CCTP-3 CHO-150- Organic Chemistry-I	<p>CO-1. To understand some fundamental aspects of organic chemistry, to learn the concept aromaticity, to understand the various types of aromaticity</p> <p>CO-2. To study heterocyclic compound containing one and two hetero atoms with their structure, synthesis and reactions</p> <p>CO-3. Learn the concept stereochemistry and its importance; their rules and the concept of chirality</p> <p>CO-4. Understand the role of various reaction intermediates like carbocation, carbanion, carbenes, radicals, and nitrenes in organic reactions;</p> <p>CO-5. Able to describe mechanism of different rearrangement reactions.</p> <p>CO-6. Understand the chemistry of Ylides.</p> <p>CO-7. To understand the basis of redox reaction; acquire knowledge about the reagents which causes selective oxidation / reduction in various learn the basic mechanism of oxidation / reduction in organic comp</p>
CBOP-1 CHG-190 - General Chemistry-I CBOP-Choice Based Optional Paper	<p>CO-1. Students will be able to explore new areas of research in both chemistry and allied fields of science and technology.</p> <p>CO-2. Understand the Students will be able to function as a member of an interdisciplinary problem solving team.</p> <p>CO-3. Understand to impart the students thorough idea in the chemistry of carbohydrates, amino acids, proteins and nucleic acids etc.</p> <p>CO-4. Develop skills to critically read the literature and effectively communicate research in a peer setting</p> <p>CO-5. Understand the Practical of Inorganic Material Analysis, Synthesis and Applications.</p>

Course Outcomes M. Sc. Analytical Chemistry Semester-II	
CCTP-4 CHP-210- Physical Chemistry-II	<p>CO-1. Understand of the principle of Microwave, IR, Raman, Electronic, NMR, ESR and Mossbauer spectroscopy</p> <p>CO-2. Draw of the schematic Microwave, IR and Raman spectrum of di and triatomic molecules based on the selection rules.</p> <p>CO-3: Understand of decay kinetics and measurement of radioactivity CO-4: Get knowledge of types of nuclear react</p> <p>CO-5: Study the applications of radioactivity, Understand Radiolysis and radicals</p>
CCTP-5 CHI-230- Inorganic Chemistry-II	<p>CO-1. Understand to find out the no of microstates and meaningful term symbols, construction of microstate table for various configuration</p> <p>CO-2. Understand to draw correlations diagram for various configurations in Tdh Oh ligand field.</p> <p>CO-3. Study the basic d-d transition, d-p mixing, charge transfer spectra</p> <p>CO-4. Understand the various terms involved in magneto chemistry.</p> <p>Co-5. Understand the various Quenching of orbital angular momentum</p> <p>CO-6. Understand the importance of bioinorganic chemistry.</p> <p>CO-7. Understand the importance and transport of metal ions and Mechanism for active transport of Na⁺ and K⁺</p> <p>CO-8. Understand the importance and function of Ca, Fe and Mg in metalloprotein and Catalytic role of Mn in photosynthesis.</p>
CCTP-6 CHO-250- Organic Chemistry -II	<p>CO-1. MOT and will be able to extend this in predicting reaction mechanism and stereochemistry of electrocyclic reactions.</p> <p>CO-2. The concepts in free radical reactions, mechanism and the stereochemical outcomes</p> <p>CO-3. The basic principle of spectroscopic methods and their applications in structure elucidation of organic compounds using given spectroscopic data or spectra.</p> <p>CO-4. Understand the factors affecting UV-absorption spectra, Interpret IR-spectra on basic values of IR-frequencies.</p>
CBOP-2 CHG-290- General Chemistry-II	<p>CO-1. To impart the students thorough idea in the chemistry of carbohydrates, amino acids, proteins and nucleic acids etc</p> <p>CO-2. Students will be able to function as a member of an interdisciplinary problem solving team.</p> <p>CO-3. Develop skills to critically read the literature and effectively communicate research in a peer setting.</p> <p>CO-4. Understand the importance of chemical biology research and Interdisciplinary work.</p> <p>CO-5. Understand the Practical of potentiometry and polorography</p>

<p>CCPP-1 CHP-107- Practical Course –I</p> <p>CCPP -Core Compulsory Practical Paper</p>	<p>CO-1. Calculate molar and normal solution of various concentrations.</p> <p>CO-2. Determine specific rotations and percentage of to optically active substances by polarimetrically.</p> <p>CO-3. Study the energy of activation and second order reaction.</p> <p>CO-4. Understand the colorometry and spectrophotometric technique</p> <p>CO-5. Study of Laboratory Safety, MSDS sheet, Handling of glassware's and care to be taken, handling of organic flammable as well as toxic solvents in laboratory</p> <p>CO-6- Understand the purification techniques and perform the green synthesis of organic compounds</p>
<p>CCPP-2 CHP-227-Practical Course-II</p>	<p>CO-1. Study of synthesis of coordination complexes</p> <p>CO-2. Understand the structural determination of metal complexes by conductometric measurement.</p> <p>CO-3. Understand the inorganic characterization techniques, Inorganic Kinetics and Ion – Exchange Chromatography,</p> <p>CO-4. Students are trained to different purification techniques in organic chemistry like recrystallization, distillation, steam distillation</p> <p>CO-5. Students are made aware of carrying out different types of reactions and their workup methods.</p> <p>CO-6. Make student aware of green chemistry and role of green chemistry in pollution reduction.</p>
	<p>Semester-III</p>
<p>CHA-390 Electro analytical and radio analytical methods of analysis</p>	<p>CO-1. Study of colorimeter, Faraday 1st law, Faraday 2nd law.</p> <p>CO-2. Study of voltametry and paleographic method of analysis</p> <p>CO-3. Study of ampherometry and their applications</p> <p>CO-4. Learn radio analytical methods of analysis, activation analysis,</p>
<p>CHA-391 Pharmaceutical analysis.</p>	<p>CO-1. Study of apparatus for test and assay, cleaning of glassware, role of FDA in pharmaceutical industry.</p> <p>CO-2. Learn biological test and assay, microbiological test and assay, physical test, determination, limit test sterilization.</p> <p>CO-3. Analysis of vegetable drug, sources of impurities in pharmaceutical row materials and finished products.</p> <p>CO-4. Learn standardization and quality control of different row materials.</p>
<p>CHA-392 Advanced analytical techniques</p>	<p>CO-1. Study the classical approach for aqueous extraction, solid phase extraction, micro extraction and SFE.</p> <p>CO-2. Learn: AAS, FES, ICPAES, and DCP.</p> <p>CO-3. Study atomic fluorescence, resonant ionization and LASER based enhanced ionization.</p> <p>CO-4. Study of different detectors and their applications.</p>
<p>CHA-380 Geochemical and alloy analysis and analytical method development and validation.</p>	<p>CO-1. To understand assay validation and inter laboratory transfer.</p> <p>CO-2. Study the statistical analysis and analytical figure.</p> <p>CO-3. Learn the analysis of geological materials and alloys.</p> <p>CO-4. Study the analysis of soil, sampling, chemical analysis as a measure of soil fertility</p>

	Semester-IV
CHA-490 Analytical spectroscopy	CO-1. Study of ESCA, Detectors and their applications. CO-2. Learn X-ray method of analysis, numerical problems. CO-3. Understand an introduction to microscopy, its applications. CO-4. Study of chemiluminescences, Fluorescence and phosphorescence. CO-5. Study of NMR spectroscopy.
CHA-491 Analytical methods for analysis of fertilizer detergent, water and polymer,	CO-1. Study of analysis of fertilizer, sampling and sample preparation, kjeldal's method. CO-2. Understand the analysis of soap and detergents, UV-spectroscopic analysis of detergent. CO-3. Study of water pollution and analysis of polluted water. CO-4. Learn the polymer chemistry, analysis and testing of polymer, measurement of molecular weight and size. CO-5. Understand paint and pigment
CHA-492 Pollution monitoring and control and analysis of body fluid.	CO-1. Study of pollution monitoring, removal of heavy toxic metals Cr, Hg, CO-2. Learn the removal of particulate matters, SO ₂ And NO _x . CO-3. Study the collection of specimen blood, urine, faeces. CO-4. Learn the analysis of blood and urine, Vitamin in body fluid. CO-5. Study the liver function and kidney function test.
CHA-481 Analytical toxicology and food analysis..	CO-1. Study of acute poisoning, clinical toxicology. CO-2. Learn the isolation, identification and determination of narcotics, CO-3. Study the classification function, analysis of carbohydrate, Protein, CO-4. Study the food preservatives, identification determination, and composition.
CHA-387 Analysis of materials	CO-1. Study the gravimetric and volumetric analysis of ores and alloy. CO-2. Prepare a various inorganic complexes and determine its % purity. CO-3. Preparation of nonmaterial. CO-4. To understand the chromatographic techniques. CO-5. Estimation of Iron By Various methods.
CHA-487 Instrumental Analysis.	CO-1. Spectral analysis best on instrumental techniques CO-2. Photometric determination. CO-3. Study of Conductometer, FES, Polarography. CO-4. Analysis of riboflavin by photofluometry. CO-5. To Study the spectroscopic techniques CO-6. To study the turbidometry and Nephelometry.
CHA-488 Organic Chemistry Practical	CO-1. Study the dissolution of tablet. CO-2. Learn the spectroscopic techniques. CO-3. Study Volumetric and gravimetric estimation. CO-4. Analysis of Quinine sulphate by photofluometry. CO-5. Study of folin Wu method.

DEPARTMENT OF BOTANY

Programme Outcomes: B. Sc. Botany

B.Sc. Baotany	After successful completion of three year degree program in Botany a student is able to;
Programme Outcomes	<p>PO-1. Students know about different types of lower & higher plants their evolution in from algae to angiosperm & also their economic and ecological importance.</p> <p>PO-2. Cell biology gives knowledge about cell organelles & their functions</p> <p>PO-3. Molecular biology gives knowledge about chemical properties of nucleic acid and their role in living systems.</p> <p>PO-4. Genetics provides knowledge about laws of inheritance, various genetic interactions, chromosomal aberrations & multiple alleles.</p> <p>PO-5. Structural changes in chromosomes.</p> <p>PO-6. Student can describe morphological & reproductive characters of plant and also identified different plant families and classification.</p> <p>PO-7. Understand the economic importance of various plant products & artificial methods of plant propagation</p> <p>PO-8. Use modern Botanical techniques and decent equipments.</p> <p>PO-9. To inculcates the scientific temperament in the students and outside the scientific community.</p>
Programme Specific Outcomes	<p>PSO-1. Students acquire fundamental Botanical knowledge through theory and practicals.</p> <p>PSO-2. To explain basis plant of life, reproduction and their survival in nature.</p> <p>PSO-3. Helped to understand role of living and fossil plants in our life.</p> <p>PSO-4. Understand good laboratory practices and safety.</p> <p>PSO-5. To create awareness about cultivation, conservation and sustainable utilization of biodiversity</p> <p>PSO-6. To know advance techniques in plant sciences like tissue culture, Phytoremediation, plant disease management, formulation of new herbal drugs etc.</p> <p>PSO-7. Students able to start nursery, mushroom cultivation, biofertilizer production, fruit preservation and horticultural practices.</p>

Course Outcomes: F. Y. B. Sc. Botany	
Course F. Y. B. Sc. Botany	Outcomes
Paper-I, Sem-I: Plant Life and Utilization -I	After completion of these courses students should be able to; Students get awareness about Algal Fungal, Licens, Brayophytes, Pteridophytes diversity, systematic position and morphology. Students know about their life cycle pattern as well as botanical sources, characteristics and utilities of Plants/ plant products.
Paper-II, Sem-I: Plant Life and Utilization-II	Students know about Pteridophytes, Gymnosperms and Angiosperms with reference to vascular plants. Utilization and economic importance of Pteridophytes, Gymnosperms and Angiosperms
Paper-III, Sem-I: Practical Course based on Paper I & Paper II	Students will learn about Life Cycle of Spirogyra, Agaricus. Riccia, Lichens, Mushroom Cultivation, Inflorescence, Flowers and Fruits
Paper-I, Sem-II: Plant Morphology and Anatomy	Students will understand about the habit of the angiosperm plant body. They will know the vegetative characteristics of the plant. Learn about the reproductive characteristics of the plant as well as they understand the plant morphology. Understand the scope & importance of Anatomy. They get knowledge about various tissue systems.
Paper-II, Sem-II: Principles of Plant Science	Students will learn about scope of plant physiology and different concepts in plant physiology ie. Diffusion, Imbibitions, Osmosis Plasmolysis, Plant growth, Plant cell and Cell cycle as well as they aware about introduction and scope of molecular biology, central dogma, Structure of DNA, Types of chromosomes. Structure and types of RNA, DNA replication and types.
Paper-III, Sem-II: Practical Course based on Paper I & Paper II	To make aware the students about the study of life cycle of Nephrolepis, Cycas, Bentham and Hooker's system of classification, Comparative account of Dicotyledonous and Monocotyledonous plants, Utilization and economic importance of Angiosperms, Plant cell, Staining of suitable nuclear material by Basic Fuchsin, Study of mitosis, meiosis preparation of slides using onion root tips, Estimation of chlorophyll-a and chlorophyll-b, Osmosis- curling experiment and DPD
Course Outcomes: S. Y. B. Sc. Botany	
Course S. Y. B. Sc. Botany	Outcomes
Sem-I BO 231: Paper I- Taxonomy of Angiosperm and Plant community	After completion of these courses students should be able to; Students will learn about the scope, importance, classification and nomenclature of plant taxonomy. Learn about artificial, natural and phyllogenetic system of Understand the taxonomic literature. Students will learn about sources of data for systematic The students know about botanical nomenclature and different plant families. They learn use of computer in plant classification. The student know about ecology and ecological grouping.

<p>Sem-I BO 232: Paper II- Plant Physiology</p>	<p>Understand scope and application of plant physiology. Students will able to know the movement of sap and absorption of water. Understand the plant cell in relation to water Understand the process of transpiration. Students will learn about the nitrogen metabolism and its Importance. Learn about the seed dormancy and germination. Students know about the physiology of flowering and different concept related to it.</p>
<p>Sem-II BO 241: Paper I- Plant Anatomy and Embryology</p>	<p>Student will able to know about scope of plant anatomy and types of tissue. Student will learn Epidermal, Mechanical and Vascular tissue. System. Learn about Normal and Anomalous secondary. Learn about scope of Plant Embryology. Understand the Microsporangium, Megasporangium, Male and Female gametophyte. Understand the fertilization process in plants as well as about endosperm and embryo.</p>
<p>BO 242: Paper II- Plant Biotechnology</p>	<p>Understand scope and importance of plant biotechnology Understand the principle, basic technique, types and application of plant tissue culture. Students will learn about concept, production and importance of single cell protein. Learn about the Genetic engineering Understand the genes, genome as well as recombinant D.N.A. technology</p>
<p>Practical course</p>	<p>Student will able to demonstrate proficiency in experimental techniques and methods of analysis. Students learn to carry out practical work in the field and in the Laboratory.</p>

Course Outcomes: T. Y. B. Sc. Botany
Semester-III

Course	Outcomes After completion of these courses students should be able to;
BO-331 Cryptogamic Botany	CO-1. Study of cryptogams to understand their Diversity. CO-2. Know the systematics, morphology and structure of algae, fungi, bryophytes, and Pteridophytes. CO-3. Know life cycle pattern of cryptogams. CO-4. Know economic importance of cryptogams. CO-5. Know evolution of algae, fungi, bryophytes and Pteridophytes.
BO-332 Cell and molecular biology	CO-1. Gain knowledge about cell and its function. CO-2. Learn the scope and importance of molecular biology. CO-3. Understand ultra-structure of cell wall, plasma membrane and cell Organelles CO-4. Understand the biochemistry of cell. CO-5. Understand the biochemical nature of nucleic acid and their role in living systems.
BO-333 Genetics and evolution	CO-1. Understand the Mendelian and neo Mendelian genetics. CO-2 Know about interaction of genes, multiple alleles and linkage and crossing over. CO-3. Know about sex linked inheritance, chromosomal aberrations. CO-4. Know the evolutionary sequence of various groups of plants.
BO-334 Spermatophytic and palaeobotany	CO-1. Systematic study of gymnosperms and angiosperms. CO-2. Understand the morphological and reproductive character of spermatophytic plants. CO-3. Understand economic importance of gymnosperms and angiosperms. CO-4. Understand the diversity among spermatophyte. CO-5. To bring investigation of palaeobotanical study in India. CO-6. Know, scope and application of Palaeobotany. CO-5. Know types of fossils, geological time scale.
BO-335 Horticulture & floriculture	CO-1. Understand economic importance of plant and plant product CO-2. Know the methods of plant propagation. CO-3. Understand the fruit & vegetables production technology. CO-4. Understand the scope & importance of floriculture. CO-5. Understand the methods of cultivation of different flowering plants.
BO-336 Computational botany	CO-1. Understand the scope & importance of biostatistics. CO-2. Understand the scope and some basic commonly used terms like sampling, data, dispersion, population, central tendency etc. CO-3. Knowledge to apply statistical analysis to biological data for testing different hypothesis.

Course Outcomes B. Sc. Botany Semester-IV	
BO-341 Plant physiology & biochemistry	CO-1. Know scope and importance of plant physiology. CO-2. Understand plant & water relation. CO-3. Understand process of photosynthesis, C ₃ , C ₄ , CAM pathways. CO-4. Understand the process of respiration, growth and developmental process in plant. CO-5. Understand the biochemistry of cell. CO-6. Understand the different biochemical reaction of biomolecules in plant cell.
BO-342 Plant ecology and biodiversity	CO-1. Know the biotic and abiotic components of ecosystem. CO-2. Food chain & food web in ecosystem. CO-3. Understand diversity among various groups of plant kingdom. CO-4. Understand plant community & ecological adaptation in plants. CO-5. Scope, importance and management of biodiversity.
BO- 343 Plant pathology	CO-1. Understand scope and importance of plant pathology. CO-2. Know disease cycle and disease development. CO-3. Know the effect of plant diseases on economy of crops. CO-4. Know the methods of studying plant diseases. CO-5. They can identify the plant diseases like bacterial, nematodal, and fungal. CO-6. Know the disease forecasting. CO-7. Know the prevention and control measures of plant diseases.
BO- 344 Medical and economic botany	CO-1. Understand scope and importance of pharmacognosy. CO-2. Know the cultivation, collection, processing & importance of various herbal drugs. CO-3. Understand the scope of economic botany. CO-4. Know the botanical resources like non wood forest products. CO-5. Understand the concept of Ayurvedic pharmacy.
BO-345 Plant biotechnology	CO-1. Understand the fundamental of recombinant DNA technology. CO-2. Understand tissue culture techniques. CO-3. Role of microbes in agriculture, medicine & industry. CO-4. Know the fermentation technology. CO-5. Understand the concept of bioinformatics, genomics & proteomics. CO-6. Understand technical germplasm & cryopreservation.
BO. 346 Plant breeding & seed technology.	CO-1. Understand the scope & importance of plant breeding. CO-2. Know the technique of production of new superior crop varieties. CO-3. Know the about heterosis, hybrid vigor etc. CO-4. Know the process of hybrid variety, development & their release. CO-5. Know about seed germination, processing, production etc.

DEPARTMENT OF ZOOLOGY

Zoology	F.Y.B.Sc. and S.Y. B.Sc. Zoology programme
Program specific outcomes	<p>PSO-1. Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology</p> <p>PSO-2. Analyze the relationships among animals with their ecosystems</p> <p>PSO-3. Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, Sericulture.</p> <p>PSO-4. Understand the applications of Zoology in Agriculture, Medicine and daily life</p> <p>PSO-5. Gains knowledge about research methodologies, effective communication and skills of problem solving methods</p> <p>PSO-6 - Contributes the knowledge for Nation building.</p>

F. Y. B.Sc. Course	Outcomes
ZO-111,121: Animal diversity I and II	<p>CO1: To understand the Animal diversity around us.</p> <p>CO2: To understand the underlying principles of classification of animals.</p> <p>CO3: To understand the terminology needed in classification.</p> <p>CO4: To understand the differences and similarities in the various aspects of classification.</p> <p>CO5: To classify invertebrates and to be able to understand the possible group of the invertebrate observed in nature.</p>
ZO- 112: Animal Ecology:	<p>CO1: The learners will be able to identify and critically evaluate issues in relation to professional and societal standards of ethics and behavior due to the dynamics in population.</p> <p>CO2: To understand anticipate, analyze and evaluate natural resource issues and act on a lifestyle that conserves nature.</p> <p>CO3: The Learner understands and appreciates the diversity of ecosystems and applies beyond the syllabi to understand the local lifestyle and problems of the community.</p> <p>CO4: The working in nature to save environment will help development of leadership skills to promote betterment of environment.</p>
ZO – 122: Cell Biology	<p>CO1: Student will come to know the scope of cell biology.</p> <p>CO2: Identifications of the different structures of Prokaryotic, Eukaryotic.</p> <p>CO3: Knowledge of the structure of unit membranes and its different models.</p> <p>CO4: Understanding the different cell organelles.</p> <p>CO5: Comparison between meiosis and mitosis cell division</p>

	CO6: Explanation of the cell cycle, cell ageing and cell death.
Practical Zoology -I	CO1: Recognize the live forms of vertebrates and invertebrates. CO2: Analyze and describe zoological concepts, including morphology and anatomy. CO3: Explain conservation and sustainable use of animals; CO5: Explain and demonstrate the impact that animals have on human society.
S. Y. B.Sc. Course	Outcomes
ZO 211, 221: Animal Systematic and Diversity	CO1- Knowledge of classification of Non-chordates along with studies on various physiological functions and interactions of non-chordate organisms with type specimens. CO2- Knowledge of classification of chordates along with studies on various physiological functions and comparative anatomy of organs of chordate with example.
ZO 212, 222: Applied Zoology I & II	CO1-Understands processes of fisheries, sericulture, along with crop pest management techniques. CO2-Students gain knowledge about various disease related vectors and their impact on human. CO3-Understands concepts of apiculture, poultry, dairy along with tissue and cell culture. techniques.
ZO 223: Practical course	CO1-First-hand knowledge about identification of non-chordate and chordate specimens (fresh and preserved) along with larval forms and study of endoskeleton of vertebrates. CO2: Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology. CO3: Analyze the relationships among animals, plants and microbes

DEPARTMENT OF PHYSICS

B.Sc. Physics	After successful completion of three year degree program in Physics a student should be able to;
Programme Outcomes	<p>PO-1. Students got the basic knowledge of the scientific and technological aspects of Physics.</p> <p>PO-2. Students are able to explain what is happening around them and different phenomena in nature.</p> <p>PO-3. The research project and practical skills enhance the scientific approach of students.</p> <p>PO-4. Students are able to implement basic electronics knowledge in home appliances and able to identify the basic troubleshooting.</p> <p>PO-5. Students are able to deal scientifically with real world problems.</p>
Programme Specific Outcomes	<p>PSO-1. Students can independently think and able to solve problems with the help of scientific knowledge.</p> <p>PSO-2. Students are able to pursue a progressive and successful career in Physics.</p>

Class	Course	Outcomes
F.Y. B. Sc.	PHY-111 Mechanics and Properties of Matter	<p>CO-1. Demonstrate an understanding of Newton's laws and applying them in calculations of the motion of simple systems.</p> <p>CO-2. Use the free body diagrams to analyse the forces on the object.</p> <p>CO-3. Understand the concepts of energy, work, power, the concepts of conservation of energy and be able to perform calculations using them.</p> <p>CO-4. Understand the concepts of elasticity and be able to perform calculations using them.</p> <p>CO-5. Understand the concepts of surface tension and viscosity and be able to perform calculations using them.</p> <p>CO-6. Use of Bernoulli's theorem in real life problems.</p> <p>CO-7. Demonstrate quantitative problem-solving skills in all the topics covered.</p>
F.Y.B. Sc.	PHY-112 Physics Principles and Applications	<p>CO-1. To understand the general structure of atom, spectrum of hydrogen atom.</p> <p>CO-2. To understand the atomic excitation and LASER principles.</p> <p>CO-3. To understand the bonding mechanism and its different types.</p> <p>CO-4. To demonstrate an understanding of electromagnetic waves and its spectrum.</p>

		<p>CO-5.Understand the types and sources of electromagnetic waves and applications.</p> <p>CO-6.To demonstrate quantitative problem-solving skills in all the topics covered.</p>
F.Y.B. Sc.	PHY-113 Physics Laboratory 1A	<p>CO-1.Acquire technical and manipulative skills in using laboratory equipment, tools, and materials.</p> <p>CO-2.Demonstrate an ability to collect data through observation and/or experimentation and interpreting data.</p> <p>CO-3.Demonstrate an understanding of laboratory procedures including safety, and scientific methods.</p> <p>CO-4.Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena.</p> <p>CO-5.Acquire the complementary skills of collaborative learning and teamwork in laboratory settings.</p>
F.Y.B. Sc.	PHY-121 Heat and Thermodynamics	<p>CO-1.Describe the properties of and relationships between the thermodynamic properties of a pure substance.</p> <p>CO-2.Describe the ideal gas equation and its limitations.</p> <p>CO-3.Describe the real gas equation.</p> <p>CO-4.Apply the laws of thermodynamics to formulate the relations necessary to analyze a thermodynamic process.</p> <p>CO-5.Analyze the heat engines and calculate thermal efficiency.</p> <p>CO-6.Analyze the refrigerators, heat pumps and calculate coefficient of performance.</p> <p>CO-7.Understand property 'entropy' and derive some thermodynamical relations using entropy concept.</p> <p>CO-8.Understand the types of thermometers and their usage.</p>
F.Y.B. Sc.	PHY-122 Electricity and Magnetism	<p>CO-1.To understand the concept of the electric force, electric field and electric potential for stationary charges.</p> <p>CO-2.Able to calculate electrostatic field and potential of charge distributions using Coulomb's law and Gauss's law.</p> <p>CO-3.To understand the dielectric phenomenon and effect of electric field on dielectric.</p> <p>CO-4.To Study magnetic field for steady currents using Biot-Savart and Ampere's Circuital laws.</p> <p>CO-5.To study magnetic materials and its properties.</p> <p>CO-6.Demonstrate quantitative problem-solving skills in all the topics covered.</p>
F.Y.B. Sc.	PHY-123 Physics	<p>CO-1.Acquire technical and manipulative skills in using laboratory equipment, tools, and materials.</p>

	Laboratory 1B	<p>CO-2.Demonstrate an ability to collect data through observation and/or experimentation and interpreting data.</p> <p>CO-3.Demonstrate an understanding of laboratory procedures including safety, and scientific methods.</p> <p>CO-4.Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena.</p> <p>CO-5.Acquire the complementary skills of collaborative learning and teamwork in laboratory settings.</p>
S.Y.B. Sc.	PHY-231: Mathematical Methods in Physics-I	<p>CO-1.Understand the complex algebra useful in physics co</p> <p>CO-2.Understand the concept of partial differentiation.</p> <p>CO-3.Understand the role of partial differential equations in phy</p> <p>CO-4.Understand vector algebra useful in mathematics and phy.</p> <p>CO-5.Understand the concept of singular points of differential equations.</p>
S.Y.B. Sc.	PHY-232: Electronics (Optional I)	<p>CO-1.Apply different theorems and laws to electrical circuits.</p> <p>CO-2.Understand the relations in electricity.</p> <p>CO-3.Understand the parameters, characteristics and working of transistors.</p> <p>CO-4.Understand the functions of operational amplifiers.</p> <p>CO-5.Design circuits using transistors and applications of operational amplifiers.</p> <p>CO-6.Understand the Boolean algebra and logic circuits.</p>
S.Y.B. Sc.	PHY-232: Instrumentation (Optional II)	<p>CO-1.Understand the concept of measurement.</p> <p>CO-2.Understand the performance of measuring instruments.</p> <p>CO-3.Design experiments using sensors.</p>
S.Y.B. Sc.	PHY-233: Practical Course (Laboratory 2A)	<p>CO-1.Use various instruments and equipment.</p> <p>CO-2.Design experiments to test a hypothesis and/or determine the value of an unknown quantity. • Investigate the theoretical background of an experiment.</p> <p>CO-3.Setup experimental equipment to implement an experimental approach.</p> <p>CO-4.Analyze the data, plot appropriate graphs and reach conclusions from data analysis.</p> <p>CO-5.Work in a group to plan, implement and report on a project/experiment.</p> <p>CO-6.Keep a well-maintained and instructive laboratory logbook.</p>
S.Y.B. Sc.	PHY-241: Oscillations, Waves, and	<p>CO-1.To study underlying principles of oscillations and it's scope in development.</p> <p>CO-2.To understand and solve the equations / graphical</p>

	Sound	<p>representations of motion for simple harmonic, damped, forced oscillators and waves.</p> <p>CO-3.To explain oscillations in terms of energy exchange with various practical applications.</p> <p>CO-4.To solve numerical problems related to undamped, damped, forced oscillations and superposition of oscillations.</p> <p>CO-5.To study characteristics of sound, decibel scales and applications.</p>
S.Y.B. Sc.	PHY-242: Optics	<p>CO-1.Acquire the basic concept of wave optics.</p> <p>CO-2.Describe how light can constructively and destructively interfere.</p> <p>CO-3.Explain why a light beam spread out after passing through an aperture</p> <p>CO-4.Summarize the polarization characteristics of electromagnetic wave</p> <p>CO-5.Understand the operation of many modern optical devices that utilize wave optics</p> <p>CO-6.Understand optical phenomenon such polarization, diffraction and interference in terms of the wave model</p> <p>CO-7.Analyze simple example of interference and diffraction.</p>
S.Y.B. Sc.	PHY-243: Practical Course (Laboratory 2B)	<p>CO-1.Use various instruments and equipment.</p> <p>CO-2.Design experiments to test a hypothesis and/or determine the value of an unknown quantity. • Investigate the theoretical background of an experiment.</p> <p>CO-3.Setup experimental equipment to implement an experimental approach.</p> <p>CO-4.Analyze the data, plot appropriate graphs and reach conclusions from data analysis.</p> <p>CO-5.Work in a group to plan, implement and report on a project/experiment.</p> <p>CO-6.Keep a well-maintained and instructive laboratory logbook.</p>

DEPARTMENT OF MATHEMATICS

Course F. Y. B.Sc.	Outcomes
Algebra and Geometry	<p>CO-1. Solve various problems on properties of integers and use the basic concepts of divisibility, congruence and their applications in basic algebra.</p> <p>CO-2. Apply factor theorem, remainder theorem to solve problems on polynomials and by using given relations between roots he will find the roots of polynomials</p> <p>CO-3..solve the system of homogeneous and non homogeneous linear of mequations innvariablesby using concept of</p> <p>CO-4. Solve the problems of lines in three dimension, planes, spheres, and cylinders and how geometry is related to algebra by using their algebraic equations</p>
Calculus and Differential Equations	<p>CO-1. Identify algebraic and order properties of real numbers.</p> <p>CO-2. Identify and apply the function properties of real number system such as the completeness property</p> <p>CO-3. Verify the values of limit of a function at a point using the definition of a limit</p> <p>CO-4. Students will be familiar with the techniques of integration and differentiation of function with real variables</p>
Course	Outcomes S. Y. B.Sc.
Multivariable Calculus I	<p>CO-1. Students learn analysis of multivariable functions, mcontinuity, and differentiability.</p> <p>CO-2. learn the concepts of multiple integrals and their Application to area and volumes</p>
Laplace Transforms and Fourier Series	<p>CO-1. Learn the methods and properties of Laplace transform and Inverse Laplace Transform, apply them to solve</p> <p>CO-2. Apply the fundamental concepts of Fourier series,</p> <p>CO-3. Fourier Sine series, Fourier Cosine series to find series representation of irrational numbers.</p>
Linear Algebra	<p>CO-1. Use the concept of inner products to find norm of vectors, distance between vectors, check the orthogonality of vectors,</p> <p>CO-2. Apply the properties of linear transformations to linearity of transformations,</p>
Numerical differentiation and integration	<p>CO-1. Students develop knowledge in the error and solution of differential equation.</p> <p>CO-2. Students develop knowledge in the fitting of various curves and numerical diffraction and integration</p>

DEPARTMENT OF COMMERCE

B.Com	After successful completion of three year degree program in B.com a student should be able to;
Program Outcomes (POs)	<ol style="list-style-type: none"> 1. Developed management skills. 2. Developed Entrepreneurial ability. 3. Developed numerical ability. 4. Well familiar with business regulatory framework. 5. Having basic knowledge of important business laws, financial accounting and MangmentAccouting
Program Specific Outcomes (PSOs)	<ol style="list-style-type: none"> 1. Students will demonstrate progressive affective domain development of values, the role of accounting in society and business. 2. Students will learn relevant financial accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business. 3. Students will learn relevant managerial accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business. 4. Leaners will gain thorough systematic and subject skills within various disciplines of commerce, business, accounting, economics, finance, auditing and marketing.

Class	Course	Outcomes
F.Y.B. COM	Marketing and Salesmanship	<p>Created awareness about market andmarketing.</p> <p>Established link between commerce/Business andmarketing.</p> <p>Understood the basic concept ofmarketing.</p> <p>To understand marketingphilosophy.</p>
	Computer Concepts and Application	<p>To make the students familiar with Computer environment.</p> <p>To make the students familiar with the basics of Operating System and business communication tools.</p> <p>To make the students familiar with basics of Network, Internet and related concepts.</p>
	Banking and Finannce	<p>To provide knowledge of fundamentals of Banking</p> <p>To create awareness about various banking concepts</p> <p>To conceptualize banking operations.</p>
	Business Economics	<p>To impart knowledge of business economics</p> <p>To clarify micro economic concepts</p> <p>To analyze and interpret charts and graphs</p>

		To understand basic theories, concepts of micro economics and their application
	Financial Accounting	To impart knowledge of basic accounting concepts To create awareness about application of these concepts in business world To impart skills regarding Computerised Accounting To impart knowledge regarding finalization of accounts of various establishments
S.Y.B. Com	Corporate Accounting	To acquaint the student with knowledge about various Concepts , Objectives and applicability of some important accounting standards associated with to corporate accounting. To develop understanding among the students on the difference between commencement and incorporation of a company and the accounting treatment for transactions during the two phases. To update the students with knowledge for preparation of final accounts of a company as per Schedule III of the Companies Act 2013 To empower to students with skills to interpret the financial statements in simple and summarized manner for effective decision making process. To acquaint the student with knowledge about various Concepts , Objectives and applicability of some important accounting standards associated with to corporate accounting. To develop understanding among the students on the difference between commencement and incorporation of a company and the accounting treatment for transactions during the two phases.
	Business Communication	To understand the concept, process and importance of communication. To acquire and develop good communication skills requisite for business correspondence. To develop awareness regarding new trends in business communication. To provide knowledge of various media of communication. To develop business communication skills through the application and exercises.
	Corporate Law	To develop general awareness of Elements of Company Law among the students. To understand the Companies, Act 2013 and its provisions. To have a comprehensive understanding about the existing

		<p>law on formation of new company in India.</p> <p>To create awareness among the students about legal environment relating to the company law.</p> <p>To acquaint the students on e-commerce, E governance and e-filing mechanism relating to Companies.</p> <p>To enhance capacity of learners to seek the career opportunity in corporate sector</p>
	Business Economics	<p>To familiarize the students to the basic theories and concepts of Macro Economics and their application.</p> <p>To study the relationship amongst broad aggregates.</p> <p>To impart knowledge of business economics.</p> <p>To understand macroeconomic concepts.</p> <p>To introduce the various concepts of National Income.</p>
	Business Management	<p>To provide basic knowledge and understanding about various concepts of Business Management.</p> <p>To help the students to develop cognizance of the importance of management principles.</p> <p>To provide an understanding about various functions of management.</p> <p>To provide them tools and techniques to be used in the performance of the managerial job.</p>
	Business Administration - I	<p>To provide basic knowledge about various forms of business organizations</p> <p>To acquaint the students about business environment and its implications thereon.</p> <p>To make them aware about the recent trends in business.</p> <p>To understand the concept of Business To understand the various perspectives to business</p> <p>To know the various functions of Business Administration</p>
	Marketing Management - I	<p>To orient the student's recent trends in marketing management</p> <p>To create awareness about marketing of eco-friendly products in the society through students</p> <p>To inculcate knowledge of various aspects of marketing management through practical approach</p> <p>To acquaint the students with the use of E-Commerce in competitive environment.</p>
TYB COM	Auditing and Taxation	<p>To acquaint themselves about the concept and principles of Auditing, Audit process, Assurance Standards, Tax Audit, and Audit of computerized Systems.</p> <p>To get knowledge about preparation of Audit report.</p> <p>To understand the basic concepts and to acquire knowledge about Computation of Income, Submission of Income Tax</p>

		Return, Advance Tax, and Tax deducted at Source, Tax Collection Authorities under the Income Tax Act, 1961..
	Business Regulatory Framework	To acquaint students with the basic concepts, terms & provisions of Mercantile and Business Laws. To develop the awareness among the students regarding these laws affecting business, trade and commerce.
	Advance Accounting	To impart the knowledge of various accounting concepts To instill the knowledge about accounting procedures, methods and techniques. To acquaint them with practical approach to accounts writing by using software package
	Indian Global Economics	To expose students to a new approach to the study of the Indian Economy. To help the students in analyzing the present status of the Indian Economy. To enable students to understand the process of integration of the Indian Economy with other economics of the world. To acquaint students with the emerging issues in policies of India's foreign trade.
	Business Administration - II	To acquaint the students with basic concepts & functions of HRD and nature of Marketing functions of a business enterprise. Concept and Importance. Performance Appraisal Process. Methods and Techniques. Merits and limitations of performance appraisal
	Business Administration - III	To acquaint the students with the basic concepts in finance and production functions of a business enterprise. Shares, Debentures, Public Deposits, Ploughing back of profits, Loans from Bank and Financial Institutions, Trade creditors, Installment credit etc.
	Marketing Management - II	To understand the concept and functioning of marketing planning and sales management To know marketing strategies and organization To inform various facets of marketing with regulatory aspects To understand marketing in globalize scenario
	Marketing Management - III	To know detailing of Marketing Research To understand the role Brand and Distribution Management in marketing To inform about Marketing and Economic Development To Know of the importance of control on marketing activities

M.com	After successful completion of Two year degree program in M.com a student should be able to;
Program Outcomes (Pos)	<p>Students after completion of M. com. Programme is expected to achieve following outcomes:</p> <ol style="list-style-type: none"> 1. To equip and train Post Graduate students to accept the challenges of business world by providing opportunities for study and analysis of advanced commercial and business methods and processes. 2. To develop independent logical thinking and facilitate personality development. 3. To equip the students to seek suitable careers in management and entrepreneurship. 4. To acquaint students with significance of research in business. 5. To impart skills regarding methods of data collection and their interpretations. 6. To develop communication and analytical skills among students.
Program Specific Outcomes (PSOs)	<p>This point of view University of Pune has introduced Choice Base Credit System of course structure.</p> <p>This system shall offer a flexible user friendly, opportunity to the learner, will broader the horizon of Commerce education and will give a fair chance to every single learner to exhibit his talent, acquired skills and enhance his personality. It will further enhance his opportunity of global mobility, to acquire different knowledge inputs from different global institutes.</p>

Course Outcomes: - (Semester-I)
(Specialization in Business Administration and Advance Marketing)

Class	Course	Outcomes
	Management Account (Course Code -: 101)	The objective of the course is to enable students to acquire sound Knowledge of concepts, methods and techniques of management accounting and to make the students develop competence with their usage in managerial decision making and control.

M.com I	Strategic Management (Course Code -: 102)	The objective of the course is to enable students to understand the nature and Scope of Strategic Management, Strategy Formulation and Strategic Analysis, Strategic Planning, Choices/Options, Strategy Implementation, Functional Strategy and Strategic Review.
	Production and Operations Management (Course Code -: 113)	The objective of the course is to enable students to understand the Introduction to Production & Operations Management, Product Design and Development, Production Planning & Control, Quality Management and Productivity.
	Financial Management (Course Code -: 114)	The purpose of the course is to offer the students relevant, systematic, efficient and actual knowledge of financial management that can be applied in practice with making financial decisions and resolving financial problems. To understand the introduction of financial management, Investment Decisions, Financial Statements and Financial Analysis, management of Working Capital.
Sem I & II	Marketing Techniques (Course Code -: 117)	To study and critically analyze the basic concepts & techniques of Marketing. To understand the, Introduction of Marketing, Marketing Organisation and Environment, Product Mix, Price and Place Mix, Promotion Mix/ Marketing Communication, People Process and Physical Evidence.
	Consumer Behavior (Course Code -: 118)	The objective of the course is to impart knowledge regarding marketing management techniques and process; to develop understanding of the marketing functions techniques and strategies. To study the Introduction to Consumer Behaviour and Market Segmentation, Consumer Perception: Definition of Perception, Elements of Perception, Consumer Learning and Memory, Personality and Self Concept, Motivation and Involvement, Attitude Formation and Change.
	Financial Analysis & Control (Course Code -: 201)	The objective of the course is to enable students to acquire sound knowledge of concepts, methods and techniques of management accounting and to make the students develop competence with their usage in managerial decision making and control. To study the Long Term Investment Decisions, Cost Of Capital, Marginal Costing, Short Run Managerial

		Decision Analysis, Budget And Budgetary Control And Standard Costing.
	Industrial Economics (Course Code -: 202 – A)	To study the basic concepts of Industrial Economics. To study the significance and problems of Industrialization. To study the impact of Industrialization on Indian Economy. To study the Introduction of Industrial Economics, Industrial Location, Industrial Productivity, Industrial Efficiency and Profitability, Industrial Profile and Problems and Industrial Imbalance.
	Business Ethics and Professional Values (Course Code -: 213)	The objective of the course is to enable students to study the Introduction of the Business Ethics and Professional Values, Indian Ethical Practices, Dilemmatic situations in Professional Ethics, Code of Ethics and conduct, Indian Approach to Business Ethics, Gandhian Approach in Management and Trusteeship, Gandhi's Doctrine of Satya and Ahinsa , Concept , importance and relevance of trusteeship Principle in Modern Business, Emergence of new values in Indian Industries after economic reforms of 1991.
	Elements of Knowledge Management (Course Code -: 214)	The objective of the course is to enable students to study the Introduction to Knowledge Management Process, Organizational Learning, Knowledge Management Tools & Change Management and Knowledge Management Culture.
	Customer Relationship Management & Retailing (Course Code -: 217)	To impart knowledge regarding customer relationship management, & retailing techniques, process and tools and develop an understanding of the CRM & retailing functions techniques and strategies. To Study the CRM An Introduction, Emerging CRM, CRM and I.T, Latest Development in CRM, CRM Implementation Issues, and People factor in CRM.
	Services Marketing (Course Code -: 218)	To impart knowledge regarding services marketing, process and tools and develop understanding of the services marketing functions techniques and strategies.
	Business Finance	To enable students to acquire sound knowledge of concepts, nature and structure of business finance Characteristics of short term finance – short term

M.com II Semester – III and VI		needs sources of short term financing – trade creditors, bank credit, bank financing of account receivables, working capital
	Research Methodology for Business	To acquaint the students with the areas of Business Research Activities. To enhance capabilities of students to conduct the research in the field of business and social sciences. To enable students, in developing the most appropriate methodology for their research studies. To make them familiar with the art of using different research methods and techniques.
	Human Resource Management	To acquaint the students with in-depth knowledge of HRM. To inculcate among students various practices followed by HR managers. To create understanding about recent trends in HRM
	Organizational Behavior	To make the students understand various concepts of organization behavior To provide in depth knowledge about process of formation of group behavior in an organization set up
	International Marketing	The Course participants will become more familiar with the nature and practices of international marketing. They should feel equally confident to be able to distinguish international marketing mechanics from the domestic marketing models and approaches. They would be far more equipped to design and participate in designing an international marketing strategy. The spin-off benefits to the participants should be to develop in them a right attitude, inject enthusiasm and hone their interactive ability as they address the issues and challenges of operating in the international markets.
Marketing Research	Marketing Research Department's Goals-Prognostic, Selective, and Evaluative, Marketing Decision Support System (MDSS) - Scope & Significance The Market and Sales Analysis, Sales forecasting – objective and subjective methods, Test marketing, Industrial versus consumer marketing research.	

Capital Market and Financial Services	To enable students to acquire sound knowledge, concept and structure of capital market and financial services.
Industrial Economic Environment	To study the basic concepts of Industrial Finance. To study the effects of New Economic Policy. To study the impact of Labor reforms on Industries
Recent Advance in Business Administration	To familiarize the students with the recent advancements in business administration To develop an understanding about tools and their application in the business.
Project Work in Business Administration	To develop research attitude of the students. To enrich the ability of research work among the students.
Recent Advantages in Marketing	Process of Creating a Marketing Strategy. Global v/ s Local Marketing Strategy. Concept, Definition and Importance. Single Brand Retail, Concept and Definition. Multi Brand Retail – Concept and Definition. History of FDI in Single Brand retail in India. History of FDI in Multi Brand Retail in India.
Project Work in advance Marketing	To develop research attitude of the students. To enrich the ability of research work among the students.

BATCHLAR OF ART

Programme Outcomes: B.A

B. A.	After completion of the graduation in the faculty of Arts, the student have
	<ul style="list-style-type: none">• Achieved competence in the subjects of the concerned discipline comprehended the basic concepts, fundamental principles, theories in the above mentioned subjects• Acquired holistic development of the students with respect to aesthetic, mental, moral, intellectual aspects that will lead to a healthy society• Understood the interdependence and interface of literature and social sciences have become able to think of the solutions to the existing social problems• Gained the analytical ability to analyze critically the literature and social issues, raise questions and find solutions• Learned to identify the relevance of socio-political, socio-economical changes in the context of the development of the society• Learned to prioritize the human values to the material prosperity• Achieved linguistic competence and skill of appreciating literature• Understood the importance of environmental awareness in order to maintain equilibrium in nature.• Acquired skills in fine and performing arts• Developed creative and critical perspectives enabling them to be writers, editors, poets and literary artists.• Integrated the values of social justice, democracy and national pride• Created opportunities for self-employability and formed themselves as entrepreneurs• Imbided the soft skills like positive thinking, time management, communication skills which have made them multidimensional and responsible citizens.

DEPARTMENT OF MARATHI

PROGRAMME - SPECIFIC OUTCOMES: B.A. MARATHI

B.A. MARATHI	After completion of B.A. (Marathi) students will able to
	<ul style="list-style-type: none">• Develop Attitude of Literary Forms (Marathi Story, Drama, LalitGadya, Aatmkathan& Novel)• Develop Reading, Writing & Communication Skills of students.• Get Information about the history of Medieval Marathi Literature.• Get Information about Literary Theory.• Get Information about the history of MODERN Marathi Literature.• Develop Attitude of Marathi Linguistics & Grammar.

DEPARTMENT OF MARATHI

Class	Course	Outcomes (Students will be able to)
B.A. (Marathi)	एफ.वाय.बी.ए. (सत्र.१- ११०२१A, सत्र.२- ११०२२ B)	१. मराठी भाषा, मराठी साहित्य आणि मराठी संस्कृती यांचे अध्ययन करणे. २. साहित्यविषयक आकलन, आस्वाद आणि मूल्यमापनक्षमता विकसित करणे. ३. साहित्यभ्यासातून जीवनविषयक समज विकसित करणे. ४. मराठी भाषेची उपयोजनात्मक कौशल्ये विकसित करणे.
	एस.वाय.बी.ए. (जनरल)२०२७	१. शुध्दलेखनाची ओळख करून देणे. २. पारिभाषिक संज्ञांची ओळख करून देणे. ३. चरित्र-आत्मचरित्र या साहित्यप्रकारांच्या तात्त्विक घटकांचे ज्ञान करून देणे. ४. आधुनिक मराठी साहित्यातील निवडक चरित्र-आत्मचरित्रात्मक वेच्यांचे आकलन, आस्वाद आणि मूल्यमापन करण्याची क्षमता विद्यार्थ्यांमध्ये निर्माण करणे.
	एस.वाय.बी.ए. (स्पेशल- १)२०२८	१. मराठी साहित्यप्रकारांच्या तात्त्विक घटकांचे ज्ञान देणे. २. वेगवेगळ्या कालखंडातील मराठीतील अभिजात साहित्यकृतींचा संस्कार घडविणे. साहित्याविषयीची अभिरूची निर्माण करणे. ३. साहित्यकृतीला मुक्त प्रतिसाद देण्याची क्षमता विकसित करणे. ४. साहित्यकृतीचे आकलन,आस्वाद आणि मूल्यमापन करण्याची दृष्टी निर्माण करणे. ५. साहित्याचा सूक्ष्म पातळीवर अभ्यास करण्याची क्षमता विकसित करणे. ६. पदव्युत्तर अभ्यास करण्याची पूर्वतयारी करणे.
	एस.वाय.बी.ए. (स्पेशल- २)२०२९	१. विशेषस्तरावर अभ्यासाचा प्रारंभ होत असताना, मराठी साहित्याच्या ऐतिहासिक परंपरेचे स्थूल ज्ञान करून देणे. २. विशिष्ट कालखंडाच्या पार्श्वभूमीवर साहित्यामागील प्रेरणा, प्रवृत्तीचे ज्ञान करून देणे. ३. साहित्यप्रकारांच्या विकसनशील परंपरेचे स्थूल ज्ञान करून देणे. ४. पदव्युत्तर अभ्यास करण्याची पूर्वतयारी करणे.
	टी.वाय.बी.ए. (जनरल)३०२७	१. आधुनिक मराठी साहित्यातील विविध साहित्याप्रकारांचा परिचय वाढवणे. २. नेमलेल्या कलाकृतींच्या संदर्भात साहित्यपरंपरेचा स्थूल परिचय करून देणे. ३.भाषेचे यथोचित आकलन करण्याची व वापर करण्याची यथायोग्य क्षमता विकसित करणे. ४. निबंध व प्रवासवर्णन या साहित्यप्रकारांचे तात्त्विक विवेचन करणे.

	<p>टी.वाय.बी.ए. (स्पेशल- ३)३०२८</p>	<ol style="list-style-type: none"> १.साहित्याचे स्वरूप समजावून घेणे. २.साहित्याची प्रयोजने समजावून घेणे. ३.साहित्यनिर्मितीची प्रक्रिया समजावून घेणे. ४.साहित्याची भाषा समजावून घेणे. ५.साहित्याची आस्वाद प्रक्रिया समजावून घेणे. ६.साहित्यिक अभिरूची समजावून घेणे. ७.साहित्य आणि समाज यातील परस्परसंबंध समजावून घेणे. ८.साहित्यप्रकारांची संकल्पना समजावून घेणे. ९.वाङ्मयीन मूल्ये समजावून घेणे.
	<p>टी.वाय.बी.ए. (स्पेशल- ४)३०२९</p>	<ol style="list-style-type: none"> १.भाषेचे स्वरूप व कार्य, भाषेच्या अभ्यासाचे महत्त्व, भाषेच्या अभ्यासाची प्रमुख अंगे जाणून घेणे. २.भाषा म्हणजे काय व तिचे मानवी जीवनातील कार्य व महत्त्व जाणून घेणे. ३.वेगवेगळ्या भाषाभ्यासपध्दतींचे वेगळेपण व महत्त्व जाणून घेणे. ४.स्वननिर्मितीची प्रक्रिया समजावून घेणे. ५.वागिंद्रियांची रचना व कार्य समजावून घेणे. ६.स्वनविज्ञान, स्वनिम संकल्पना आणि मराठीची स्वनिम व्यवस्था जाणून घेणे. ७.मराठीची रूपिमव्यवस्था समजावून घेणे. ८.वाक्यविन्यास व अर्थविन्यास या भाषावैज्ञानिक संकल्पनांचा मराठीच्या संदर्भात स्थूल परिचय. ९.ऐतिहासिक भाषाभ्यासपध्दतीचे स्वरूप व महत्त्व लक्षात घेणे. १०.भाषाकुलाची संकल्पना जाणून घेवून मराठी भाषेच्या उत्पत्तीचा अभ्यास करणे. ११.मराठी भाषेचा उत्पत्तीकाळ जाणून घेवून तत्कालीन भाषिक स्थित्यंतरांचा आढावा घेणे. १२.टप्याटप्याने भाषा म्हणून मराठीच्या वाटचालीचा ऐतिहासिक आढावा घेणे.
	<p>एफ.वाय.बी.कॉम. (सत्र.१- ११७ B, सत्र.२- १२७ B)</p>	<ol style="list-style-type: none"> १. विविध क्षेत्रातील भाषा व्यवहाराचे स्वरूप व गरज समजावून देणे. २. या व्यवहार क्षेत्रातील मराठी भाषेचे स्थान स्पष्ट करणे व त्यातील मराठीच्या प्रत्यक्ष वापराचा अभ्यास करणे. ३. विविध क्षेत्रिय मराठी भाषेच्या वापराची कौशल्ये विकसित करणे. ४. विविध लेखनप्रकारांचा अभ्यास व प्रत्यक्ष लेखनाची कौशल्य वापरण्यास सक्षम करणे. ५. विविध क्षेत्रातील कर्तृत्वान व्यक्तींच्या कार्याची व विचारांची ओळख करून देणे. ६. विद्यार्थ्यांमध्ये नैतिक, व्यावसायिक व वैचारिक मूल्यांची जोपासना करणे.

	<p>एस .वाय.बी.एस्सी . (सत्र.१- ८३१११, सत्र.२- ८३११२)</p>	<p>१. विद्यार्थ्यांमध्ये मराठी विज्ञानसाहित्याविषयी आवड निर्माण करणे. २. विद्यार्थ्यांमध्ये वैज्ञानिक जाणिवेचे निर्माण करून देणे. ३. विद्यार्थ्यांना विज्ञान, उद्योगातील विविध प्रवाह, संधी यांचा परिचय करून देणे. ४. विद्यार्थ्यांमध्ये लेखन, वाचन, आकलन आणि संभाषण ही भाषिक कौशल्ये अधिकाधिक विकसित करणे. ५. भाषिक कौशल्यांचे विविध आविष्कार आणि प्रसारमाध्यमे यांच्या परस्परसंबंधांचे ज्ञान विद्यार्थ्यांना करून देणे. ६. वैज्ञानिक, कार्यालयीन, व्यावसायिक आदी कामकाजात मराठीच्या होणाऱ्या वापराची माहिती देत पारिभाषिक संज्ञांची ओळख विद्यार्थ्यांना करून देणे.</p>
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DEPARTMENT OF HINDI

B.A. HINDI	After completion of B. A. Hindi student will able to
Programme Specific outcomes	<p>PSO1. To understand various genres of literature.</p> <p>PSO2. To develop the approach of literary forms.</p> <p>PSO3. To develop Reading, writing and communication skills.</p> <p>PSO4. To understand various periods of Hindi literature with special characteristics.</p> <p>PSO5. To understand and evaluate the literary works on the foundation laid by authors.</p> <p>PSO6. To get information about literary theories.</p> <p>PSO7. To obtain linguistics and grammatical knowledge of Hindi language</p>
	बी.ए. हिंदी की पाठ्यचर्या अध्ययन के पश्चात हिंदी का छात्र निम्नांकित विशिष्ट परिणाम प्राप्त कर सकेगा :
	<p>PS01. साहित्य की विभिन्न विधाओं का परिचय प्राप्त होगा।</p> <p>PS02. साहित्यिक रूपों का दृष्टिकोण विकसित होगा।</p> <p>PS03. पठन, लेखन और संवाद कौशल का विकास होगा।</p> <p>PS04. हिंदी साहित्य के विभिन्न कालों के बारे में विशेष विशेषताओं के साथ जानकारी प्राप्त होगी।</p> <p>PS05. विद्वानों द्वारा रखी गई नींव के आधार पर साहित्यिक कार्यो जानकारी प्राप्त होगी।</p> <p>PS06. साहित्यिक सिद्धांतों के बारे में जानकारी प्राप्त होगी।</p> <p>PS07. हिंदी भाषाविज्ञान और व्याकरण की जानकारी प्राप्त होगी।</p>

Class	Course	Outcomes	
FYBA	हिंदी वैकल्पिक प्रश्नपत्र	C01. छात्रों को हिंदी साहित्य का परिचय प्राप्त होगा 1	
		C02. हिंदी भाषा में संप्रेषण कौशल विकसित होगा 1	
		C03. मौलिक लेखन की ओर रुझान बढ़ेगा 1	
		C04. हिंदी कंप्यूटिंग का सामान्य परिचय होगा 1	
SYBA	हिंदी सामान्य पेपर २ (२०१७)	C01. गद्य-पद्य साहित्य विधाओं का परिचय होगा 1	
		C02. प्रयोजनमूलक हिंदी की जानकारी प्राप्त होगी1	
		C03. लेखन कौशल विकसित होगा 1	
	हिंदी भाषा का विकास (२०१८)	C01. भाषा कि परिभाषा और स्वरूप का संज्ञान होगा।	
		C02. हिंदी बोलियों की जानकारी प्राप्त होगी।	
		C03. भाषाविज्ञान की सामान्य जानकारी प्राप्त होगी।	
	उपन्यास, नाटक तथा मध्ययुगीन हिंदी काव्य (२०१९)	C01. मध्यकालीन साहित्य की जानकारी प्राप्त होगी।	
		C02. उपन्यास विधा की जानकारी प्राप्त होगी।	
		C03. नाटक विधा की जानकारी प्राप्त होगी।	
	TYBA	हिंदी सामान्य पेपर ३ (३०१७)	C01. आत्मकथा साहित्य का परिचय होगा।
			C02. काव्य नाटक विधा का परिचय होगा।
			C03. प्रयोजनमूलक हिंदी की जानकारी प्राप्त होगी।
हिंदी साहित्य का इतिहास (३०१८)		C01. हिंदी साहित्य तथा काल विभाजन की जानकारी प्राप्त होगी।	
		C02. हिंदी साहित्य के विभिन्न कालों के बारे में विशेषताओं के साथ जानकारी प्राप्त होगी।	
		C03. हिंदी साहित्य की गद्य-पद्य विधाओं के विकास का परिचय होगा।	
काव्यशास्त्र (३०१९)		C01. भारतीय काव्यशास्त्र का परिचय होगा।	
		C02. पाश्चात्य काव्यशास्त्र का परिचय होगा।	
		C03. काव्यशास्त्रीय नियमों का परिचय प्राप्त होगा।	
FYBCOM		हिंदी ऐच्छिक पेपर	C01. साहित्य और वाणिज्य का परस्पर संबंध प्रतिपादित होगा।

		C02. वाणिज्य और साहित्य के बीच पुल बांधा जाएगा।
		C03. वाणिज्य हेतु संवाद कौशल विकसित होगा।
SYBSc	हिंदी ऐच्छिक पेपर	C01. साहित्य और विज्ञान का परस्पर संबंध प्रतिपादित होगा।
		C02. विज्ञान और साहित्य के बीच पुल बांधा जाएगा।
		C03. व्यवहारिक हिंदी भाषा की जानकारी प्राप्त होगी।

DEPARTMENT OF ENGLISH

Class	Course	Outcomes
F.Y.B.Com	COMPULSORY ENGLISH	<p>The students are able to use English Language efficiently</p> <p>Communicative skills are enhanced</p> <p>The verbal and non-verbal skills of communication are developed.</p> <p>The students learned the soft skills.</p>
FYBA	COMPULSORY ENGLISH	<p>The students gain communicative competence required for everyday communication</p> <p>The students start vocabulary building for effective communication.</p> <p>The students get introduced to soft skills.</p> <p>The students could express themselves in oral and written communicative situations</p> <p>Students use the values learnt through literary works.</p>
FYBA	OPTIONAL ENGLISH	<p>Students use the values learnt through literary works.</p> <p>The students gain linguistic & communicative competence</p> <p>The students get introduced to the sounds of English.</p> <p>Development of the comprehensive ability of students</p> <p>Inculcation of moral and human values among students.</p> <p>The students develop literary sensibility.</p> <p>Understanding of the basic forms of literature.</p>
SYBA	COMPULSORY ENGLISH	<p>The students learned to appreciate literature</p> <p>Oral and written communication improved.</p> <p>Vocabulary is enhanced</p> <p>The students learned to make proper use of grammar</p> <p>The students learned to use English efficiently.</p>
SYBA	General Paper -2 (Introduction to Study of English Language and Literature)	<p>They understood the difference between literary and ordinary language</p> <p>They became aware of fiction and short story</p> <p>The students were introduced to linguistics.</p> <p>The students can appreciate literature critically.</p>
SYBA	ENGLISH Special Paper -I (Appreciating Drama)	<p>The Students learned performing arts</p> <p>The students became aware of the genre of drama</p> <p>The students learned the moralities of human life</p> <p>They learned value education through literature</p>
SYBA	ENGLISH Special Paper -II (Appreciating	<p>The syllabus can implement the values of literature in life.</p> <p>The students develop approaches to appreciate literary</p>

	Poetry)	works.
TYBA	Compulsory English	The students develop interpretative ability to study poetry. The students exercise communication skills effectively. The students develop literary abilities. The students learn about profession-specific soft skills The students understand the basic concept of literary genre, poem, prose and stories
TYBA	Special English-G-III (Introduction to Language & Literature)	The students develop analytical competence to study language & literature. The students develop the ability use language appropriately
TYBA	Special Paper-III (Appreciating Fiction)	The students are exposed to Indian writing in English and American literature. The students are exposed to social, political and cultural background. The students develop the critical understanding literature.
TYBA	Special Paper-IV (Literary Criticism and Theory)	The students developed interpretative abilities. The students leaned to analyze, interpret and evaluate literature. The students became aware of different critical approaches

DEPARTMENT OF GEOGRAPHY

Class	Course	Outcomes
F.Y.B.A	Physical Geography (110A)	<p>CO-1. Students have become able to conceptualize the elements of physical features and basic concepts in Physical geography</p> <p>CO-2. Students have become able to imagine and recognize the major topographical, geological, soil and natural vegetation regions of local and global level</p> <p>Co-3. Students have applied their subject knowledge with help of GIS based open source software in the day today life.</p> <p>CO-4. Students have become able to examine the various issues, problems and challenges associated with the physical regions.</p> <p>CO-5. Students have develop life-long learning skills and keep them engaed in updating Geography related knowledge.</p>
	Human Geography (110B)	<p>CO-1. The student have understand demographic composition</p> <p>CO-2. Students have imagine and recognize urbanization, population density and literacy</p> <p>CO-3. The students have identified and describe social, cultural, economic and population dynamics of society.</p> <p>CO-4. Students have able to understand patterns and processes of population growth and its implications</p>
S.Y.B.A	Environmental Geography (2207)	<p>CO-1. Gain knowledge about concept, scope of environmental geography and components of environment.</p> <p>CO-2. Develop an idea about human-environment relationships.</p> <p>CO-3. Build an idea about ecosystem.</p> <p>CO-4. Know about environmental programmes and policies.</p>
	Population Geography (2208)	<p>CO-1. Students have understood the history of population.</p> <p>CO-2. Gain the knowledge about data collection of population and interpretation.</p> <p>CO-3. Students have become able to understand population policy</p> <p>CO-4. Build an idea about population growth and distribution of population.</p> <p>CO-5. Know about population –resource relationship.</p> <p>CO-6. Gain knowledge different aspects of population geography.</p>
	Fundamentals of Geographical Analysis (2209)	<p>CO-1. Gain knowledge of different types of surveying instruments like Dumpy level and Theodolite with environment.</p>

		<p>CO- 2. Know about diagrammatic data presentation like line, bar and circle.</p> <p>CO-3. Develop an idea about different types of thematic mapping techniques</p> <p>CO-4. Learn the significance of field work in geographical studies.</p> <p>CO-5. Understand the meaning of field and identifying the case study.</p>
T.Y.B.A	Geography of India (3207)	<p>CO-1. Student can know about their own countries land formation, climate and natural vegetation.</p> <p>CO-2. They understand the economic resources of India.</p> <p>CO-3. They understand the social distribution of population of their country.</p> <p>CO-4. Develop an idea about regionalization of India.</p>
	Agricultural Geography (3208)	<p>CO-1. Understand the concept of economic activity, factors affecting location of agriculture.</p> <p>CO-2. Gain knowledge about different types of agriculture.</p> <p>CO-3. Students have become able to apply modern technical Agricultural activities.</p> <p>CO-4. To enable students to apply Previously knowledge in Problems and Prospects in agriculture</p>
	Techniques of Spatial Analysis (3209)	<p>CO-1. Gain knowledge about topographical maps and apply this knowledge in ground surface.</p> <p>CO-2. Know about data presentation and interpretation</p> <p>CO-3. Learn to use tabulation of data.</p> <p>CO-4. Gain knowledge about association and correlation.</p> <p>CO-5. Learn the significance of field work in geographical studies.</p> <p>CO-6. Understand the meaning of field and identifying the case study.</p>

DEPARTMENT OF ECONOMICS

B.A. Economics	After successful completion of three year degree program in Economics a student should be able to;
Programme Outcomes	<p>PO-1. attained knowledge with facts and figures related to subjects of the concerned discipline.</p> <p>PO-2. Understood the basic concepts, fundamental principles, and various theories in the above mentioned subjects.</p> <p>PO-3. Realized the importance literature in creating aesthetic, mental, moral, intellectual development of an individual and increasing a healthy society.</p> <p>PO-4. Understood how issue in social science influence literature and how literature can provide solutions to the social issues.</p> <p>PO-5. Gained the analytical ability to analyze critically the literature and social issue, appreciate the strength and suggest the improvement for better results.</p> <p>PO-6. Convinced himself/herself that study of literature and social sciences not only help to evolve better individual and better society but also help to make the life of an individual more happy and meaningful.</p> <p>PO-7. Participated in various social and cultural activities voluntarily.</p> <p>PO-8. Written articles, novels, stories to spread the message of equality, nationality, social harmony, etc.</p> <p>PO-9. Emerged as a multifaceted personality who is self-dependent, earning his own bread and butter and also creating opportunities to do so.</p> <p>PO-10. Realized that pursuit of knowledge is a lifelong process and in combination with untiring efforts and positive attitude are necessary qualities for leading a successful life.</p> <p>PO-11. developed various communication skills such as reading, listing, and speaking etc. Which Will help in expressing ideas and views clearly and effectively.</p>
Programme Specific Outcomes	<p>PSO-1. Understand basic concepts of Economics.</p> <p>PSO-2. Analyze Economic behavior in practice.</p> <p>PSO-3. Understand the Economic way of thinking.</p> <p>PSO-4. analyze historical and content event from an economic perspective.</p> <p>PSO-5. Write clearly expressing an economic point of view.</p> <p>PSO-6. Find alternative approaches to economic problems through exposure to coursework in allied fields.</p> <p>PSO-7. Create student's ability to suggested solutions for various economic problems.</p>

Class	Course	Outcomes
F.Y. A	Indian economic environment-11151/11152	<p>CO-1. To familiarize the students with the recent developments in the Indian Economy</p> <p>CO-2. To provide the students with the background of the Indian Economy with focus on contemporary issues like economic environment.</p> <p>CO-3. To help the students to prepare for varied competitive examinations</p> <p>CO-4. To enable students to understand and comprehend the current business scenario, agricultural scenario and other sectorial growth in the Indian context. To make the student aware of the developments such as MSMEs, Digital Economy, E-Banking, BPO & KPO, etc.</p>
S.Y.B. A	Financial System (G2)	<p>CO-1. To understand fundamentals of modern financial system.</p> <p>CO-2 To understand the recent trends and developments in banking system.</p> <p>CO-3 To understand the role of the Reserve Bank of India in Indian financial system.</p> <p>CO-4 To provide the knowledge of various financial and non-financial institutions.</p> <p>CO-5 To provide the students the intricacies of Indian financial system for better Financial decision making.</p>
S.Y.B. A	Micro Economics (S-1)	<p>CO-1 To develop an understanding about subject matter of Economics.</p> <p>CO-2 To impart knowledge of microeconomics.</p> <p>CO-3 To clarify micro economic concepts</p> <p>CO-4 To analyze and interpret charts, graphs and figures</p> <p>CO-5 To develop an understanding of basic theories of micro economics and their Application.</p> <p>CO-6 To demonstrate that the theories discussed in class will usually be applied to Real-life situations.</p> <p>CO-7 To help the students to prepare for varied competitive examinations</p>
S.Y.B. A	Macro Economics (S2)	<p>CO-1 To introduce students to the historical background of the emergence of Macroeconomics</p> <p>CO-2 To familiarize students with the differences between microeconomics and macroeconomics</p> <p>CO-3 To familiarize students with various concepts of national income</p> <p>CO-4 To familiarize students with keynesian macroeconomic theoretical framework of consumption and investment functions</p> <p>CO-5 To introduce students to the role of money in an economy.</p> <p>CO-6 To introduce students to the conceptual and theoretical</p>

		<p>frameworks of Inflation, deflation and stagflation, Business Cycle .</p> <p>To familiarize students with the conceptual and theoretical framework of business cycles</p> <p>CO-7 To introduce students to the role of monetary and fiscal policies in fulfilling the macroeconomic objectives of stability, full employment and growth.</p> <p>CO-8 To introduce students to the various instruments of monetary and fiscal policies</p>
T.Y.B. A	G.3 Economic Development & Planning	<p>CO-1 The Study of Economic Development has gained importance because of sustained interest of the developing countries in uplifting their economic conditions restructuring their economics to acquire greater diversity, efficiency and equity in consonance with their priorities.</p> <p>CO-2. While few success stories can be counted, many have grappled with chronic problems of narrow economic base, inefficiency and low standard of living. For this and other reasons, there have been many approaches to economic development.</p> <p>CO-3. In recent times, besides hard core economic prescriptions to development, concern hitherto relegated to background, like education, health, sanitation and infrastructural development, have found place of pride in explaining the preference of various</p>
T.Y.B. A	International Economics (S3)	<p>CO-1. This course provides the students a thorough understanding and deep knowledge about the basic principles that tend to govern the free flow of trade in goods and services at the global level.</p> <p>CO-2. The contents of the Paper spread over various modules, lay stress both on theory and Applied nature of the subject that have registered rapid changes during the last decade.</p> <p>CO-3. the students to know the impact of free trade and tariffs on the different sectors of the economy as well as at the macro level.</p> <p>CO-4. The students would also be well trained about the rationale of recent changes in the export import policies of India.</p>
T.Y.B. A	Public Finance (S4)	<p>CO-1. Role and functions of the Government in an economy has been changing with the passage of Time. The term 'Public Finance' has traditionally been applied to the package of those policies and operations which involve the use of tax and expenditure measures while budgetary policy is an important part to understand the basic problems of use of resources, Distribution of Income, etc.</p>

		<p>CO-2. There are vast array of fiscal institutions -tax systems, expenditure programs budgetary procedures, stabilization instruments, debt issues, levels of government, etc., which Raise a spectrum of issues arising from the operation of these institutions. Further, the existence of externalities, concern for adjustment in the distribution of income and wealth, etc. require political processes for their solution in a manner which Combines individual freedom and justice.</p>
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DEPARTMENT OF POLITICS

Programme Specific Outcomes	1. Understand basic concepts of political science.
	2. Analyze political behavior in practice.
	3. Understand the political ways of thinking.
	4. Analyze historical and current events from political perspective.
	5. Write clearly expressing political point of view.

Class	Course	Course outcomes
FYBA (G-I)	Introduction to Indian Constitution (1167)	1. Students enable to understand the philosophy of Indian constitutions. 2. Students enable to understand the basic doctrine of Indian Constitution. 3. Students enable to understand the various Government of Indian acts their provision and reforms 4. Students enable to appreciate the fundamental rights and duties and the directive principle of state policy 5. Students enable to evaluate the evolution, functioning and consequences of political parties in India. 6. Students enable to identify how electoral rules and procedure in India effect election outcomes.
SYBA (G-2)	Political Theory (2167)	1. Students enable to appreciate the procedure of different theoretical ideas in political theory. 2. Students enable to appreciate the procedure of different theoretical ideas in political theory. 3. Students enable to understand the various traditional and modern theories of political science. 4. Students enable to evaluate the theories of origin of the state.
TYBA (G-III)	Political Ideologies (3167)	1. Students enable to understand the nature of Ideology. 2. Students enable to understand the contributions of various ideologies in practices in the World. 3. Students enable to describe the role and impact of different Political Ideologies in Politics. 4. Students enable to describe the significance of Ideologies.

PROGRAMME – SPECIFIC OUTCOMES

DEPARTMENT OF HISTORY

BACHELOR ARTS (B.A.) IN HISTORY

- PSO 1 :-** Understand the basic themes, Concepts, Chronology and the scope of Indian History.
- PSO 2 :-** Acquaint with range of issues related to Indian History that span distinct eras.
- PSO 3:-** Understand the history of countries other than India with comparative approach.
- PSO 4 :-** Think and argue historically and critically in writing and discussing.
- PSO 5:-** Prepare for various types of Competitive Examinations.
- PSO 6:-** Critically recognise the Social, Political, Economic and Cultural aspects of History.
- PSO 7:-** The study of language and culture through ancient Historical Inscriptions, Stone Carvings and Pictures.

COURSE OUTCOMES

DEPARTMENT OF HISTORY

Class	Course	Outcomes
FYBA	History Gen 1 Semester – 1 Early India: From Prehistory to the Age of the Mauryas. प्रारंभिक भारत : प्रागैतिहासिक काळ ते मौर्यकाळ	CO1:- विद्यार्थ्यांना प्रागैतिहासिक काळ ते मौर्य काळा पर्यंत च्या इतिहासाचे आकलन होण्याच्या दृष्टीने मार्गदर्शक करविणे. CO2:- भारतीय सभ्यता आणि संस्कृती तसेच राजकीय घराणी यांच्या उदय आणि विकासाचा कारणीभूत असणाऱ्या घटकांवर प्रकाश टाकणे. CO3:- विद्यार्थ्यांना राजकीय व्यवस्था, कला, साहित्य, तत्वज्ञान, धर्म, विज्ञान आणि तंत्रज्ञान या विविध महत्वाच्या बाबींसाठी प्रारंभिक काळातील भारतीयांनी दिलेल्या योगदानाचा परिचय करून देणे. CO4:- प्रारंभिक भारतीय इतिहासाच्या अभ्यासाद्वारे विद्यार्थ्यांमधील जिज्ञासा वृत्तीला चालना देणे.
	Semester – 2 Early India: Post Mauryan Age to the Rashtrakutas. प्रारंभिक भारत: उत्तर मौर्यकाळ ते राष्ट्रकुट काळ	CO1:- मौर्योत्तर भारताचा इतिहास हा मौर्या काळानंतरच्या घडामोडी आणि त्यामुळे भारताची मध्ययुगीन काळा कडे झालेली वाटचाल समजावून घेण्यासाठी महत्वाचे आहे. CO2:- हा पेपर अभ्यासल्याने विद्यार्थ्यांना मौर्य काळानंतरच्या प्रादेशिक राज्यांच्या इतिहासाची थोडक्यात ओळख होते. CO3:- परकीय आक्रमणामुळे भारताच्या समाज, कला, स्थापना, अर्थव्यवस्था आणि राजकीय व्यवस्थेवर कसा परिणाम होत गेला हे समजते. CO4:- या अभ्यासक्रमातून विद्यार्थ्यांच्या जिज्ञासा वृत्तीला चालना मिळते.
SYBA	History Gen 2 Semester – 1 Modern India (1857-1950) आधुनिक भारत	CO1:- आधुनिक भारताचा इतिहास अभ्यासताना १८५७ ते १९५० पर्यंतच्या भारताच्या इतिहासाचे अवलोकन होते. CO2:- स्वातंत्र्य मिळविण्यासाठीचे प्रयत्न उठाव होण्यासाठीचे विविध कारणे व अपयशाची कारणे विद्यार्थ्यांना जात होतात.

		<p>CO3:-सामाजिक धार्मिक चळवळी समाज सुधारकांचे प्रयत्न विद्यार्थ्यांना समजतात.</p> <p>CO4:-भारतीय राष्ट्रवादाची ओळख विद्यार्थ्यांना होते.</p> <p>CO5:-ब्रिटीश साम्राज्यात शिक्षण,वृत्तपत्रे,कायदे,प्रशासनाची ओळख विद्यार्थ्यांना होते.</p>
		<p>CO1:-अभ्यासक्रमाच्या द्वितीय सत्रात महात्मा गांधींचे तत्वज्ञान व तत्कालीन घटनांचे ज्ञान विद्यार्थ्यांना होते,</p> <p>CO2:-जमातवादाचा उदय आणि विकास कसा होत गेला हे मुस्लीम लीग,खिलाफत चळवळ,देशाची फाळणी या मुद्द्यांच्या आधाराने होत गेले.याचे आकलन विद्यार्थ्यांना होते.</p> <p>CO3:-भारताच्या संविधानात्मक विकास वेगवेगळ्या कायद्यांच्या आधारे कसा होत गेला हे विद्यार्थ्यांना कळते,</p> <p>CO4:-वंचीताच्या चळवळीचा इतिहास अभ्यासताना दलित,आदिवासी,कामगार,स्त्री चळवळीची ओळख करून देण्यात आलेली आहे,CO5:-भारताला स्वातंत्र्य मिळाल्यानंतर फाळणीची परिस्थिती व हैद्राबाद काश्मीर व जुनागढ विलीनीकरणासाठी केलेले प्रयत्न विद्यार्थ्यांना माहिती होतात.</p>
TYBA	Semester – 1 History of the World IN 20 th Century(1914-1992)	<p>CO1:-विविध जागतिक संकल्पनांचा परिचय विद्यार्थ्यांना होतो</p> <p>CO2:-पहिल्या महायुद्धाची पार्श्वभूमी कारणे व परिणाम याच्याशी विद्यार्थी अवगत होतो.</p> <p>CO3:-रशियन राज्य क्रांतीची कारणे व परिणाम यातून रशियातील झालेले बदल विद्यार्थ्यांना माहिती होतात.</p> <p>CO4:-हुकुमशाहीचा उदय व त्यांचे सकारात्मक व नकारात्मक परिणाम विद्यार्थ्यांना ज्ञात होतात.</p> <p>CO5:-जागतिक महामंदीची कारणे व परिणाम विद्यार्थ्यांना माहिती होतात.</p>

	Semister – 2	CO1:-दुसऱ्या महायुद्धाची पार्श्वभूमी कारणे व परिणाम विद्यार्थ्यांना जात होतात. CO2:-दुसऱ्या महायुद्धानंतर जगात ज्या महासत्तांचा विजय झाला त्याचे ज्ञान होते. CO3:-सार्क,ओपेक,अलिप्ततावाद या संकल्पना विद्यार्थ्यांना आकलन होते. CO4:-जागतिकीकरणाची संकल्पना विद्यार्थ्यांना जात होते.
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