

**GIRIVASI SEVA MANDAL KALYAN'S  
MURLIDHAR NANJI MOHITE GURUJI COLLEGE OF ARTS,  
COMMERCE AND B.M.S.,  
KHODALA – JOGALWADI TAL- MOKHADA DIST. PALGHAR**

**PROGRAMME OUTCOMES AND COURES  
OUTCOMES**

**List of Supporting Documents**

<b>Sr. No.</b>	<b>Particulars</b>
1	Department Of Botany
2	Department Of Chemistry
3	Department Of Mathematics
4	Department Of Physics
5	Department Of Zoology
6	Department Of Marathi
7	Department Of English
8	Department Of Hindi
9	Department Of Economics
10	Department Of History
11	Department Of Political Science
12	Department Of Rural Development
13	Foundation Course
14	Department Of Commerce
15	Department Of BMS
16	Department Of BAF

## Program Outcomes

### **B. A.**

1. The students acquire knowledge in the field of social sciences, literature and humanities which make them sensitive and sensible enough.
2. The B.A. graduates will be acquainted with the social, economical, historical, geographical, political, ideological and philosophical tradition and thinking.
3. The program also empowers the graduates to appear for various competitive examinations or choose the post graduate programme of their choice.
4. The B. A. program enables the students to acquire the knowledge with human values framing the base to deal with various problems in life with courage and humanity.
5. The students will be ignited enough to think and act over for the solution of various issues prevailed in the human life to make this world better than ever.
6. Programme provides the base to be the responsible citizen.

### **B. Com.**

1. The B. Com. graduates would be able to acquire basic and fundamental knowledge and skills for doing business and commercial activities of their choice.
2. The program also empowers the graduates to appear for various competitive exams or choose a profession of their choice such as CA, CS, ICWA, MBA, M.Com etc.
3. The program enables the students to acquire the accounting knowledge, management principles, retail trading, banking and insurance transactions, business economics and financial management.
4. The students also acquire knowledge in the field of management accounting, corporate accounting, statistical and mathematical techniques and knowledge relating to corporate law and business laws.
5. The students become capable of doing a business of their choice or choosing a profession or can become employees having basic knowledge and skill required for such activities.

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**PROGRAM EDUCATIONAL OBJECTIVES (PEOs)**  
**Program Outcomes (POs) & Program Specific Outcomes (PSOs) B.Sc. Botany**

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**Programme Outcomes (PO's)**

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**Specific core discipline knowledge**

Students can recall details and information about the evolution, anatomy, morphology, systematics, genetics, physiology, ecology, and conservation of plants and all other forms of life.

Students can recall details of the unique ecological and evolutionary features of the local and Indian flora,

**Communication skills**

Students can communicate effectively using oral and written communication skills

**Problem solving and research skills**

Students can generate and test hypotheses, make observations, collect data, analyze and interpret results, derive conclusions, and evaluate their significance within a broad scientific context.

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**Programme Specific Outcomes (PSO's)**

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To recognize and identify major groups of cryptogams and phanerogams and their phylogenetic relationships.

To understand the phylogeny of plants and study various systems of classification.

To explore the morphological, anatomical, embryological details as well as economic importance of algal, fungi, bryophytes, pteridophytes, gymnosperms and angiosperms.

To understand physiological processes and adaptations of plants.

To provide knowledge about environmental factors and natural resources and their importance in sustainable development.

To explain how current medicinal practices are often based on indigenous plant knowledge and principles.

To get introduced to different perspectives on treating ailments according to ethnomedicinal principles.

To understand patterns of heredity and variation among individuals, species and populations and apply principles for improvement of quality and yield.

To be able to apply statistical tools to gain insights into significantly different data from different sources.

To acquire recently published knowledge in molecular biology, such as rDNA technology PTC and bioinformatics and their applications.

To be able to carry out phytochemical analysis of plant extracts and application of the isolated compounds for treatment of diseases.

To be able to deal with all microbes and the technologies for their effective uses in industry and mitigation of environmental concerns.

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**Department of Botany**

**Course outcomes:**

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**First Year**

**Semester 1**

**Paper I: Plant Diversity -I**

**USB0101 & USBOP1**

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To understand the salient features of algae, life cycle patterns with a suitable example; to be able to identify them as well as economic importance of algae.

To learn the general characteristics and classification of fungi: life cycles patterns with a suitable example; to be able to identify them as well as their mode of nutrition and economic importance.

To learn the general characteristics and classification of bryophyta life cycle pattern with a suitable example, to be able to identify them.

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**Paper II: Form & function- I**

**USB0102 & USBOP1**

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To understand general structure of plant cell with respect to plant cell wall, plasma membrane ultra-structure and functions of cell organelles like Endoplasmic reticulum and Chloroplast.

To understand energy pyramids, energy flow in an ecosystem, types of ecosystems such as aquatic and terrestrial.

To understand Mendelian and Non mendelian inheritance pattern and ratios.

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**Semester II**

**Paper I : Plant Diversity-I**

**USB0201 & USBOP2**

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To learn the general features and classification of pteridophyta; the cycle pattern with a suitable example, stelar evolution, to be able to identify them.

To learn the general features and classification of gymnosperms; life cycle pattern with a suitable example, economic importance, to be able to identify them. To understand plant morphology with reference to leaf and inflorescence

To provide plant description, distinguishing features of families so also identify and classify according to Bentham and Hooker's system.

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**Semester II**  
**Paper II: Form & function-II**  
**US80202 & USBOP2**

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To understand plant tissue types with special reference to epidermal tissue system and internal primary structure of angiosperms.

To understand mechanism of photosynthesis.

To understand concept of primary and secondary metabolites and difference between them.

To understand few medicinally important plants

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**Second Year**  
**Semester III**  
**Paper I : Plant diversity -II**  
**US80301 & USBOP3**

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To provide general characters and economic importance of division Pheophyta, life cycle pattern with a suitable example; to be able to identify them.

To provide general characters of class Anthocerotae and Musch; life cycle patterns with a suitable example; to be able to identify them.

To understand taxonomy in relation to Anatomy, Palynology, Chemical constituents, Embryology, Cytology, Ecology.

To provide plant description, distinguishing features of families so also identify and classify according to Bentham and Hooker's system.

To understand modern techniques to study plant diversity like plant preservation, microscopy, chromatography and electrophoresis.

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**Paper II : Form and function-II**  
**USBO302 & USBOP3**

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To understand ultra-structure of cell organelles like mitochondria, Peroxisomes, Glyoxysomes and Ribosomes; cell cycle and nucleic acids .

To understand variation in chromosome structure, sex determination, sex linked, sex influenced and sex-limited traits, sex determination and extranuclear genetics.

To understand DNA replication and protein synthesis in prokaryotes and eukaryotes.

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**Paper III: Current trends in plant sciences-I**  
**USBO303 & USBOP3**

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To study Indian Herbal and Ayurvedic Pharmacopoeia with genuine medicinal plants and their possible adulterants.

To understand forest types of India, agro-forestry, urban forestry, organic farming, silviculture.

To provide economic importance of plants w.r.t. fibres, spices and condiments.

To understand concept of aromatherapy, botanical and nutraceuticals of few plants

To learn about enzyme industry and biofuels.

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**Second Year**  
**Semester IV**  
**Paper I: Plant diversity**  
**USB0401 & USBOP4**

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To understand general characters of Ascomycetae, life cycle pattern of suitable examples; to be able to identify them.

To understand crop diseases with suitable examples.

To learn classification, structure, method of reproduction, economic importance and ecological significance of lichens

To understand Salient features and classification of Phallophyta and Lepidophyta; life cycle pattern of suitable examples, to be able to identify them

To study Paleobotany w. r. t. the geological time scale: formation and types of fossils, structure and systematic position of form genus Rhynia.

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**Paper II : Form and Function I**  
**USB0402 & USBOP4**

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To study normal Secondary Growth in Dicotyledonous stem and root, mechanical tissue system and types of vascular bundles

To study respiration, photorespiration, photoperiodism and vernalization .

To study biogeochemical cycles, ecological factors and community ecology.

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**Paper III: Current trends in plant sciences II**  
**USB0403 & USBOP4**

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To learn about basic principles of horticulture and gardening.

To study various types of gardens.

To get exposure to principles and techniques of plant tissue culture.

To use statistical techniques as chi square test and coefficient of correlation.

To understand basic principles behind bioinformatics and various tools used in it.

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**Third Year**  
**Semester V**  
**Paper I: Plant diversity -III**  
**USB0501 & USBOP5**

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**The students would be able**

To gain knowledge about microbial diversity and techniques for culturing and visualization.

To understand the salient features of three major groups of algae, their life cycle patterns with a suitable example; to be able to identify them.

To learn the general characteristics and classification of two major groups of fungi along with life cycles of each group; to be able to identify them.

To understand the scope and importance of Plant Pathology and apply the concepts of various control measures of commonly widespread plant diseases.

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**Paper II: Plant diversity- IV**  
**USB0502 & USBOP5**

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**The students would be able**

To acquire knowledge of different fossil forms and understand their role in evolution.

To provide plant description, describe the morphological and reproductive structures of seven families and also identify and classify according to Bentham and Hooker's system.

To gain proficiency in the use of keys and identification manuals for identifying any unknown plants to species level.

To relate anomalies in internal stem structure with function and appreciate the salient features of the root stem transition zone.

To get exposure to pollen study and learn to apply it in various fields.

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**Paper III : Form and function -III**  
**USB0503 & USBOP6**

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**The students would be able**

The students would be able To acquire knowledge about two important organelles and molecular mechanisms of translation.

To understand water relations of plants, inorganic and organic solute transport, and apply the knowledge to manage mineral nutrition and survival in challenging abiotic stresses.

To understand succession in plant communities and study remediation technologies in order to apply knowledge acquired for cleanup of polluted sites.

To get exposure to principles and techniques of plant tissue culture and apply these studies for improving agriculture and horticulture and to become an entrepreneur.

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**Paper IV: Current trends in plant sciences -II**  
**USB0504 & USBOP6**

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**The students would be able**

To get exposure to the technique of mushroom cultivation and explore the possibility of entrepreneurship in the same.

To learn ethnobotanical principles, applications and utilize indigenous plant knowledge for the cure of common human diseases and improvement of agriculture.

To gain knowledge about the latest molecular biology techniques for isolation and characterization of genes .

To learn principles and application of commonly used techniques in instrumentation.

To gain proficiency in the monograph study and pharmacognostic analysis of six medicinal plants.

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**Semester VI**  
**Paper I: Plant diversity-III**  
**USBO601 & USBOP8**

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**The students would be able**

To identify, describe and study in detail the life cycles of three Bryophytes.

To and study in detail classification and general characters of three classes of Pteridophytes and identify as well as describe the life cycles of one example from each class

To study evolutionary aspects and economic utilization of Bryophytes and Pteridophytes.

To identify, describe and study in detail the life cycles of three Gymnosperms.

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**Paper II: Plant diversity IV**  
**USB0602 & USBOP8**

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**The students would be able**

To study contribution of Botanical gardens, 85 to Angiosperm study and provide plant description, describe the morphological and reproductive structures of seven families.



To gain exposure to a phylogenetic system of classification.

To gain insight into the anatomical adaptations of different ecological plant groups.

To understand development plant of male and female gametophytes, embryonic structure and development.

To understand the different aspects and importance of Biodiversity and utilize them for conservation of species so as to prevent further loss or extinction of Biodiversity and preserve the existing for future generations.

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**Paper - III Form and function -III**  
**USB0603 & USBOP9**

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**The students would be able:**

To study various plant biomolecular structures and appreciate the structures, role, functions and applications of enzymes .

To gain insight into the Nitrogen and plant hormone metabolism with applications of the same in agriculture and horticulture.

To understand principles of genetic mapping, mutations and solve problems based on them, gain knowledge of various metabolic disorders and their implications.

To generate and test hypotheses, make observations, collect data, analyze and interpret results, derive conclusions, and evaluate their significance within a broad scientific context. using suitable statistical techniques.

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**Paper IV: Current trends in plant sciences**  
**USBO604 & USBOPS**

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**The students would be able**

To gain insight into recent molecular biology techniques for DNA analysis and amplification and Barcoding techniques and applications therein.

To understand and apply tools of Bioinformatics for data retrieval and phylogenetic analysis.

To learn about the sources of economically important plants in the field of fats and oils and possibility of entrepreneurship in the field. apply it for extraction, dealing with entrepreneurship in the field.

To gain knowledge and proficiency in preservation of post-harvest produce and explore the Field.

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## Department of Chemistry

### **Program & Course Out 2015-6 to 2019-20**

1. Explaining the basic scientific principles and methods
2. To inculcate the scientific temper in the students and outside the scientific community
03. Ability to handle the unexpected situation by critically analyzing the problem
04. understanding the issues related to nature and environmental contexts and sustainable Development
05. Demonstrate, solve and an understanding of major concepts in all disciplines of chemistry
6. Solve the problem and also think methodically, independently and draw a logical conclusion
7. create an awareness of the impact of chemistry on the environment, society, and development outside the scientific community .
08. Find out the green route for chemical reaction for sustainable development .
09. Use of modern techniques, decent equipment's and Chemistry software's (like .chemdraw)

### **Program Specific Outcome**

1. Knowledge about the fundamentals and applications of chemistry and scientific theory.
2. Every branch of Science and technology is related to Chemistry
3. Easily the properties of all elements discovered
4. Apply appropriate techniques for the qualitative and quantitative analysis of chemicals in the laboratories and in industries
5. Will become familiar with the different branches of chemistry like analytical , organic , inorganic, Physical , environmental , polymer and biochemistry .
- 6 Helps in Understanding the causes of environmental pollution and can open up new methods for environmental pollution control.
7. Acquires the ability to synthesize , separate and characterize compound using laboratory and Instrumentation techniques.
9. Increasing working knowledge of instruments.
10. Social awareness about the quality of water.
11. Increasing the practical skill of the students

12. Awareness about plastic garbage.

Course Outcome

Course name	Course code	Outcomes
Chemistry paper I	USCH 101	Understand the term Rate of reaction , Understand the term of analytical chemistry tools and measurement Units & calculations. Understand the term Chemical thermodynamics, atomic structure, Periodic Table and periodicity Basics of organic Chemistry.
Chemistry paper II	USCH 102	Understand Atomic Structure , Quantum numbers, Periodic Table and periodicity in the Properties , Chemical Bonding and VSEPR Theory . Understand the Concepts of Organic Compounds, Fundamentals of organic Reaction Mechanism, Concept of Carbon Acid, Reagent And Recent Trends in Chemistry
Chemistry practical	USCHP 1	<b>Determine the :</b> i) Rate constant for the hydrolysis of ester , ii) Rate constant for the Saponification and iii) Enthalpy of dissolution of salts Determine the i) amount of given solid mixture titrimetrically and ii) percentage composition of given mixture gravimetrically Analyze the sample containing two cations and two anions qualitatively ( semi- micro) Understand the crystallization and characterisation of given organic compound
Chemistry Paper I	USCH201	Understand the Gaseous State, Nuclear Chemistry, Buffers, Oxidation & Reduction , Introduction to Gravimetric Analysis and Titrimetric Analysis' . Gaseous State, Chemical Equilibria and Thermodynamic Parameters, Concept of Qualitative Analysis , Acid Base Theories, Chemistry of Aliphatic Hydrocarbons.
Chemistry Paper II	USCH202	Understand the comparative Chemistry of Main Group Elements and Comparative Chemistry of Carbides, Nitrides, Oxides and Hydroxides of Group – I and II Elements Understand the Mechanism of organic reaction and Functional Group interconversions.
Chemistry practice	USCHP2	i) Standardize the commercial Sample of base and acid ; ii) Study the reaction and balancing the reaction and iii) Study the kinetics of the reaction Determine the i) Acetic acid in vinegar titrimetrically ; ii) Strength of acid ; iii) amount of Mg (II) and Fe (II) in the given solution by complexometrically and titrimetrically respectively.

		Study inorganic preparations and Volumetric Analysis Perform the Characterisation of given organic compound.
Physical Chemistry Paper I	USCH301	Understand the term Chemical Thermodynamics, Photochemistry Chemical Kinetics , Electrochemistry, Titrimetric Analysis, Titrimetric Analysis , separation Techniques ,Nuclear chemistry , Liquid State, Phase Equalibria, Molecular Spectroscopy , Statistical Treatment of Analysis Data.
Physical Chemistry Paper II	USCH302	i) To understand concepts like free energy, Helmholtz free energy ,Gibb's free energy , Gibb's Duhem equation , Van't of reaction isotherm and Isochore ii) Photochemical phenomenon ( fluorescence , phosphorescence , chmiluminiscence , ozone depletion )& also opposing , consecutive parallel reaction , thermal chain reaction & effect of temperature on rate of reaction . iii) To understand Kohlrausch's law and its application & other theory like Arrhenius theory of electrolyte ,Debye Huckel theory & how to construct titration curve, choice of indicator. iv) To know complexometric titration of EDTA & Separation techniques ( solvent extraction)
Physical Chemistry Paper III	USCH303	This Paper deals with the basis of Analytical chemistry, sampling ,statistical treatment of analytical data, chemical analysis, seaparting component from a given sample, basic concept like pH, experimental technique like Titrimetry, Gravimetry, using instruments to carry out analysis , the various technique like photometry, chromatography , electrophoresis ,spectrometry. Instrumentation in general is felt to be of intrest to learners of various beranches like physics botany ,zoology, and microbiology.
Chemistry practicle I	USCHP 1	To impart various like of handling chemicals, reagents,apparatus, instruments and the care and safety aspects involves in such handling To make the learner capable of analyzing and intercepting result of experiments he conducts or performs.
Chemistry practicle II	USCHP 2	To impart various like of handling chemicals, reagents,apparatus, instruments and the care and safety aspects involves in such handling To make the learner capable of analyzing and intercepting result of experiments he conducts or performs.
Chemistry practicle III	USCHP 3	To impart various like of handling chemicals, reagents,apparatus, instruments and the care and safety aspects involves in such handling

		To make the learner capable of analyzing and intercepting result of experiments he conducts or performs.
Physical chemistry paper I	USCH 401	Electrochemistry , Nuclear chemistry , Liquid State Phase Equilibria, Molecular Spectroscopy I Statistical Treatment of Analytical Data, Titrimetric Analysis .
chemistry paper II	USCH 402	i) To understand concept transport no, ionic conductance & it's relation, binding energy, binding energy curve , binding energy per nucleon , magic number , odd – even no. rule, N/P ratio, mass defect of nucleous , & also surface tension , viscosity , liquid crystal. ii) to understand liquid - liquid mixture, raoult's law ' ideal & non- ideal solution
Chemistry Practicle III	USCH 403	This Paper deals with the basis of Analytical chemistry, sampling ,statistical treatment of analytical data, chemical analysis, seaparting component from a given sample, basic concept like pH, experimental technique like Titrimetry, Gravimetry, using instruments to carry out analysis , the various technique like photometry, chromatography , electrophoresis ,spectrometry. Instrumentation in general is felt to be of intrest to learners of various beranches like physics botany ,zoology, and microbiology.
Chemistry Practicle I	USCH P 4	To Understand how to determine order of reaction , conductometric titration of strong acid & base, organic preparation , organic estimation, inorganic quantitative & qualitative analysis, organic preparation , characterized organic compound containing only C, H, O element & to know to determine molar absorptivity, surface tension, viscosity and how to use of analytical instruments.
Chemistry Practicle II	USCH P 5	To Understand how to determine order of reaction , conductometric titration of strong acid & base, organic preparation , organic estimation, inorganic quantitative & qualitative analysis, organic preparation , characterized organic compound containing only C, H, O element & to know to determine molar absorptivity, surface tension, viscosity and how to use of analytical instruments.
Chemistry Practicle III	USCH P 6	To Understand how to determine order of reaction , conductometric titration of strong acid & base, organic preparation , organic estimation, inorganic quantitative & qualitative analysis, organic preparation , characterized organic compound containing only C, H, O element & to know to determine molar absorptivity, surface tension, viscosity and how to use of analytical instruments.
Physical chemistry	USCH 501	Student able to understand the term Colligative Properties of Dilute Solutions, Phase Rule Surface

		Chemistry & Catalysis, Electrochemistry, Electrochemical cells, Introduction to Polymers, Crystalline State.
Inorganic Chemistry	USCH 502	i) To understand symmetry element, symmetry operation & how to assign point to given molecule, MOT for CO, NO, HCl, H <sub>2</sub> , H <sup>3+</sup> , BeH <sub>2</sub> , H <sub>2</sub> O molecule. ii) To understand concept crystal lattice, lattice point, unit point, unit cell, lattice constant & different packing of rigid sphere (hcp, ccp), packing density (bcc, fcc, simple cubic), term superconductivity & its application. iii) To understand chemistry of lanthanides, occurrence its application iv) To know acidity and basicity of mono, polyatomic cation & anion aqueous & non-aqueous solvents liquids ammonia, dinitrogen tetra oxide w.r.to acid-base reaction, redox.
Organic Chemistry	USCH 503	Understand the mechanism of Organic Reactions (Elimination reactions, Tetrahedral mechanism and Rearrangements) Understand the Stereochemistry (chirality, symmetry, elements, cycloalkanes, stereo selectivity and stereo specificity, stereochemistry of substitution and addition reaction) Understand the Carbohydrates (introduction, monosaccharides, open chain configurations, reaction) and IUPAC Nomenclature (Bicyclic, Biphenyls, Cumulenes) Understand the Heterocyclic Chemistry of Pyrrole Thiophene and Furan and Organic Synthesis (Multicomponent reaction And Newer methods)
Analytical Chemistry	USCH 504	This paper deal with the Basic of analytical chemistry, Sampling, statistical treatment of analytical data, chemical analysis Separating components from a given sample, separating method like paper chromatography, TLC, HPLC, HPTLC, an understanding of major concepts, theoretical principles, and experimental finding in Optical methods such as AAS, AES, Fluorimetry, Phosphorimetry, Turbidimetry, nephelometry Intercept the complexometric titrations. Intercept the redox titrations. Intercept the precipitation titrations. Expresses the terms such as standard solution, titration, back titration, equivalence point end point primary and solves volumetric calculations.
Physical chemistry practice	USCHP01	Understand the molecular weight calculation by Rast Method, the order between K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> and KI by fractional change method, the adsorption of acetic acid on activated charcoal by using Freundlich adsorption isotherm and understand the handling of instruments and correct calculation by using different instruments.

Inorganic Chemistry Practical	USCHP01	To understand how to prepare inorganic complex and to know about terms related with co-ordination compound and how to estimate and analyze by iodometric, complexometric titration. To understand how to prepare inorganic complex of copper, iron, nickel, aluminium and determine percentage of purity of the given water – soluble salt and qualitative analysis of water-soluble salts w.r. to added cation/ anion.
Organic chemistry practice	USCHP09	Separate and identify the binary solid-solid mixture.
Analytical chemistry practice	USCHP13	The ability to use modern instrumentation like potentiometer, colorimeter, turbidimeter, pH meter for chemical analysis and separation the ability to perform redox titration, complexometric titrations A familiarity with, and application of safety and chemical hygiene regulations and practices An ability to work effectively in diverse teams in laboratory
Drug and dyes		<b>Understand the reaction and mechanism and stereochemistry of drugs and dyes</b>
Physical chemistry	USCH 601	Molecular spectroscopy, Basic of Quantum chemistry Applied Electrochemistry, Renewable energy sources, Nuclear magnetic Resonance Spectroscopy, chemical kinetics, nuclear chemistry.
Inorganic chemistry	USCH 602	i) To understand VBT, CFT (Co-ordination no. 2-6) w.r. to splitting of d orbital, ligand field effect, Jahn-Teller Distortion, CFSE value calculation (1-10) & its limitations. ii) To understand how to make MOT For co-ordination compound & to understand thermodynamic & kinetic stability of complex, Inert & labile complex, ligand substitution reaction, acid hydrolysis, base hydrolysis, anation reaction & concept like electronic microstates, terms term symbol for transition metal ion, ground state term & their rule in detail iii) To understand characteristic of organometallic compound and their synthetic method (oxidative-addition, transmetallation, carbanion – halide exchange, metallation methylene insertion reaction) iv) To understand properties, Structure properties, Structure, bonding, application of Borazine, BOD, COD, TOC, aerobic & anerobic process, nanomaterials, gastrointestinal agent & topical agent
Organic Chemistry	USCH 603	Understand the spectroscopy (UV-visible, IR, PMR, Mass and Spectral characterization and structural elucidation) Understand the polymers (classification,

		<p>stereochemistry, preparation and uses ) and Photochemistry ( Jablonki digram ,photochemistry of carbonyl compounds)</p> <p>Understand the different Catalysts, Reagent and Natural products</p> <p>Understand the Organometallic Chemistry ( Mg , Li and zn ) and Chemistry of some Important Biomolecules ( amino acids, polypeptides and nucleic acids )</p>
<b>Analytical Chemistry</b>	<b>USCH 604</b>	<p>Intercept the potentiometric titrations, concept of DC Polarography , amperometric titrations</p> <p>An understanding of major concepts , theoretical principles and experimental findings in food cosmetic chemistry an understanding of separating component from a given sample using separating method like GC, Ion exchange chromatography , size exclusion chromatography an understanding of major concepts , theoretical principles and experimental findings in thermal methods like DTA, TGA . Thermometric titration , Radioanalytical technique i.e NAA</p>
<b>Physical chemistry practice</b>	<b>USCH P02</b>	<p>Student able to understand calculate order of reaction, viscosity measurement, and understand the handling of instrument and correct calculation by using different instruments.</p>
<b>Inorganic chemistry practice</b>	<b>USCH P06</b>	<p>To understand how to prepare inorganic complex and to know about terms related with co – ordination compound and how to estimate and analyze by iodometric, complexometric titration</p> <p>To understand how to prepare inorganic complex of copper , iron, nickel , aluminium and determine percentage of purity of the given water- soluble salt and qualitative analysis of water- soluble salt w.r.to added cation/ anion.</p>
<b>organic chemistry practice</b>	<b>USCH P10</b>	<p>Separate and identify the binary mixture containing (VL+NVL)&amp; (S+VL) component and organic preparations ( Derivatives- Acetyl , Nitro, Ether, Ester hydrolysis and oxidation</p>
<b>Analytical chemistry practice</b>	<b>USCH P14</b>	<p>The ability to use modern instrumentation like potentiometer , colorimeter , turbidimeter, pH meter for chemical analysis and separation the ability to perform redox titrations, complexometric titrations a familiarity with, and application of safety and chemical hygiene regulation and practices an ability to work effectively in diverse teams in laboratory</p>
<b>Drug and dyes</b>		<p>Understand the reaction and mechanism and stereochemistry of drugs and dyes</p>



# Department of Mathematics

## Program & Course Outcomes 2019 To 2023

### Program Outcome :

<p><b>Program name:</b> <b>Bachelor of Science</b></p>	<p><b><u>Program Outcomes:</u></b></p> <p>The BSc programme enable the students to enhance their critical thinking during the 3 2 year period of study and the curriculum stimulates the mental thoughts and assumptions of the students through practical student have increase interest and practice in subject these analysis lead to take decisions at intellectual organizational and personal from different perspective of life most of the students are getting selected for placements in TCS.</p>
<p><b>Program Specific Name: B.Sc. in Mathematics</b></p>	<ol style="list-style-type: none"> <li>1. students acquired the knowledge of differential equations of first order and first degree orthogonal trajectories is numerical analysis various method such as Newton Rapson, Secant, Bairstow, Berge- Vieta interpolations Lagrange's Newton's forward and backward etc.</li> <li>2. Learns the concept of groups, subgroups understand the concepts of real numbers sequence, continuous function differentiation and Riemann integration.</li> <li>3. Mathematical literacy in vector spaces pigeon-hole principle, students learn and understand mathematical language</li> <li>4. Learned to gain the knowledge to apply the previous knowledge on concept of Cosets Lagrange's theorem in Group theory, ring theory.</li> <li>5. UG programme offer elective papers in namely numerical analysis numerical theory and its applications of graph theory basic concepts a probability and random variables graph theory and Combinatorics, operations research important of human values, professional ethics a better understanding on soft skills it improve analytical skills. entrepreneurship and leadership equalities in the students these concepts are self directed and lifelong learning the application of the learn skills by candidates is everlasting context of socio- technological changes. Co</li> </ol>

**Course Outcomes: F.Y.Bsc**

<b>Course Name</b>	<b>Course code</b>	<b>Outcomes</b>
<b>1.calculus I</b>	<b>USMT-101</b>	On completion of these units successfully students will able : <b>1.</b> Have familiarity with the real number system, sequence and properties. <b>2.</b> Verify whether given function continuous. <b>3.</b> Demonstrate capacity for mathematical reasoning through analysing proving and explaining concept from calculus.
<b>2. Algebra</b>	<b>USMT-102</b>	<b>1.</b> Student will know basic concept of function, set, finite set types of relation, congruence and equivalence relation polynomials over field and related theorems. <b>2.</b> Student can apply above concept on the theorems as Euler's theorem, Fermat theorem, Wilson theorem, Remainder theorem, factor theorem. <b>3.</b> Student will solve problem on the basis of concepts and its applications such as finding roots of polynomials evaluate properties of binary function.
<b>3.Calculus II</b>	<b>USMT-201</b>	On completion of this unit successfully student will able to: <b>1.</b> Have familiarity with series of real numbers. <b>2.</b> Demonstrate capacity for mathematical reasoning through analysing proving and explaining concept from calculus.
<b>4.Linear Algebra</b>	<b>USMT-202</b>	<b>1.</b> Student will knows basic concept of type of system of linear equations in matrix form, vector space, subspace, basis and dimensions. <b>2.</b> Students understand various method of solving system of equations such as echelon form, Gaussian elimination method,

		<p>Rank- Nullity theorem.</p> <p>3. With the help of above concepts and necessities student can find various things such as linearly dependence / independence, basis set, dimension of vector space, rank, kernel of linear transformation.</p>
<p><b>Practicals based on USMT 101 &amp; 102</b></p>	<p><b>USMTP01</b></p>	<p>On completion of this unit successfully student will able to:</p> <ol style="list-style-type: none"> <li>1. Have familiarity with real number system sequence and properties.</li> <li>2. Verify whether given function or continuous.</li> <li>3. Demonstrate capacity for mathematical reasoning through analysing proving and explaining concept from calculus.</li> <li>4. Student find relations conference and equivalence relations.</li> <li>5. Evaluate the examples on roots.</li> </ol>
<p><b>Practicals based on USMT 201 &amp; 202</b></p>	<p><b>USMTP02</b></p>	<p>On completion of this unit successfully student will able to:</p> <ol style="list-style-type: none"> <li>1. Have familiarity with series of real numbers.</li> <li>2. Demonstrate capacity for mathematical reasoning through analysing proving and explaining concept from calculus.</li> <li>3. Solve matrix by method Echelon form, Gaussian elimination method, Rank- Nullity theorem</li> <li>4. Find the dimension of vector space, Rank, kernel of linear transformation.</li> </ol>
<p><b>SYBSc</b></p>		
<p><b>Calculus III</b></p>	<p><b>USMT301</b></p>	<p>On completion of this unit successfully student will able to:</p> <ol style="list-style-type: none"> <li>1. First understand scalar and vector field.</li> <li>2. Differentiate scalar and vector field.</li> <li>3. Apply these ideas to other areas of mathematics.</li> </ol>
<p><b>Algebra III</b></p>	<p><b>USMT302</b></p>	<ol style="list-style-type: none"> <li>1. Students will know basis concept of linear transformation rank- nullity theorem, row space, column space, system of non- homogeneous equations, determinants and its existence general inner product space over R. Normal vector space in IPS.</li> <li>2. Student understand result based on mention concept above as existence of solution on <math>\text{rank}(A) = \text{rank}(B)</math>, existence of</li> </ol>

		<p>determinant by properties and vander mode's determinant, Linear dependence / independence using determinants, inner products of continuous real valued function, Cauchy's-Schwartz inequality etc.</p> <p>3. Student will evaluate Rank, dimensions of basis, Area, Volume, IPS of examples orthogonal and Orthonormal bases.</p>
<b>Discrete Mathematics</b>	<b>USMT303</b>	<p>1. Students will know basis concept of permutation and combination recurrence relations, binomial and multinomial theorem, Pascal's identity, permutation and combination of sets and multi-sets, circular permutations, principle of inclusion and exclusion, Finite and Infinite sets.</p> <p>2. Students understands properties related to above concepts such as cycles, disjoint cycles, homogeneous and non-homogeneous, recurrence relations, addition and multiplication principle, Stirling numbers of second kind, application of inclusion principal etc.</p> <p>3. Student will evaluate problem based on above concept and its properties such as Rank and Signature of a permutations, homogeneous, recurrence relation of second degree using algebraic method, simple recursion of <math>S(n ; k)</math>.</p>
<b>Practicals based on USMT 301, 302 and 303</b>	<b>USMTP03</b>	<p>On completion of this unit successfully students will able to:</p> <ol style="list-style-type: none"> <li>1. Understand scalar and vector field clear and vector field</li> <li>2. Differentiate scalar and vector field.</li> <li>3. Apply these ideas to other areas of mathematics</li> <li>4. Evaluate determinant by properties and Vandermonde's determinant, linear dependence/ independence using determinants etc.</li> <li>5. Find rank, Area, Volume, examples of IPS.</li> <li>6. Student will evaluate problems based on above concept and its properties such as rank and signature of a permutation homogeneous, recurrence relation of second degree using algebraic method, simple recursion of <math>S(n ; k)</math></li> <li>7. Identify the cycles, disjoint cycles.</li> </ol>
<b>Calculus IV</b>	<b>USMT401</b>	<p>On completion of this unit successfully student will able to:</p> <ol style="list-style-type: none"> <li>1. Demonstrate accurate and efficient use of Riemann integral</li> <li>2. Have familiarity with indefinite and improper integrals</li> <li>3. Translate real life situations into symbolism of mathematics and find Solution for the resulting model.</li> </ol>

<b>Algebra IV</b>	<b>USMT402</b>	<ol style="list-style-type: none"> <li>1. Student will know basis concept of group, subgroups, cyclic group and subgroups Cosets and its properties and group homomorphism's etc.</li> <li>2. Student understand related theorems based on above concepts and properties namely Lagrange's theorem group homomorphism, order of element etc.</li> <li>3. Student can show group, subgroup, cyclic group and subgroup group, homomorphism, order of elements, verify language sum.</li> </ol>
<b>Ordinary Differential Equations</b>	<b>USMT403</b>	<ol style="list-style-type: none"> <li>1. Student will know basic concept of differential equation, order degree differential equation and partial Differential equation, linear and non- linear ODE. Homogeneous and non-homogeneous second order linear differential equation and numerical differentiation &amp; integration.</li> <li>2. Student understand Wronskian and its properties, general solution of DE, variation of parameters and iterative methods.</li> <li>3. Student can find Wronskian and show it is linear transformation and linear independent or linear dependent C.F, P.I general solution, Picard's method etc.</li> </ol>
<b>Practicals based on USMT 401, 402 and 403</b>	<b>USMTP04</b>	<p>On completion of this unit successfully students will able to:</p> <ol style="list-style-type: none"> <li>1. Demonstrate accurate and efficient use of Riemann integral</li> <li>2. Have familiarity with indefinite and improper integrals</li> <li>3. Translate real life situations into symbolism of mathematics and find situations for the resulting models.</li> <li>4. Student solve the properties of groups, subgroups</li> <li>5. Verify Lagrange's theorem</li> <li>6. Student find Wronskian and show its properties.</li> <li>7. Solve homogeneous, non- homogeneous method for ODE's.</li> </ol>

# Department of Physics

## Program & Course Outcomes 2019 To 2023

### Program Outcome

<p><b>Program name:</b>  <b>Bachelor of Science</b></p>	<p><b><u>Program Outcomes:</u></b></p> <p>Student seeking admission for B.Sc. program is expected to get knowledge in some fundamental subject like Physics, Chemistry, Mathematics, Biology etc. Students get basic understanding of this field and a creative attitude towards it. Students can gain some in-depth knowledge of</p> <ol style="list-style-type: none"> <li>a. Technology in all scientific fields.</li> <li>b. Methodology behind the course to improve overall productivity.</li> <li>c. What Specialization should they take during their master's degree course!</li> </ol>
<p><b>Program Specific Name: B.Sc. in Physics</b></p>	<p><b>Program Specific Outcomes:</b></p> <p>On completion of the B. Sc. (Physics) program,</p> <ol style="list-style-type: none"> <li>1. Students will be able to understand theories &amp; principles of physics, which include mathematical methods, electromagnetism, Atomic and molecular spectra, Electrodynamics, electronics, thermodynamics, &amp; Nuclear physics, quantum mechanics solid state.</li> <li>2. Learn the Concept of Quantum Mechanics, Relativity, introduced at degree level in order to understand nature at atomic levels. Provide knowledge about material properties and its application for developing technology to ease the problems related to society..</li> <li>3. Understand physical properties chemical bonds in crystallography its structures and dynamics.</li> <li>5. Analyze the application of mathematics to problem in physics &amp; development of mathematical method suitable for</li> </ol>

	<p>such application &amp; for formulation of physical theories.</p> <p>6. Learn the structure of solid materials &amp; their different physical properties along with mechanics, Dynamics, electronics, optics &amp; material science.</p> <p><b>On completion of the B. Sc. Practical's program,</b> students will be able to</p> <ol style="list-style-type: none"> <li>1. Understand Basic Circuits using Active Devices, Analog Circuits and their applications using Active Devices.</li> <li>2. Learn basic test instruments such as power supply, function generator, CRO and their construction and working principle, understand Basic differential amplifier and their Applications in linear integrated circuits.</li> <li>3. Design &amp; conduct experiments as well as to analyze data and its interpretation.</li> <li>4. Design a system component on bread board or process to meet desired needs within realistic constraints such as economic environmental, social, political, ethical, health &amp; Safety.</li> <li>5. Understand the fundamental concept of semiconductor like crystal structure, energy band gap, charge carrier statistics.</li> </ol>
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**Course Outcomes:**

Course Name	Course code	Outcomes
Classical Physics	USPH-101	<ol style="list-style-type: none"> <li>1. Learn the basics of properties of matter, stress, strain, how Young's modulus and rigidity modulus are defines, how they are evaluated for different shapes of bodies that can solved Using their practical of determination.</li> <li>2. Learn the fundamentals of fluid dynamics using their different equations like Bernoulli's and Poiseuilles and studied Types of flows.</li> <li>3. Study the lens maker formula, focal lengths, types of Aberrations, types of Eye pieces Lens combination and its practical correlations with the content.</li> </ol>

		<ol style="list-style-type: none"> <li>4. Study the interference, thin films, fringes in wedge shaped Films and grasped with numerical.</li> <li>5. Study-the-behaviour-of- gases, Thermodynamics their laws, Heat capacity indicator diagrams, and grasp the significance of terms like path function And work done during thermal processes</li> </ol>
Modern Physics	USPH-102	<ol style="list-style-type: none"> <li>1. .To develop analytical abilities towards real world problems</li> <li>2. To familiarize with current and recent scientific and technological developments</li> <li>3. To enrich knowledge through problem solving, hands on Activities, study visits, projects etc.</li> </ol> <p><b>Learning Outcomes:</b></p> <ol style="list-style-type: none"> <li>1. Understand nuclear properties and nuclear behavior.</li> <li>2. Understand the type isotopes and their applications.</li> <li>3. Demonstrate and understand the quantum mechanical Concepts.</li> <li>4. Demonstrate quantitative problem solving skills in all the topics covered.</li> </ol>
Practical I	USPH-P-01	<ol style="list-style-type: none"> <li>1. 1. To demonstrate their practical skills.</li> <li>2. To understand and practice the skills while doing physics practical.</li> <li>3. To understand the use of apparatus and their use without fear.</li> <li>4. To correlate their physics theory concepts through practical.</li> <li>5. Understand the concepts of errors and their estimation.</li> </ol>
Mathematical Physics	USPH-201	<ol style="list-style-type: none"> <li>1. Understand the basic mathematical concepts and applications of them in physical situations.</li> <li>2. Demonstrate quantitative problem solving skills in all the topics covered.</li> </ol>



Electricity and Electronics	USPH-202	<p>1.Design a circuit involving basic electronic components such as resistors, capacitors, inductors, op-amps, transistors and logic gates.</p> <ol style="list-style-type: none"> <li>1.Design a system with digital circuits.</li> <li>2. Design a system with multiple interacting circuits.</li> <li>3. Design a complex system with multiple circuits while satisfying numerous requirements and constraints.</li> </ol>
Practical II	USPH-P-02	<ol style="list-style-type: none"> <li>i) To demonstrate their practical skills.</li> <li>ii) To understand and practice the skills while doing physics practical.</li> <li>iii) To understand the use of apparatus and their use without fear.</li> <li>iv) To correlate their physics theory concepts through practical.</li> </ol> <p>Understand the concepts of errors and their estimation</p>
Mechanical and Thermodynamics	USPH-301	<p>On successful completion of this course, students will be able to:</p> <ol style="list-style-type: none"> <li>i) Understand the concept of mechanics &amp; properties of matter &amp; to Apply them to Problems.</li> <li>ii) Comprehension the basic concepts of thermodynamics &amp; its application in physical situation.</li> <li>iii) Learn about situation in low temperature.</li> <li>iv) Demonstrate tentative problem solving skills in all above areas</li> </ol>
Vector calculus Analog Electronics	USPH-302	<ol style="list-style-type: none"> <li>1) Understand the basic concepts of mathematical physics and their application in physical situations.</li> <li>2) Understand the basic laws of electrodynamics and be able to perform</li> </ol>

		<p>calculations using them</p> <p>3) Understand the basics transistor biasing, operational amplifier, their application</p> <p>4) Understand the basic concepts of oscillators and be able to perform calculation using them.</p> <p>5) Demonstrate quantitative problem solving skill in all the topics covered.</p>
Applied Physics-I	USPH-303	<p>i) Students will be exposed to contextual real life situations</p> <p>ii) Student will appreciate the role of physics in interdisciplinary areas related to materials, bio physics, acoustics etc</p> <p>iii) The learner will understand the scope of the subject in industry &amp; Research</p> <p>iv) Experimental learning opportunities will foster creative thinking &amp; a spirit of inquiry.</p>
Practical course-3 (Group A,B,C and Skill)	USPH-P-03	<p>On successful completion of this course students will be able to:</p> <p>1) Understand &amp; practice the skills while performing Experiments.</p> <p>2) Understand the use of apparatus and their use without fear &amp; hesitation</p> <p>3) Correlate the physics theory concepts to practical application.</p> <p>4) Understand the concept of errors and their estimation.</p>
Optics and Digital Electronics	USPH-401	<p>i) Understand the diffraction and polarization processes and applications of them in physical situations.</p> <p>ii) Understand the applications of interference in design and working of interferometers.</p>

		<ul style="list-style-type: none"> <li>iii) Understand the resolving power of different optical Instruments.</li> <li>iv) Understand the working of digital circuits.</li> <li>v) Use IC 555 time for various timing applications.</li> <li>vi) Demonstrate quantitative problem solving skills in all The topics covered.</li> </ul>
Quantum Physics	USPH-402	<ol style="list-style-type: none"> <li>1. Understand the postulates of quantum mechanics to understand its importance in explaining significant phenomena in Physics.</li> <li>2. Demonstrate quantitative problem solving skills in all the topics covered.</li> </ol>
Applied Physics-II	USPH-403	<ul style="list-style-type: none"> <li>i) Understand the concepts of mechanics &amp; properties of matter &amp; to apply them to problems.</li> <li>ii) Comprehend the basic concepts of thermodynamics &amp; its applications in physical situation.</li> <li>iii) Learn about situations in low temperature.</li> <li>iv) Demonstrate tentative problem solving skills in all Above areas.</li> </ul>
Practical Course-(Group A,B,C and Skill)	USPH-P-04	<ol style="list-style-type: none"> <li>1. On successful completion of this course students will be Able to: <ul style="list-style-type: none"> <li>i) Understand &amp; practice the skills while performing Experiments.</li> <li>ii) Understand the use of apparatus and their use without Fear &amp; hesitation.</li> </ul> </li> </ol>

		iii) Correlate their physics theory concepts to practical Application.
Mathematical Methods in Physics, Thermal and Statistical Physics	USPH-501	<p>From this course, the students are expected to learn</p> <ul style="list-style-type: none"> <li>i) Some mathematical techniques required to understand the physical To important ideas of Phenomena at the undergraduate level and get exposure statistical mechanics.</li> <li>ii) The students are expected to be able to solve Simple problems in probability.</li> <li>iii) Understand the concept of independent events And work with standard Continuous distributions.</li> <li>iv) The students will have idea of the functions of complex variables.</li> <li>v) Solve non homogeneous differential equations and Partial differential equations using simple Methods.</li> </ul> <p>6. The units on statistical mechanics would introduce the students to the concept of microstates, Boltzmann distribution and statistical origins of entropy. It is also expected that the student will understand the difference between different statistics, classical as well as Quantum.</p>
		I) Be able to account for interatomic forces and bonds, Have a basic knowledge of crystal systems and symmetries, crystalline materials are studied using Diffraction, including concepts like

<p>Solid State Physics</p>	<p>USPH-502</p>	<p>structure factor, and scattering amplitude and value determination.</p> <p>II) Be able to perform structure determination of simple Structures, understand the concept of reciprocal space And be able to use it as a tool know the significance of Brillouin zones.</p> <p>III) Be able to calculate thermal and Electrical properties in the free-electron model and know Bloch's theorem and energy band and distinction between metals, semiconductors and insulators.</p> <p>IV) Be able to account for what the Fermi surface is Be able to estimate the charge carrier mobility and And how it can be measured.</p> <p>V) To understand Lattice heat capacity and to compare Classical theory, Einstein's theory, Debye's theory of specific heat of solids. Students are able to understand Crystal its systems, types.</p> <p>VI) Semiconductors its types conduction and Characteristics were understood by students. Semiconductors its various characteristics were verified Practically.</p> <p>VII) Band theory periodic potential Fermi energy. Superconductivity understand by students</p> <p>VIII) Number of numerical are solved like susceptibility.vi Characteristics, Design of circuit etc.</p>
		<p>Upon successful completion of this course, the student will understand</p> <ol style="list-style-type: none"> <li>1. The application of quantum mechanics</li> </ol>

Atomic And Molecular Physics	USPH-503	<p>in atomic physics.</p> <ol style="list-style-type: none"> <li>2. The importance of electron spin, symmetric and Antisymmetric wave functions and vector atom model.</li> <li>3. Effect of magnetic field on atoms and its Application</li> <li>4. Learn Molecular physics and its applications. This course will be useful to get an insight into Spectroscopy.</li> </ol>
Electrodynamics	USPH-504	<ol style="list-style-type: none"> <li>i) Have gained elaborated knowledge about Electrodynamic, gauss laws divergence and curl; Poisson, Laplace equations, image problems different charge densities.</li> <li>ii) Have gained ability to apply Poisson, Amperes and faradays laws in magnestostatics to find different potentials and electrostatics and magnestostatics fields.</li> <li>iii) Study in depth about Polarization, bound charges and boundary condition, energies infields.</li> <li>iv) Using Maxwell equations students are able to understand interrelations and equivalence of E,D,B,H.</li> <li>v) To realize the importance of application of Blot Savarts Law and Amperes law. After Maxwell equations and formed continuity equations.</li> <li>vi) To understand the relevance of different magnetization and the boundary condition of magnetic field with electromagnetic waves in vacuum and</li> </ol>

		<p>matter using different form of wave and light equations.</p> <p>vii) Number of numerical were solved after completion of every unit, these efforts give rise up confidence level.</p>
<p>Practical of Course USPH501+ course USPH502 Practical of course USPH503+ course USPH504</p>	<p>USPH505 USPH506</p>	<p><b>Knowledge Outcomes:</b> Students able to understand fundamental knowledge of physics, including basic concepts and principles in thermodynamics &amp; mathematical (analytic and numerical) methods, Solid state Physics, Atomic and Molecular Physics, electrodynamics</p> <p><b>Professional Skills</b> Students will acquired the following professional skills to deal with representative physics problems and situations at the undergraduate level</p> <ol style="list-style-type: none"> <li>(1) Identifying the key factors and applying appropriate principles and assumptions in the formulation of physics problems;</li> <li>(2) Applying appropriate analytical and approximation methods;</li> <li>(3) Applying general experimental and measurement skills with prescribed procedures;</li> <li>(4) Analyzing experimental data and their level of uncertainty, and relating the experimental results with theoretical expectations;</li> <li>(5) Applying appropriate scientific programming skills;</li> <li>(6) Reporting the solutions to physics</li> </ol>

		<p>problems, experimental or project studies either orally or in written format.</p> <p><b>Generic Competencies:</b>  Graduates should have acquired some generic skills in their study, including the following</p> <ol style="list-style-type: none"> <li>(1) identifying the key issues and attempting different methods in dealing with general problems;</li> <li>(2) manipulating precise and intricate concepts to construct logical arguments;</li> <li>(3) paying attention to the details and their logical relationships when analysing an issue;</li> <li>(4) evaluating an issue critically based on evidence and scientific principles;</li> <li>(5) being comfortable with numbers and analysing an issue quantitatively.</li> <li>(6) acquiring knowledge effectively by self-study and work independently;</li> <li>(7) working effectively in a team;</li> <li>(8) presenting information in a clear, concise and logical manner, and</li> <li>(9) having good time management skills.</li> </ol>
		<p>i) students are able to understand central force, Keplers law, co-ordinate system and laws of motion with types of pendulum.</p>



Classical Mechanics	USPH-601	<ul style="list-style-type: none"> <li>ii) students are able to solve Lagrange's equations pendulum. DAlembertsprinciple,constraints and numericals, kinematics of moving fluids and eulers equation, tensor.</li> <li>iii) students are able to understand Duffings equations, Chaos and types of Harmonic Oscillator</li> <li>iv) overall understanding of concepts of equations of motion, linear harmonic and nonlinear harmonic oscillator and their motions, chaos, dynamics kinematics of fluid intrigued fascinating interest to the students.</li> </ul>
Electronics	USPH-602	<ol style="list-style-type: none"> <li>1. Understand the basics of semiconductor devices and their applications. About SCR,JFET,MOSFET,UJT,OPAMP.</li> <li>2. Understand-operational-Amplifier-as an-instrumentation, comparater filters of amplifier. Wave form generation.</li> <li>3. understand the basic concept of timing pulse generation and regulated power supplies.</li> <li>4. Understand the basic of digital circuits, number of numerical are solved. good ideas and skill to solve numerical to design circuits.</li> </ol>
Nuclear Physics	USPH-603	<p>Upon successful completion of this course, the student will be able to Understand the fundamental principle and concepts governing classical nuclear and particle physics and have a knowledge of their applications interactions of ionizing radiation with matter the key techniques for particle accelerators the physical processes involved in nuclear power generation. Knowledge on elementary</p>

		<p>particles will help students to understand the fundamental constituents of matter and lay foundation for the understanding of unsolved questions about dark matter, antimatter and other research oriented topics</p>
Relativity	USPH-604	<p>This course introduces students to the essence of special relativity which revolutionized the concept of physics in the last century by unifying space and time, mass and energy, electricity and magnetism. This course also gives a very brief introduction of general relativity. After the completion of the course the student should be able to</p> <ol style="list-style-type: none"> <li>1) Understand the significance of Michelson Morley experiment and failure of the existing theories to explain the null result.</li> <li>2) Understand the importance of postulates of special relativity, Lorentz transformation equations and how it changed the way we look at space and time, Absolutism and relativity, Common sense versus Einstein concept of Space and time.</li> <li>3) Understand the transformation equations for: Space and time, velocity, frequency, mass, momentum, force, fields. Energy, Charge and current density, electric and magnetic</li> <li>4) Solve problems based on length contraction, time dilation, velocity addition, Doppler effect, mass energy relation and resolve paradoxes in relativity like twin paradox etc.</li> </ol>
		<p><b>Knowledge Outcomes:</b> Students able to understand fundamental knowledge of</p>

<p>Practical of Course USPH601+ course USPH602 Practical of course USPH603+ course USPH604</p>	<p>USPH-605 USPH-606</p>	<p>physics, including basic concepts and principles Classical Mechanics, Electronics, Nuclear Physics, Relativity and experimental methods for physics.</p> <p><b>Professional Skills</b> Students will acquired the following professional Students will acquired the following professional skills to deal with representative physics problems and situations at the undergraduate level:</p> <ol style="list-style-type: none"> <li>(1) Identifying the key factors and applying appropriate principles and assumptions in the formulation of physics problems;</li> <li>(2) Applying appropriate analytical and approximation methods;</li> <li>(3) Applying general experimental and measurement skills with prescribed procedures;</li> <li>(4) Analyzing experimental data and their level of uncertainty, and relating the experimental results with theoretical expectations;</li> <li>(5) Applying appropriate scientific programming skills;</li> <li>(6) Reporting the solutions to physics problems, experimental or project studies either orally or in written format</li> </ol> <p><b>Generic Competencies:</b> Graduates should have acquired some generic skills in their study, including the following</p> <ol style="list-style-type: none"> <li>(1) identifying the key issues and attempting different methods in dealing with general problems;</li> <li>(2) manipulating precise and intricate concepts to construct logical arguments;</li> <li>(3) paying attention to the details and their</li> </ol>
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		<p>logical relationships when analysing an issue;</p> <p>(4) evaluating an issue critically based on evidence and scientific principles;</p> <p>(5) being comfortable with numbers and analysing an issue quantitatively.</p> <p>(6) acquiring knowledge effectively by self-study and work independently:</p> <p>(7) working effectively in a team;</p> <p>(8) presenting information in a clear, concise and logical manner, and</p> <p>(9) having good time management skills.</p>
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*GirivasiSevaMandalKalyan*  
**MurlidharNanajiMohiteGuruji Arts, Commerce & BMS College Khodala- Jogonalwadi Tal.  
Mokhada Dist. Palghar-401604**

**Faculty of Science**

**Department of zoology**

**Program Outcome:**

This program is one of the most fundamental unit of basic sciences studied at undergraduate level. The program helps to develop scientific tempers and attitudes, which in turn can prove to be beneficial for the society since the scientific developments can make a nation or society to grow at a rapid pace. After studying this program, students will be more equipped to learn and know about different biological systems, their coordination and control as well as evolution, behavior and biological roles of the animals in the ecosystem. Moreover, they will be able to qualitatively and quantitatively analyse evolutionary parameters using various bioinformatics and computational tools used in modern sciences. This will provide them ample opportunities to explore different career avenues. The program will also provide a platform for classical genetics in order to understand distribution or inheritance of different traits and diseases among populations, their ethnicity and correlate with contemporary and modern techniques like genomics, metagenomics, genome editing and molecular diagnostic tools. After the completion of this course, students have the option to go for higher studies, i.e., M. Sc. / Integrated MS Ph.D. and then do research work for the welfare of mankind. After higher studies, students can join as scientist or assistant professor or assistant teacher and can even look for professional job oriented courses, such as Indian Civil Services, Indian Forest Service, Indian Police Service etc. Science graduates can go to serve in industries or may opt for establishing their own industrial unit. Practical and theoretical skills gained in this program will be helpful in designing different public health strategies for social welfare. The program has been designed to provide in-depth knowledge of applied subjects ensuring the inculcation of employment skills so that students can make a career and become an entrepreneur in diverse fields. After the completion of the B.Sc degree there are various other options available for the science students.

**Programme Specific Outcome:**

Students enrolled in B.Sc. (Hons.) degree program in Zoology will study and acquire complete knowledge of disciplinary as well as allied biological sciences. At the end of graduation, they are likely to possess expertise which will provide them competitive advantage in pursuing higher studies from India or abroad; and seek jobs in academia, research or industries. Students will be able to define and explain major concepts in the biological sciences. They are able to correctly use biological instrumentation and proper laboratory techniques. Students will be able to communicate biological knowledge in oral and written form. Students will be able to identify the relationship or synchronization between structure and function at all levels: molecular, cellular, and organismal. Students should be able to identify, classify and differentiate diverse chordates and nonchordates based on their morphological, anatomical and systemic organization. They will also be able to describe economic, ecological and medical significance of various animals in human life. This will create a curiosity and awareness among them to explore the animal diversity and take up wild life photography or wild life exploration as a career option. The procedural knowledge about identifying and classifying animals will provide students professional advantages in teaching, research and taxonomist jobs in various government organizations; including Zoological Survey of India and National Parks/Sanctuaries. Students will be able to apply the scientific method to questions in biology by formulating testable hypotheses, gathering data that address these hypotheses, and analyzing those data to assess the degree to which their scientific work supports their hypotheses. Students will be able to present scientific hypotheses and data both orally and in writing in the formats that are used by practicing scientists. Students will be able to access the primary literature, identify relevant works for a particular topic, and evaluate the scientific content of these works. Acquired practical skills in biotechnology, biostatistics, bioinformatics and molecular biology

can be used to pursue career as a scientist in drug development industry in India or abroad. The students will be acquiring basic experimental skills in various techniques in the fields of genetics; molecular biology; biotechnology; qualitative and quantitative microscopy; enzymology and analytical biochemistry. These methodologies will provide an extra edge to our students, who wish to undertake higher studies. Students will be able to use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth. They will be able to use specific examples to explicate how descent with modification has shaped animal morphology, physiology, life history, and behavior. Students will be able to explain how organisms function at the level of the gene, genome, cell, tissue, organ and organ-system. Drawing upon this knowledge, they will be able to give specific examples of the physiological adaptations, development, reproduction and behavior of different forms of life. Students will be able to explicate the ecological interconnectedness of life on earth by tracing energy and nutrient flows through the environment. They will be able to relate the physical features of the environment to the structure of populations, communities, and ecosystems. Students undertaking skill enhancement courses like aquaculture, sericulture and apiculture will inculcate skills involved in rearing fish, bees and silk moth which would help them in starting their own ventures and generating self employment making them successful entrepreneurs. Acquired skills in diagnostic testing, haematology, histopathology, staining procedures etc. used in clinical and research laboratories will provide them opportunity to work in diagnostic or research laboratory. Candidates find opportunities in government departments, environmental agencies, universities, colleges, biotechnological, pharmaceutical, environmental/ecological fields. There are numerous career opportunities for candidates completing their B.Sc, M.Sc and Ph.D. in Zoology in public and private sector. Candidates may find jobs as Animal Behaviourist, Conservationist, Wildlife Biologist, Zoo Curator, Wildlife Educator, Zoology faculty, Forensic experts, Lab technicians, Veterinarians etc.

**First Year  
USZ0101  
Course- I  
F.Y.BSC  
Semester - I**

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**Paper - I Wonder of Animal World Biodiversity and its Conservation.**

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**Unit-I Wonder of Animal World.**

**Outcomes:**

Curiosity will be ignited in the mind of learners to know more about the fascinating world of animals which would enhance their interest and love the subject of ZOOLOGY .

**Unit -II Biodiversity and its Conservation.**

**Outcomes:**

Learner's would appreciate treasure of biodiversity, it's importance and hence would contribute their best for its conservation.

**Unit -III Footsteps to follow .**

**Outcomes:**

Minds of learners would be impulsed to think differently and would be encouraged ipso facto to their original crude ideas from the field of biological sciences.

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**USZ0102  
Course- II  
F.Y.BSC  
Semester - I**

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**Paper - II Instrumentation and Animal Biotechnology .**

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**Outcomes:**

Learners would work safely in the laboratory and avoid occurrence of accidents (mishaps) which will boost their scholastic performance and economy in use of materials/chemicals during practical sessions.

**Outcomes:**

Learners would understand recent advances in the subject and their applications for the betterment of mankind; and that the young minds would be tuned to think out of the box.

**Outcomes:**

Students will be skilled to select and operate suitable instruments for the studies of different components of Zoology of this course and also of higher classes including research.

USZ0201  
Course- 3  
F.Y.BSC  
Semester – II

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**Paper- I :Ecology and Wildlife Management**

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**Outcomes:**

This unit would allow learners to study about nature of animal population, specific factors affecting its growth and its impact on the population of other life form.

**Outcomes:**

Learners will grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment and will lead to better understanding about implications of loss of fauna specifically on human being, erupting spur of desire for conservation of all flora and fauna.

**Outcomes:**

Learners would be inspired to choose career options in the field of wild life conservation, research, photography and ecotourism.

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USZ0202  
Course- 4  
F.Y.BSC  
Semester – II

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**Paper –II :NUTRITION, PUBLIC HEALTH AND HYGIENE**

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**Outcomes:**

Healthy dietary habits would be inculcated in the life style of learners in order to prevent risk of developing health hazards in younger generation due to faulty eating habits.

**Outcomes:**

Promoting optimum conservation of water, encouragement for maintaining adequate personal hygiene, optimum use of electronic gadgets, avoiding addiction, thus facilitating achievement of the goal of healthy young India in true sense.

**Outcomes:**

Learners will be able to promptly recognize stress related problems at initial stages and would be able to adopt relevant solutions which would lead to psychologically strong mind set promoting positive attitude important for academics and would be able to acquire knowledge of cause, symptoms and precautions of infectious diseases.



**Second Year**

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**USZ0301**  
**Course- 5**  
**S.Y.BSC**  
**Semester – III**

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**Paper-I: Fundamentals of Genetics, Chromosomes and Heredity, Nucleic acids**

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**Outcomes:**

- Understand and apply the principles of inheritance.
- Understand the concept of multiple alleles, linkage and crossing over.

**Outcomes:**

- Learners would understand the structure and types of chromosomes.
- Learners would understand mechanisms of sex determination.
- Learners would be able to correlate the disorders linked to a particular sex chromosome.

**Outcomes:**

- Learner would understand the importance of nucleic acids as genetic material
  - The learners would understand and appreciate the regulation of gene expressions.
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**USZ0302**  
**Course- 6**  
**S.Y.BSC**  
**Semester – III**

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**Paper-II: Study of Nutrition and Excretion , Respiration and circulation, Control and coordination, Locomotion and Reproduction**

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**Outcomes:**

- Learners would understand the increasing complexity of nutritional, excretory and osmoregulatory physiology in evolutionary hierarchy.
- Learners would be able to correlate the habit and habitat with nutritional, excretory and osmoregulatory structures.

**Outcomes:**

- Learners would understand the increasing complexity of respiratory and circulatory physiology in evolutionary hierarchy.
- Learners would be able to correlate the habit and habitat with respiratory and circulatory structures.

**Outcomes:**

- Learners would understand the process of control and coordination by nervous and endocrine regulation.
- Learners would be fascinated by various locomotory structures found in the animal kingdom.
- Learners would be acquainted with various reproductive strategies present in animals.

**USZ0303**  
**Course- 7**  
**S.Y.BSC**  
**Semester – III**

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**Paper-III: Ethology , Parasitology, Economic Zoology**

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**Outcomes:**

- Learners would gain an insight into different types of animal behaviour and their role in biological adaptations.
- Learners would be sensitized to the feelings instrumental in social behavior.

**Outcomes:**

- Learners would understand the general epidemiological aspects of parasites that affect humans and apply simple preventive measures for the same.
- Learners would comprehend the life cycle of specific parasites, the symptoms of the disease and its treatment.

**Outcomes:**

- Learners would gain knowledge on animals useful to mankind and the means to make the most of it.
- Learners would learn the modern techniques in animal husbandry.
- Learners would be pursuing entrepreneurship as careers

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**USZ0401**  
**Course- 8**  
**S.Y.BSC**  
**Semester – IV**

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**Paper-I : Origin and evolution of Life, Population genetics and evolution, Scientific Attitude methodology , writing and ethics**

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**Outcomes:**

- Learner will gain insight about origin of life.
- Learner will know about the different theories of evolution.

**Outcomes:**

- Learner would understand the forces that cause evolutionary changes in natural populations.
- Learner would comprehend the mechanisms of speciation
- Learner will be able to distinguish between microevolution, macroevolution and megaevolution

**Outcomes:**

- The learner will develop qualities such as critical thinking and analysis.
- The learner will develop the skills of scientific communication.
- Learner will understand the ethical aspects of research

**USZ0402**  
**Course- 9**  
**S.Y.BSC**  
**Semester – IV**

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**Paper-II : Cell Biology, Endo membrane System and Biomolecules**

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**Outcomes:**

- Learner would acquire insight of transport mechanisms for maintenance and composition of cell

**Outcomes:**

- Learner would appreciate the intricacy of endomembrane system.
- Learner would understand the interlinking of endomembrane system for functioning of cell.

**Outcomes:**

- The learner will realize the importance of biomolecules and their clinical significance.

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**USZ0403**  
**Course- 10**  
**S.Y.BSC**  
**Semester – IV**

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**Paper-III :Comparative Embryology, Aspects of Human Reproduction, Pollution and its effect on organisms**

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**Outcomes:**

- Learner will be able to understand and compare the different pre- embryonic stages
- Learner will be able to appreciate the functional aspects of extra embryonic membranes and classify the different types of placentae.

**Outcomes:**

- Learners will be able to understand human reproductive physiology
- Learners will become familiar with advances in ART and related ethical issues.

**Outcomes:**

- The learners will be sensitized about the adverse effects of— pollution and measures to control it.

## 8. Program Outcomes

### B.A

After completion of the program students are able to:

1. Acquire correct pronunciation in Marathi language
2. Make use of Marathi for creative writing
3. Improve their skill of reading Marathi
4. Use the standard and region wise Marathi for communication
4. Produce and write grammatical knowledge in Marathi

## 8.1 Course Post Course Program Outcomes

### Marathi

#### A. Program Outcomes –

1. Shahiri and Bakhar literature will be introduced.
2. There will be an introduction to the creation of literature of different sects and religions.
3. The creation process and project of Indian literature will be introduced.
4. The relationship between metropolitan and rural literature will be noticed.
5. Various parts of language and classical method will be introduced.

## **10. SWOC Analysis**

### **10.1 Strength**

- 1) Best academic record of the teachers and meritorious student. Marathi of progressive results in final year B.A and M.A Course.
- 2) The Department provides a rich library to the Students.
- 3) Teachers are able to teach with the help of audio - Visual aids
- 4) The Department Provides internet facilities.

### **10.2 Weakness –**

- 1) The department has not language laboratory for teaching pronunciation
- 2) Computer facility should be enhanced
- 3) The student are belong to rural area so they have to face many difficulties.
- 4) Less student pursuing higher education
- 5) Institute lacks in revenue generation
- 6) Involvement of Alumni at Institute level is less.

### **10.3 Opportunities-**

- 1) The students have many opportunities to work for government & Private sectors.
- 2) The students have many opportunities in Journalism.
- 3) The students have scope in writing literature and Scripts.

### **10.4 Challenges –**

- 1) Competition with other colleges.
- 2) Rising Distance education Courses.
- 3) Now - a - days the students are interested in competitive exam, so they opt for social sciences.

**Girivasi Seva Mandal Kayalan's  
Murlidhar Nanaji Mohite Guruji Arts , Commerce & Science College  
Khodala – Jogalwadi Tal. Mokhada Dis- Palghar -401604**

**DEPARTMENT OF ENGLISH:**

**Program Outcomes**

1. Students will be able to appreciate literary/linguistic developments of different countries and different periods.
2. Students will comprehend major trends, movements and '-isms' and different critical/linguistic approaches.
3. Students will develop acumen to appreciate, interpret and critically evaluate prescribed texts.
4. Students will be able to interpret, analyse and evaluate different varieties of written and spoken English.
5. Students will be able to analyse unseen poem and prose stylistically.
6. Students will learn different approaches to syllabus design and methods of teaching
7. Write grammatically and stylistically accurate English.
8. Speak comprehensible English with correct accent and tone.
9. Interpret literary texts using standard critical tools.
10. Analyze literary and cultural texts to explain their ideological substructures.
11. Discover the delicate relationship between history, culture and literary production
12. Developing intellectual, personal and professional abilities through effective communicative skills; ensuring high standard of behavioural attitude through literary subjects and shaping the students socially responsible citizens.
13. To enhance employability of the students by developing their linguistic competence and communicative skills

## PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO 1. Literature courses of English provides an opportunity to study & implement world best literature of all countries along with its history, Social, Cultural & political background.

PSO2: Literature provides imaginative & critical insights into all areas of human life.

PSO 3: The blend of English language courses helps students to understand the language niceties through literature

PSO4: Select literary pieces help students understand the moral stories in life

PSO5 The subject knowledge helps not only for the professional life but also in their personal life

PSO 5: It develops intellectual, personal & professional abilities through effective communicative skills

PSO 6: It shapes students as socially responsible/ citizens.

PSO7: Students will be accurate both in oral & written communication as well as Grammar & its usage.

PSO8: They can apply critical frameworks to analyse the linguistic, cultural & historical background of texts written in English.

PSO 9: They will be familiar with the convention of diverse textual genres including fiction,

PSO10. On successful completion of the Programme, the students will be accurate both in oral and written communication as they will be strong in Grammar and its usage.

PSO11. They can express a thorough command of English and its linguistic Structures.

PSO.12 They can apply critical frameworks to analyze the linguistic, cultural and historical background of texts written in English.

PSO.13 They will be familiar with the conventions of diverse textual genres including fiction, nonfiction, poetry, autobiography, biography, Journal, film, plays, editorials etc.

## **SUBJECT OUTCOMES (SO)**

### **FYBA**

#### **Communication Skills in English**

1. The learners will learn to understand and interpret any text they are reading from different perspectives
2. The interest of learners in listening to and watching good quality audio and visual media will be aroused.
3. Learners will acquire proficiency in the skills of listening, speaking, reading and writing that will help them meet the challenges of the world.
4. The learners will develop good oral and written skills of communication in the English language.

#### **Introduction to Prose and Fiction Paper I and II**

1. To develop passion for reading literary works amongst students
2. To make learners at ease in the process of appreciation of literature
3. To enable learners to understand and analyze selected stories, prose, fiction and non fiction masterpieces
4. To imbibe the underlying philosophy and values reflected in literature
5. To develop sensitivity to nature and understand the relationship between human beings and environment

### **SYBA**

#### **Business Communication Paper I & II**

At end of the course learners will develop

1. Theoretical understanding of both business and communication
2. The business correspondence techniques.
3. Competency in effective use of media and electronic devices in business.
4. Interpersonal skills, presentation skills, oral, written and listening skills

#### **Optional English: Introduction to Drama**

By the end of the course, a learner will:

1. develop interest and passion for drama (and theatre).
2. be familiarized with the salient elements and characteristics of drama.



3. be able to identify the different forms and types of drama.
3. be capable to identify the various trends and characteristics of significant dramatic movements through the representative dramas.
4. be equipped with the tools and techniques to critically appreciate drama.
5. imbibe human values reflected in the selected plays.
6. justify that drama is reflection / representation of life.
7. develop analytical skills and critical thinking through close reading of the representative dramas

### **Optional English: Introduction to Poetry**

: By the end of the course, a student should develop the ability to:

1. Identify different genres and forms of poetry
2. Identify poetic technique, style and rhetorical devices used in poetry
3. Critically appreciate poems by separating various component parts and investigating the relationship of the parts to the whole
3. Demonstrate understanding of wide range of poems from different historical periods, written in a wide range of forms, styles and subject matter
4. Identify the major poets of world literature and define the importance of their works
5. Enhance their cultural sensitivity through reading of representative poems from diverse cultural context

### **TYBA**

#### **16th to 18th Century English Literature Course Codes: UAENG501 & UAENG601**

- After completion of the course, students are expected to be able to:
  - 1) To understand the distinctive features of English literature of the 16th, 17th and 18th centuries
  - 2) To comprehend how background influences shaped the writer's thinking.
  - 3) To recognize and appreciate the literary masters who dominated the scene.
  - 4) To grasp the different writing styles that each age adopted.

**Literary Criticism Course Code: UAENG502 & UAENG602**

Outcome of the Course: After completion of the course, students are expected to be able to:

- 1) use some important critical terms
- 2) become aware the nature and function of literature and criticism
- 3) impart the technique of close reading of literary texts
- 4) understand the various literary theories and critical approaches
- 5) be familiar with the tenets of practical criticism

**GRAMMAR AND THE ART OF WRITING Course Codes: UAENG503A & UAENG603A**

Outcome of the Course: After the completion of the course, students are expected to be able to:

1. Gain a basic understanding of phonetics, morphology and word transformation
2. Have improved speaking skills
3. Have developed adequate knowledge of the rules of grammar, grammatical analysis and sentence transformation
4. Write effectively in various domains.

## **DEPARTMENT OF HINDI**

### **Programme Outcomes**

- 1) To make the students competent in various walks of life
- 2) To make the students job ready and enhance their employability.
- 3) To make the students aware of and responsible towards gender, religion, and class equality
- 4) To enhance critical thinking by making them participate in social activities and imbibe human values among them.
- 5) To encourage the students to participate in research at different levels through projects, interviews, surveys and field visits.

### **Program Specific Outcomes**

On completion of B.A Hindi, students will be able :

- 1) To understand the basic concept and subject of Hindi and its origin.
- 2) To make or not the importance of subject Hindi and its Branches.
- 3) To understand various aspects of Hindi literature with the process of reaching a method and giving a new mode and direction.
- 4) To make an attempt in different areas and theory such as vocabulary and vice versa.
- 5) To understand the Literature more in a border area then may be confined to the subject.
- 6) To know about Hindi literature its roots cause perspectives and methods.
- 7) Elaborating and understanding its philosophical methods of Hindi Literature.
- 8) Evaluating the concept of Hindi from past to present and making the society more closely through literature.

## Department of Hindi

### Program Outcomes (P.O.) :

- General Hindi/ Hindi Literature
- Basic knowledge of Hindi Grammar & Literature.
- Development of effective communication skills in Hindi.
- Enhanced employability of students by developing their linguistic competence.

### Program Specific Outcomes (P.S.O.) :

- Understanding the origin of Hindi language & literature.
- Understand various genres of Hindi Literature.
- Enriched Hindi vocabulary.
- Understand the philosophy behind Hindi Literature.
- Evaluate Hindi Literature from past to present and using it as a lens to understand society.
- Spread the knowledge of our national language to others.

### Course Outcomes:

Course Code	Title of the Course	Credit	Course Outcome
UAHINCOM 101 FYBA (SEM I)	Compulsory Hindi	3	Learners got knowledge of Hindi poems, Story, Translation and letter Writing.
UAHINCOM 201 FYBA (SEM II)	Compulsory Hindi	3	Learners got knowledge aap essay writing. Improve their writing skill and grammar.
UAHIN 101 FYBA (SEM I)	Ancillary Hindi	3	Learners become familiar with Hindi Story, Essay (Prose) Auto -Biography and memories.
UAHIN 201 FYBA (SEM II)	Ancillary Hindi	3	Learners Gained knowledge of evolution of Hindi Story and Hindi Novels.
UAHIN 301 SYBA (SEM III)	SYBA Hindi Paper II	3	1. विद्यार्थियों में मानवीय संवेदनाओं के विकास के साथ नवीन सामाजिक, सांस्कृतिक बोध और जीवन मूल्यों का विकास होगा।

			<p>2. विद्यार्थियों में साहित्य के माध्यम से कलात्मक गुणों की अभिवृद्धि होगी, कला की साहित्यिक विधाओं के प्रति अभिसंधि जागरूक होगी तथा रचनात्मक-कौशल्य को बढ़ावा मिलेगा।</p> <p>3. विद्यार्थियों में नए वैश्विक-मूल्यों के प्रति सजगता और बढ़ावा मिलेगा एवं पर्यावरणीय चेतना के प्रति दायित्व-बोध उत्पन्न होगा।</p>
UAHIN 401 SYBA (SEM IV)	SYBA Hindi Paper II	3	<p>1. विद्यार्थियों में मानवीय संवेदनाओं के विकास के साथ-साथ सामाजिक, सांस्कृतिक और राजनीतिक मूल्य का गुणात्मक विकास होगा।</p> <p>2. विद्यार्थियों में राष्ट्र-निर्माण हेतु नए सामाजिक, राजनीतिक, संस्कृति के विचारों का प्रसार होगा और दायित्व-बोध निर्गुण का विकास होगा।</p> <p>3. विद्यार्थियों में नए वैश्विक मूल्यों के प्रति सजगता को बढ़ावा मिलेगा एवं मूल्यवादी दृष्टि के प्रति दायित्व-बोध उत्पन्न होगा।</p> <p>4. विद्यार्थियों में साहित्य-रसास्वादन के साथ कलात्मक अभिसंधि का निर्माण होगा, रचनात्मक-कौशल्य को बढ़ावा मिलेगा।</p>
UAHIN 302 SYBA (SEM III)	SYBA Hindi Paper III	3	<p>1. विद्यार्थियों को व्यवहारिक हिंदी भाषा-दक्षता की प्रवीणता की प्राप्ति होगी।</p> <p>2. विद्यार्थियों का व्यवसायिक रूप से आत्मनिर्भरता के योग्य बनाना।</p> <p>3. विद्यार्थियों जनसंचार माध्यमों में रोजगार के अवसर, क्षेत्रों से अवगत होंगे।</p>
UAHIN 402 SYBA (SEM IV)	SYBA Hindi Paper III	3	<p>1. विद्यार्थियों को तकनीकी और व्यवहारिक भाषा दक्षता की प्रवीणता प्राप्ति होगी।</p> <p>2. व्यवसायिक रूप से आत्मनिर्भरता की संभावना बढ़ेगी।</p> <p>3. जनसंचार माध्यमों में रोजगार के क्षेत्रों से</p>

			परिचय होगा।
UAHIN 501 TYBA (SEM V)	History of Hindi literature Paper IV	4	Learners got knowledge of History Ancient and History of Hindi literature Paper 4Mediaeval Hindi Literature (Poetry From)
UAHIN 601 TYBA (SEM VI)	History of modern Hindi literature Paper IV	4	Learners got knowledge of modern Hindi literature poetry and Prose in various eras of modern times.
UAHIN 502 TYBA (SEM V)	Post-Independence Hindi Literature Paper V	4	Learners got knowledge of Play KhandKavya (Epic), sansmaran rekhachitra -Prose
UAHIN 602 TYBA SEM VI	Post- Independence Hindi Literature Paper V	4	Learners got knowledge of various forms of Hindi poetry, definition and elements of GeetKavy, Essay.
UAHIN 503 TYBASEM V	Information Technology in Hindi Paper VI	4	Learners got knowledge of translation with use of Computer Information Technology, Internet, Print Media etc.
UAHIN 603 TYBA SEM VI	Social Media Paper VI	4	Learners got knowledge of use of Social media like Facebook, WhatsApp, Twitter etc.
UAHIN 504 TYBA SEM V	Literary Criticism prosody and rhetoric Paper VII	4	Learners got knowledge of Definition of Literature, elements of Various forms of Literature, Prosody.
UAHIN 604 TYBA SEM VI	Literary Criticism prosody and rhetoric Paper VII	4	Learners got knowledge of Rasa, Shabd Shakti, form of Prose and rhetoric's
UAHIN 505 TYBA SEM V	Linguistics Hindi Language and Grammar Paper VIII	4	Learners Learned Hindi grammar, evolution of Language, Science of Language
UAHIN 605 TYBA SEM VI	Linguistics Hindi Language and Grammar Paper VIII	4	Learners got information about ancient and mediaeval India Aryan Language, forms of modern Hindi language, dialects and language khadi boli Hindi
UAHIN 506 TYBA SEM V	Mass Media Paper XI	4	To able to understand use of Hindi language for newspaper, cinema and radio. To able to understand the role of information technology in employment generation.
UAHIN 606 TYBA SEM VI	Mass Media Paper XI	4	Learners got knowledge of use of Social media like Facebook, WhatsApp, Twitter etc.

## **Department of Economics**

### **Program Outcomes**

1. To make the students competent in various walks of life
2. To make the student job ready and enhance their employability.
3. To make the students aware of and responsible towards gender, religion and class equality.
4. To enhance critical thinking by making them participate in social activities and imbibe human values them.
5. To encourage the students to participate in research at different levels through projects, interviews, surveys and field.

### **Program Specific Outcomes**

1. To introduce basic theoretical concepts at entry level.
2. To provide in-depth understanding and current economic affairs of Indian economy.
3. To make students aware regarding employment opportunities in banking finance and export sector.
4. To make students capable of making rational economic decisions.
5. To promote awareness regarding human resource development among students.

### **Course Outcomes**

#### **FYBA Sem. – 1. Paper - I, Micro Economics - I**

1. Learners can be aware about basic principles of microeconomic theory.
2. Learners will understand the concepts and importance of Opportunity Cost, Incentives Exchange Inflation and Unemployment Trade Off.
3. Students can apply the demand and supply function in business decisions.
4. Students can understand the importance of maximum satisfaction.

#### **FYBA Sem. – 2. Paper - II, Micro Economics - II**

1. Learners can be aware about production function and production theories.
2. Students can understand the various cost and revenue concepts.
3. The students can understand the different theories of factor pricing, rent, wages, interest, profit.
4. Learners can be aware about different market structures and their equilibrium conditions for price output determination.

### **SYBA Sem. – 3. Paper - III, Macro Economics – I**

1. The students can understand the Concepts, Measurement, and Circular flow of National Income.
2. Students can understand the various cost and revenue concepts.
3. The students can understand the different theories of factor pricing, rent, wages, interest, profit.
4. Learners can be aware about different market structures and their equilibrium conditions for price output determination.

### **SYBA Sem. – 3. Paper - IV, Public Finance**

1. Learners can aware about sources of monopoly and various aspects of monopoly market.
2. Students can understand basics of game theory.
3. Learners can introduce with different oligopoly models, and forms of price leadership.
4. Students can acquaint the knowledge of General equilibrium and Pareto optimality conditions of social welfare.

### **SYBA Sem. – 4. Paper - V, Macro Economics – II**

1. The students can understand the trade balance and implications for GDP calculation, export and import functions.
2. Learners can aware about IS/LM/UIP model fiscal and monetary policy under fixed and flexible exchange rates.
3. Learners can grasp the knowledge about different types of exchange rate systems and exchange rate crises.
4. Learners can acquaint knowledge about the gold standard and Bretton Wood systems and their collapse.

### **SYBA Sem. – 4. Paper - VI, Indian Economy**

1. Students will understand the Trends in India's National Income and PCI Since 1990; Structural Changes In Indian Economy; Brief Overview of the Employment Generation and Poverty Alleviation Programmes; Regional Inequalities; Measures to Reduce Regional Inequalities in India.
2. The learners will understand Role of Agriculture in Economic Development, Agricultural Inputs; Agricultural Price Policy, Sources of Agricultural Finance, Agricultural, Marketing, National Policy for Farmers, Food Security.
3. Infrastructure for Industrial Development; Industrial Policies in India; Industrial Policy



of 1991; Micro, Small and Medium Enterprises (MSMEs): Classification, Role and Policy Measures; Growth of Large Scale Industries and Economic Development; Recent Policies and Programs for Industrial Development: Start Up India, Make in India, Skill India; Role and Trends of FDI in Industrial Sector Development.

4. Learners are expected to understand the Types of Research Report, the Format of a Research Report- Principles of writing the Research Report and the The Documentation and indexing.

#### **TYBA Sem. – 5. Paper - VII, Advance Micro Economics – III**

1. Enables students will get knowledge on new market structure, imperfect competition.
2. Provides understanding on the welfare economics and economics of information.
3. Learners can introduce different oligopoly models, and forms of price leadership.
4. Students can understand basics of the Theory of Asymmetric Information Oligopoly Market & basic game theory.

#### **TYBA Sem. – 5. Paper - VIII, Economics of Growth & Development**

1. Enable students to apply and analyse issues in the development process.
2. Students will be able to identify the issues related to Growth and Development.
3. Students will be able to understand the policy options and analyzed the Measures taken for the Development of an economy.
4. To impart knowledge about essential technology and infrastructure in economic development.

#### **TYBA Sem. – 5. Paper - IX, Economics of Agriculture and Co-operation – I**

1. Students will obtain information regarding various agricultural issues in India and remedies for it.
2. Making awareness about self- employment through various local business like agro-tourism, travel agents, horticulture, floriculture, fishery and animal husbandry.
3. To provide an overview of the role of agriculture in the economic development of the country.
4. To acquaint students with the salient features associated with agricultural productivity and labour, credit, marketing and problems.

**TYBA Sem. – 5. Paper - X, Economics of Agriculture and Co-operation – I**

1. The learners will understand and inculcate research in Economics
2. The learners will exchange ideas and application of results of economic research.
3. The course will help in formulation of problems in social science research.
4. The students will understand data collection and presentation for quality research in social sciences.

**TYBA Sem. – 5. Paper - XI, Environmental Economics – I**

1. On the completion of this course, the student will have a good understanding of contemporary environmental issues and their relation to economic development.
2. The learner will be equipped to understand the methodologies and tools of valuing the environment.
3. In the light of international environmental agreements, the learners will be able to understand the global approaches and policies adopted by India to deal with the environmental issues.
4. To impart knowledge about the structure of markets and contracts linked to problem of enforcement experienced in poor countries.

**TYBA Sem. – 5. Paper - XII, History of Economics Thought – I**

1. Students will get information about the genesis of Economics and its modern scenario.
2. Establish the co-relation of Economics with other subjects.
3. To provide basic understanding about the celebrated economists and their contributions starting from the classical period.
4. To acquaint students with economic ideas of Keynes, Hayek's, Mankiw's etc.

**TYBA Sem. – 6. Paper - XIII, Advanced Macroeconomics – III**

1. To make student aware about Post Keynesian Synthesis and understand various aspects of Trade Cycles.
2. Students will be able to describe the contemporary Exchange Rate Regimes and International Monetary System.
3. To impart knowledge about foreign exchange market, money market, uncovered interest parity.

**TYBA Sem. – 6. Paper - XIV, International Macroeconomics**

1. Students will be able to understand the trade theories and determinants of trade which helps them to analyze the international trade policies.

2. Students will be able to understand the role of various international institutions and trade blocks and their approaches in framing the policies for trade.
3. To provide various aspects of international trade theories.
4. To impart knowledge about foreign exchange market and international economic organization.

#### **TYBA Sem. – 6. Paper - VX, Economics of Agriculture and Co-operation – I**

1. Students can understand the basic Principles of Cooperation, Globalization and Cooperation.
2. Provides information about co-operative Movement in India and its performance and role in rural development.
3. Students get introduced to the problems and measures of agro industries and Cooperative farming and Leadership in cooperative development.
4. Learners can acquaint knowledge about different types of Co-operatives.

#### **TYBA Sem. – 6. Paper - VXI, Research Methodology – II**

1. The learners get assimilated to the research culture in Economics through application of statistics.
2. The learners will understand the concept of index number with its use and applications.
3. The course will help in formulation of hypotheses and its testing in social science research.
4. The students will understand the writing of social science research reports with its various types, organization and styles.

#### **TYBA Sem. – 6. Paper - VXII, Environmental Economics – II**

1. Students are empowered about the environmental challenges and the need for environmental accounting.
2. Develop understanding on the policy measures to attain SDGs
3. To acquaint students with demographic concepts under development process and theories of migration.
4. To impart knowledge about the structure of markets and contracts linked to the problem of enforcement experienced in poor countries.

#### **TYBA Sem. – 6. Paper - VXIII, History of Economic Thought – II**

1. Students will get information about the genesis of Economics and its modern scenario.
2. Students get familiarized with the leading Indian economists who significantly contributed to the stream of Indian economic thought.

**Department of History UG – Programme specific outcomes**

1	Student Understand The Importance of our Glorious Past.
2	They Understand the Meaning of Nationalism and they Respect toward Great National Personality.
3	They understand Nature & scope of History.
4	They Understand World history and its impact on India

**Department of History PG Programme specific outcomes**

1	Student Understand earn The Basic Skill of history Writing & research.
2	They Tress out the Root of contemporary society from the past
3	They realize the importance of Socio cultural moral value.
4	They understand the Depth of Subject of History from Macro to Micro

### Course Outcomes of History Subjects

Mr.Pravartan sanjay Kashid,  
Asst. Professor, History Dept.

MNMG College of arts, com & Scicence khodala-Jogalwadi Tal – Mokhada,  
Dist – Palghar 401604.

Sr. No	Class	Subject	Learning Outcomes
1	FYBA P-I	Modern history of India (1857 to 1950)	1. Student will be able to formulate basis of modern India through different concepts like modernity, Rule of Law etc.
			2. Students will be able to analyze the process of rise modern India and its foundation made by Social reformer and freedom fighters.
			3. Students will be able to categorize different school of thoughts about Modern India history.
			4. Students will be able to analyze social background of Indian Nationalism
			5. Students will be able to illustrate rise and growth of Economic Nationalism in India
2	SYBA P-III	Ancient India From earliest Time to 1000 A.D	1. Students will be able to examine institutional basis of Ancient India
			2. Students will be able to indicate multiple cultures (Greek, Shaka, Hun etc) of Ancient India.
			3. Students will be able to illustrate the development of empire
			4. Students will be able to explain our heritage through cultural aspects of Ancient India.

Sr. No	Class	Subject	Learning Outcomes
3	TYBA P-04	History of medieval India (1000 CE-1526 CE)	1. Students will be able to analyze administrative system of Delhi sultanate
			2. Students will be able to explain nature of sultanate Polity.
			3. Students will be able to identify strength and weakness of badami administrative system.
			4. Students will be able to review socio-political power structure of Tughlaq,sayyid lodi period.
4	TYBA P-05	Modern Maharashtra (1818- 1960)	<p>1. Students have understood the regional history within broad national framework</p> <p>2. Students have understood institutional experiments in socio religious reformism</p> <p>3. Students have understood the contribution of Maharashtra in Indian National Movement</p> <p>4. Students understood the importance of Samyukta Maharashtra Movement.</p>
5	TYBA P-07	History Of Marathas (1630 CE to 1707 CE)	1. Students will be able to analyze administrative system of Marathas
			2. Students will be able to explain nature of Maratha Polity.
			3. Students will be able to identify strength and weakness of Maratha administrative system.
			4. Students will be able to review socio-political power structure of Maratha period

### Course Outcomes of History Subjects

**Mr.Kailas N.Patil,**

Asst. Professor, History Dept.

MNMG College of arts, com & Scicence khodala-Jogalwadi Tal – Mokhada,  
Dist – Palghar 401604.

Sr. No	Class	Subject	Learning Outcomes
1	SYBA P-III	Landmarks in world History 1300 A.D.-1945 AD	<ol style="list-style-type: none"><li>1. Students have understood the relation between Modernity and Nationalism and its implications</li><li>2. Students have understood the process of colonialism in different part of world</li><li>3. Students have understood the problems of contemporary world in the light of its background history.</li><li>4. Students have understood the necessity of Universal-Brotherhood</li></ol>
2	TYBA P- VI	Media & Communication	<ol style="list-style-type: none"><li>1. Students have get acquainted with signification of communication.</li><li>2. Students have understood the folk theater, major dance forms.</li><li>3. Students have understood process of folk expression</li><li>4. Students have understood challenges of journalism.</li></ol>

Sr. No	Class	Subject	Learning Outcomes
3	TYBA P- VIII	History of Contemporary world (1945 CE-2000CE)	<p>1. Students gained knowledge about political history of modern world.</p> <p>2. Students traced and analyzed the main development of contemporary world and explored the important developments of 20th century world.</p> <p>3. Students acquired the knowledge of the principles, forces, processes and problems of the recent times.</p> <p>4. Students were able to explain the various political movements and growth of nationalism in different parts of the world.</p>
4	TYBA P- IX	Research methodology and sources of history	<p>1. Student able to understand of various term, Key concept related Research methodology and sources of history</p> <p>2. Student able to understand sources of history</p> <p>3. They discuss the contemporary History issues in classroom and its related to be history.</p> <p>4. They take interest to read various book related to Research methodology and sources of history</p>



*Girivasi Seva Mandal Kalyan 's*  
**MNMG ARTS, COMMERCE, AND SCIENCE COLLEGE**  
**KHODALA-JOGALWADI**

**DEPARTMENT OF POLITICAL SCIENCE**

• **Programme Specific Outcomes:**

1. To introduce the learner to the Constitution of India and Political Process in India.
2. To help to build the theoretical foundation of learners in the subject of political science.
3. To improve the understanding of learners about relationship between citizen and state.
4. To familiarize the learners with theory and practice of International Relations with special emphasis on foreign policy of India.
5. To introduce the learners to political ideas from Western and Indian tradition.

• **Course Outcomes:**

Title of the course	Course credit	Course outcome
FYBA	8 (4 per semester)	<ol style="list-style-type: none"><li>1) To help the learners to acquaint with the theory and practice of constitutionalism in India.</li><li>2) To help the learners to develop constitutional perspective to understand political system of India.</li><li>3) To introduce the learners with the history of the making of Indian Constitution.</li><li>4) To orient the learners about rights and duties of citizens under the constitution.</li><li>5) To familiarize and acquaint with the functioning of executive, legislature and judiciary; and their mutual relationship.</li><li>6) To help the learners to understand the changing nature of federal system in India.</li></ol>

		<p>7) To understand the party politics and electoral process in India.</p> <p>8) So, explore social dynamics involving caste, religion and gender behind functioning of Political system in India.</p> <p>9) To understand and analyze the challenges to national security in India with reference to criminalization, Naxalism and global terrorism.</p>
SYBA PAPER-II	6 (3 Per Semester)	<p>1) To introduce the learners to traditional and contemporary approaches to political theory.</p> <p>2) To familiarize the learners with theory of State, Nation, Civil Society, Market.</p> <p>3) Understand the basic concepts of Power, Authority, Legitimacy, Law, Political Obligation and Right to Resist.</p> <p>4) Understand the discourse on rights in political science.</p> <p>5) To introduce to political values of liberty, equality and justice.</p> <p>6) To develop the theory and practice of democracy.</p> <p>7) Acquaint the students with the contemporary debates across the ideologies of Marxism, Fascism and Feminism.</p>
SYBA PAPER-III	6 (3 Per Semester)	<p>1) To introduce the learner to the discipline of public administration.</p> <p>2) To acquaint with theories of administration.</p> <p>3) To study basic principles of organization.</p> <p>4) Students acquaint with concept of governance and its increasing significance in the era of Globalization</p> <p>5) To introduce the learner to evolution of Indian administration since British rule.</p> <p>1) To understand the recruitment system of Indian Administration.</p> <p>2) To understand the financial administration of India.</p> <p>3) To understand issues of integrity, corruption and citizen participation in Indian administration.</p>
TYBA PAPER –IV	8 (4 Per Semester)	<p>1) Students help to identify and conceptualize the Major issues in the International Relations</p> <p>2) Students help to identify the major national/international actors engaged in dealing with</p>

		<p>these issues at various levels in international Politics</p> <p>3) Understand to the Nature and emerging trends of India's Foreign Policy.</p> <p>4) Students acquaint with the domestic and international security concerns</p> <p>5) Understand of the relations of India with neighboring countries and major powers in the world</p>
TYBA PAPER –V	8 (4 Per Semester)	<p>1) To understand the major western philosophical traditions in study of politics.</p> <p>2) To study the contribution of Machiavelli, John Locke, J.S. Mill, John Rawls, Karl Marx, Antonio Gramsci, Simon-deBeauvoir and Will Kymlicka</p> <p>3) Understand the Political Ideas, views and concerns of leading Indian thinkers.</p> <p>4) To familiarize with richness of political ideas within discourses on nationalism, democracy and social transformations in pre and post-independence India, their need for modern society.</p>
TYBA PAPER –VI	6 (3 Per Semester)	<p>1) Student familiarize with the historical basic information, analytical framework the formation of Maharashtra State</p> <p>2) Students understand the changes and the new trends in Maharashtra Politics</p> <p>3) Understand important issues in Current Maharashtra Politics.</p>

Girivasi Seva Mandal Kalyan 's  
Murlidhar Nanaji Mohite Gurui College Of Art, Commerce & BMS  
Khodala –Jogalwadi Tal-Mokhda Dist –Palghar 401604

## **Rural Development –**

### **Programme Specific Out comes**

1. The Student sensitized towards rural development issues and understands the relevance between program and social and rural and urban environment.
2. The student become irresponsible for rural development .
3. The Student identifies resources and foundations of rural development especially in agriculture and their management.
4. The student exposes himself to rural research education extension education and rural administration.
5. The student identifies rural laws related to revenue and rural administration.
6. The student identifies rural Concepts of development based on agriculture and allied activities.

#### **□ Course outcomes :**

##### **FYBA PAPER-I**

1. The Student tells Concepts related rural development and reveals institutions of society and identifies social changing factors.
2. The student knows institutions of rural economy and infrastructure and knows the concept of rural development
3. The student known the issues of rural communication the student is land of syllabus content

##### **SYBA PARER-II**

1. The student of rural education system is fully aware of concepts theories of social change and problems.
2. The student analyses policies related to agriculture and agriculture development
3. The student know the sources from rural parts of rural employment and identifies rural tourism as an opportunity.

### **SYBA PARER-III**

1. The student identifies of learning theories with district and taluka administration
2. The student tell the revenue administration functions of laws and order administration.
3. The student understand and identifies planning machinery and reforms needed at planning stage.
4. The student reveals the laws related to land related to rural area and use of RTI.
5. The student finds linkages between administration and practical exposure.

### **TYBA**

#### **PAPER-IV( )**

1. The student identifies the importance scope of rural Development in rural India and reveals traditional and non-traditional services.
2. The student tells farm business management nature principles and practice of agricultural production.
3. The student finds linkages in modern techniques and rural development need of Green Revolution and sensitization for there of production.

#### **PAPER-V( )**

1. The student identify financial institutions and nature and scope of rural marketing
2. The student tell about marketing risks and areas of uncertainty and reveal agencies of marketing media tour and rural distribution chain.
3. The student reveal the knowledge of rural development banks like NABARD, PCCS, etc.
4. The student narrates the concepts of rural finance , problem and remedies.

#### **PAPER-VI ( )**

1. The student grows self-reliant through self-employment based on agriculture
2. The student reveal agro-ecology and importance of mixed cropping and identifies opportunities in forestry in rural and agro-bested industries.

3. The student see opportunities in animal husbandry, poultry ,fishery and allied agro -products.

**Out Come of this course:**

1. Student have got more exposure from field visit.
2. Some student create a interest in Horticulture framing.
3. It promote self employment i.e. Nursery.
4. Student learn new techniques of Horticulture.
5. Some student thinking about cashew processing.

## Faculty Of Commerce

### Bachelor of Commerce

#### Program & Course Outcome 2014-2015 To 2022-23

##### • Program Outcome

We started commerce program to develop business skill and ability and awareness about competitive exam. Such as banking, LIC, Railway, MPSC, UPSC after completion education in commerce. Students also appear for C.A., ICWA, C.S., and M.Com. M.B.A., they are eligible to getting job in private sector or public sectors and also join industrial field and they also start their own business. Our college is located in Tribal area in Palghar District. Maharashtra Government has declared this area as a 'D' Zone. So that the well-known proprietors established various industries like Coca-cola, Onida, Bhuwalka, Pratibha pipes, Charmminar, Blue Star, Gala and Goma etc. Most of the students are from BPL category. They are in needed job and money. So we decide to start the commerce program in our college.

The fruits come truth that, most of the students had successfully completed graduation in commerce and they have got the job in various industries, Banking field, service sectors, education field and some students started their own business.

##### ➤ Course Outcome

Course Name & Code	Outcome
Accountancy	Students know the various concepts regarding production decide the product price, profit margin, how to maintain the ledger and final account. This subject is most important for various fields like Banking, Industrial area, Marketing and educational field.
Commerce	Student knows the various concepts of business. They got information about business and industry. Few students are started their own business and few students started small scale industries.
Economics	Students know the knowledge of economic planning. Market situation, demand and supply, determination of price of product, competition in market, import and export strategy, budgeting and economic policy of government.
Business Insurance	Students know the various policies of the insurance and investment scheme. For example life insurance, general insurance medic aim. Claim settlement process, documents and carrier options in insurance.
Marketing Research	Students got knowledge of marketing Techniques methods, data analysis, mechanism of market and carrier options in insurance. It is helpful for expand the market.
Advertising	Students know about various products available in the market. They know about the quality, quantity and price of the product. They also knows that the use of the product. Advertising is useful for the development of society and nation. It is helpful for to increase demand and supply. Advertising provide fund to various media.
Business Laws	Student got knowledge about various laws regarding business. For example bailment, mortgage, agency, negotiable, partnership firm act, and company act, etc. Contract procedure, birch of contract

➤ **Program outcome**

- The students for conducting business, accounting and auditing practices, role of regulatory bodies in corporate and financial sectors.
- Student well versed in national as well as international trends.
- To provide in-depth understanding of all core areas specifically Advanced Accounting International Accounting, Management, Security Market Operations and Business Environment.
- Students with the knowledge, tools of analysis and skills with which to understand and participate in the modern business and economics world.

➤ **Program Specific outcome**

- The Student are able to knowledge of business and the techniques of managing the business with special focus on marketing and Insurance.
- Ability to work in teams with enhanced communication and inter-personal skills.
- The students will be able for employment in functional areas like Accounting, Taxation, Banking.
- The Students are able to know ethical values, team work, leadership and managerial skits
- Pursuing professional courses such as CA/CS/CMA/CFA
- To create awareness in application oriented research through research for business decisions.

M.COM. (MASTERS OF COMMERCE) (CHOICE BASED) SEM I and SEM II

COURSE OUTCOMES

SEMESTER I PROGRAM CODE: COOS21	
Subject/Course	Course Outcomes
Strategic Management	<p>Students understand the basics of Strategic Management, levels of strategies and the use of it in the business organizations.</p> <p>Students understand the various strategies and how and why to formulate, implement and evaluate these strategies in the organizations.</p> <p>Students get the information about corporate restructuring strategies, PPP and strategic alliance; hence students can learn the importance of these.</p> <p>Students get the knowledge about the BPO, KPO, Disaster Management, Start-up and Make in India.</p>
Cost and Management Accounting	<p>Students understand how cost are charged to particular product or service and learn to identify and evaluate difference between Actual and Targeted Cost.</p> <p>Students understand management decision making and get to know about profit maximization and cost minimization concepts.</p>
Economics for Business Decision	<p>Students acquire the knowledge of basic tools and economic theory and practical application and get familiarized with understanding of economic aspects of current affairs.</p> <p>Students are able to analyze Market Behavior with economic way of thinking and understand different economic principles in business decision.</p>



<p><b>Business Ethics and Corporate Social Responsibility</b></p>	<p>Students become familiarized with the concept and relevance of Business Ethics in the modern era and understanding of the sources of Business Ethics, the approaches to Business Ethics and the Emergence of Business Ethics.</p> <p>Students are able to understand the distinct and timeless values, Indian Ethical Practices and the working of Ethics in various functional areas.</p> <p>Students are given an insight into the elements of Corporate Governance and the consequences of the failure of the Corporate Governance Mechanism and they are become acquainted with the scope and complexity of Corporate Social Responsibility in the Global and Indian context.</p>
<p>SEMESTER II PROGRAMME CODE: C00522</p>	
<p><b>RESEARCH METHODOLOGY</b></p>	<p>The students understand the basics of Research, its formulation and also get the knowledge about formation of hypothesis and sampling and learn about, how to collect primary and secondary data with the help of questionnaire.</p> <p>Students understand the importance of data analysis and learn hypotheses through various Parametric &amp; Non-Parametric test and they also learn about the Research Reporting and Modern Practices in Research through the reference and citation methods.</p>
<p><b>Corporate Finance</b></p>	<p>Students get the understanding of appropriate capital structure for organization and the knowledge about various types of risk faced by organization.</p> <p>Students get the knowledge about various investment options available, cost and return associated with them and understanding of saving for future, considering the effect of inflation.</p>
<p><b>Macro Economic Concepts and Application</b></p>	<p>Students understand the concepts National Income and Human Development Index and understand basic Keynesian macroeconomics concepts such as ADF, ASF.</p> <p>Students get knowledge about Goods Market and Money Market with IS- LM curve and understand Monetary Policy and Fiscal Policy.</p>
<p><b>E-Commerce</b></p>	<p>Students understand the concept of e-commerce with its type and its market benefits and also learn concept of E-commerce Sales life cycle.</p> <p>Students get acquainted with technical concept like domain name, it address and web site design principle and learn E-CRM concept with its use and benefits.</p>

MASTERS OF COMMERCE (CHOICE BASED) SEM III and SEM IV

SEMESTER III PROGRAMME CODE: C00523	
Subject/Course	Course Outcomes
Advance Cost Accounting	<p>Students are able to interpret cost accounting statements and make them conversant with the basic vocabulary and mechanics of cost management and understand the concept and role of cost accounting in the business management of various manufacturing and non- manufacturing companies across countries through process costing, cost centre, revenue center etc.</p> <p>Students learn about cost accounting for cost management, planning and control through budgetary control and variance analysis through activity based costing and acquire decision making skill in cost accounting to the level where he or she can function effectively as a professional.</p>
Advanced Financial Accounting	<p>Students understand the provisions of AS-11 and the Translation of the Financial Statements of Foreign Branches and Learners understand the legal aspects of banking companies, format of final accounts, RBI guidelines, and preparation of final accounts of Banking Companies.</p> <p>Students understand the Revenue Account, Profit &amp; Loss Account and Balance Sheet of Insurance companies and Re-insurance accepted and develop the knowledge about life insurance business and preparation of their Final Accounts.</p>
Direct Taxation	<p>Students get knowledge of the residential status of a person and learn the differentiation between taxable and non-taxable incomes.</p> <p>They are learn computing the total taxable income of oneself and analyze the tax payable and get practical exposure in computing taxation of Companies.</p>
Project Work	
SEMESTER IV PROGRAMME CODE: C00524	
Corporate Financial Accounting	<p>Students acquire the skills to interpret accounting standards and understand the concept and role of cost accounting in valuation of the business and goodwill during amalgamation/ merger.</p> <p>Students learn and apply the basic principles, conventions and standards of financial accounting leading to the preparation of consolidated financial statements and they are able to interpret and analyze the Corporate Financial Reporting.</p>
Financial Management	<p>Students understand the need, types and sources of finance and made aware of the importance of Capital Budgeting and different techniques of capital budgeting for decision making.</p> <p>Students understand the concept of working capital, cash management, receivable management, inventory management and its requirements and control policies and understand the concept of budgetary control its importance, limitations and preparation of different types of budget.</p>
Indirect Taxation	<p>Students understand the history of GST all over the world and understand the ways of computing GST and Input Tax Credit.</p> <p>Students learn how to decide the place of taxation and learn the ways and means of registration under the Law.</p>
Project Work	

## DEPARTMENT OF BAF

- **Programme Specific Outcomes:**

1. This programme serves the base for learners doing further studies specifically CA, ICWA.
2. Provides employability in the various fields of Accounting and Financial Management.
3. Develops the analytical skills of learners in understanding various financial aspects so that they can apply practically in the course of employment.

- **Course Outcomes:**

### FYBAF SEM I

Course code	Title of the course	Course credit	Course outcome
UA_FFSL1	Financial Accounting (Elements of Financial Accounting) I	03	Helps in basic concepts of accounts, accounting standards, basics of hire purchase.
UA_FFSL2	Cost Accounting (Introduction and Element of Cost) I	03	Basic understanding of costs, types of costs, materials, labour and overheads.
UA_FFSL3	Financial Management (Introduction to Financial Management) I	03	Helps in making investment decisions and raising of funds after considering cost and benefits
UA_FFSL4	Business Communication I	03	Works towards development of the student with aspects like written correspondence, learning to overcome barriers in communication, listening skills and oral communication, presentation skills, building of confidence, public speaking.
UA_FFSL5.1	Foundation Course I	02	This course is introduced with the purpose of imparting the importance of values and culture for the development and sustainability of a nation.
UA_FFSL6	Commerce (Business Environment) I	03	Helps in understanding various aspects associated with business and in starting new venture
UA_FFSL7	Business Economics I	03	Provides basic concepts of micro economics helps to develop analytical skills useful for students of commerce. It provides insight on production ,demand and cost concepts and behaviours

### FYBAF SEM II

Course code	Title of the course	Course credit	Course outcome
UA_FFSII.1	Financial Accounting (Special Accounting Areas) II	03	To give overview of specific accounting of branch, consignment, fire insurance and double entry.
UA_FFSII.2	Auditing (Introduction and Planning) I	03	Provides knowledge of basics in verifying the books of accounts and duties of auditor in the instances of various types of errors and frauds.
UA_FFSII.3	Innovative Financial Services	03	Helps in gaining insights of different financial services that have remained in dim light in the minds of upcoming generation
UA_FFSII.4	Business Communication II	03	This course is more practical based focussing on overall personality development of the student with oral communication, presentation skills, building of confidence, interview skills, and group discussions public speaking.
UA_FFSII.5.1	Foundation Course II	02	The course focuses on making student aware of aspects in practical life regarding Human rights, management of stress, conflicts and impact of globalisation, privatisation and liberalisation
UA_FFSII.6	Business Law (Business Regulatory Framework) I	03	Educates the learner towards the basic laws of the land pertaining to their practical application in the field of commerce. The course is intended to impart basics of Contract Act, Sale Of Goods Act, and Negotiable Instruments Act And Consumer Protection Act, required for a commerce student.
UA_FFSII.7	Business Mathematics	03	The course helps the student develop mathematical skills relating to calculation of ratio and proportion, interest and annuity, shares and mutual funds valuation and also calculation of profit and loss of business.

### SYBAF SEM III

Course code	Title of the course	Course credit	Course outcome
UA_FFSIII.1	Financial Accounting (Special Accounting Areas) III	03	It covers basics of partnership accounts, amalgamation and conversion of firms, foreign currency transaction.
UA_FFSIII.2	Cost Accounting (Methods of Costing) II	03	It covers methods of cost, cost classification, cost sheet, contract costing, and process costing.
UA_FFSIII.3	Auditing (Techniques of Auditing and Procedures)	03	At the end of the audit we produce a report which will contain recommendations for improvements together with our opinion on the effectiveness of the controls in place.
UA_FFSIII.6	Information Technology in Accountancy I	03	Provides understanding of various emerging tools and technologies and ease provided to business due to introduction of electronic techniques.

UA_FFSIII.7.1	Foundation Course in Commerce (Financial Market Operations) - III	02	The course focuses on the various aspects of financial system and its importance in the development of an economy. It covers aspects regarding all the components of a financial system, as well as the contemporary aspects of the financial markets.
UA_FFSIII.8	Business Law (Business Regulatory Framework) II	03	The course is intended to impart basics of Partnership Act, LLP Act and Factories Act required for a commerce student. Educates the learner towards the basic laws of the land pertaining to their practical application in the field of commerce.
UA_FFSIII.9	Business Economics II	03	Helps in making economic analysis by providing in-depth knowledge of various aspects of economy like National Income, Demand and Supply, Trade Cycles, Union Budget and more

#### SYBAF SEM IV

Course code	Title of the course	Course credit	Course outcome
UA_FFSI V.1	Financial Accounting (Special Accounting Areas) IV	03	This gives detailed knowledge related to company accounts, final account of company, redemption, shares, debentures, branches.
UA_FFSI V.2	Management Accounting (Introduction to Management Accounting)	03	Introduces the aspects required by managers in the field of accounts for presentation, tabulation, interpretation and analysis of data for decision making with the help of various tools like, Cash flow analysis, Working capital requirements and Ratio analysis.
UA_FFSI V.3	Auditing III	03	The result of the audit is an auditor's written opinion report. The four possible outcomes of an audit are an unqualified opinion, a qualified opinion, a disclaimer of opinion or an adverse opinion.
UA_FFSI V.6	Information Technology in Accountancy II	03	Provides understanding of various emerging tools and technologies and ease provided to business due to introduction of electronic techniques.
UA_FFSI V.7.1	Foundation Course in Commerce (Introduction to Management) - IV	02	Provides a deeper outlook of various functions of managing the big sized organisations.
UA_FFSI V.8	Business Law (Company Law) III	03	The course is intended to impart basics of Company's Act 2013 with the objective of helping the learner to know the practical application of the laws in the field of commerce.
UA_FFSI V.9	Research Methodology in Accounting and Finance	03	Provides a base of conducting the research and things to be considered before starting actual research.

**TYBAF SEM V**

<b>Course code</b>	<b>Title of the course</b>	<b>Course credit</b>	<b>Course outcome</b>
44801	Financial Accounting -V	03	This subject gives an understanding of underwriting of shares debentures, liquidation, internal reconstruction, buy back.
44802	Financial Accounting - VI	03	It covers specific accounting special accounting for banking, insurance company, non banking financial cos, LLP
44803	Cost Accounting III	03	Detailed knowledge of methods of costing, operating costing, Uniform costing, process cost, integrated and non integrated system
44804	Financial Management II	03	Provides knowledge of managing the credit sales in company, planning the capital structure and techniques of selecting the best project for investment.
44806	Taxation IV (Indirect Taxes II)	04	Understanding of basic concepts of GST, Levy, calculation, registration
44809	Management II (Management Applications)	04	The course is intended to impart skills with a view to help practical applications of the managerial functions and theories professed by various management experts. the course covers Production management, Promotion Management, Financial Management and Human Recourse Management.

**TYBAF SEM VI**

<b>Course code</b>	<b>Title of the course</b>	<b>Course credit</b>	<b>Course outcome</b>
85601	Financial Accounting - VII	03	Special accounting for electricity cos, mutual fund, cooperative society, investment accounting.
85602	Cost Accounting IV	03	Cost techniques, budgetary, marginal, standard costing, decision making
85603	Financial Management III	03	Helps in making decisions of dividend policy, analysis of mutual funds and aspects on foreign exchange management.
85604	Taxation V (Indirect Taxes III)	03	GST and customs act are covered. GST payment, returns, FTP
85607	Economics Paper III (Indian Economy)	04	The course imparts knowledge regarding the current scenario of the country in terms of sectors contributing to development and the policies developed by the government for the same. It also studies the role of India in various international organisations.
UA_FFSVI.8	Project Work II	04	Project is of 100 marks. To give a experience of research or internship. Project can be based on research or internship.

## DEPARTMENT OF BMS

- **Programme Specific Outcomes:**

1. Ability to apply knowledge of management functions and theories to solve business problems.
2. Ability to understand, analyze and communicate regional, national, global economic, legal, and ethical aspects of business.
3. Comprehend, Develop and Apply a broad range of managerial capabilities, the capacity for critical thinking, communication and problem-solving skills.

- **Course Outcomes:**

Course Code	Title of the course	Course credit	Course outcome
<i>First Year (Semester – I)</i>			
UBMSFSI.1	Introduction to Financial Accounts	03	Be proficient in the financial accounting systems with specialized practical knowledge on preparing annual financial statement of a corporate body and all its facets and understanding of assets, liabilities, reconciliation, capital and revenue expenditure, depreciation and maintenance of various financial documents.
UBMSFSI.2	Business Law	03	Understand business situations from a legal perspective and apply knowledge of legal procedures related with routine business operations of an enterprise.
UBMSFSI.3	Business Statistics	03	Ability to design data collection plans, analyze data appropriately and interpret and draw conclusions from those analyses and thus employ and build a reliable platform for decision making
UBMSFSI.4	Business Communication – I	03	Have abreast knowledge of forms, Process and Principles of Communication that enable students to demonstrate the ability of evaluating, analyzing and interpreting information to make reasoned business decisions.
UBMSFSI.5	Foundation Course – I	02	Comprehend various dimensions of Indian society, knowledge regarding disparities, Philosophy of the constitution and significant aspects of political processes.
UBMSFSI.6	Foundation of Human Skills	03	Have self-knowledge and the ability to apply this knowledge to enhance effectiveness; understand and apply leadership skills, team-based knowledge, conflict management and negotiation skills required to achieve individual and institutional

			objectives.
UBMSFSI.7	Business Economics - I	03	Relate the basic economic theory and principles to current microeconomic issues and Use economic models to analyze a situation in terms of economics
<b>First Year (Semester – II)</b>			
UBMSFSII.1	Principles of Marketing	03	Ability to formulate general marketing strategy using 4Ps model and STP
UBMSFSII.2	Industrial Law	03	Understand business situations from a legal perspective and apply knowledge of legal procedures related with routine industrial operations of business.
UBMSFSII.3	Business Mathematics	03	Solve problems in the areas of financial and economics functions, derivatives, simple and compound interest, EMI calculations, annuity, trend line and time value of money.
UBMSFSII.4	Business Communication - II	03	Ability to apply business concepts of written communication in various related business issues
UBMSFSII.5	Foundation Course - II	02	Ability to comprehend the concept of LPG, growth and evolution of human rights, ecology and ability to understand causes and management of stress.
UBMSFSII.6	Business Environment	03	Ability to analyse the changes introduced in the components of environment of business and understanding their impact on the enterprise.
UBMSFSII.7	Principles of Management	03	Understand and apply the knowledge of management theories, functions and process in day to day business activities of an enterprise.
<b>Second Year (Semester – III)</b>			
UBMSFSIII.5	Accounting for Managerial Decisions	03	Ability to analyze the financial statements of an enterprise using vertical approach and various techniques like Comparative statements, common size, trend analysis, ratios, and other management accounting techniques of working capital management, cash flow statement and Receivables management.
UBMSFSIII.6	Strategic Management	03	Ability to analyse strategic micro and macro environmental issues, analyse industry factors and identify their impact on strategic positioning, evaluate SBU strategies and analyse and implement strategies at the business unit level.
UBMSFSIII.2	IT for Business - I	03	Ability to use the MS office software and also email, internet, websites domains and security therein.
UBMSFSIII.4	Business	03	Ability to apply the knowledge of preparing



	Planning & Entrepreneurship Management		project report and setting up of own business enterprise and thus exploring the opportunity of self-employment.
UBMSFSIII.3.01	Foundation Course – III (Environment Management)	02	Understand the impact of environmental issues and to apply the legal norms concerning environment into the business.
UBMSFSIII.1.0	Advertising	03	Getting acquainted with the theories of advertising and latest tools for the construction of an effective advertisement and exploring opportunities of career in advertising.
UBMSFSIII.1.0	Consumer Behavior	03	Ability to understand the consumer decision making process and its applications in marketing function of firms, and analyzing consumer information for using it to create consumer-oriented marketing strategies.
<b>Second Year (Semester – IV)</b>			
UBMSFSIV.4	Research Methods	03	Demonstrate knowledge of research processes, perform literature reviews, compare and contrast quantitative and qualitative research paradigms, describe, compare, and contrast descriptive and inferential statistics, describe sampling methods, measurement scales and instruments, and appropriate uses of each and finally to conduct the research independently.
UBMSFSIV.5	Business Economics – II	03	Ability to understand the concepts of national income, calculate methods of national income, and concepts related to national income and interprets macroeconomic issues such as money, foreign exchange, inflation, unemployment, economic growth and foreign trade.
UBMSFSIV.6	Production and Total Quality Management	03	Getting acquainted with the basic management decisions with respect to production and quality management, and understand the designing aspects of production system
UBMSFSIV.2	IT for Business - II	03	Understand about emerging MIS technologies like ERP, CRM, SCM and trends in enterprise applications, Understanding relationship between database management and data warehouse approaches and to understand the concepts of Outsourcing as well as cloud computing.

UBMSFSIV.3.01	Foundation Course – IV (Ethics and Governance)	02	Be aware of the concepts and principles of ethical reasoning which have been developed in ethical theory, and to be able to apply these concepts and principles to specific ethical issues and ability to describe and analyze the primary parts of corporate governance frameworks
UBMSFSIV.1.0	Integrated Marketing Communication	03	Ability to use the various tools of IMC to develop effective marketing communication programme.
UBMSFSIV.1.0	Rural Marketing	03	Ability to frame marketing strategies with 4Ps model and STP for the rural markets.
<b>Third Year (Semester – V)</b>			
46001	Logistics & Supply Chain Management	03	Understand fundamental logistics and supply chain management concepts, apply knowledge to evaluate and manage an effective supply chain, Understand the foundational role of logistics as it relates to transportation and warehousing and other functions of logistics.
46010	Sales and Distribution Management	03	Getting acquainted with the concepts of market analysis and selling, managing distribution channels and evaluation of marketing distribution channel performance.
46004	Service Marketing	03	Ability to plan and implement marketing strategies for service industries based on 7Ps model, Demand and capacity management and productivity issues in services.
46013	Customer Relationship Management	03	Getting acquainted with the CRM strategy and tools that reinforces relationship management strategy of an enterprise leading to customer satisfaction and delight.
46007	E-Commerce & Digital Marketing	03	Enables the learners to apply digital marketing tools to plan and implement ecommerce and digital marketing solutions of a business unit.
<b>Third Year (Semester – VI)</b>			
86001	Operations Research	03	Ability to derive optimum solutions in the area of operations using Linear programming (Graphical and Simplex methods), Transportation model, Assignment models, Game theory, Decision making and Networking with the use of CPM and PERT models.
UBMSFVI.5	Project Work	03	Ability to carry out the research project independently.
86009	International Marketing	03	Getting acquainted with the knowledge of marketing in the global world including areas like international branding, pricing, advertising, distribution and market entry strategies.

86003	Brand Management	03	Ability to plan and implement brand marketing programme, measuring and interpreting brand performance and growing brand equity.
860012	Media Planning	03	Getting familiar with the concepts of media mix and media strategy, media budgeting, buying and selling and media measurement and evaluation.
86006	Retail Management	03	Understand the behavior of retails consumer, framing of retail strategy, merchandise management and pricing and managing and sustaining the retail business in the contemporary times.