Programme Specific Outcomes (PSO's) & Course Outcomes (CO's) of B.Sc.

Department of Chemistry

Academic Year

2021-22

Programme Specific Outcomes (PSO's): B.Sc. Chemistry

At the end of the programme, student will be able to	
1	learn the basic terms, theories, principles of chemistry and of its different sub-subjects.
2	identify and analyse problems and issues with well-defined solutions.
3	get the hands-on training of the chemistry related equipment's.
4	use modern techniques, software's and web resources
5	create an awareness about the impact of chemistry on the environment, in and ouside the scientific society.
6	know the safety rules of chemistry required for working in and outside the laboratory

Course Outcomes (CO's) : F.Y.B.Sc. Chemistry

Semester-I		
Paper	**Course Code and Course Title**	**At the end of the course, student will be able to**
I	(CH-101) Physical Chemistry	Remember laws of thermodynamics and chemical and ionic equilibria
		Understand terms involved in thermodynamics, chemical and ionic and equilibria
		Develop various equations of thermodynamics and chemical and ionic equilibria
		Apply the formulae to solve the numerical based on thermodynamics, chemical and ionic and equilibria
		Give applications of laws and their limitations.
		Access various chemical and physical processes in terms of concepts of thermodynamics and chemical and ionic equilibria
II	(CH-102) Organic	Define Physical Effects, Electronic Displacements: Inductive Effect, Electrometric Effect, Resonance and Hyperconjugation.
		Understand the fundamentals, principles, and recent developments in the subject area.
		Interpret R/S, E\Z Configurations of organic compounds.

	Chemistry	Explain Interconversion of Wedge Formula, Newman, Sawhorse and Fischer representations. Conformations concerning ethane, butane and cyclohexane.
		Develop a method for the preparation of alkane, alkene, and alkyne.
		Create the foundation for research and development in Chemistry.
III	(CH-103) Chemistry Practical Course I	Define pH, enthalpy of ionization, heat capacity.
		Discuss thermochemical parameters and related concepts.
		Calculate Rf values.
		Organic qualitative analysis.
		Discriminate safety symbol.
		Make buffer solutions.
Semester-II		
		Define various types of chemical bonds- Ionic, covalent, coordinate and metallic bond
		Discuss Block, group, modern periodic law and periodicity, stability of half-filled and filled orbitals.
IV	(CH-201): Inorganic Chemistry	understanding of Atomic Structure, geometry and effect of lone pairs with examples such as ClF_3, Cl_2O, BrF_5.
		Design a Skeleton of the long form of the periodic table.
		Interpret the concept of different types of valence shell electron pairs and their contribution to bonding
		Application of non-bonded lone pairs in the shape of the molecule
V	(CH- 202): Analytical Chemistry	Remember various terms involved in analytical chemistry
		Understand separation, purification and identification techniques of analytical chemistry.
		Apply various formulae to solve analytical problems.
		Discuss basics of chromatography and types of chromatography.
		Explain instrumentations of pH-metry.
		Know and explain the applications of chromatography and pH-metry
VI	(CH-203) Practical Chemistry Course II	Define crystallization, distillation.
		Estimate Cu(II) from brass alloy by iodometrically.
		Sketch of polar plots of S and P Orbital.
		Analysis of commercial products.
		Discriminate between oxime derivative and DNP derivative.
		Make Inorganic pigment cuprous oxide (Cu_2O).

Course Outcomes: S.Y.B.Sc. Chemistry (USC)

Semester-III		
Paper	**Course Code and Course Title**	**At the end of the course, student will be able to**
I	(CH-301) Physical ad analytical chemistry	Define the terms related to Chemical kinetics, surface chemistry, errors in quantitative analysis and volumetric analysis.
		Explain the concepts of Chemical kinetics, surface phenomenon, errors, organic and inorganic qualitative analysis.
		Solve the numerical problems based on the subject physical and analytical chemistry.
		Differentiate the chemical reactions, errors in analysis, qualitative and quantitative analysis.
		evaluate the rate equation, Nernst distribution law, Lambert's Beers Law and different analysis methods.
		Justify the chemical reaction, terms of surface chemistry, error in analysis, the qualitative and quantitative methods of analysis.
II	(CH-302) Inorganic and Organic chemistry	Define terms related to MOT, coordination compound, Hydrocarbons.
		Explain the terms LCAO principle, types of MO's.
		Recognize functional groups and their reactions, addition reaction, nucleophilic substitution, elimination reaction.
		Apply reaction mechanism to predict the products of the reaction in SN1, SN2, E1, E2, rearrangement reaction. Apply rules of absolute configuration and will predict the configuration at chiral C atom.
		Decide whether the reaction SN1, SN2, E1, E2 Reaction.
		Plan for the synthesis of Alcohol, Ether, and Phenols.
III	(CH-303) Practical chemistry	Determine the rate of reaction experimentally
		Analysis of organic and inorganic compound qualitatively
		Students able to make solutions of different concentrations
		Synthesis of organic and Co-ordination compounds
		Uses of pH metry, Conductometry, Colorimetry.
		Demonstrate Volumetric analysis, ideal and real solutions, adsorption and organic estimation

Semester-IV		
IV	(CH-401) Physical and Analytical Chemistry	Define terms such as Phase equilibrium, Ideal solution. Real solution, conductometry colorimetry and column chromatography.
		Explain the terms such as phases, components, solution, conductance, resistance, transmittance, absorbance and different chromatography methods.
		Predict the Gibbs phase rule, Raoult's law, Henry's Law Ohm's law, Kohlrausch's law, Lambert's law and Beer's law.
		Calculate the numerical problems based on theory/equations.
		Justify the different laws of phases, solution, conductometry colourimetry and different chromatography methods.
		Compile the all the principles, laws and other information according to their understanding.
V	(CH-402) Inorganic and Organic chemistry	Draw the structure and stability of different conformations of Cyclohexane and substituted cyclohexane
		Discuss the preparation, physical and chemical properties of amines, carboxylic acid, Aldehyde and ketones.
		Apply Valence bond theory, crystal field theory and molecular orbital theory to different types of complexes.
		Explain Isomerism in coordination complexes.
		Calculate field stabilization energy and magnetic moment for various complexes.
		Plan for interconversion of different functional groups.
VI	(CH-403) Practical Chemistry	Determine cell constant, dissociation constant and perform conductometric titrations
		Perform column chromatography for separation of binary mixture of cations
		Determine percent concentration for the phenol water system and study the effect of added electrolyte on the critical solution temperature of phenol-water system.
		Verify the Freundlich and Langmuir adsorption isotherm for adsorption of acetic acid on activated charcoal
		Perform organic and coordination compounds synthesis.
		Apply Beer's law and calculate absorbance of unknown concentration solution.

Course Outcomes: T.Y.B.Sc. Chemistry (USC)

Semester-V		
Paper	**Course Code and Course Title**	**At the end of the course, student will be able to**
I	(CH-501) Physical Chemistry-I	Understand and explain the differences between classical and quantum mechanics
		Discuss various laws and theories of quantum chemistry and solve the problems.
		Know and explain the theory and applications of microwave, IR and Raman spectroscopy.
		Draw rotational, IR and Raman spectra.
		Explain various concepts and laws of photochemical reactions.
		Apply photochemical concepts to solve the problems.
II	(CH-502) Analytical Chemistry I-	Define basic term in gravimetry, spectrophotometry, qualitative analysis, parameters in instrumental analysis, UV-Visible spectroscopy.
		Identify important parameters in analytical process.
		Explain different principles involved in the gravimetry, spectrophotometry, parameters in instrument analysis, qualitative analysis.
		Describe procedure for different types of analysis included in the syllabus.
		Demonstrate theoretical principles with the help of practical
		Compare the different analytical term, process and analytical methods.
III	(CH-503) Physical Chemistry Practical I	Prepare the solutions of various concentrations and interconvert the them.
		Explain the principles involved in Refractometry, Spectrophotometry and Colorimetry, Conductometry, Viscosity and Photoflurometry
		Construct the experimental set up.
		Demonstrate the experiments.
		Analyse the observations
		Calculate and discuss the obtained results.
		Define Nephelauxetic Effect, Trans Effect, Boiling Point and Melting Point.

IV	(CH-504) Inorganic Chemistry I	Explain Electroneutrality Principle and Different Type of PiBonding, MOT of Octahedral Complexes with Sigma Bonding, Electronic Configuration Of Lanthanide And Actinide.
		Classify Metallic Bond on The Basis Of Band Theory, Insulator On The Basis Of Band Theory, Separation Of Lanthanides By Modern Method.
		Difference Between Metal, Semiconductor and Insulator, Na, Mg,AL In Term of Valence Electron &conductivity, lanthanides and actinides.
		Evaluate the Trends in Periodic Properties of These Elements Lanthanide Contraction, Electrical Conductivity Of Metals With Respect To Valence Electrons
		Design Inorganic Reaction Mechanisms Available in The Literatureto Solve Chemical Problems, N(E) AND N(E) Curve,
V	(CH-505) Industrial Chemistry	know the importance and requirements of the chemical, sugar, fermentation, soap, detergents, dyes, and pigment industry.
		describe the industries according to their raw material, application and products.
		apply the knowledge of industrial chemistry for the real-life situations.
		categorize the industries according to their working principle, processes, products and applications.
		assess the industries according to their products, its applications and safety measures.
		develop the flowsheet or plan of industrial processes.
VI	(CH-506) Inorganic Chemistry	List of quantitative and qualitative analysis.
		Understand the purpose of collecting, interpreting, analysing, and reporting (in written form) chemical data.
	Practical-I	Explain Mole concept and its application in the preparation of normal and molar solutions, and use of mole concept in quantitative calculations for inorganic analysis
		Decide methods and instruments that can be used qualitative and quantitative analysis.
		Create proper quantitative methods for analysis of samples containing inorganic substances
		Perform all the activities in the laboratory with neatness and cleanness
		Identify types of reactions; electrophilic and nucleophilic substitution, rearrangement and elimination reactions.

VII	(CH-507) Organic Chemistry –I	Write reaction mechanism involved electrophilic and nucleophilic substitution, rearrangement and elimination reactions.
		Discuss the synthetic applications of active methylene compounds, rearrangement and elimination reactions.
		Explain factors affecting the reactivity of compounds in active methylene compound reactions, rearrangement and elimination reactions.
		Write the structures of reactants and products of reactants.
		Solve the problems based on active methylene compounds, rearrangement and elimination reactions.
VIII	(CH-508) Chemistry Of biomolecule	Give introduction to molecular logic of life.
		Define Carbohydrates, Lipids, Amino acids, Proteins, Enzymes and Hormones
		Classify Carbohydrates, Lipids, Amino acids, Proteins, Enzymes and Hormones
		Discuss the properties of Carbohydrates, Lipids, Amino acids, Proteins, Enzymes and Hormones
		Describe the importance of biomolecules
		Explain reactions of Carbohydrates, Lipids, Amino acids, Proteins, Enzymes and Hormones
IX	(CH-509) Organic	Develop skills required in chemistry such as the appropriate handling of apparatus and chemicals.
	Chemistry Practical-I	Design the experimental set up and perform organic qualitative analysis, organic preparations and green chemistry experiments.
		Write the reaction mechanisms.
		Separate, purify and confirm the formation of the compounds.
		Describe the various techniques of synthesis and analysis of organic compounds.
		Analyse and interpret the experimental results.
X	(CH-510B) Polymer Chemistry	Define monomer, polymer, polymerisation, degree of polymerisation, functionality
		Understand Various ways of nomenclature.
		Relate Different schemes of classification of polymers, polymer nomenclature, molecular forces and chemical bonding in polymers,glass transition temperature of polymer.
		Difference between simple compounds and polymer.

		Judge Mechanisms of polymerization.
		Rewrite application of the following polymers: polyethylene, polystyrene, polyvinyl chloride, polyvinyl alcohol, polymethyl methacrylate, polytetrafluoroethylene, polyamides, polyesters, phenol formaldehyde resins (Bakelite, Novolac), silicone polymers, polyisoprene, conducting Polymers.
XI	(CH-511A) Environmental Chemistry	Describe the term involved in environmental chemistry, hydrosphere and water pollution, analytical technique in water analysis and water pollution and treatment methods.
		Explain hydrological cycle, Segment of environment, biochemical cycles, different analytical technique in water analysis, water pollutant, eutrophication, waste water treatment.
		Compare water quality parameters, different technique in water analysis and waste water treatment methods.
		Classify water pollutant, environment pollution, waste treatment methods
		Write different techniques in water analysis and waste water treatment method.
		Draw hydrological cycle, different waste treatment process, biochemical cycle.
Semester-VI		
I	(CH-601) Physical Chemistry II	Recall the various terms related to electrochemistry, crystallography, and nuclear chemistry.
		Demonstrate electrochemical cell, reference electrode, EMF, Isotropy, anisotropy, unit cell and radioactivity.
		Classify reversible and irreversible cells, Primary and secondary Reference Electrodes, radioactive nuclides.
		Draw electrochemical cells, primary and secondary reference electrodes, crystal structure.
		Evaluate the electrochemical cells, titrations methods, Batteries, crystal structures and nuclear reactions.
		Prepare list of electrochemical cells, Batteries, crystalline and amorphous substances, radioactive reactions.
II	(CH-602) Physical	Remember the general terms of colligative properties, Kinetics, electronic structure and polymers.
		Explain the various techniques used to explain colligative properties.
		Understand and apply kinetic laws of solid-state reactions.

	Chemistry III	Analyse the band structures conductors, semiconductors and insulators.
		Classify the types of polymers
		Determine the molecular weights of polymers.
III	(CH-603) Physical Chemistry Practical-II	Prepare the solutions of various concentrations and interconvert the them.
		Explain the principles involved in potentiometry, pH metry and Radioactivity, Colligative properties, and Turbidometry
		Construct the experimental set up.
		Demonstrate the experiments.
		Analyse the observations.
		Calculate and discuss the obtained results.
IV	(CH-604) Inorganic Chemistry-II	Define Organometallic Chemistry, Homogeneous and Heterogeneous Catalysis, Bioinorganic Chemistry, Inorganic Polymer.
		Understand The M-C Bond, Multiple Bond Due to Co Ligand, Phenomenon Of Catalysis, Its Basic Principle And Terminologies, Essential The Role Of Metals In Non Enzymatic Processes, Technological Importance Of Ionic Solids. Catalytic Reactions for Wilkinson's Catalysis, Hydroformylation Reaction.
		Draw the Structure of Vit.B12 And Give Its Metabolism, Catalytic Cycle, Silicones, Siloxanes, Borazines, Phosphazenes
		Explain catalytical Activities of Binary Metal, Accounts ofHomogeneous and Heterogeneous Catalysis, Function of Haemoglobin and Myoglobin in O_2 transport And Storage, Types of Inorganic Polymer, Inorganic Liquid Crystal.
		Evaluate the Uses of Organometallic Compounds in The Homogeneous Catalysis, Use of Catalysis in Industries Area, Biological Role of Inorganic Ions and Compounds, Uses of Inorganic Polymer, Technological Importance of Ionic Liquids.
		Design the Chemistry of Ferrocene, of Olefins, Zeolites In Catalysis Biodiesel Synthesis, Automotive Exhaust Catalysis., Structure And Bonding Using Valance Electron Count, Metalloprotein Of Iron, Synthesis Structural Aspects Of Inorganic Polymer, Ionic Liquid, Their Preparation and Their Significant W.R.T. Green Chemistry.
	(CH-605)	Define Acid and Bases, Crystalline Amorphous Solid, Ionic Radius, Lattice Energy, Zeolites, Nano chemistry, Chemical Toxicology.
		Explain Theories of Acids, Nature of Solids, Defects in Solids, Zeolite Synthesis and Their Structure, Various Method of Nanoparticle Synthesis, Impact of Toxic Chemical on Enzyme

V	Inorganic Chemistry-III	Illustrate the Strength of Various Types of Acids, Crystal Structure of Solids, Haber Cycle, Zeolite Framework Type and Their Classification, Properties and Application of Nanoparticle, Impact of Toxic Chemical in The Enzyme.
		Compare Acid Base Strengths in Non-Aqueous Solvents, Frenkel And Schottky Defect, Natural and Artificial Zeolites, Biological Effect of As, Cd, Pb, Hg
		Evaluate the Different Properties If Acid and Bases, Types of Voids, Application of Zeolites, Application of Nano chemistry, Biological Methylation.
		Write the Hard and Soft Acid and Base Concept with Example, Coordination Number of Ions in Ionic Solids, Stabilization of Nanoparticle in Solution
VI	(CH-606) Inorganic Chemistry Practical-II	Define the Following Term Column Chromatography, Nano catalyst,
		Understand the Solvent Free Microwave Assisted One Pot Synthesis
		Apply Column Chromatography for Purification Of Water Using Cation/Anion Exchange Resin.
		Analyse Different Ion by Using Volumetric Method, Or Flame Photometry.
		Create Proper Quantitative Methods for Analysis of Samples Containing Inorganic Substances
		Perform All the Activities in The Laboratory with Neatness and Cleanness
VII	(CH-607) Organic Chemistry-II	Define spectroscopy
		Interpret the UV, IR and PMR spectra.
		Describe the principles of UV, IR and PMR spectroscopy.
		Solve the problems based on UV, IR and PMR spectroscopy.
		Determine the structure of simple organic compounds on the basisof spectral data such as λ max values, IR frequencies, chemical shift
		Explain the geometrical isomerism, stability, energy calculations and optical activity of in disubstituted cyclohexane's and decalins.
VIII	(CH-608) Organic Chemistry-III	Understand the concepts involved in retrosynthetic analysis, reagents, Wolff rearrangement, Hofmann rearrangement, Simmons-Smith reaction, Michael reaction, Wittig reaction, McMurry reaction, Diels-Alder reaction, etc, natural products.

		Write reaction mechanism.
		Apply concepts of organic synthesis.
		Identify the structures of reactants and products.
		Explain classifications, isolations and structural determination of terpenoids and alkaloids.
		Discuss the synthesis of citral and ephedrine.
IX	(CH-609) Organic Chemistry Practical-II	Interpret IR and NMR spectra
		Achieve the practical skills required to perform the estimation, organic extractions, and column chromatography.
		Describe the principles involved in estimation, organic extractions, and column chromatography.
		Apply the principles of estimation, organic extractions, and column chromatography.
		Design the experimental set up to perform the experiments of organic estimation, organic extractions and purification using column chromatography.
		Analyse and explain the experimental results
X	(CH-610A) Introduction of Forensic Chemistry	Define the term in history of development of forensic science in India, introduction of narcotics drugs and psychotropic substances.
		Explain the methods of identifying of narcotics, drugs and psychotropic substance.
		Classify narcotics and psychotropics drugs.
		Analysis of narcotics drugs and psychotropic substances
		Fundamental principles and functions of forensic science.
		Testing of narcotics drugs and psychotropic substances.
XI	(CH-611B) Analytical Chemistry –II	Discuss Techniques of solvent extraction, Types of chromatography.
		Explain different principles involved in the analyses using solvent extraction, basics of instrumental chromatography, HPLC, GC, and atomic spectroscopic techniques.
		Apply different Technique for purification of organic and inorganic compounds
		Differentiate among the different analytical terms, process and analytical methods.
		Use of AAS and FES as an analytical tool.
		Solve the numerical problems.

PRINCIPAL
Mahatma Gandhi Vidyamandir's
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Programme Specific Outcomes (PSO's) & Course Outcomes (CO's) of B.Sc.

Department of Botany

Academic Year2021-22

Programme Specific Outcomes(PSO's) : B.Sc. Botany

At the end of the programme, student will be able to	
1	Analyse and present the research data using bioinformatics and biostatistics tools.
2	Apply knowledge for conservation of endemic and endangered plant species
3	Augment the recent developments in the field of Molecular and cell Biology, Biotechnology, Computational Botany and relevant fields of research and development.
4	Use creativity, critical thinking, analysis and research skills to solve biodiversity and environmental issues.
5	Students get conceptual knowledge of entrepreneurships in mushroom cultivation, Biofertilizers and Biopesticides production, plant tissue culture laboratories, Enzyme production, Fermentation, Single cell proteins etc.
6	Students will be well versed with various mechanisms of GMOs and molecular techniques.

Course Outcomes (CO's) : B.Sc. Botany(USB)

Class : F.Y.B.Sc		
Semester-I		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
I	USB(BO 111) Plant Life and Utilization-I	Outline cryptogams and phanerogams.
		Define general characters of cryptogams and Phanerogams.
		Classify the members of plants groups in to cryptogams and Phanerogams.
		Describe the Life cycle of plant forms of cryptogams and Phanerogams.
		Compare and describe the salient features of Cryptogams.
		Summarize type of diversity compare, organize and structure ecological grouping
II	USB (BO 112) Plant Morphology and Anatomy	Define plant morphology and anatomy
		Discuss morphology of vegetative and reproductive parts of plants.
		Describe anatomy of Monocot and dicot plants.
		Explain types of plant tissues.
		Understand and describe reproductive parts of the Angiospermic plants
		Formulate and compose of floral formula and floral diagram

III	USB (BO 113) Practical Botany –I	Recognize the live forms of Cryptogamic and Phanerogamic plants.
		Analyse and describe botanical concepts, including plant anatomy.
		Illustrate the floral parts, fruits, leaves and their types.
		Categorize the plants into Monocot and Dicot on the basis of anatomical characters.
		Field survey for identification of angiospermic plants
		Tree plantation
Semester-II		
I	USB (BO 121) Plants life and Utilization II	Understand about the diversity, systemic and economic importance of higher plants
		Explain identify and classify the higher plants
		Know the Economic Importance of higher plants
		Compares the features of higher plants.
		Aware the status of Phanerogams as a group in plant kingdom.
		Apply the economic and ecological importance of flowering plants
		Define and describe plant physiology
II	USB (BO 122) Principles of plants Science	Explain and recognise physiological phenomenon in plants
		Describe the mechanism of physiological phenomenon
		Distinguish and differentiate cell structures of Types of cells
		Understand ultrastructure and functions of cell organelles, different biomolecules in cells
		Distinguish, compare cell cycle in plant
III	USB (BO 123) Practical based on BO121 and Bo 122	Describe morphological, reproductive characters, taxonomy of higher plants.
		Discuss and compare internal organization of plants
		Understand categories and explain utilization of higher plant
		Preparation and utilizations of different stains, medium etc.
		Estimation of different biomolecules
		Aware about conservation and sustainable use of plants

Class : S.Y.B.Sc.		
Semester-III		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
I	USB (BO 231) Taxonomy of Angiosperm and Plant Ecology	Taxonomy of Angiosperm and Plant Ecology
		Define different terminology of taxonomy
		Discuss and explain about the systematic position of Angiosperm
		Understand, summarize about plant nomenclature
		Compose, formulate the floral variations in angiosperm families, their phylogeny and evolution.
		Define, recognize and describe scope of Ecology
II	USB (BO 232) Plant Physiology	Understand the various physiological life processes in plants
		Summarize, describe and distinguish of mechanisms of physiological phenomenon in plants
		Demonstration, examine and classify about various mechanisms of growth, development and functioning of plants
		Differentiate abiotic and biotics factors affecting on functioning of plants
		Discuss, describe and differentiate process of flowering in plants
		Demonstrate, examine and describe process of seed germination
III	USB (BO 233)	Memorize, recognize and explain different plant terminology
		Demonstrate and distinguish and Categorize different plant families
		Compare and differentiate different Ecological grouping of plants
	Practical based on Bo231 and Bo 232	Sampling, testing and structuring of vegetation different group
		Experimenting of growth, development and reproduction in plants as well as understand the physiological changes with the environmental impact.
		Demonstrated different experiment of plant physiology and Ecology
Semester-IV		
I	USB (BO241) Plants Anatomy and Embryology	Define and explain different terminology of plants anatomy and Embryology
		Discuss and describe the scope & importance of Anatomy and Embryology
		Recognize, compare, describe and classify different tissues systems in internal organization of plants
		Compare and classify internal organization of plant organs
		Demonstrate, explain, classify and describe the structure and development in plant embroyology
		Distinguish, compare and explain process of post fertilization embroygeny

II	USB (BO 242) Plant Biotechnology	Describe, clarify and Summaries Concepts, tools and techniques related to tissue culture
		Demonstrate the different methods used for genetic transformation of plants
		Explain the basic principles and modern age applications of recombinant DNA technology.
		Judge, evaluate and summarize bioinformatics to prepare database
		Demonstrate and application phytoremediation techniques
		Discuss and distinguish biofuel technology and role of plants as source of biofuels
III	USB (BO243) Practical based on BO241 and Bo 242	Classify, distinguish and categories different tissues systems in plants
		Demonstrate of biotechnology techniques and anatomy
		Examine and experiment related to biotechnology
		Experiment/ demonstrate/ design to different techniques in biotechnology
		Discuss, describe and differentiate in embrogeny
		Experiment/ demonstrate/ design to different techniques in biotechnology

Class :T.Y.B.Sc		
Semester V		
Paper	**Course code & course title**	**At the end of the course, student will be able to**
I	USB (BO351)	Define and Describe Lower Cryptogams.
	Algae and Fungi	Classify various system of Lower Cryptogams
		Demonstrate and explain the Life cycle of Lower Cryptogams
		Distinguish And compare Habit and Habitat of Lower Cryptogams
		Judge and evaluate General characters of Lower Plants
		Summaries the Life cycle of Lower Plants.
II	USB (BO352) Archegoniate	Describe Archegoniate
		Compare and classify Archegoniate
		Demonstrate and explain the Life cycle of Archegoniate
		Compare Habit and Habitat of Archegoniate
		Judge and evaluate General characters of Archegoniate
		Summaries the Life cycle of Archegoniate.
		Define and Describe Angiosperms

III	USB (BO 353) (Spermatophyte and Palaeobotany)	Explain the Pseudanthial theory and Transitional-Combinational theory
		Classify Cronquist's system And APG IV System
		Compare Habit and Habitat of Angiosperms and Gymnosperms
		Evaluate General characters of Angiosperms and Gymnosperms
		Summaries the Life cycle of Pinus and Gnetum.
IV	USB (BO 354) Plant Ecology	Define Plant Ecology
		Discuss Interrelationship between Living world
		Classify Ecology
		Distinguish between Ecology branches
		Evaluate and Summarize Ecological Impact Assessment
		Value of Environmental Audit.
V	USB(BO 355) Cell and Molecular Biology	Define and Explain concepts and terminology
		Recognize and Discuss cell Organelles
		Classify, differentiate and biogenesis of cell organelles
		Discussed and examine cell signaling and replication
		Summarize Molecular Biology and gene expression
		Experiment of Griffith's and Avery
VI	USB (BO 356) Genetics	Define and Explain and terminology of Genetics
		Describe and summarized gene interaction
		Compare and discuss linkage and recombination
		Explain and compare the mutation and its types
		Discuss and analysis of inheritance
		Interrelationship to chromosomal behaviour pattern with different mendelian inheritance
I.	USB (BO 357) Practical based on BO – 351 and BO-352	Classify, distinguish and categories different Algae
		Classify, distinguish and categories different Fungi
		Demonstrate and Classify of Bryophytes
		Discuss, describe and differentiate Morphological Character of Bryophytes.
		Demonstrate and Classify of Pteridophytes
		Discuss, describe and differentiate Morphological Character of Pteridophytes
		Classify, distinguish and categories different Family

II.	USB (BO 358) Practical based on BO – 353 and BO-354	Distinguish ,compare and describe Vegetative and Reproductive Character.
		Experiment and demonstrate internal and external morphology in Pteridophytes and Gymnosperm
		Demonstrate / Design Fossils
		Experiment / Test on Polluted water
		Discuss of Ecosystem
III.	USB (BO 359) Practical based on BO – 355 and BO-356	Demonstrate / Design Cytological Techniques
		Distinguish, compare, and describe Mitosis and Meiosis
		Experiment/ Demonstrate Mitosis
		Discuss/Demonstrate RNA and DNA
		Experiment / Demonstrate Onion roots cell
		Memorize, recognize and explain of Multiple Alleles(Blood Group in Human)
I	USB (BO 3510) Medicinal Botany	Explain, define terminology the scope of Medicinal plants
		Describe and summarize various system of medicine
		Discuss and explain different technique of conservation
		Differentiate and distinguish of propagation of medicinal plants
		Evaluate the application of ethnobotany and folk medicine
		Create formula of ethnobotany or folk medicine
II	USB (BO 3511) Plant Diversity and Human Health	Describe the different terminology of plant diversity and conservation
		Discuss the types and value of Plants diversity
		Explain ethical, aesthetic values of biodiversity
		Examine and classify management of plant diversity
		Distinguish and evaluate conservation of biodiversity
		Summarize the role of plant human welfare
Semester VI		
I	USB (BO 361) Plant Physiology and Metabolism	Compare and classify of mineral elements and essential elements
		Explain Photosynthetic mechanism and distinguish between light reaction and dark reaction
		Discuss and summarize the physiological process
		Mechanism of stomata opening and closing at depend upon the light

		Examine vascular tissue
		Differentiated and compare plant growth hormones Discuss in photomorphogenesis to defend on red and far red light
II	USB (BO 362) Biochemistry	Describe and Define Biochemistry
		Discuss and Describe Biomolecules
		Classify and Relate Amino acid and Proteins Structure
		Write Enzymes Properties
		Categorize Vitamins
		Compare Carbohydrates and Lipids
III	USB (BO 363) Plant Pathology	Describe and define terminology of Plant Pathology
		Discuss and describe the of mechanism Plant Disease
		Evaluate and identified the Disease of Plant
		Compare of Viral and Non-Parasitic Disease
		Distinguish Fungal and Bacterial Plant Disease
		Use of Chemical control to plant Disease
IV	USB (BO364)	Define and describe terminology of Evolution
		Discuss mechanism of Organic Evolution
		Differentiate Lamark's and Darwinism theory
	(Evolution and population genetics)	Summarize Population
		Support Speciation types in isolating Mechanism
		Evaluate Geological Time Scale based on fossils
V	USB (BO 365) Advanced plant biotechnology	Define and Describe Biotechnological terminology
		Discuss Plant Tissue culture techniques
		Demonstrate and perform Experiment of Tissue Culture
		Differentiate Direct and Indirect gene transfer
		Summarize importance, application of biotechnology
		Distinguish Microbial technology and Nano Biotechnology
VI	USB (BO 366) Plant breeding and Seed technology	Define and Describe Plant breeding terminology
		Discuss the Types and techniques of Plant Breeding
		Evaluation and Importance, scope of Plant Breeding
		Summarize Seed Technology techniques
		Application and evaluated seed testing methods

		Generation the application of Seed Production
I	USB (BO367) Practical based on BO – 361 and BO-362	Experiment / Demonstrate of osmotic potential of plant cell by plasmolysis method
		Describe and Discuss of photosynthesis mechanism
		Experiment / Estimate of Amino acid by paper chromatography method
		Estimation /Test of Proteins
		Demonstration/Examine of enzyme activity
		Select Different qualitative test use of biomolecules(Starch, Lipids and Proteins)
II	USB (BO368) (Practical based on BO – 363 and BO-364)	Demonstrate/Recognise Plant Pathogens
		Discuss /Describe of various Culture method
		Demonstrate and Classify of Fungal Disease
		Distinguish / Differentiate Viral and Non-Parasite Disease
		Describe/Discuss of Geological time Scale
		Demonstrate and Collect Fossil Plant
III	USB (BO 369)	Experiment / Demonstrate Preparation of different techniques
	(Practical based on BO – 365 and BO-366)	Recognize and Predict of Secondary Metabolites in plant
		Demonstration and perform and handling of equipment used in genetic engineering
		Demonstration ,estimate and measure to Fermentation technology
		Demonstration of Hybridization Techniques
		Estimate test seed moisture ,seed germination, seed diseases etc
I	USB (BO3610) Nursery and gardening management	Describe and define terminology of nursery management and gardening
		Discuss and classify structure and types of seeds
		Demonstration and explain different methods of propagation and gardening
		Distinguish techniques of management
		Judge and design of gardening
		Develop design of gardening, landscaping
		Define and describe the terminology of biofertilizer production
		Describe techniques of biofertilizer productions

II	USB (BO 3611) Biofertilizer	Demonstration and discuss biofertilizer production
		Classify and categorize various organism biofertilizer production
		Distinguish and estimate effect of biofertilizer on crop
		Design model of biofertilizer production

Programme Specific Outcomes (PSO's) & Course Outcomes (CO's) of B.Sc.
Department of Zoology
Academic Year
2021-22

Programme Specific Outcomes (PSO's) : B.Sc. Zoology

At the end of the programme, student will be able to	
PSO1	Understand the key concepts of Zoology at biochemical, molecular, cellular, physiological, histological and systematic level.
PSO2	Understand recent trends in zoological sciences and their applications in various fields like agriculture, apiculture, fisheries, poultry, sericulture, bioinformatics etc.
PSO3	Collect, analyze and explore biological data by statistical and biological techniques, write reports, review articles related to zoology
PSO4	Enhancing their self-sustainability capabilities through understanding of skill-based information and techniques, culturing techniques of economically important animals in applied and classical zoology.
PSO5	Assess environmental impact on all life forms, particularly on applied disciplines related to public health.
PSO6	Understand and develop social competence including observational, listening, effective interactive skills and presenting skills to meet global competencies

Course Outcomes (CO's) : B.Sc. Zoology

Class : F.Y.B.Sc		
Semester-I		
Paper	**Course Code &Course Title**	**At the end of the course, student will be able to**
I	(ZT-111) Animal Diversity I	Understand the terms related to animal diversity, classify and identify the diversity of animals.
		Demonstrate the structure and functions of spicules of sponges and classify the sponges on the basis of their skeleton.
		Define the systematic position and habitat of earthworms. Describe the body wall and coelom of earthworm and explain the structure and functions of their organ system.
		Recall the names of protozoan and helminths parasites of animals and illustrate their life cycles and pathogenicity
		Analyse invertebrates on the basis of their morphology and anatomy in respective systematic position.
		Carry out the field survey and write the field report on the basis of comparative morphology of animals.
		Understand terms related to animal ecology and distribution of animals in different realms interaction

II	(ZT-112) Animal Ecology	Knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life, wild life conservation and management
		Analyse the population & community ecology applicable to life sciences
		Describe the history, introduction and nature of ecosystem
		Explain the bio-geocycles and laws, understand environmental impact on it
		Develop understanding of aquatic ecology, wild life conservation and management
III	(ZT-113) Zoology Practical Paper	Gain knowledge to identify and classify various animals based on morphological features
		Prepare the culture of Paramecium, for live observations of organelles, nutrition, locomotion, excretion, reproduction, fission etc
		Understand the principle, applications and use of microscopes and micrometry.
		Analyse invertebrate animals according to their class by morphology and anatomy
		Performed laboratory experiments blood cells as differential and total count with normal range
		Identify various larval stages and development in invertebrate groups.
Semester-II		
I	(ZT-121) Animal Diversity-II	Understand classify and identify the diversity of arthropod, Mollusca, Echinodermata by morphology and anatomy
		Identify various larval stages and development in insects, and echinoderms
		Understand various modifications in animal groups and the need of the modification for survival
		Know the differences and similarities in the various aspects of classification.
		Apply the underlying principles of classification of animals
		Analyse and explore animal diversity surround us by statistical and biological techniques, write reports
II	(ZT-122) Cell Biology	Understand the importance of cell as a structural and functional unit of life.
		Compare between the prokaryotic and eukaryotic system and extrapolates the life to the aspect of development.
		Able to describe cell organelle structure and functions with inter relationship
		Apply their knowledge of cell biology to selected examples of changes or losses in cell function.
		Understand how these cellular components are used to generate and utilize energy in cells
		The fundamental of cell cycle and Apoptosis, difference between Somatic cell division and Gametic cell division
III	(ZT-123) Zoology Practical Paper	Gain knowledge to identify and classify various arthropods, molluscs and echinoderms based on morphological features
		Understand the knowledge of mouth parts of insects, shell in molluscs
		Prepare vermicomposting bin preparation and maintenance
		Insect pest collection and its identification, preservation of it
		Write report of visit to a vermicomposting unit
		understand economic importance of honey bees, Lac insects silk worms, red cotton bug, Anopheles mosquito

Class : S.Y.B.Sc.		
Semester-III		
Paper	**Course Code &Course Title**	**At the end of the course, student will be able to**
I	(ZT-231) Animal Diversity III	Understand the terms related to Animal diversity, classify and identify the diversity of higher vertebrates.
		Aware regarding his role and responsibility towards nature as a protector, to understand his role as a trustee and conservator of life which he has achieved by learning, observing and understanding life.
		Understand the linkage among different groups of higher vertebrates
		Analyse and explore animal diversity surround us by statistical and biological techniques, write reports
		Identify reptiles, Pisces, amphibians by external morphology and anatomy
		Understand animal type study of fish with all systems, reproduction and life cycle
II	(ZT-232) Applied ZoologyI	Learn for controlling agricultural pests as need for more crop yield
		Understand the basic information about silk, silkworm rearing management
		Learn about rearing and life cycle of Mulberry, Tassar, Eri and Muga silk moths
		Identify and treat important diseases and pests of silkworm and use of Shoulder type Rotary duster, Knapsack sprayer for agricultural pests, Cynogas Pump.
		Know about preparation of cocoons for marketing and understand post harvesting methods
		Gain knowledge of biotechnological and biomedical applications of silk
III	(ZT-233) Zoology Practical Paper	Prepare map showing distribution of silk moth and sericulture practices in India
		Gain knowledge of equipment's in Sericulture and methods of their use
		Explain the tools and techniques used in agricultural pest control including Rotary duster, Knapsack sprayer for agricultural pests, Cynogas Pump
		Illustrate management of the agricultural pests and sericulture units
		Gain knowledge to define the concepts of the applied subjects like Apiculture and Sericulture
		Select economically important species of Silk moth for sericulture unit
Semester-IV		
I	(ZT-241) Animal DiversityIV	Understand the terms related to Animal diversity, classify and identify the diversity of higher vertebrates.
		classify vertebrates and to become able to understand the possible group of vertebrates observed in nature.
		Become aware regarding his role and responsibility towards nature as a protector, to understand his role as a trustee and conservator of life
		Understand Origin & Ancestry of Chordates
		Understand the linkage among different groups of higher vertebrates.
		Gain knowledge of Reptiles, Mammals and Pisces with animal type study of fish
		Learn for managing beehives for honey production and pollination as need for more crop yield

II	(ZT-242) Applied Zoology II	Differentiate between different life stages of honey bee and explain their life cycle. Discuss control and prevention of pests and diseases.
		Outline the important tools and equipment's used in apiculture and fisheries.
		Understand knowledge of fish preservation technique, fish by-products
		Aware of principle and use of Crafts and Gears in Indian Fishery
		Understand Bee diseases, Bee pests and Bee predators, bee pollination
III	(ZT-243) Zoology Practical Paper	Gain knowledge of equipment's in beekeeping, fisheries and methods of their use
		Learn about rearing and life cycle of honeybee
		Understand Freshwater fisheries, Marine fisheries, Brackish water fisheries.
		Aware of various harvesting methods of marine forms fisheries
		Understand knowledge of fish preservation technique, fish by-products
		Identify Bee diseases, Bee pests and Bee predators

Class: T. Y. B. Sc		
Semester-V		
Paper	**Course Code &Course Title**	**At the end of the course, student will be able to**
I		To identify the pest and strategy for effective pest control.
		To understand differences between continuous pests, sporadic pests, and potential pests.
	(ZT-351) - Pest Management	Student will be able to understand prevention, suppression, and eradication of pests
		To describe factors that contribute to pests evolving resistance to pest control strategies.
		To know what IPM is and why it is effective.
		To Distinguish positive and negative impacts of pesticide use.
	(ZT-351Histology	Understand basic terms related to histology and all four types of tissues
		Compare structural differences in digestive, respiratory, reproductive and organs of circulatory systems
		Distinguish the normal histology with altered organ structure in disease progression
		Outline the processes involved in the preparation of tissue sections and explain the purpose of each of these processes
		Develop skill in various histological staining techniques
		Identify sections of mammalian organs by its tissue layers, gross structure etc
	(ZT-351-Biological Chemistry	Understand concept of pH, buffer and water, its importance the biological system
		Analyse amino acids in Polar, non-polar, acidic basic and neutral amino acid groups
		Classify carbohydrates and demonstrate stereochemistry of carbohydrates and their properties
		Develop the knowledge to relate vitamins to the type of deficiency diseases and role of vitamins in metabolism.
		Differentiate structures of proteins, with examples and types of protein structures

		Classify lipids based on the structure, and functions
	(ZT-351-Genetics	To understand genes structure, chromosomes and the concept of Inheritance and Variations.
		To Demonstrate the Knowledge and practical skills of molecular genetic analysis of genetic diseases
		To know about the Classical and Modern genetics
		Student will be able to understand the concept of Mendelian genetics, gene, gene regulation and multiple alleles.
		To Identify genetic disorders based on Karyotypes and traits
		To Update current Knowledge regarding genetics, genomics, genomic medicine
	(ZT-351-DevelopmentalBiology	Explain the principles and process of fertilization and cleavage
		Prepare the flow chart of gametogenesis process and Identify the developmental stages
		Understood the process of development and gametogenesis
		Understand the process of organogenesis of selected organs, development of extra embryonic membrane and the nature and physiology of placenta.
		Explain the theories of preformation, and concepts like growth, differentiation and reproduction
		Illustrate aspects and patterns of animal distribution.
	(ZT-351-Parasitology	Gain knowledge of basic terms and general concepts related parasitology
		Interpret the interactions between parasite with its host
		Explain the basic biology and lifecycle of parasites including epidemiology, diagnosis and treatment
		Recognize morphological characteristics for identification of parasites and their developmental stages
		Analyse the medical and public health aspects of human parasitic infections.
		Justify the control measures of arthropod vectors and Understand the importance of hygiene with respect to epidemic diseases.
	(ZT-351-Zoology Practical Paper1	Student will be able to analyse pest problems, to determine if management is necessary using IPM techniques.
		Student will be able to Describe characteristics of insect pests and factors that make them successful pests.
		To know different types of pesticides and to acquire information about the risks associated with the use of pesticides.
		To understand the structure & functions of various tissues in organ system.
		To know histological structure of various glands and its functions.
		To understand the histological aspects of mammalian organs.
	(ZT-351-Zoology Practical Paper2	To Explain the importance and applications of techniques used in biochemistry.
		To Explain the principle and applications of various chromatographic techniques with examples.
		To understand the importance of pH, buffer and water in living systems.
		Student will be able to understand how to Construct the pedigrees and analysis of pattern of inheritance in the families
		To describe the different methods of genetic testing.
		To demonstrate Knowledge and practical skills of molecular genetic analysis of genetic diseases.

	(ZT-351-Zoology Practical Paper3	Students will able to prepare chick embryo
		To know about blastula and gastrula stages of various embryo
		To study life cycle of various endoparasites.
		To study whole mount of chick embryo
		To understand parasite as vectors
		To know about the disease cause by various parasites.
	(ZT-351-Aquarium Management	To be able to formulate fish food that provides with complete nutritional benefits.
		To comprehend the key skills needed to set up an aquarium
		To be able to identify and differentiate the different aquarium/ornamental fishes
		To analyse the required budget to set up a well-maintained home aquarium.
		students' knowledge about various techniques of ornamental fish breeding, rearing and its marketing to make them self-sustainable
		Students will learn Decorations of aquarium
	(ZT-351-Poultry Management	The students will able to understand the poultry farming practices.
		Students will able to learn the poultry breeding techniques.
		Students will able to the poultry rearing techniques.
		Understand feeding requirement and food ingredients.
		To know about the poultry disease and their pathogens.
		Student will gain the knowledge of market value of poultry products.

Semester-VI		
Paper	**Course Code &Course Title**	**At the end of the course, student will be able to**
	(ZT-351-Medical & Forensic Zoology	To understand the scope, need and History of Forensic Science.
		To provide a course of study in mammalian, principally human, systems physiology, building on knowledge of basic physiological principles
		To understand the various branches of Forensic Sciences from Life Sciences.
		To understand human physiology, post mortal investigations.
		To understand knowledge of handling different types of evidences and their examinations.
		Student will be able to describe the fundamental principles and functions of forensic science and its significance to human society.
	(ZT-351) - Animal Physiology	To know various physiological organ-systems and their importance and functions of the human body.
		To know the concept of nutrition and digestion
		To understand Various aspects of Digestive physiology.
		Student will be able to understand the structure, contraction and types of contraction of muscle.
		To know the organisms Internal and external environments with homeostasis and biological Clocks.

		Student will be able to gain knowledge about the mechanism of different metabolic activities like Nutrition, Digestion, Respiration, Reproduction etc.
	(ZT-351) - Molecular Biology	To gain an understanding of chemical and molecular processes that occurs in and between cells.
		To gain insight into the most significant molecular and cell-based methods used today to expand our understanding of biology.
		Students Will be able to design and implement experimental procedures using relevant techniques.
		The students will gain a basic understanding on human genetics and hereditary.
		The course has been devised to familiarize students with Molecular Biology which chiefly deals with interactions among various systems of the cell, including those between DNA, RNA and proteins and learning how these are regulated.
		Student will learn what are these chemical and physical mutagens; mutation caused by them and how they are repaired.
	(ZT-351) - Entomology	To Understand scope of entomology
		The students will know about the insect ecology
		Students will understand insect metamorphosis
		Students will be able to understand the pest management
		Students know about the anatomy of the insects
		Students gain knowledge of diseases causing insects vectors.
		Thinking like a biologist
		Describing the breadth of the discipline
	(ZT-351) - Techniques in Biology	Using the tools and methods of modern biological research
		Synthesizing a range of biological concepts and ideas
		Developing critical thinking skills
		Communicating effectively, both orally and in writing
	(ZT-351) - Evolutionary Biology	Understand the theories of evolution and highlighted the role of evidences in support of evolution
		Explain the theories of organic evolution and the concept of origin of life and theories of origin of life
		Illustrate the presence of organisms at various geological time scale and evolution in man
		Apply the knowledge in relevant experimentations and Categorize different zoogeographical realms
		Compare animal distribution in different zoogeographical realms
		Described the evolutionary knowledge through the concepts of coloration and mimicry
	(ZT-351) - Zoology Practical Paper1	To develop practical biological skills introduced in Physiology of Organisms.
		Students will be able to understand modern tools, techniques and skills in forensic investigations.
		To understand the advance technique in the field of Medical and Forensic Zoology.
		To Demonstrate the effect of pH, temperature and inhibitors on salivary amylase.
		To understand the Structure and functions of muscles

		Student will be able to know the mechanism of chemical communication in vertebrates.
	(ZT-351) - Zoology Practical Paper2	Student's will able to prepare DNA paper model
		Student's will able to estimate DNA by diphenyl amine method
		To Principle & application of Spectrophotometer & PCR.
		Students will able to study Different types of head, legs and wings of insects
		Students will able to prepare temporary mounting of mouth parts, antenna legs and wings of insects.
		To understand general entomology, basic systematics, morphology, physiology, and biodiversity.
	(ZT-351) - Zoology Practical Paper3	To understand techniques involved in understanding the immunological aspects of physiology and biological samples.
		To know concept of light, electromagnetic spectrum and its application in absorption spectroscopy.
		To understand principle and applications of various chromatographic techniques with examples.
		Students will be able to learn most of the essential aspects of Evolutionary Biology.
		To Apply evolutionary theory and concepts and to solve theoretical questions in evolutionary biology
		Student will be able to focus on the explanation of various theories of evolution comprising of Lamarckism, Darwinism and Neo-Darwinism.
		To know the concept of environment, Sustainable development and Exploitation
	ZO 3610 Environmental Impact Assessment	To Demonstrate a general understanding of the breadth and interdisciplinary nature of environmental issues.
		To provide the knowledge about the EIA and Processes involved in EIA.
		To Understand and evaluate the global scale of environmental problems.
		To understand different acts for Protection of Environment.
		To understand different types of Pollutions and different strategies to overcome the Pollution.
	(ZT-351) - EnvironmentalImpact Assessment	Illustrate importance of topic, material & Methods and reference work for research project
		Write effective scientific and technical communication based on the project
		Design experimentation to prove the hypothesis
		Represent interpretations of research data within scientific and technical communities.
		Collect data, analyze and interpret it by field visits
		Understand research presentation, preparation of research article, reference work etc.

Mahatma Gandhi Vidyamandir's Arts, Science & Commerce College Surgana (Nashik) 422 211

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Programme Specific Outcomes (PSO's) & Course Outcomes (CO's) of B.Sc.

Department of Physics

Academic Year 2021-2022

GOALS:

The Department has formulated three broad educational goals for the undergraduate degree programs:

Physics knowledge: To provide students with the basic foundation in physics and Nano technology, the interplay of theory and experiment, and to motivate scientific enthusiasm and curiosity and the joy of learning.

Problem solving skills: To provide students with the tools needed to analyze problems, apply mathematical formalism and experimentation, and synthesize ideas.

Employment and technical skills: To provide the students with technical skills necessary for successful careers in physics / Nano-technology and related or alternative careers for which a physics foundation can be very useful. These include mathematics, computers, electronics and devices, and communication skills (oral and written).

PROGRAMME OUTCOMES (PO'S) :

Knowledge outcome:

After completing B.Sc. Physics Programme students will be able to:

PO1: Transfer and apply the acquired fundamental knowledge of physics, including basic concepts and principles of 1) classical mechanics, electrodynamics, quantum mechanics, Statistical Mechanics and thermodynamics; (2) mathematical (analytic and numerical) methods and experimental methods for physics to study different branches of physics

PO2: Demonstrate the ability to translate a physical description to a mathematical equation, and conversely, explain the physical meaning of the mathematics, represent key aspects of physics through graphs and diagrams, and use geometric arguments in problem-solving.

Skills Outcomes

Professional Skills

After completing B.Sc. Physics Programme students will be able to:

PO3: Apply and demonstrate knowledge of concepts of physics, to analyze a variety of physical phenomena

PO4: Demonstrate the learned laboratory skills, enabling them to take measurements in a physics laboratory and analyze the measurements to draw valid conclusions

PO5: Capable of oral and written scientific communication, and will prove that they can think critically and work independently.

PO6: Communicate effectively using graphical techniques, reports and presentations within a scientific environment.

PO7: Use and apply professional software for scientific data analysis and presentation

PO8: Respond effectively to unfamiliar problems in scientific contexts

PO9: Plan, execute and report the results of a complex extended experiment or investigation, using appropriate methods to analyze data and to evaluate the level of its uncertainty

PO10: Integrate and apply these skills to study different branches of physics.

Generic Competencies

PO11: Work comfortably with numbers and analyzing an issue quantitatively, acquire knowledge effectively by self-study and work independently, present information in a clear, concise and logical manner and apply appropriate analytical and approximation methods.

Attitude/Value Outcomes

After completing B.Sc. Physics Programme students should have developed some positive attitudes and will have:

PO12: Willingness to take up responsibility in study and work
Confidence in his/her capabilities
Capacity to work effectively in a team
Motivation for learning and experimentation

Program Specific Outcomes (PSO's)

After completing B. Sc. Physics, students will be able to

PSO1: Demonstrate and understanding of principles and theories of physics. These include: Newtonian Mechanics, thermodynamics, atomic and Molecular physics, electrodynamics, electronics, optics, nuclear physics, and quantum mechanics;

PSO2: Apply vector algebra, differential and integral calculus as well as graphical methods to solve physics problems;

PSO3: Demonstrate ability to apply knowledge learned in classroom to set and perform simple laboratory experiments;

PSO4: solve physics problems using the appropriate methods in mathematical, theoretical and computational physics

Course Outcomes (CO's):

F.Y.B.Sc. Physics:

Semester I

PHY-111: Mechanics and Properties of matter

After successfully completing this course, the student will be able to:

CO1: Demonstrate an intermediate knowledge of Newton's Laws and the equations of motion

CO2: Analyze the forces on the object and apply them in calculations of the motion of simple systems using the free body diagrams

CO3: Determine whether using conservation of energy or conservation of momentum would be more appropriate for solving a dynamics problem

CO4: Apply the concepts of elasticity to real world problems.

CO5: List fundamental forces in nature, applications and factors affecting surface tension.

CO6: Define and conceptualize different laws of fluid mechanics and related quantities like steady, turbulent flow and concept of Reynolds number

CO7: Demonstrate different applications of Bernoulli's theorem, laws of elasticity, surface tension.

PHY-112: Physics Principles & Applications

After successfully completing this course, the student will be able to:

CO1: Define absorption, spontaneous emission and stimulated emission process and describe Laser action describe different atomic models in order to understand atomic structure

CO2: Classify different types of bonding & their properties.

CO3: Draw electromagnetic spectrum showing different regions and analyze vibrational & rotational spectra of diatomic molecule.

CO4: Study the properties of Laser and its applications.

CO5: Quote essential principles of operation of radar system and develop the radar for any given frequency.

CO6: Describe principle and construction of solar cell & to calculate efficiency and fill factor of solar cell.

PHY-113: Physics Laboratory- 1A

After successfully completing this course, the student will be able to:

CO1: The students will be able to use various instruments and equipment.

CO2: The students will be able to design experiments to test a hypothesis and/or determine the value of an unknown quantity.

CO3: The students will be able to investigate the theoretical background of an experiment.

CO4: The students will be able to setup experimental equipment to implement an experimental approach.

CO5: The students will be able to analyze the data, plot appropriate graphs and reach conclusions from data analysis.

CO6: The students will be able to work in agroup to plan, implement and report on a project/experiment.

CO7: The students will be able to keep awell-maintained and instructive laboratory logbook.

Semester II

PHY-121: Heat and Thermodynamics

After successfully completing this course, the student will be able to:

CO1: Define laws of thermodynamics, entropy, thermodynamic processes etc.

CO2: Describe Andrew's experiment, Amagat's experiment, Carnot engine, concept of entropy.

CO3: Derive expression for efficiency of heat engine (Otto cycle, Diesel cycle, and Carnot cycle), latent heat equation, and adiabatic relations for perfect gas, work done during isothermal and adiabatic change.

CO4: Determine critical constants using Vander Waal's gas equation, reduced equation of state

CO5: Compare reversible and irreversible processes, adiabatic and isothermal process,

CO6: Illustrate that work is a path dependent function using PV diagram and to solve entropy for reversible and irreversible process.

CO7: Apply first law of thermodynamics to solve problems.

CO8: Categorize thermometers and state its applications

PHY-122: Electricity and Magnetism

After successfully completing this course, the student will be able to:

CO1: Define the basic terms such as electric field, electric potential, magnetic intensity, magnetic induction, magnetic susceptibility and electric and magnetic flux.

CO2: State and conceptualize basic laws in electromagnetic.

CO3: Explain the superposition principle, gauss's law in dielectrics and relation between three electric vectors.

CO4: Solve numerical problems using Coulombs Law, Gauss's law, Biot-Savart's law, Ampere circuital law and principle of superposition

CO5: Determine the electric field and potential due to an electric dipole and different types of charge distribution.

CO6: Determine magnetic induction due to various current distributions

CO7: Derive the relation between three magnetic vectors and compare different types of magnetic material.

CO8: Describe soft and hard magnets on the basis of hysteresis loop.

PHY-123: Physics Laboratory-1B

After successfully completing this course, the student will be able to:

CO1: Demonstrate an ability to collect data through observation and/or

CO2: Acquire technical and manipulative skills in using laboratory equipment, tools and materials

CO3: Experimentation and interpreting data.

CO4: Demonstrate an understanding of laboratory procedures including safety, and scientific methods.

CO5: Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena.

CO6: Acquire the complementary skills of collaborative learning and teamwork in laboratory settings.

S.Y.B.Sc

Semester I

PHY231: Mathematical Methods in Physics I

After successful completion of the course the student will be able to:

CO1: define the basic operations in complex numbers

CO2: explain graphical representation of complex numbers and calculate roots of complex numbers;

CO3: solve partial differential equations in Physics;

CO4: discuss vector algebra required in Physics;

CO5: define and calculate the gradient, divergence and curl of a field;

CO6: define order, degree and homogeneity of ordinary differential equation; CO7: explain singular points of ordinary differential equation;

CO8: develop problem-solving skills of identifying strategies to solve unfamiliar problem

PHY232: Electronics

After successful completion of the course the student will be able to: CO1:
define various laws, theorems and basic terms in electronics;
CO2: calculate power, voltage or current across or through the particular component of a given circuit using circuit theorems; and able to design a circuit for transistor biasing, rectifier;
CO3: describe construction and working of transistor and its applications in current and voltage amplification using different configurations;
CO4: describe DC load line and bias point. List, explain, and design and analyze the different biasing circuits;
CO5: explain real and ideal characteristics of operational amplifier and calculate gain in different modes;
CO6: describe different applications of operational amplifier;
CO7: design rectifier circuits, unregulated and regulated power supply;
CO8: illustrate data from one number system to another and apply Boolean algebra to design logic circuits.

PHY233: Physics Laboratory- 2A

After successful completion of the course the student will be able to:
CO1: The students will be able to use various instruments and equipment.
CO2: The students will be able to designexperiments to test a hypothesis and/or determine the value of an unknown quantity.
CO3: The students will be able to investigate the theoretical backgroundof an experiment.
CO4: The students will be able to setup experimental equipment to implement an experimental approach.
CO5: The students will be able to analyze the data, plot appropriate graphs and reach conclusions from data analysis.
CO6: The students will be able to work in agroup to plan, implement and report on a project/experiment.
CO7: The students will be able to keep awell-maintained and instructive laboratory logbook.

Semester II

PHY241: Oscillations, Waves and Sound

After successful completion of the course the student will be able to:
CO1: define periodic and oscillatory motion;
CO2: setup and solve differential equations of motion for simple harmonic, damped, and forced oscillators;
CO3: describe oscillatory motion with graphs and equations, and use these descriptions to solve problems of oscillatory motion;
CO4: discuss phenomenon of resonance and apply in different applications;
CO5: set and solve differential equation for wave motion for longitudinal and transverse waves;
CO6: calculate the phase velocity, energy and intensity of simple harmonic waves;
CO7: discuss the Doppler Effect, and predict in qualitative terms the frequency change that will occur for relative motion between source and observer or listener;
CO8: Explain in qualitative terms how frequency, amplitude, and wave shape affect the pitch, intensity, and quality of tones produced by musical instruments.

PHY 242: Optics

After successful completion of the course the student will be able to:

CO1: Describe the geometrical formation of images by thin lenses, lens equation and lens makers formula using fundamental laws of geometrical optics.

CO2: Use mathematical analysis to calculate properties of image, formed by combination of lenses and applies theory of optics to calculate the cardinal points of an optical system and design optical devices

CO3: Describe optical aberrations produced in image by lenses and methods of their removal.

CO4: Describe the construction and operation of optical devices, including, eyepieces, compound microscope, grating, polarisers etc.

CO5: Use mathematical analysis to find bright and dark fringes in an interference pattern of thin and wedge shaped film and find a wavelength of light using newton's rings

CO6: Interpret a diffraction pattern to determine resolution of an optical system and grating

CO7: Demonstrate an ability to solve problems using 'paraxial' optics-based formulae, numerical calculations and graphical drawings.

CO8: Geometrical determination of polarization of light and concept and determine a polarization state of light by interpreting polarizer

PH243: Physics Laboratory-2B

After completing this practical course student will be able to

CO1: Use various instruments and equipment.

CO2: Design experiments to test a hypothesis and/or determine the value of an unknown quantity.

CO3: Describe the methodology of science and the relationship between observation and theory.

CO4: Set up experimental equipment to implement an experimental approach.

CO5: Analyze data, plot appropriate graphs and reach conclusions from your data analysis.

CO6: Work in a group to plan, implement and report on a project/experiment. CO7: Keep a well-maintained and instructive laboratory logbook.

Programme Specific Outcomes (PSO's) & Course Outcomes (CO's) of B.Sc.

Department of Physics

Academic Year 2021-2022

Programme Specific Outcomes (PSO's) : B.Sc.

At the end of the programme, student will be able to	
1	Draw graph of various real valued functions occurring in nature
2	Identify, modify and apply the mathematical model in the real life problem
3	Will enlight the career in Industrial Mathematics and Software Designing
4	Can apply various mathematical methods to solve basic problems in nature
5	Apply the mathematical logic towards mathematical programming
6	Can work effectively in the group to solve basic mathematical models

Course Outcomes (CO's) : B.Sc

Class : F.Y.B.Sc		
Semester-I		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
I	Algebra (MT111)	**CO1**: Explain basic properties of Algebra
		CO2: Discuss the statements of theorems and Differentiate between properties of Real Numbers and Complex Numbers
		CO3: Solve problems of calculating gcd of two numbers, remainder using congruence properties
		CO4: Analyze algebraic properties of integers
		CO5: Estimate roots of Complex Numbers and n^{th} Roots of unity.
		CO6: Design Maxima program related to the problem of Congruence theory and Divisibility.
II	Calculus- I (MT112)	**CO1:** Explain basic properties of various topics in calculus
		CO2: Discuss the results of Algebraic Properties of Real Numbers
		CO3: Solve example on Real numbers, Sequences, Limits and Continuity
		CO4: Draw the graph of some function
		CO5: Discuss the limit and continuity of Real valued Functions
		CO6: Design Maxima Software program related to Calculus

III	Mathematics Practical (MT 113)	**CO1:** Understand the knowledge of basic properties of numbers
		CO2 : Discuss the reminder properties using various Algorithm
		CO3 : Understand the geometry of imaginary numbers
		CO4 : Discuss difference between limit and continuity
		CO5 : Understand properties of Sequence and Series
		CO6: Solve various exercise using Maxima Software
Semester-II		
I	Analytical Geometry (MT 121)	**CO1:** Define basic concepts in 3 - dimensional geometry
		CO2: Explain the concepts of Geometry by using basic definitions.
		CO3: Compute shortest distance and an angle between two lines
		CO4: Analyze the general equation of conic to its standard form .
		CO5: Estimate the condition of tangency for the Sphere .
		CO6: Create graph in 2- Dimension planes and lines using Maxima Software
II	Calculus-II (MT 122)	**CO1:** Identify basic terms in differential equation
		CO2: Describe the various methods of solving integration .
		CO3: Change non exact differential equation to exact differential equation
		CO4: Solve differential equation of first order and higher degree
		CO5: Evaluate differential equation with constant coefficient
		CO6: Construct orthogonal trajectory for a given curve of family.
III	Mathematics Practical (MT 113)	**CO1:** Understand the basic properties of translation and rotation
		CO2: Explain the various terms of Line, Planes, Sphere .
		CO3: Plot the graph of planes & lines
		CO4: Examine the properties of differential equation
		CO5: Evaluate the examples on Taylors series and Maclaurian series
		CO6: Generate graphs using Maxima Software

Class : S.Y.B.Sc.		
Semester-III		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
I	Calculus of Several Variables	**CO1:** Define basic definitions in multivariable calculus.
		C02: Discuss limit and continuity in multivariable's.
		CO3: Compute basic examples related to partial derivatives.
		CO4: Estimate the properties of Euler's Theorem.

	MT 231	CO5: Classify the concepts of Maxima and Minima.
		CO6: Plot graphs of multivariable functions using Maxima.
II	Numerical Methods and its Applications MT 232(A)	C01: Define basic definitions and formulas in numerical methods
		CO2: Describe numerical methods of solving first order ordinary differential equations
		CO3: Can apply Forward and Backward Interpolation formula
		CO4: Apply the Numerical Integration Formulae to calculate approximate area
		CO5: Evaluate basic results in Numerical Methods using Maxima Software
		CO6: Construct short numerical program using Maxima software
II	Graph Theory MT 232(B)	**C01:** Draw basic graphs
		C02: Interpret the isomorphism's in graphs
		C03: Calculate the shortest path
		C04: Examine the types of different graphs
		C05: Can interprete the Trees
		C06: Can gives applications of Graph Theory in AI and ML
III	Practical Based on MT 231 & 232(A)	**C01:** Draw level Curves in multivariable
		C02: Interpret the range and domain of multivariable functions
		C03: Calculate area and volume using Maxima Software
		C04: Examine the various types of errors using Maxima software
		C05: Evaluate algebraic and transcendental equations
		C06: Rewrite results in Numerical methods using Maxima Software
Semester-IV		
I	Linear Algebra MT 241	**C01:** Define basic concepts in linear algebra
		C02: Discuss the linear dependence and independence of vectors
		C03: Solve the examples on vector spaces
		C04: Examine the results in Inner Product Spaces
		C05: Evaluate the rank and nullity of vector spaces
		C06: Construct matrix of a linear transformation using Maxima software
II	Vector Calculus MT 242(A)	**C01:** Define the basic concepts in vector calculus
		C02: Discuss the Limits, Continuity and Differentiability.
		C03: Apply Greens Theorem in the plane.
		C04: Simply the results on volume and surface integral.
		C05: Evaluate directional derivatives and Gradient of curves.
		C06: Construct the results in Vector Calculus using Maxima Software
		C01: Draw vectors in 2 and 3 dimensional space

III	Practical Based on MT 241 & 242(A)	**C02:** Discuss the results in inner product spaces
		C03: Estimate Gram Schmidt process and its applications
		CO4 : Examine Gradient of a scalar point functions and its geometrical interpretation.
		C05: Evaluate Solenoideal and irrigational vector field.
		C06: Develop small programs using Maxima Software.

DEPARTMENT OF COMMERCE

Bachelor of Commerce (B. Com.)

Goals:

1. The department strives hard to inculcate its core values which are good thought, good words and good deeds in the students overall personality to live by these values.
2. Every effort is made to encourage every student in his or her formative years to take an active part in all activities that help to build up their character and knowledge.

Programme Outcomes (PO's):

After successfully Completing B.Com. Programme, students will able to-

PO's	DETAILS
PO-1	In depth knowledge, understanding and skills in commerce.
PO-2	Build a strong foundation of knowledge in different areas of Commerce.
PO-3	op the skill of applying concepts and techniques used in Commerce for reallife problems.
PO-4	Inculcate reading, writing, speaking skills and Business correspondence.
PO-5	s awareness among society about Law and Legislations related to commerceand business.
PO-6	Use effectively recent Trends in Business, Organizations and Industries.
PO-7	Communicate effectively about Economic Environment of Country as well as World.
PO-8	Use effectively practical skills in real life related to banking and corporate world.
PO-9	les a platform for overall development and develop knowledge level andawareness about Recent Trends of World
PO-10	ew technologies effectively to communicate ideas in the area ofcommerce.
PO-11	lly evaluate new research findings, ideas, methodologies andtheoretical frame work in specialized study.
PO-12	Work collaboratively and productively in groups.

Programme Specific Outcomes (PSO's):

PO's	DETAILS
PSO-1	will be able to apply basic skills learnt in commerce necessary for analysis of various problems in accounting, marketing, business economics,management and finance.
PSO-2	will demonstrate progressive affective domain development of values,the role of accounting in society and business.
PSO-3	will able to demonstrate quantitative and qualitative knowledge in keyareas of organization behaviour.
PSO-4	will able to evaluate national and international issue and discussion oneconomic, commercial and business related topics.

COURSE OUTCOMES (CO'S)

F.Y.B.COM (SEM-I, II)

BANKING AND FINANCE

CO-1 Develop and understand the nature and purpose of financial statements in Relationship to decision making.
CO2 Create the ability to use the fundamental accounting equation to analyze the effect of business transactions on an organization's accounting records and financial statements.
CO3 Analyze the ability to use a basic accounting system to create (record, classify, and summarize) the data needed to solve a variety of business problems.
CO4 Understand the ability to use accounting concepts, principles, and frameworks to analyze and effectively communicate information to a variety of audiences.
CO5 Apply the ability to use accounting information to solve a variety of business problems.

F.Y.B.COM (SEM-I, II)

MARKETING AND SALESMANSHIP

CO-1 On successful completion of this course, the students should have understood Principles of marketing management, market segmentation Product life cycle, pricing, branding
CO2 Develop a better appreciation and understanding of the role of marketing in a business organization specifically, and in our society at large.
CO3 Provide you with opportunities to analyze marketing activities within the firm
CO4 Allow you to apply marketing concepts and theories to realistic marketing situations

F.Y.B.COM (SEMESTER-I, II)

112 FINANCIAL ACCOUNTING- I, II

CO1: Students will be able to acquire in-depth knowledge
CO2: Students will be able to acquire in-depth knowledge
CO3: Students will be able to understand the process and importance of conversion of single Entry into double entry system
CO4: Students will gain knowledge about GST and its implications.

CO1: Acquaint themselves with computerized accounting, its application and utility.
CO2: Understanding the accounting process of accounting of charitable trusts
CO3: Analyzing , interpreting and communicating the information contained in basic financial statements and explain the limitations of such statements
CO4: Learning the concept of intangible assets and the methods of their valuation
CO5: Understanding the process and methods of leasing.

114 (A) BUSINESS MATHEMATICS AND STATISTICS (SEM-I, II)

CO1: Students will be able to apply concepts of interests and annuities to calculate EMI, prepareamortization schedule, calculate insurance premiums etc.
CO2: Students will be able calculate dividend, brokerage on shares and mutual funds. Also, students will be able to able to identify the contribution of shares and mutual funds in systematic investment plans and to select best investment options
CO3: Students will be able to recognize and classify different types of data. Students will be able to take a sample of appropriate size using suitable method of sampling.

124 (A) BUSINESS MATHEMATICS AND STATISTICS (SEM-I, II)

CO1: Students will be able to apply the theory of matrices to solve business and economic problems.
CO2: Students will be able represent business and economic optimization problems involving two variables as LPP and solve those problems using graphical method
CO3: Students will able to predict the type of relationship between bi-variate data. Students will beable predict the value of unknown from give bi-variate data.
CO4: Students will be able compute different index numbers. Students will be able to compute costof living

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S.Y.B. COM (SEM-III, IV)

231, 241 BUSINESS COMMUNICATION

CO1: Understanding of basic knowledge of Business Communication
CO2: Understanding the knowledge about soft skills.
CO3: To create awareness about soft skill among the students

CO1: Understanding of basic knowledge of Report Writing and Internal Correspondence andImport-Export Correspondence.
CO2: Learning the Recent Trends in Business Communication.
CO3: To create ability among the students for drafting of Business Letters.
CO4: To create ability among the students about writing Formal Mails and Blog writing
CO5: To create ability among the students about writing and Internal Correspondence

S.Y.B. COM (SEM-III, IV)

BUSINESS ECONOMICS

CO1: Understanding of basic knowledge of Business Communication
CO2: Understanding of basic knowledge of Business Communication
CO3: Understanding the knowledge about soft skills.
CO4: To create awareness about soft skill among the students

S.Y.B.Com (SEM-III, IV)

234 , 244 BUSINESS MANAGEMENT

CO1: Students will get an idea about the basic managerial process
CO2: Students will get an idea about how planning works in real life.
CO3: Students will understand the process of implementation of both the concepts
CO4: Students will understand importance of proper direction and team work.
CO1: Students will get an idea about how leadership influences organizational success
CO2: Students will understand the significance of co-ordination and control in modern businessmanagement.
CO3: Students will understand the significance of coordination and control in modern businessmanagement.
CO4: Students will come across various emerging trends in management

232, 242 CORPORATE ACCOUNTING (SEM-III, IV)

CO1: Developing understanding on applicability of various Accounting Standards

CO2: Knowledge about types of profit and their apportionment
CO3: Conceptual Clarity and Practical understanding
CO4: Analytical skills enhancement and Decision-making skills of students will be developed

CO1: Developing understanding on accounting procedure for Holding companies.
CO2: Conceptual understanding, Practical application skills in the process of accounting forAbsorption.
CO3: Practical understanding on Process of Liquidation on companies
CO4: Updating of Knowledge on recent advances in the field of Accountancy.

235 , 245, ELEMENTS OF COMPANY LAW (SEM-III, IV)

CO1: Acquaint with knowledge and maturity to understand Company law 2013
CO2: To Acquaint knowledge and application of formation and incorporation of Company
CO3: To understand the knowledge about the principal documents of the company.
CO4: To inculcate skills and knowledge about the share capital of the company.
CO5: Also understanding the knowledge of Recent Trends in Business Communication.

CO1: To Acquaint knowledge and maturity to understand Company management
CO2: To Acquaint with knowledge and role of key managerial person of the Companies and Rulesabout CSR.
CO3: To get training in to various types of meeting and procedure.
CO4: To enhance skills and knowledge about theE- governance of the company and winding-up of the company.
CO5: To be able to appreciate the emerging E Governance and E- filing under the Companies Act,2013. Learn the winding up of company.

Banking and finance

CO'S

Co1: The banking and financial system in India.
CO2: about commercial bank and its products
CO3: how to build customer relationship in banking sector
Co4: the modern banking services e.g. e-banking m-banking and internet banking

Marketing Management

CO'S

Co1: for a givan marketing objective of a company the student manager will be able to develop a suitable marketing mix**.**

CO2: for a given product the student manager will be able to apply the three steps of target marketing marketing segmentation, target marketing and marketing position.

Co3: for a various stage in the life cycle of the product the student manager will be able to recommended a suitable pricing strategy.

Co4: for a given company the student manager will be able to evaluate different distribution channel option and their suitability for the companies products.

T.Y.B.COM (SEM-V, VI)
351 , 361 ADVANCED ACCOUNTING-I, II

CO1: Developing understanding on applicability of various Accounting Standards
CO2: Knowledge about of the Accounting for Capital Restructuring
CO3: Conceptual Clarity and Practical understanding of preparation of final accounts of banking companies
CO4: Developing knowledge about Investment Accounting

CO1: To acquaint the student with knowledge about the legal provisions regarding preparation andpresentation of final accounts of Co-operative Societies.
CO2: To empower to students about the branch accounting in simple.
CO3: To make aware the students about the conceptual aspects of various recent trends in the fieldof accounting especially forensic accounting, accounting of CSR activities, accounting of derivative contracts and Artificial Intelligence in Accounting.
CO4: To understand the procedure and methods of analysis of financial statements.

354, 364 AUDITING AND TAXATION: (SEM-V, VI)

CO1: Acquaint with knowledge and maturity to understand concept of Auditing, types ofAudit and Audit Process.
CO2: Conceptual Clarity and Practical understanding of Vouching Verification and valuation and Types of Audit Report.
CO3: Practical knowledge about appointment, reappointment and other related provision. Practical knowledge about Tax Audit as per I.T. Act 1961 (Form 3CA, 3CB &3CD)
CO4: Understanding new concepts under Audit of Computerized Systems & Forensic Audit
CO5: will know about the various sources of Finance available for raising corporate capital

CO1: To understand the basic concepts of Income Tax Act, 1961 and create awareness of directtaxation among the students.
CO2: To understand the income tax rules and regulations and its provisions.
CO3: To have a comprehensive knowledge of calculation various types of income.
CO4: To know the recent changes made by the finance bill (Act) every year and its impact ontaxation of person.
CO5: To acquaint the students on Income tax department portal (ITD), e-filing and e-servicesmechanism relating to Assessee.

T.Y.B.COM (SEMSTER-V, VI)
INDIAN GLOBAL ECONOMIC DEVELOPMENT

CO1: To develop understanding of the students related to different sectors of Indian Economy

CO2 To understand how planning and infrastructure support can develop• an economy.

T.Y.B.COM (SEMSTER-V)
352 , 362 BUSINESS REGULATORY FRAMEWORK-I, II

CO1: Acquaint knowledge and maturity to understand Contract Law.
CO2: To give Comprehensive insight about the emerging trend of Arbitration and conciliation and its regulatory mechanism
CO3: Compressive understanding about the sale of Goods Act. Acquaint knowledge about ownership and delivery of goods.
CO4: Understand the nature of partnership, Rights and duties of Partner Handling the registration and dissolution of the partnership. Adequate knowledge about LLP
CO5: Understand the concept of Contract and its contents. Equip the students with knowledge ofnature and performance and breach of Contracts

CO1: To develop general awareness of Business Law among the students.
CO2: To understand the various statutes contain regulatory mechanism of business and its relevant provisions including different types of partnerships.
CO3: To have a understanding about the landmark cases/decisions having impact on business laws
CO4: To create awareness among the students about legal environment relating to the business activities and new ways dispute resolutions provided under Arbitration Act.
CO5: To acquaint the students on relevant developments in business laws to keep them updated

T.Y.B.COM (SEMSTER-V, V

Co's **Banking and finance**

Co1: The banking and financial system in India.
CO2: about commercial bank and its products
CO3: how to build customer relationship in banking sector
Co4: the modern banking services e.g. e-banking m-banking and internet banking

T.Y.B.COM (SEMSTER-V, VI)

Marketing management

Co1: for a given marketing objective of a company the student manager will be able to develop a suitable marketing mix**.**

CO2: for a given product the student manager will be able to apply the three steps of target marketing marketing segmentation, target marketing and marketing position.

Co3: for a various stage in the life cycle of the product the student manager will be able to recommended a suitable pricing strategy.

Co4: for a given company the student manager will be able to evaluate different distribution channel option and their suitability for the companies products.

PRINCIPAL
Mahatma Gandhi Vidyamandir's
Arts, Science and Commerce College
Surgana, Tal Surgana, Dist Nashik

DEPTARTMENT OF ENGLISH

About the Department:

The Department of English was established in 1992 with the objective to notify students with the English language and literature. Department has been imparting traditional value-based education as well as job-oriented training to the students. The department has taken initiative to familiarize the student's competitive competence, language proficiency and soft skills. It has a recent list of library books, reference books, dictionaries, thesaurus, word- power guides, books on English Grammar and Communication Skills and audio-video CDs. The Department has well-qualified and research-oriented faculty who indefatigably venture to generate and develop the literary sensibilities of the students.

Salient Features of the Department:

- Use of ICT in teaching-learning activities
- Remedial Coaching for slow learners
- Cultivation of literary attitudes and aptitudes of the students

Department	Undergraduate Course
English	PSOs and Cos

Programme Specific Outcomes (PSO's) & Course Outcomes (CO's) of B.A

Academic Year: 2021-22

Programme Specific Outcomes: B.A. English

At the end of the programme, student will be able to	
PSO-1	-appreciate, construe and comprehend the major and minor forms of English literature.
PSO-2	-develop a leaning towards English literature and language.
PSO-3	-well informed about the literary theories, terms and concepts in criticism and able to apply the critical theories.
PSO-4	-to use English Language effectively in formal and informal communications.
PSO-5	- to write creatively.
PSO-6	-to employ the knowledge of English by enhancing Listening, Speaking, Reading and Writing skills.

Course Outcomes: F.Y. B.A. English

Semester-I (ENG-11011)		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
		After completion of this course students will be able to …….

I	**Compulsory English (11011)**	**CO 1:** Identify the basic literary components of the prescribed text.
		CO 2: Explain the given literary text with reference to the aspects of the given genre
		CO 3: Demonstrate an understanding of the salient features of various literary Genres.
		C04: Develop the skill to analyze the content of the prescribed textbooks and effectively express the understanding in various modes of communication
		CO5: Employ the knowledge of various aspects of English syntax through English grammar and vocabulary.
Semester-II (ENG-11012)		
I	**Compulsory English (11012)**	**After completion of this course students will be able to …….**
		CO 1: Memorize the all sentence structures of all tenses by reading the Sentence structures.
		CO 2: Describe the agreement between subject and verb by solving the exercise given in the text book.
		CO 3: Illustrate the figure of speech mentioned in the prescribed poems.
		CO 4: Appreciate the poem by writing appreciation of the poems.
		CO 5: Summarize the story by reading the story conspicuously.

Class : S.Y.B.A.		
Sem: III, IV		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
I	**Compulsory English (23001)**	**CO 1:** Identify basic features of effective communication
		CO 2: Comprehend the nuances of communication and soft skills.
		CO 3: Describe the vocabulary of English language
		CO 4: Develop ability to use words in right context.
		CO 5: Instil universal values through best pieces of literature.
		CO 6: Justify their point of view
I	**Compulsory English (24001)**	**CO 1:** State the beauty & communicative power of English
		CO 2: Describe the word formation process of English language
		CO 3:express thoughts in writing and orally effectively
		CO 4: Instil humanitarian values and foster sympathetic values
		CO 5: Apply own style of writing
		CO 6: Integrate various soft skills in personal and professional life.

Class: S.Y. BSc.		
Semester-III, IV		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
	Ability Enhancement Course - AECC(23321)	**CO 1:** Identify various aspects of English syntax through grammar and vocabulary
		CO 2: Develop an understanding of the socio-historical circumstances and literary movements.
		CO 3: Understand the nuances of communication and soft skills.
		CO 4: Differentiate between different styles of written communication and use them appropriately.
		CO 5: Compare and contrast the various types of writings.
		CO 6: Display their creative skills by writing resume, report, reviews, preparing leaflets and advertisements.
	Ability Enhancement Course - AECC(24321)	**CO 1:** Define the various literary genres by reading the prescribed poems and prose.
		CO 2: Express the strength, weakness, obstacles and threats by implementing SWOT analysis method.
		CO 3: Prepare Notice, Agenda and Meeting Minutes with the help prescribed format.
		CO 4: Categorized the Academic writing and Commercial writing by reading conspicuously the Content writing.
		CO 5: Select their own career goal by inculcating soft skills among them.
		CO 6: Create content to publish on digital platform.

DEPARTMENT OF MARATHI

Salient Features of the Department

- Department is running B.A. in Marathi (Granted) and M.A. (Non-Granted) in Marathi
- There are …….Research Guides in our department.
- Faculties have published …….research papers in reputed UGC listed peer reviewed Journals and Conferences.
- Faculties are working as Reviewers for reputed peer-reviewed journals.
- Organization of Seminars, Workshops, Conferences and Webinars
- A strong focus on quality teaching and experiential learning by well-qualified and experienced teachers.
- Faculties have published…….Textbooks.
- Faculties are involved in various college committees.
- Collaborations, Linkages and MoUs with reputed institutions.
- Use of ICT facilities and enrichment of E-content on subject related topics.
- Study Tour for UG and PG students
- To prepare students for various competitive examinations to increase placement of students.

Programme Outcomes (PO's), Programme Specific Outcomes (PSO's) & Course Outcomes (CO's) of B.A and M.A Programme:

Department	Under Graduate Courses	Post Graduate Course
Marathi	**PSOs and Cos**	**PSOs and Cos**

Programme Outcomes for B.A:

At the end of the programme, students will be able to:

PO-1	Acquire theoretical and practical knowledge related with the subject such as Language, Psychology, Geography, History, Economics, Political Science etc.
PO-2	Identify the basic disciplinary awareness of conventional disciplines and its applications, in the contemporary world to solve non familiar problems and apply learning to real life situations.
PO-3	Enhance communication skills such as Listening, Speaking, Reading and Writing for expressing themselves effectively in real and virtual world with capability to use ICT.
PO-4	Analyse with critical thinking and using higher order cognitive abilities for solving problems, related with their social environments and implementing practicable solutions.
PO-5	Appreciate and understand the significance of scientific solutions in social, political economic contexts and comprehend the need for sustainable development.
PO-6	Understand and apply the need of research, in the respective disciplines / subjects and developing awareness about research related aspects such as data collection and analysis, inquire and question, plan and implement the results of research in the field or otherwise under the guidance of research supervisor.
PO-7	Acquire the importance of mental, moral, intellectual, social, aesthetic development of an individual for a healthy society and equity centred national development.
PO-8	Acquire and develop appropriate work ethics with personal and professional skills to work in collaboration with the team as well as independently.
PO-9	Acquire the ability to work independently, "learning how to learn" for participative in learning throughout the life aiming at personal development through knowledge and acquiring skills.

PO-10	Acquire knowledge about diversified cultures and engage with multicultural varied groups
PO-11	To function independently by identifying resources for managing a task till completion

Programme Outcomes (PO's) for M.A.:

PO-1	Acquire in depth knowledge in literature, Humanities and Social Sciences with theoretical and practical knowledge.
PO-2	Acquire the ability to think critically making them sensitive and sensible enough to solve issues related with mankind.
PO-3	Acquire knowledge about research methods, involving development of research framework, collecting data, quantitative and qualitative analysis and presenting research findings realistically.
PO-4	Augment effective communication skills for applying the same in their careers
PO-5	Facilitate ability for innovative thinking and bridging the gap between theory and practice
PO-6	Contribute as a responsible citizen and able to work with dedication and involvement for the community
PO-7	Develop rational thinking to conduct professional analysis of social processes
PO-8	Develop higher order cognitive skills and abilities for applying the knowledge of the subjects in the practical field.
PO-9	Demonstrate Intercultural awareness, with socio-cultural sensitivity.
PO-10	Collaborate successfully with others individually and in teams
PO-11	Demonstrate and channelize the interests in a better way to be a lifelong learner with independent thinking in the context of socio-technological changes.

Programme Specific Outcomes (PSO's) for B.A. Marathi:

	At the end of the course, student will be able to
1	विद्यार्थ्यांना मराठी साहित्य, भाषेचे स्वरूप व प्रकार यांचे ज्ञान असेल.
2	विद्यार्थ्यांना साहित्य, संस्कृती आणि समाजाकडे नवीन दृष्टीकोनातून बघण्याचा दृष्टीकोन निर्माण केला जाईल.
3	विद्यार्थी योग्य भाषा वापरण्यास सक्षम असतील.
4	विद्यार्थ्यांचे लेखन कौशल्ये विकसित होईल व कल्पकतेने लिहू शकतील.
5	विद्यार्थ्यांना भाषेचा योग्य वापर, पुस्तकांचा इतिहास, संहिता संपादन आणि सर्जनशील लेखनाचे ज्ञान असेल.
6	विद्यार्थ्यांना महाराष्ट्र लोकसेवा आयोग व केंद्रीय लोकसेवा आयोग परीक्षांसह इतर स्पर्धात्मक परीक्षांचे ज्ञान अवगत होईल.

Course Outcomes (CO's) for F.Y.B. A. Marathi:

	At the end of the course, student will be able to	
I	UAM [11021A] CC-1A (3) मराठी साहित्य : कथा	'कथा' यासाहित्यप्रकाराचे स्वरूप, घटक आणि प्रकार यांची माहिती

At the end of the course, student will be able to		
	(समकालीन मराठी कथा) आणि भाषिक कौशल्येविकास	सांगता येईल.
		वाङ्मयीन अभिरुचीचा विकास होऊन विविध साहित्यप्रवाहांतील कथांचा आस्वादघेण्याची डोळस क्षमता वाढीस लागेल.
		मराठी कथा साहित्य आणि संस्कृती यांचा मेळ घालून जीवनमूल्ये आत्मसातहोतील.
		भाषिक कौशल्य आत्मसात करता येतील. (आकलनासह श्रवण, अर्जित : संभाषण, वाचन, लेखन,संवाद कौशल्य, प्रगत -सारांशलेखन, सारग्रहण)
		भाषिक कौशल्यविकास साधता येईल.
		साहित्यकृतीतून लेखकाच्या समकालाचे प्रतिबिंब कशाप्रकारे प्रकट होते याची माहिती आत्मसात करता येईल
Class: F.Y.B.A		
II	UAM [11022A] CC-1B (3) मराठी साहित्य : एकांकिका (हंडाभर चांदण्या) भाषिककौशल्येविकास	'एकांकिका' या साहित्यप्रकाराचे स्वरूप, घटक आणि प्रकार यांची ओळख होईल
		अभिनय कलेबद्दल ते चर्चा करू शकतील.
		'एकांकिकां'चा आस्वाद घेण्याची डोळस क्षमता वाढीस लागेल.
		भाषेचे उपयोजन विविध आविष्कार रूपांत करता येईल. (संवादलेखन, कल्पनाविस्तार, घोषवाक्य, लेखन, भाषांतर)
		भाषेचे व्यवहारात उपयोजन करता येईल
		साहित्यकृतीतून एकांकिका लेखकाच्या समकालाचे प्रतिबिंब कशा प्रकारे प्रकट होते याची माहिती आत्मसात करता येईल.
Class: S.Y.B.A		
	At the end of the course, student will be able to	

Class: S.Y.B.A		
	At the end of the course, student will be able to	
G2	UAM [23023] CC-1C (3) भाषिक कौशल्येविकास आणि आधुनिक मराठी साहित्यप्रकार :कादंबरी (रारंग ढांग)	'कादंबरी' या साहित्यप्रकाराचे स्वरूप, घटक, वाटचाल आणि प्रकार यांची ओळख होईल.
		वाङ्मयीन अभिरुचीचा विकास होऊन 'कादंबरी' या साहित्यप्रकाराचा आस्वाद घेण्याची डोळस क्षमता वाढीस लागेल.
		संगणक आणि मोबईलवर युनिकोडमधून मराठी मुद्रण करता येईल.
		कळफलकांच्या प्रकारांचा परिचय होईल
		मराठी टंकलेखन आणि युनिकोडचा वापर करता येईल. (गुगल इनपुट, मायक्रोसॉफ्ट इनपुट इ. साधने)
		रंगढांग या कादंबरीची भाषाशैली, पात्र, वातावरण इत्यादी घटकांची ओळख होईल.
S1	UAM [23021] DSE-1A (3) आधुनिक मराठी साहित्य : प्रकाशवाटा	'आत्मचरित्र' या साहित्यप्रकाराच्या प्रेरणा आणि वाटचाल यांची ओळख होईल.
		इतर साहित्यप्रकारांच्या तुलनेत 'आत्मचरित्र' या साहित्यप्रकाराचे वेगळेपण स्पष्ट करता येईल.
		'आत्मचरित्र' या साहित्यप्रकाराचे आकलन, आस्वाद आणि विश्लेषणकरता येईल.
		'आत्मचरित्र' या साहित्यप्रकाराच्या अभ्यासातून जीवनमूल्यांचे आणि नीतितत्त्वांचे ज्ञान मिळून जीवनविषयक समज विकसित होईल.
		प्रकाशवाटा या आत्मचरित्राचे वेगळेपण समजूनघेतील.
		प्रकाशवाटा या आत्मचरित्राच्या आधारे लेखकाचीसामाजिक कार्याविषयीची निष्ठा, जीवनमुल्ये व नीतीमूल्यांची जाणीव करूनघेतील.
S2	UAM [23022] DSE-2A (3)साहित्यविचार	भारतीय आणि पाश्चिमात्य साहित्यविचाराच्या आधारे साहित्याची संकल्पना स्पष्ट करता येईल.
		साहित्याच्या स्वरूपाचे विश्लेषण करता येईल.
		साहित्याची प्रयोजने स्पष्ट करता येतील.

Class: S.Y.B.A		
	At the end of the course, student will be able to	
		साहित्याच्या निर्मितीप्रकियेविषयी चर्चा करता येईल.
		साहित्याची भाषा आणि शैली विषयक विचारांचा परिचय होईल.
		साहित्याच्या शब्दार्थांचा वक्रव्यापार, वक्रोक्ती, अलंकार, प्रतिमा, प्रतिक, प्राक्कथा यांचे विश्लेषण करता येईल.
MIL	UAM [23011] MIL-2 (2) मराठी भाषिक संज्ञापन कौशल्ये	प्रगतभाषिक कौशल्यांची क्षमता विकसित होईल.
		प्रसारमाध्यमांतील संज्ञापनाचे स्वरूप आणि स्पष्ट करता येईल.
		व्यक्तिमत्व विकासातील भाषेचे स्थान स्पष्ट होईल.
		लोकशाहीतील जीवनव्यवहार आणि प्रसारमाध्यमे यांच्यातील परस्परसंबंधांची ओळख होईल.
		प्रसारमाध्यमांसाठी लेखनक्षमता विकसित होईल.
		नभोवाणीसाठी लेखनक्षमता विकसित होईल.
SEC	UAM [23025] SEC-2A (2)प्रकाशनव्यवहार आणि संज्ञापन	प्रकाशनव्यवहार आणि संपादन यासाठी आवश्यक कौशल्ये प्राप्त होतील.
		प्रकाशनव्यवहार आणि संपादन यासाठी आवश्यक प्रशिक्षण मिळेल.
		प्रकाशनव्यवहार आणि संपादन यासाठी प्रात्यक्षिकासह उपयोजनाची कौशल्ये प्राप्त होतील.
		प्रकाशन संस्था, जाहिरात संस्था, छापखाने, वृत्तपत्रकार्यालये, वितरण संस्था, ग्रंथ विक्री दुकाने, फ्लेक्स निर्मिती केंद्र, वार्ताहर यांच्या भेटीतून प्रशिक्षण प्राप्त होईल.
		प्रत्यक्ष अनुभवातून प्रकाशनव्यवहार आणि संपादन क्षेत्राचेज्ञान मिळेल.

Class: S.Y.B.A		
G2	UAM [24023] CC-1D (3) भाषिक कौशल्येविकास आणि आधुनिक मराठी साहित्यप्रकार :ललितगद्य (साहित्यरंग)	'ललितगद्य' या साहित्यप्रकाराचे स्वरूप, घटक, वाटचाल आणि प्रकार यांची ओळख होईल
		साहित्यरंग या अभ्यासपुस्तकातील ललित लेखांचाआकलन व आस्वाद घेतील.
		अध्यनात 'गुगल फॉर्म' चा वापर करता येईल.
		अध्यनात 'गुगल क्लासरूम' चा वापर करता येईल.
		अध्यनात 'यु-ट्यूब' चा वापर करता येईल.
		साहित्यरंग या अभ्यासपुस्तकातील ललितगद्य यासाहित्य प्रकारचे आकलन होईल.
S1	UAM [24021] DSE-1B (3) मध्ययुगीन मराठी साहित्य : : मध्ययुगीन निवडक गद्य पद्य	'मध्ययुगीनगद्य : महानुभावीय गद्य, बखर, ऐतिहासिक पत्रे' या साहित्यप्रकारांचे स्वरूप आणि विशेषांचा परिचय होईल.
		'मध्ययुगीन पद्य : अभंग, भारुड, गवळण, पोवाडा, लावणी' या साहित्यप्रकारांचे स्वरूप आणि विशेषांचा परिचय होईल.
		मराठी भाषा, मराठी साहित्य आणि मराठी संस्कृती यांचा परिचयहोईल
		मराठीतील साहित्यप्रकारांचा परिचय होऊन साहित्यविषयक आकलन, अभिरुची, आस्वाद आणि मूल्यमापन क्षमता विकसित होईल.
		साहित्याभ्यासातून जीवनमूल्यांचे आणि नीतितत्वांचे ज्ञान मिळून जीवनविषयक समज विकसित होईल.
		निवडक मध्ययुगीन गद्य व पद्याचे विश्लेषण करू शकतील.
SEC	UAM [23025] SEC-2A (2)प्रकाशनव्यवहार आणि संज्ञापन	साहित्य समीक्षेची संकल्पना, स्वरूप यांचा परिचय होईल.
		साहित्य आणि समीक्षा यांचा परस्पर संबंधांचा परिचय होईल.
		साहित्य प्रकारानुसार समीक्षेचे स्वरूप समजून घेता येईल.
		ग्रंथ परिचय, परीक्षण व समीक्षण यातील फरक ओळखता येईल.
		साहित्याच्या समीक्षेविषयीची समज विकसित होईल.
		समीक्षकाने पाळावयाची पथ्ये समजून घेतील.

Class: S.Y.B.A		
	At the end of the course, student will be able to	
MIL	UAM [24011] MIL-2 (2) नवमाध्यामे आणि समाजमाध्यामांसाठी मराठी	संज्ञापनातील नवमाध्यमे आणि समाजमाध्यमांचे स्वरूप आणि स्थान स्पष्ट होईल.
		भाषा, जीवनव्यवहार आणि नवमाध्यमे, समाजमाध्यमांचे परस्परसंबंध यांचा परिचय होईल.
		नवमाध्यमे आणि समाजमाध्यमांसाठी लेखनक्षमता विकसित होईल.
		नवमाध्यमे आणि समाजमाध्यमांविषयक साक्षरता निर्माण होईल.
		नवमाध्यमे आणि समाजमाध्यमांचा वापर आणि परिणाम याबद्दल चर्चा करता येईल.
		वेबसाईट, ब्लॉग आणि ट्विटर या समाज माध्यमांसाठी लेखन क्षमता विकसित होईल.
SEC	UAM [24025] SEC-2B (2)उपयोजित लेखनकौशल्ये	जाहिरात, मुलाखतलेखन आणि संपादन यासाठी आवश्यक कौशल्ये प्राप्त होतील.
		जाहिरात, मुलाखत लेखन आणि संपादन यासाठी आवश्यक प्रशिक्षण मिळेल.
		जाहिरात, मुलाखत लेखन आणि संपादन यासाठी प्रात्यक्षिकासह उपयोजनाची कौशल्ये प्राप्त होतील.
		विविध माध्यमांसाठी नोंदलेखन करता येईल. प्रत्यक्ष अनुभवातून जाहिरात, मुलाखतलेखन आणि संपादनक्षेत्राचे ज्ञान मिळेल.
		शास्त्रीय ज्ञानकोश, विविध प्रकारचे ज्ञानकोश(विकिपीडियाविश्वकोश इत्यादीसाठी) नोंदी लेखन करू शकतील.

Class: T.Y.B.A		
G3	UAM [35023] CC-1E (3) भाषिककौशल्येविकास आणि आधुनिक मराठी साहित्यप्रकार : प्रवासवर्णन (तीन मुलांचे चारदिवस)	तीन मुलांचे चार दिवस या प्रवासवर्णनाचे आकलन करू शकतील
		प्रवासवर्णन या वाङ्मयप्रकाराची माहिती सागू शकतील.
		प्रवासवर्णनाचे आकलन आस्वाद करू शकतील
		विविध वाङ्मयप्रकारांतील ग्रंथाचे परीक्षण करू शकतील.
		मुद्रितमाध्यमांसाठी लेखन कौशल्ये आत्मसात करू शकतील.
		प्रवासवर्णन साहित्य प्रकाराचे वेगळेपण, प्रेरणा, प्रयोजन याचे विश्लेषण करता देईल.
S3	UAM [35021] DSE-1C (3+1) मध्ययुगीनमराठी वाङ्मयाचा स्थूल इतिहास - प्रारंभ ते १६००	'मध्ययुगीन गद्य :महानुभावीय गद्य, बखर, ऐतिहासिक पत्रे' या साहित्यप्रकारांचे स्वरूप आणि विशेषांचा परिचय होईल.
		'मध्ययुगीनपद्य : अभंग, भारुड, गवळण, पोवाडा, लावणी' या साहित्यप्रकारांचे स्वरूप आणि विशेषांचा परिचय होईल.
		मराठीभाषा, मराठी साहित्य आणि मराठी संस्कृती यांचा परिचय होईल.
		मराठीतील साहित्यप्रकारांचा परिचय होऊन साहित्यविषयक आकलन, अभिरुची, आस्वाद आणि मूल्यमापन क्षमता विकसित होईल.
		साहित्याभ्यासातून जीवनमूल्यांचे आणि नीतितत्त्वांचे ज्ञान मिळून जीवनविषयक समज विकसित होईल.
		वाङ्मयइतिहासाची संकल्पना समजून घेईल.
S4	UAM [35022] DSE-2C (3)+1) वर्णनात्मक भाषाविज्ञान भाग १	भाषेचे स्वरूप, महत्त्व, प्रमुख अंगे यांचे विश्लेषण करू शकतील.
		भाषा अभ्यासपध्दतीचे विवेचन करू शकतील.
		वागेंद्रियांच्या रचनेसह स्वननिर्मिती प्रकिया स्पष्ट करता येईल.
		मराठीभाषेच्या व्युत्पत्तीची मीमांसा करता येईल.
		स्वनविचारही संकल्पना व अर्थाचे प्रकारत्यांना विशद करता येईल.

Class: T.Y.B.A		
SEC	UAM [35011] SEC-2C (2) कार्यक्रमसंयोजनातील भाषिक कौशल्ये भाग १	कार्यक्रम संयोजन कौशल्यांचे स्वरूप समजून घेतील.
		कार्यक्रम संयोजनातील भाषिक कौशल्ये आत्मसात करू शकतील.
		विविध कार्यक्रमांचे प्रकार समजून घेऊ शकतील,(चर्चासत्रे, परिषदा, गटचर्चा, बैठक, मेळावे)
		कार्यक्रमसंयोजनातील विविध घटकांचे आकलन करू शकतील. (आयोजक, प्रायोजक, जाहिरात, निवेदक
		कार्यक्रमाचीयोजना आखणी व रूपरेषा समजून घेतील.
		कार्यक्रम संयोजनात कार्यक्रमाची पूर्वतयारी करू शकतील.
Class: T.Y.B.A		
G3	UAM [36023] CC-1F (3) भाषिककौशल्येविकास आणि आधुनिक मराठी साहित्यप्रकार : कविता	रूप कवितेचे या कवितासंग्रहाचे आकलन करू शकतील
		कविताया वाङ्मयप्रकाराची माहिती सागू शकतील.
		कविताया वाङ्मय प्रकारचेआकलन आस्वाद करूशकतील
		राज्यघटनेतील भाषाविषयक तरतुदी, मराठी राजभाषा अधिनियम, मराठीविषय कार्य करणाऱ्याशासकीय संस्थांचा परिचय होईल.
		कवितेचे स्वरूप, वाटचाल, प्रेरणा आणि वैशिष्ट्ये समजू शकतील.
		अभ्यासक्रमासाठी असलेल्या निवडक कवितांचे रसग्रहण, विश्लेषण करता येईल.
S3	UAM [34021] DSE-1D (3+1) मध्ययुगीनमराठी वाङ्मयाचा स्थूल इतिहास - १६०१ ते १८१७	मध्ययुगीन पद्य : पंडिती व शाहिरी काव्य विशेषांचा परिचय होईल.
		मध्ययुगीन गद्य वाङ्मय या साहित्यप्रकारांचे स्वरूप आणि परिचय होईल.
		संततुकाराम व संत रामदास यांच्या पद्य वाङ्मयाचे आकलन आस्वाद करू शकतील.

Class: T.Y.B.A		
		रामचंद्रपंत अमात्य यांच्या आज्ञापत्राविषयी माहिती सांगू शकतील.
		पंडिती काव्याचे स्वरूप, वाटचाल, प्रेरणा आणि वैशिष्ट्ये समजू शकतील.
		शाहिरी काव्याचे आकलन आस्वाद करू शकतील.
S4	UAM [34022] DSE-2D (3)+1)वर्णनात्मक भाषाविज्ञान भाग २	रुपिमविचार ही संकल्पना व रुपिमांचे प्रकार त्यांना विशद करता येईल.
		वाक्यविचारही संकल्पना व वाक्याचे घटक विशद करता येईल.
		अर्थ म्हणजे काय याविषयी माहिती सांगू शकतील.
		अर्थाच्या विविध संकल्पनाची भाषावैज्ञानिक अंगाने परिचय होईल.
		अर्थही संकल्पना व अर्थाचे प्रकार त्यांना विशद करता येईल.
		भाषाकुलसंकल्पनेचे विश्लेषण करू शकतील.
SEC	UAM [3011] SEC-2C (2) कार्यक्रम संयोजनातील भाषिक कौशल्ये भाग २	कार्यक्रम संयोजन कौशल्यांचे स्वरूप समजून घेतील.
		कार्यक्रम संयोजनातील भाषिक कौशल्ये आत्मसात करू शकतील.
		विविध कार्यक्रमांचे भाषिक कौशल्ये समजून घेऊ शकतील. (निमंत्रणपत्र .(निमंत्रणपत्र, निमंत्रणपत्रिका, मानपत्र, बातमीलेखन)
		कवीसंमेलन, वाचन प्रेरणा दिन, मराठी भाषा पंधरवडा, मराठी भाषादिन, व्याख्यानमाला, पुस्तक प्रदर्शन कार्यक्रम संयोजनात प्रत्यक्ष सहभाग नोंदवतील
		कार्यक्रमाची योजना आखणी व रूपरेषा समजून घेतील.
		आभासी कार्यक्रम संयोजनातील कौशल्ये संपादन करू शकतील (झूम, गुगलमिट, फेसबुक, युट्युब,)

Programme Specific Outcomes (PSO's) for M.A. Marathi:

At the end of the course, student will be able to	
1	साहित्याचे विविध प्रवाह यांचे महत्व स्पष्ट होते व विद्यार्थ्यामध्ये साहित्यनिर्मिती प्रक्रिया समजावून घेतो.
2	विद्यार्थ्यामध्ये साहित्य संशोधनवृत्ती व संशोधनाभिरूची वाढीस लागते
3	सामाजिक समस्या समजून घेऊन या समस्यांवर उपाययोजना शोधण्याची क्षमता विकसित होते.
4	सादरीकरण, चर्चासत्र, लघुसंशोधन प्रकल्प व गटचर्चा इत्यादी कौशल्ये आत्मसात करतो. या कौशल्यांचा व्यावसायिक क्षेत्रात उपयोग होतो.
5	प्रसारमाध्यमांचे समाजातील महत्व विशद करतो.
6	लेखन गुणांना उत्तेजन मिळते. वाङ्मयीन प्रश्न व विचारप्रवणता वाढते व चिकित्सक अभ्यासाची क्षमता विकसित होते.

Course Outcomes (CO's) for M. A. Marathi:

CC-1	PAM 10401 भाषाव्यवहार आणि भाषिककौशल्ये भाग १	भाषिकजाणीव विकसित होईल.
		भाषेचे विविध व्यवहार व साहित्याच्या संर्भातील भाषाव्यवहार याविषयीच्याआकलन होईल.
		पदव्युत्तर पातळीवरील विद्यार्थ्यांच्या वाङ्मयीन आणि जीवनविषयक जाणीवहोईल.
		साहित्यकृतीच्या चिकित्सक अभ्यासाची प्रवृत्ती विकसित होईल.
		नवनवीन जीवन क्षेत्रातील भाषाविषयक कौशल्ये ग्रहणानन्तर रोजगार क्षमतांचीआणि प्राविण्यांची निर्मिती होईल.
		भाषेची सर्जनशील प्रक्रिया समजून घेतील.
CC-2	PAM 10402 मराठीसाहित्याचा इतिहास (इ.स. १८१८ ते इ.स. १९२०	कौशल्यात्मक उपयोजनासाठी विद्यार्थांची तयारी करतानाच विविध जीवनक्षेत्रातील भाषाविषयक कौशल्ये आत्मसात करतील.
		साहित्यकृतीच्या चिकित्सक अभ्यासाची प्रवृत्ती विकसित होईल.
		विशिष्ठ कालखंडातील मराठीतील अभिजात साहित्यकृतींचा संस्कार घडवूनसाहित्यविषयीची अभिरुची निर्माण होईल.
		वैचारिक जाणिवा प्रगल्भ होण्यास मदत होईल.
		मराठी साहित्याच्या परंपरेचे स्थूल परिचय होईल.

		समांतर साहित्य प्रवाहांची वैशिष्ट्ये समजू शकतील.
CC-3	PAM 10403 ऐतिहासिकभाषाविज्ञान	भाषेचे जीवनातील कार्यव महत्व वेगवेगळ्या अभ्यासपद्धतींद्वारे समजावून घेतील.
		भाषाविज्ञानातील प्रक्रिया समजावून घेतील.
		ऐतिहासिक भाषाभ्यासपद्धती, मराठी भाषेचा उत्पत्ती काळ व टप्पा टप्प्याने भाषेच्या वाटचालीचा ऐतिहासिक मागोवा परिचय होईल.
		समाजभाषाभ्यास पद्धतीचे आकलन होईल.
		समाज भाषाविज्ञानातील विविध सिद्धांत, संकल्पनांचा परिचय होईल.
		भाषा संपर्काचे स्वरूप अभ्यासाचे आकलन करू शकतील.
CBOP	PAM 10404 ग्रामीणसाहित्य	वाचन, आस्वादन, विश्लेषण, वर्गीकरण, मूल्यनिर्णयन या प्रक्रियेतूनवाङ्मय आकलनाची क्षमतानिर्माण होईल.
		साहित्याचा सूक्ष्म पातळीवर अभ्यास करण्याची क्षमता विकसित होईल.
		ग्रामीण साहित्याच्या परंपरेचे स्थूल ज्ञान मिळेल.
		वैचारिक जाणिवा प्रगल्भ होण्यास मदत होईल.
		ग्रामीण साहित्याच्या परंपरेचे स्थूल ज्ञान होईल.
		मराठीतील विविध साहित्य प्रवाहांचा परिचय होईल.
CC-5	PAM 20401 भाषाव्यवहार आणि भाषिककौशल्ये भाग २	भाषिक जाणीव विकसित होईल.
		भाषेचे विविध व्यवहार व साहित्याच्या संर्भातील भाषाव्यवहार याविषयीच्या आकलन करू शकतील.
		भाषेची सर्जनशील प्रक्रिया समजून शकतील.
		पदव्युत्तर पातळीवरील विद्यार्थ्यांच्या वाङ्मयीन आणि जीवनविषयक जाणीवहोईल.
		साहित्यकृतीच्या चिकित्सक अभ्यासाची प्रवृत्ती विकसित होईल.
		नवनवीन जीवन क्षेत्रातील भाषाविषयक कौशल्ये ग्रहणानन्तर रोजगार क्षमतांचीआणि प्राविण्यांची निर्मिती होईल.

CC-6	PAM 20402 मराठीसाहित्याचा इतिहास (इ.स. १९२० ते इ.स. २०१०)	कौशल्यात्मक उपयोजनासाठी विद्यार्थांची तयारी करतानाच विविध जीवनक्षेत्रातील भाषाविषयक कौशल्ये आत्मसात करू शकतील.
		साहित्यकृतीच्या चिकित्सक अभ्यासाची प्रवृत्ती विकसित होईल.
		विशिष्ठ कालखंडातील मराठीतील अभिजात साहित्यकृतींचा संस्कार घडवून साहित्यविषयीची अभिरुची निर्माण करू शकतील
		वैचारिक जाणिवा प्रगल्भ होण्यास मदत होईल.
		मराठी साहित्याच्या परंपरेचे स्थूल ज्ञान मिळेल.
		समांतर साहित्य प्रवाहांची वैशिष्ट्ये समजून घेऊ शकतील.
CC-7	PAM 20403 समाजभाषाविज्ञान	भाषेचे जीवनातील कार्यव महत्व वेगवेगळ्या अभ्यासपद्धतींद्वारे समजावून घेता येईल.
		भाषाविज्ञानातील प्रक्रिया समजावून घेईल.
		सामाजिक भाषाभ्यासपद्धती , मराठी भाषेचा उत्पत्ती काळ व टप्पा टप्प्याने भाषेच्या वाटचालीचा सामाजिक मागोवा घेता येईल.
		समाज भाषाभ्यास पद्धती समजावून घेईल
		समाज भाषाविज्ञानातील विविध सिद्धांत, संकल्पनांचा परिचय होईल.
		भाषा संपर्काचे स्वरूप अभ्यासता येते.
CBOP	PAM 20404 दलितसाहित्य	वाचन, आस्वादन, विश्लेषण, वर्गीकरण, मूल्यनिर्णयन या प्रक्रियेतून वाङ्मय आकलनाची क्षमतानिर्माण होईल.
		साहित्याचा सूक्ष्म पातळीवर अभ्यास करण्याची क्षमता विकसित करेल.
		दलित साहित्याच्या परंपरेचे स्थूल ज्ञान मिळेल.
		वैचारिक जाणिवा प्रगल्भ होण्यास मदत होईल.
		दलित साहित्याच्या परंपरेचे स्थूल ज्ञान मिळते.
		मराठीतील विविध साहित्य प्रवाहांचा परिचय करून घेता येईल.

CC-9	PAM 30401 प्रसारमाध्यमांसाठी लेखन कौशल्ये भाग १	भाषिक जाणीव विकसित होतील.
		प्रसारमाध्यमासाठी लेखन कौशल्ये आत्मसात करता येईल.
		प्रसारमाध्यमांचे समाजातील महत्व विशद करू शकतील.
		प्रसारमाध्यमांच्या स्वरूपाचे ज्ञान व आकलन होईल.
		दृकश्राव्य माध्यमांसाठी लेखन करण्याची क्षमता विकसित होईल.
		मराठी साहित्यातील विविध प्रकार विद्यार्थी आत्मसात करतील.
CC-10	PAM 30402 साहित्य समीक्षा	कौशल्यात्मक उपयोजनासाठी विद्यार्थ्यांची तयारी करतानाच विविध जीवनक्षेत्रातील भाषाविषयक कौशल्ये आत्मसातकरतील.
		साहित्य वसमीक्षा व्यवहाराच्या क्षमता विकसित होतील.
		समीक्षेची संकल्पना समजून घेता येईल.
		समीक्षा व्यवहारातील मुल्यमापनाचा परिचय होईल.
		विविध समीक्षापद्धती त्यांचे विचारव्यूह, दृष्टी समजावून घेतील.
		उपयोजितसमीक्षेचे आकलन होईल.
CC-11	PAM 30403 नेमलेल्या मध्ययुगीन साहित्यकृतींचा अभ्यास भाग १	साहित्य व साहित्यिकांच्या जीवनप्रेरणाआणि जीवनदृष्टी समजावून घेता येतील
		मध्ययुगीनकालखंडातील साहित्यप्रकार संकल्पना व स्वरूप समजावून घेतील.
		साहित्यकृतीची वैशिष्ट्ये जाणून घेऊन आकलन होईल.
		साहित्यकृतीतील वाड्मयीनमूल्ये व जीवन मूल्ये जाणून घेता येतील.
		कालखंड आणि साहित्यकृतीच्या निर्मितीचा अनुबंध शोधता येईल.
		लेखक अभ्यासपद्धतीचा उपयोग कसा करावा हे समजेल.
CBOP	PAM 30405 लोकसाहित्याची मुलतत्त्वे आणि मराठी लोकसाहित्य भाग१	वाचन, आस्वादन, विश्लेषण, वर्गीकरण, मूल्यनिर्णयन या प्रक्रियेतून वाड्मय आकलनाची क्षमता वृद्धिंगत होईल.
		साहित्याचा तौलनिक अभ्यास, भाषांतरमीमांसा, प्रभाव अभ्यास, आंतरविद्याशाखीय दृष्टी, परभाषेतील समकालीन साहित्यकृती यातून विद्यार्थ्यांच्या साहित्याभ्यासालापरिपूर्णता येईल.
		लोकसाहित्याच्या मुलतत्वाची ओळख व परिचय होईल.

		मराठीतील लोकसाहित्याच्या संकलन, संशोधन व मुल्यमापनास चालना मिळेल.
		लोकसाहित्य संकल्पना समजावून घेता येईल.
		लोकसाहित्याच्या परंपरांची ओळख करून घेता येईल.
CC-13	PAM 40401 प्रसारमाध्यमांसाठी लेखन कौशल्ये भाग २	भाषिक जाणीव विकसित होईल.
		प्रसारमाध्यमासाठी लेखन कौशल्ये आत्मसात करता येईल.
		प्रसारमाध्यमांचे समाजातील महत्व विशद करता येईल.
		प्रसारमाध्यमांच्या स्वरूपाचे ज्ञान आत्मसात करेल.
		दृकश्राव्य माध्यमांसाठी लेखन करण्याची क्षमता विकसित होईल.
		मराठी साहित्यातील विविध प्रकार विद्यार्थी आत्मसात करेल.
CC-14	PAM 40402 साहित्य संशोधन	कौशल्यात्मक उपाययोजनांसाठी विद्यार्थ्यांची तयारी करतानाच विविध जीवनक्षेत्रातील भाषाविषयक कौशल्ये आत्मसात करेल.
		साहित्य व संशोधन व्यवहाराच्या क्षमता विकसित करेल.
		संशोधनाची संकल्पना समजून घेईल.
		संशोधनव्यवहारातील मुल्यामापनाचा परिचय करून घेईल.
		विविध संशोधनाच्या पद्धतीसमजावून घेईल.
		संशोधनाचे स्वरूप व व्याप्ती माहिती होईल.
CC-15	PAM 40403 नेमलेल्या मध्ययुगीन साहित्यकृतींचा अभ्यास भाग २	साहित्य व साहित्यिकांच्या जीवनप्रेरणाआणि जीवनदृष्टी समजावून घेता येईल.
		मध्ययुगीनकालखंडातील साहित्यप्रकार संकल्पना व स्वरूप समजावून घेता येईल.
		साहित्यकृतीची वैशिष्ट्ये जाणून घेतील.
		साहित्यकृतीतीलवाङ्मयीनमूल्ये व जीवन मूल्ये जाणून घेता येईल.
		कालखंड आणि साहित्यकृतीच्या निर्मितीचा अनुबंध शोधता येईल.
		लेखक अभ्यासपद्धतीचा उपयोग कसा करावा हे समजून घेता येईल.
CBOP	PAM 40405 लोकसाहित्याची मुलतत्त्वे आणि मराठी लोकसाहित्य	वाचन, आस्वादन, विश्लेषण, वर्गीकरण, मूल्यनिर्णयन या प्रक्रियेतून वाङ्मय आकलनाची क्षमता वृद्धिंगत होईल.

	भाग १	साहित्याचा तौलनिक अभ्यास, भाषांतरमीमांसा, प्रभाव अभ्यास, आंतरविद्याशाखीय दृष्टी, परभाषेतील समकालीन साहित्यकृती यातून विद्यार्थ्यांच्या साहित्याभ्यासाला परिपूर्णता येईल
		लोकसाहित्याच्या मुलतत्वाची ओळख करून देतील.
		मराठीतीललोकसाहित्याच्या संकलन, संशोधन व मुल्यामापनास चालना देतील.
		लोकसाहित्य संकल्पना समजावून घेता येईल.
		लोकसाहित्याच्या परंपरांची ओळख करून घेता येईल.

Programme Specific Outcomes (PSO's) & Course Outcomes (CO's) of B.A

Department of Economics

Academic Year

2021-22

Programme Specific Outcomes (PSO's) : B.A. Economics

At the end of the programme, student will be able to	
1	Understand the basic terms, concepts and theories in economics.
2	Demonstrate the ability to explain charts, diagrams and graphs.
3	Identify the socio-economic issues and find solutions for the problems.
4	Apply professional ethics in day-to-day economic activities.
5	Understand research technique, methods to collect primary and secondary data and analyzeit.
6	Acquires writing skills and ability develops of economic way of thinking

Course Outcomes (CO's) : B.A. Economics

Class : F.Y.B.A.		
Semester-I		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
I	UAEco (CC-1A-11151) Indian Economic Environment	Identify recent developments in the Indian and world economy.
		Interpret the contemporary issues in economic environment.
		Analyse current scenario in various sectors in the economy.
		Gain knowledge about various concepts of cropping pattern and technology.
		Understand the Industrial policies its effect on sustainable agricultural development.
		Acquire knowledge about agricultural marketing, rural Entrepreneurship.
Semester-II		
I	UAEco (CC-1B-12151) Indian Economic Environment	Discuss and debate on the various issues and challenges facing the Indian Economic Environment.
		Describe the developments such as MSMEs, Digital Economy, E-Banking, BPO & KPO.
		Develops the students for varied competitive examinations.
		Making awareness about self-employability through banking environment.
		Understand challenges of Indian economy and the factors affecting economic environment.
		Acquire comparative knowledge about Indian and world economy

Class : S.Y.B.A.		
Semester-III		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
I	UAEco (DSE-1A 23151) Micro Economics	Define and understand the Microeconomics, scope and nature
		Comment upon the concepts of micro economics
		Demonstrate the knowledge of ordinal and cardinal utility approach
		Able to discuss various aspects of demand theory
		Able to analyse supply and production process
		Analyse and interpret charts, graphs and figures
II	UAEco (DSE-2A23152) Macro Economics	Differentiate between macroeconomics and micro economics.
		Apply the theories in macroeconomics in day-to-day context.
		Comment upon the concept of macroeconomics
		Able to discuss various concept of national income.
		Analyse the structure and functions of circular flow of income
		Understand various type of investment
III	UAEco (CC-1C-23153) Financial System	Analyse the structure and functions of the Indian financial system.
		Comment upon commercial banks
		Discuss the role of co-operative bank in rural area
		Able to define and differentiate Indian money market and capital market
		Enlist the importance of foreign exchange market
		Comment upon the financial institutions like UTI, LIC, GIC
IV	UAEco (SEC-2A 23154) Basic Concepts of Research Methodology	Describe the basic concepts of research
		Summarize the various types of research
		Discuss the various types of research design
		Form and test Hypothesis
		Define the process of Data Collection
		Undertake research related surveys
Semester-IV		
	UAEco	Comprehend the concept of costs such as Fixed Costs, Variable Costs, Total Cost, Average Cost, Marginal Cost

I	(DSE-1B24151) Micro Economics	Able to define various revenue concepts like Total Revenue, Average Revenue & Marginal Revenue
		Comment upon the various types of markets
		Identify the process of equilibrium of the firm and industry under perfect competition market, monopoly market and imperfect competition market
		Describe the principles behind factor pricing.
		Analyse the concept of welfare economics
II		Evaluate an understanding of monetary policy and fiscal policy
	UAEco (DSE-2B24152) Macro Economics	Identify the functioning of business cycles
		Examine the role of money in modern economy
		Understand the value of money
		Comment upon RBI
		Enlist the reasons and effect of inflation and deflation on economy.
III	UAEco (CC-1D-24153) Financial System	Define and understand the role of the Reserve Bank of India in financial system.
		Identify the role of other financial regulators like SEBI & IRDA
		Comment upon the International Financial Institution such as IMF, IBRD, ADB
		Describe the recent developments in Indian Financial Sector
		Identify the objectives and outcomes of changing landscape of banking sector in India
		Comprehend the concepts of Insolvency and Bankruptcy, Alternate source of finance, risk management in banking sector.
IV	UAEco (SEC-2B24154) Basic Concepts ofResearch Methodology	Define data analysis and state its importance
		Classify and present collected data in graph bar diagram
		Describe the importance of research design
		State characteristics research report
		Summarize the concepts like bibliography, appendices, review of literature, hypothesis testing
		Conduct research in Economics

Class : T.Y.B.A.

Semester-V

Paper	Course Code & Course Title	At the end of the course, student will be able to
I	UAECO-(DSE-1C-35151)	Define the concept of International Economics, enlist its importance in economic perspective
		Highlight the advantage and disadvantages of International Trade
		Summarize the idea of Trade
	International Economics	State characteristics of trade in the view of developing Country
		Discuss the term Balance of Payment
II	UAECO (DSE-2C-35152) S4- Public Finance	Understand the role of public finance in economic development
		Differentiate between direct tax and indirect tax
		Explain the types of public debt
		Differentiate between public finance and private finance
		Discuss the burden of public debt
		Evaluate the effects of taxation
III	UAECO (CC-1E 35153) UAECO-G3- Indian Economic Development	Differentiate between economic growth and economic development.
		Identify the characteristics of a developing country and developed country.
		Comment upon India as an emerging economy
		Debate and discuss various facets of constraints in development process
		Elaborate role of human resources in economic development
		Analyse various Development Index like Human Development Index, Physical Quality of Life Index, Gender Development Index, GenderInequality Index, Multidimensional Poverty Index
IV	UAECO (SEC-2C-35154 Business Management-I	Understand the process of Management of Business.
		Analyse Business planning and decision-making process
		Ability develops to work in teams
		Ability develops leadership qualities
		Analyse collected data
		Analyse and interpret the collected data
Semester-VI		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
		Comment upon India's Foreign Trade

I	UAECO DSE-1D-36151-	Highlight India's Foreign Trade Policy
		Summarize the concept of Foreign Capital and Investment
		Describe Foreign Exchange Market
		Discuss regional economic forums like SAARC, BRICS, EEC and WTO
	S3- International Economics	Independently analyze India's foreign trade and investment
II	UAECO (DSE-2D-36152) S4- Public Finance	An understanding role of deficit financing in developing countries.
		Understand the centre state financial relationship
		Discuss and debate on budget
		An understanding of the mechanics of government budget
		To critically analyze fiscal policy and its implication in economy
		Develops the students for varies competitive examinations.
III	UAECO (CC-1F 36153) G3- Indian Economic Development	Discuss the features, needs and objectives of economic planning
		Elaborate the role of NITI Aayog
		Analyse the importance of sustainable development
		Comment upon sustainable development goals and current scenario of SDG in India
		Understand the relation between environment and economic development
		Discuss the environment policies in India and global warming concept
IV	UAECO (SEC-2D-36154) Business Management-II	Ability develops to case study
		Elaborate the study of business enterprise
		Analyse presentation of business ideas
		Ability to show leadership skills with business ideas
		Develop the skill of writing project report
		Apply PPT presentation skill

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Programme Specific Outcomes (PSO's) &

Course Outcomes (CO's) of B.A

Department of History

Academic Year
2021-22

Programme Specific Outcomes: B.A. History

At the end of the programme, student will be able to	
1	Acquire of comprehensive knowledge of history from ancient to modern era.
2	Develop different Research skills about history project writing , researchpaper, draw historical maps, charts, diagrams and prepare historical models, tools etc.
3	Understand and analyze the importance of social, cultural, political and economical context in history.
4	Learn the importance of mental, moral, intellectual and socialdevelopment of history.
5	Understand the existing social, political, religious and economic conditions of the people.
6	Gain an understanding of the development of various cultures.

Course Outcomes: B.A. History

Class : F.Y.B.A		
Semester-I		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
FYBA G I	UAHIS 11171 EARLY INDIA: PREHISTORIC TOMAURYAN AGE	CO1: Acquire of comprehensive knowledge about Prehistory and Proto-history.
		CO2: Aware about the Palaeolithic and Neolithic settlements in Ancient India.
		CO3: Understand and analyze the importance of social, cultural, political and economical context in Ancient history.
		CO4: Learn Ancient Indian maps.
		CO5: Understand the holistic knowledge about Buddhism and Jainism.
		CO6: Introduce the major developments in early Indian History.
FYBA HOC	UAHIS 11251 HISTORY OF CIVILIZATIO N: INDIAN CIVILIZATIO N & HERITAGE	CO1:Acquire the conceptual knowledge of Indian civilization & its Geographical importance
		CO2: Aware about the sources of Indian Civilization.
		CO3: Understand the depth knowledge of prehistory to Civilization.
		CO4: Learn about Indian heritage.
		CO5: Increase a sense of awareness towards the nations and its Historic Heritage.
		CO6: Increase knowledge about Indian culture, Civilization and Heritage.
Semester-II		
		CO1: Acquire knowledge about central Asian contact and age of Shung-Satvahanas.
		CO2: Aware about History of early India through historical maps, charts, models,tools etc

	UAHIS 11172	CO3: Understand the importance of social, cultural, political and economicalcontext about Gupta & Harshawaerdhan Dynasty.
FYB AG I	EARLY INDIA:MAURYA NAGE TO RASHTRAKUTA S	CO4: Learn a Brief History of Regional kingdom.
		CO5: Understand the major developments in early India after the Mauryas.
		CO6: Introduce the developments in different parts of India through this period.
FYB A HOC	UAHIS 11252 HISTORY OF CIVILIZATIO N:INDIAN CIVILIZATION & HERITAGE	CO1: Acquire knowledge about key aspect of Ancient India.
		CO2: Aware about Script, Language & Literature of Ancient India.
		CO3: Understand the brief outline about Arts and Architecture of India.
		CO4: Learn performing arts like Dance, Music & Drama etc.
		CO5: Introduce various school of Arts in Indian Civilization.
		CO6: Understand the architecture of India from ancient to modern period.

Class : S.Y.B.A.		
Semester-III		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
SYBA G 2	UAHIS 23174 HISTORY OF THE MARATHA (1630-1707)	CO1: Acquire the ability to analyze sources of Maratha history.
		CO2: Be aware about significant of regional history and political foundation ofthe region.
		CO3: Understand comprehensive knowledge about 17th century Maharashtraand India in context of Maratha history.
		CO4: Learn the skills of leadership and administrative system of the Marathas.
		CO5: Understand and analyze the sources of Maratha History.
		CO6: Understand about 17th century of Maratha history.
SYBA S 1	UAHIS 23171 MEDIEVAL INDIA : SALTNAT PERIOD	CO1: Acquire knowledge about study of Sultanate periods in history.
		CO2: Be aware about historical developments during medieval period accruingin one place with another.
		CO3: Understand and analyses socio, political and economic changes duringmedieval period.
		CO4: Learn historical developments during medieval period.
		CO5: Develop the ability to distinguish between fact and fiction whileunderstanding that there is no one historical truth.
		CO6: Aware about the foundation of Delhi Sultanate and Sultanate Administration.
SYBA S 2	UAHIS 23172 GLIMPSES OF THE	CO1: Acquire knowledge about overall understanding of the modern world.
		CO2: Aware about Renaissance major political, socio- religious and economicdevelopment during the modern world.
		CO3: Understand a brief history of modern world.

	MODERN WORLD I	CO4: Learn and understand the significant of the intellectual economic, political developments in the modern world.
		CO5: Understand the significant impact of the modern concepts such as Renaissance, Nationalism, Communism, Imperialism, etc.
		CO6: Aware about the historical developments of contemporary ModernWorld.
SYBA HOC	UAHIS 23253 CULTURAL HISTORY OF MAHARASHTRAPART I	CO1: Acquire knowledge about various concepts in Maratha period like Maharashtra dharma.
		CO2: Awareness about cultural contribution of dynasties in Maharashtra
		CO3. Understand of social- economic life of Maharashtra.
		CO4: Able to learn major development of Historical heritage in Maharashtra.
		CO5: Understand about the basics of geography of Maharashtra from pre-historic period to Yadav dynasty.
		CO6: Aware about Socio- Economical life during various dynasties.
SYBA SECTION	UAHIS 23178 TOURISM MANAGEMENT	CO 1: Acquire knowledge of work in the tourism management with greatpotential
		CO 2: Able to seek self- employment by starting their own tourism relatedbusiness
		CO 3:.Anlyze the role of tourism industry in development of Indian economy
		CO 4: Able to understand the basic concept of travel and tourism
		CO 5: overall understanding of the process of tourism management
		CO 6: Gain the knowledge of students in various areas related to tourism andhow it affects the destination.
Semester-IV		
SYBA G 2	UAHIS 24174 HISTORY OF THE MARATHA(1707-1818)	CO1: Acquire knowledge about Maratha policy of expansion and its consequences.
		CO2: Aware about the role of the Maratha in 18th century in India.
		CO3: Understand the political, socio- religious and economic development inMarathas in Maratha history.
		CO4: Learn about knowledge of the administrative skills and profundity of thediplomacy.
		CO5: Understand changed nature of Maratha Polity during the Peshwa Period.
		CO6: Aware about Maratha Confederacy and reciprocity.
SYBA S 1	UAHIS 24171 MEDIEVAL INDIA : MUGHAL	CO1: Acquire knowledge about study of Mughal periods in history.
		CO2: Awareness about historical developments during medieval periodaccruing in one place with another

	PERIOD	CO3: Understand through Maps- important centres in Mughal Empire underAkbar and Aurangzeb
		CO4: Learn policies of different rulers in Mughal period. .
		CO5: Understand the role of Akbar in the consolidation of Mughal rule inIndia.
		CO6: Aware about the Aurungzeb's conflict Rajputas, Marathas and weakling Mughal age.
SYBA S 2	UAHIS 24172 GLIMPSES OF THE MODERN WORLD II	CO1: Acquire knowledge about overall understanding of the modern world.
		CO2: Aware about Major nationalist movement's World War II and its consequences, the cold War and its consequences.
		CO3: Understand a brief history of the modern world.
		CO4: Learn and understand the significant of the intellectual economic,political developments in world after World War II.
		CO5: Understand the political history of the Modern World.
		CO6: Aware about the significant impact of the modern concepts such as Dictatorship, Cold War, Nationalism, Communism, Imperialism, Polarization,etc.
SYBA HOC	UAHIS 24253 CULTURAL HISTORY OF MAHARASHTRAPART II	CO1: Acquire knowledge about concept and definition of civilization andcultural life of ancient Maharashtra.
		CO2: Awareness about Social life of Maharashtra.
		CO3. Understand Economic life of Maharashtra.
		CO4: Learn Arts, Architecture, and Fairs & Festival of Maharashtra.
		CO5: Understand about of Maharashtra culture with the point of view ofregional history within an expansive outline of Indian culture.
		CO6: Draw complete image of Maharashtra culture and comprehend thebasics of the culture through syllabus.
SYBA SECTION	UAHIS 24178 TRAVAL AGENCY & TOUR BUSINESS	CO 1: Acquire comprehensive knowledge of business of Travel Agency
		CO 2; Will develop both theory and practical aspect and travel agency andcreating professionals for tourism industry
		CO 3: Understand and analyze the function of travel agency and tour operator
		CO 4: Able to learn various concept and role travel agency as well as agent
		CO 5: Understand the various activities of travel agency and tour operationbusiness
		CO 6: Gain an understanding of history and development of travel agencies

Class: T.Y.B. A		
Semester-V		
Paper	**Course code & course title**	**At the end of the course, student will be able to**
TYBA G 3	UAHIS 33174 INDIAN NATIONAL MOVEMENT (1885-1947)	CO1: Acquire knowledge about development of Modern India.
		CO2: Aware about Nationalism, Democratic Values and Secularism among theStudents.
		CO 3. Understand various aspects of the Indian Independence Movement andthe creation of Modern India.
		CO 4. Learn highlight the ideas, institutions, forces and movements that contributed to be shaping of India Modernity.
		CO 5: Understand the existing social, political, religious and economic conditions of the people in modern India.
		CO 6: Gain an understanding of the development of various cultural movements in Modern India.
TYBA S 3	UAHIS 33171 INTRODUCTN TO HISTORIOGRAPHY	CO 1: Acquire of comprehensive knowledge of information and importance ofHistoriography.
		CO 2: Aware about the different Methods and Tools of data collection.
		CO 3: Understand and analyze the importance of interdisciplinary approach ofHistory
		CO 4: Learns about the usefulness of History in the 21st century, it changing perspectives, the new ideas that have been invented, and the importance ofHistory in a competitive World
		CO 5: Understand the existing social, political, religious and economic conditions of people though various history writing methods.
		CO6: Aware about various types of Indian Historiography
TYBA S 4	UAHIS 33172 MAHARATSHTRA INTHE 19 TH CENTURY	CO1: Acquire of depth knowledge about sources of Maharashtra History in 19thcentury.
		CO 2: Aware about the significance of Regional History and Socio-religiousreformism foundation of the region.
		CO 3: Understand and analyze about the 19th Century Maharashtra.
		CO 4: Learn different skills of leadership and the Socio-religious System of theMaharashtra.
		CO 5: Understand the existing social, political, religious and economic conditions of people of the 19th Century in Maharashtra.

		CO 6: Aware about various movements in the 19th Century in Maharashtra.
TYBA HOC	UAHIS 33253 HISTORY OF CIVILIZATION-WORLD CIVILIZATION PART I	CO 1: Acquire of comprehensive knowledge about of how the Human Civilization process was start in worldwide.
		CO 2: Aware and developing the curiosity in students the rise and growth ofAncient world civilization
		CO 3: Understand and analyze about the attitude of contemporary World Civilization.
		CO 4: Learn ability to analyses sources of world History.
		CO5: Understand about the study of Stone Culture and its various aspects.
		CO 6: Aware about the rise and growth of Ancient Civilization of West Asia.
TYBA SECTION	UAHIS 33178 RESEARCH PAPER WRITING	CO 1: Acquire Comprehension knowledge of Historiography.
		CO 2: Develop research ability and process of research paper writing in History.
		CO 3: Understand and analyse the interdisciplinary approach of History.
		CO 4 : Gain the knowledge of mental, moral, and intellectual and Social development of History through research.
		CO 5: Understand the social, political, and economical condition of people fromancient to Modern.
		CO 6 : Enhance knowledge about various cultures through research outline.
Semester-VI		
Paper	**Course code & course title**	**At the end of the course, student will be able to**
TYBA G III	UAHIS 34174 INDIAAFTER INDIPENDANCE (1947- 1997)	CO1: Acquire depth knowledge about the making of Contemporary India andevents that panned out in the Post-Independence Era.
		CO2: Aware about the Multi-Dimensionality of Modern India.
		CO3: Understand and analyze about the ideas, institutions, forces and movements that contributed to the shaping of Indian Modernity.
		CO4: Learn post independent history to Interpretative and Analytical way.
		CO5: Develop an overall understanding of the Contemporary India..
		CO6: Aware about the various aspects of India's domestic and foreign policies that shaped Post-Independence India.

TYBA S 3	UAHIS 34171 APPLIED HISTORY	CO 1: Acquire knowledge about the information and importance of appliedhistory.
		CO 2: Aware about the Historical significance of Archaeology and Archives.
		CO 3: Understand about the opportunities in the field of Media, Museumsthrough this Course.
		CO 4. Learn about the changing Perspectives, the new ideas and the importanceof History in a Competitive World.
		CO 5: Understand about the opportunities in the field of Archaeology.
		CO 6: Aware about the Archives document.
TYBA S 4	UAHIS 34172 MAHARATSHTRA INTHE 20 TH CENTURY	CO 1: Acquire of comprehensive knowledge about sources of History of 20thCentury Maharashtra.
		CO 2: Aware about the significance of regional history and Socio-ReligiousReformism foundation of the region.
		CO 3: Understand about the Perception of 20th Century Maharashtra.
		CO 4: Learn about skills of leadership.
		CO 5: Understand about the Conceptual History of the 20th Century Maharashtra.
		CO 6: Aware about the Political, Social, and Economic context in the 20thCentury Maharashtra.
TYBA HOC	UAHIS 34253 HISTORY OF CIVILIZATION-WORLD CIVILIZATION PARTII	CO 1: Acquire knowledge about Western Classical Civilization of Greece andRome.
		CO 2: Aware about the Arab Civilization and its impact on world Civilization.
		CO 3: Understand the Renaissance Reformation Movement and its impact.
		CO 4: Learn how to develop the attitude in students creates motivation andcuriosity through the age of discoveries in Civilizations.
		CO 5: Understand various Concept and theories in Medieval Europe.
		CO 6: Understand the Renaissance- Reformation Movement and its impact.
TYBA SECTION	UAHIS 34178 ARCHAEOLOGY	CO1: Acquire Comprehension knowledge of definition, aims and scope of archaeology.
		CO2: Develop skill to understand the archaeological record for Historicalresearch.
		CO3: Analyse the role of material sciences in Archaeology.
		CO4: Gain the knowledge through Archaeology for understanding moral, intellectual and Social study of history.
		CO 5: Understand the existing social political and economical condition of

		the people.
		CO 6: Overall understanding of archaeology as well as various cultures.

Programme Specific Outcomes (PSO's) & Course Outcomes (CO's) of B.A

Department of Political Science

Academic Year

2021-22

Programme Specific Outcomes (PSO's) :B.A. Political Science

At the end of the programme, student will be able to	
1	Gain a thorough knowledge and understanding of concepts and principles in all Political science subjects
2	Inculcate continuous learning habit through interdisciplinary subject.
3	Identify the given problem of Nation and international topic
4	Aware and implement the subject facts that can be applied for the personal and Political Social development
5	Get political moral and ethical values for political society as well as in political research
6	Improve their managerial skills and abilities in subject to Political and International and Administrative related activities.
7	Correlate the ideas, evidences and experiences to analyse and interpret the theoretical and realistic information of the students
8	Motivate and inspire other students in subject related activities
9	Fixed out the problem and resolve it using theories and realistic knowledge
10	Communicate the subject Voluble knowledge simple language

Course Outcomes: B.A. Political Science

Class : F.Y.B.A Sem: I		
		At the end of the course, student will be able to
Paper	**Course Code & Course Title**	
Introductionn to Indian Constitutionn	SEM- I POL- 11161: Introduction toIndian Constitution	Learn and identify Constitution Values , objective
		Understand the basic concepts Directive principle of state policy, Fundamentalduties and Fundamental rights and central, state Executive Legislative and Judicial system its role in Indian political system
		Understand the Constitutional history of India
		Identify proper knowledge of Indian Constitutional Political system and relatedPolitical issue
		Understand the basic concepts Indian federation and union system center- state issue
		Understand Border and water Issue I state, cause of conflict in state
		Identify the major Amendments And Basic structure of the Indian Constitution

Democracy Election & Governance	POL-12999-C.C-Democracy Election & Governance	• Understand the basic concepts Democracy, foundation and dimension Decentralization • Understand need of Democratic, and Decentralization systemIdentify process of Democratic, and decentralization
Semester-II		
Introduction to Indian Constitution	SEM II POL- 12161: Introduction to Indian Constitution	Identify the basic Knowledge of Union Legislature Structure power and role
		Identify the basic Knowledge of state Legislature Structure power and role
		Identify the basic Knowledge of Union executive
		Identify the basic Knowledge of state executive
		Understand need of reform in Indian Election system
		Identify the Electoral system Identify the Electoral system in India
		Identify the judiciary system judiciary review and activism
Democracy Election & Governance	POL-12999-C.C-Democracy Election & Governance	• Understand need of knowledge of social economic political Democratic, and Constitution of India • Identify proper knowledge of Indian Government ,Good Governance and Historyof Panchayat Raj System, 73th and 74th Amendment in Indian constitution, Challenge of Caste Gender, Class, and ethnicity in India

Class : S.Y.B.A.		
Semester-III		
		At the end of the course, student will be able to
Paper	**Course Code & Course Title**	
An Introduction to Political Ideologies	**SEM III POL-23164 :** An Introduction to Political Ideologies	Understand different Political Ideologies Principle ,Objective ,Nature Features
		Understand need of various Political Ideologies in political system
		Identify the Role of Political Ideologies
		Analyze the role of Nationalism, Democratic socialism , Fascism PoliticalIdeologies, and its principles
		Identify merits and demerits of Nationalism, Democratic socialism , Fascism Political Ideologies
		Identify the Significance of Nationalism, Democratic socialism political ideologies
Western Political Thoughts	**SEM III** **POL-23161 :** Western Political Thoughts	Learn and identify Political social Values , objective of various Political Thinkers
		Analyze the role of Political thoughts to functioning and Reforms the politicalsystem
		Understand need of various political thoughts to reform political system
		Analyze the Plato, Ideal state, concept of justice and education, Aristotle, viewon Slavery, Revolution , classification of state Machiavelli, views on human nature, attitude towards religion and morality. Locks state of nature, general will social contract theory

Political Journalism	**SEM III POL-23162 :** Political Journalism	Learn and identify Political social Values , objective of Political Journalism
		Analyze the nature and scope of Political Journalism
		Understand need of Political Journalisms Thoughts to reform in political system
		Identify the agencies of Political Journalism
		Identify the History of Political Journalism
		Analyze method of Political Journalism- political Interview
Basics of Indian Constitution	**SEM III** SEC-POL 23165:	Identify the historical background of Indian Constitution
		Understand preamble, silent feature of Indian Constitution
		Understand the work of constituent Assembly
Semester-IV		
An Introduction to Political Ideologies	**SEM IV POL-24164 :**	Understand basics knowledge of Phule–Ambedkars Gandhism Political Ideologies
		Learn basic concepts Equality ,Democracy of Phule–Ambedkars ,Concept of Truth, Non-Violence, Satyagraha, Gram Swarajya Gandhism
		Analyze the Meaning and Nature of Feminism
	An Introduction to Political Ideologies	Identify the Feminism in India
Western Political Thoughts	**SEM IV POL-24161 :**	Identify the moral value, thoughts of various Political Thinkers
		Understand basics knowledge of Rousseau ,Hegal, J.S. Mill, Karl Marx thoughts
		Learn basic Rousseau concepts Theory of State, General will , theory of social contract, Hegel's concept of Nature of State, Idealism, Freedom ,J.S. Mills Concept of representative government, Liberty, Utilitarism ,Karl Marx's theory of Historical Materialism, Class struggle, theory of state, Views on Revolution
Political Journalism	**SEM IV POL-24162 :** Political Journalism	Identify the Indian political process and Political Journalism
		Understand basics knowledge of mediatisation of Political Journalism role of media and Political Journalism
		Analyze the impact of political Journalismon functioning of Political leadership
		Analyze Techniques of Political Journalism
		Discuss on challenges before Political Journalism
		Analyze Increase of paid news, party sprit news, media saturation
Basics of Indian Constitution	**SEM IV** SEC-POL 24165:	Identify Fundamental Rights, of Indian citizens
		Understand, Right to Equality, Right to Liberty, Right to Freedom and religion, Cultural and Educational Right of Indian citizens

Class : T.Y.B.A		
Semester-V		
Paper	**Course Code &Course Title**	**At the end of the course, student will be able to**
Modern Political Analysis	**SEM V POL-35163 :** Modern Political Analysis	Understand different Political Concepts, Modern political Analysis Discuss on nature features and significance Modern political Analysis
		Understand need of Political Approach
		Analyze the Nature of the political system
		Discuss on elements and types of Political culture
		Discuss on significance Political culture
		Discuss on of Political culture
		Identify the concept of political socialization
		Discuss on agencies, types and significance of political socialization
Public Administration	**SEM V POL-35161:** Public Administration	Learn and identify Meaning Nature Scope and Significance of Public Administration
		Analyze the New Public Administration concept, evolution features goals of New Public Administration
		Understand need of Traditional, Behavioral ,System Approach of Public Administration
		Identify the Concept of Good Governance and E- Governance
		Identify the Concept Public Private Partnership
International Relation	**SEM V POL-35162:** International Relation	Learn and identify Development , Meaning Nature and scope of International relation
		Understand need of Idealist, Realism, System Marxism,Approach of International Relation,
		Analyze the Causes of world war 2nd and Cold war of and its impacts of word politics
		Understand role of International Organization, Regional organization and International financial institution in International Politics
Samyukt Maharashtra Movement	**SEM V SEC –POL 35165: Samyukt Maharashtra Movement**	Identify The Samyukt Maharashtra Movement, Ratking of the Bilinggual Bombay state, Formation of Samyukt Maharashtra The aftermath of the formation of Samyukt Maharashtra
Semester-VI		
Paper	**Course Code &Course Title**	**At the end of the course, student will be able to**
Modern Political	**SEM VI POL-35163 :** Modern Political	Identify the nature and features of Political Participation Political Elite and Political communication
		Understand basics knowledge of different Elite approaches
		Learn Discuss on significance of Political Participation Political Elite and Political communication

Analysis	Analysis	Identify the nature and features of various political concepts , Power Authority Influence Legitimacy
		Identify the types of, Power Authority Influence Legitimacy
		Discuss on significance of Power Authority Influence Legitimacy
Public Administration	**SEM VI POL-36161 :** Public Administration	Identify the Role of Bureaucracy in Administration, Administrative Reform in India
		Understand basics knowledge of Personal Administration, Recruitments Training Promotion of Public Servant
		Discuss the Budgeting process, Principles of Budget and Gender Budgeting
		Analyze the Administrative Accountability, Legislative and Judicial control On Administration
International Relation	**SEM VI POL-36162 :** International Relation	Identify the principles of NAAM, Relevance of NAAM
		Understand basics knowledge of Globalization, impact and limitation of Globalization
		Analyze the International Political Economy, New International economic order, north-south conflict, south-south c-operation
		Identify contemporary Global issue, International Terrorism its impact , Environmental issues Human Right,
Samyukt Maharashtra Movement	**SEM VI SEC- POL 36165: Samyukt Maharashtra Movement**	Understand the concept of Regionalism, Genesis of Regionalism, in India,Regional in balance and issue of regional development , Demand of Separate Vidharbha state, Marathwada Vikas Andolan

Programme Specific Outcomes,&
Course Outcomes of B.A
Department of Geography
Academic Year
2021-22

Programme Specific Outcomes (PSO's): B.A. Geography

At the end of the programme, student will be able to	
PSO 1	Describe the position of geography among the earth sciences and itsimportance and interrelationship.
PSO 2.	Identify in-depth knowledge in physical geography particularly formation of landform and its associated processes, world distribution of flora and fauna and theirfactors, marine resources etc.
PSO 3	Justify knowledge on elements, factors of climate and its influence on mankind ina global perspective.
PSO 4	Assess man-nature relationship and resource management.
PSO 5	Differentiate knowledge on physical environment and its role in maintaining biodiversity along with human impact on different environments, environmental impactassessment.
PSO 6	Examine population data including estimation of population, causes andconsequences of population growth, population policies.
PSO 7	Sort statistical data, interpretation and model building.
PSO 8	Produce map of different themes following different map projections.
PSO 9	Generate knowledge on recent space technologies including interpretation ofSatellite Imagery, Aerial Photographs, Geographical Information System and GlobalPositioning System (GPS).
PSO 10	Develop expertise in survey works by using plane table, prismatic compass, Dumpy's Level and Theodolite and subsequently able to prepare map on locallevel for the planning purpose.
PSO 11	Examine the present geo-political issues of Indian Sub-continentincluding major insurgency activities in the regional and local level.

Course Outcomes: B.A. Geography

Class : F.Y. B.A		
Semester-I		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
G1 Gg110-A	**Geography 110-A: Physical Geography**	CO1: Explain principles, terms, definitions, concepts in physicalgeography.
		CO2: Critically analyze development and magnitude of landforms.
		CO3: Identify different Materials of the earth crust, rock types,types of weathering, mass movements and types of slope.
		CO4: Describe importance of latitude, longitude and their role incycle of seasons with different time zone and date.
		CO5: Apply geomorphological and climatological knowledge and understanding in the field of watershed management, Hazard management and mitigation, Natural resource exploitation and management, Regional planning, Engineering works and construction activities, urban geomorphology and transport development and urbanization.
Semester-II		

G1 Gg110-B	**UAG [Gg110-B]: Human Geography**	CO1: Describe nature of man-environment relationship and humancapability.
		CO2: Explain human evolution and different races, tribes andculture existed since the beginning of living life.
		CO3: Analyze causes and effect of migration of mankind.
		CO4: Identify and explain spatial distribution pattern of populationand environment
		CO5: Discuss contemporary issues which the global community isfacing.
		CO6: Critically analyze the spatial patterns and forms of settlementand process of urbanization.

Class : S.Y.B.A.		
Semester-III		
Paper	**Course Code & Course Title**	**At the end of the course, student will be able to**
		CO1: Express knowledge about concept, scope of environmentalgeography, ecosystem and dynamic environment
		CO2: Formulate an idea about human-environment relationship.
		CO3: Analyze environmental pollution, biodiversity and its conservation.
		CO4: Explain the process of manmade and natural hazards and itsManagement.
		CO5: Create environmental planning and management.
		CO6: Acquaint about environmental programmes and policies.
Gg-220A	**UAG [Gg-220A]: Geography of Maharashtra**	Acquaint with Geography of our state.
		Understand the magnitude of problems and prospects in Maharashtra.
		Differentiate the interrelationship between subject and the society as well as recent trends in regional studies
		Identify the agricultural problems and prospects of Maharashtra.
		Analyze the population distribution and settlement pattern as well as conceptsof rural development in Maharashtra.
		CO6: Explain the prospects in tourism activity in Maharashtra and the role of MTDC, MIDC in Industrial Development

Gg: 201	**Gg: 210 A Scale Map Projection, Cartographic Techniques, Surveying and Excursion Report**	CO1: Explain basic concepts of map and scale.
		CO2: Develop practical skill and use of Map Scale and Map Projections.
		CO3: Aware of the new techniques, accuracy and skill of Map making.
		CO4: Formulate practical knowledge and application of cartographicaltechniques
		CO5: Apply Surveying Techniques in Geography.
		CO6: Conduct geographical field investigation and report writing.
SEC 2– A:	**UAG [SEC-2A] Applied Course of Disaster Management**	CO1: Interpret Basic concepts and FundamentalStructure of Disaster Management.
		CO2: Inculcate critical thinking and problem-solvingabilities on Disaster Management.
		CO3: Assess the situation and design plan for Disaster Management.
Semester-IV		
[Gg-201B]:	**UAG [Gg-201B]: G2 Environmental Geography**	CO1: Identify different disasters and explain natural and biological disaster.
		CO2: Evaluate the environmental problems like global warming, climate change, ozone depletion etc.
		CO3: Analyse the environmental planning and management.
		CO4: Explain the process of manmade and natural hazards and its Management.
		CO5:Acquaint about environmental programmes and policies.
		CO6: Compare the environmental education in India.
[Gg-220B	**UAG [Gg-220B]: S1 [Gg-220B]:Geography of Maharashtra**	CO1: Explain importance of agriculture in economy of Maharashtra
		CO2: Identify the agricultural production, problems and prospects of Maharashtra.
		CO3: Analyse the population distribution and settlement pattern as well as concepts of rural development in Maharashtra
		CO4: Critically examine rural development of Maharashtra.
		CO5: Discuss growth and development of Tourism in Maharashtra
		CO6: Classify tourism and explain agro-tourism, role of MTDC.

S2 [Gg-210B]	**UAG [Gg-210B]::Cartographic Techniques, Surveying and Excursion Report**	CO1: Define cartography and explain its development and use of cartography.
		CO2: Explain Cartographic technique for representation of data.
		CO3: Describe Surveying, and types of surveying.
		CO4: Generate measurement of land.
		CO5: Apply Surveying Techniques in Geography.
		CO6: Conduct geographical field investigation and report writing.
SEC 2– B:	**UAG [SEC-2B]Applied Course of Travel and Tourism**	CO1: Develop basic framework to understand the variouselements of Tourism Management.
		CO2: Evaluate the role of Transport in Travel andTourism Industry.
		CO3: Apply the skill to arrange, manage and implement various types oftours.
		CO4: Acquire earning skills in Tourism Industry.

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