



Navgan Shikshan Sanstha Rajuri's  
**VASANTDADA PATIL ARTS, COMMERCE & SCIENCE COLLEGE,**  
**PATODA. DIST. BEED. MAHARASHTRA.**  
(Affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad)

## **COURSE OUTCOMES**

### **FACULTY OF LIFE SCIENCE**

#### **DEPARTMENT OF CHEMISTRY**

#### **COURSE OUTCOMES**

#### **B. Sc. First Year Chemistry**

#### **Semester I**

##### **Paper no. I Inorganic chemistry**

- To adopt basics of atomic structure and principles related to filling of atomic orbital.
- Briefly elaborate trends in periodic properties viz. atomic and ionic radii, ionization energy, electron affinity and electro negativity with application in predicting chemical behavior.
- To study basic chemistry of elements of s and p- block.

##### **Paper no. II Organic chemistry**

- To understand basic concepts in organic chemistry- classification of reactions, reagents and mechanisms of organic reactions.
- To learn fundamental concepts from stereochemistry and its importance.
- To familiarize with chemistry of hydrocarbons and their importance

#### **Semester II**

##### **Paper no. IV Physical chemistry**

- To understand basic mathematical concepts related to chemistry
- To understand kinetic theory of gases, kinetic gas equation, and gas laws.
- To study kinetics and dynamics of chemical reaction.
- To adopt concepts of Catalysis and Enzyme catalysis.
- To learn basics and classification of liquid and solid state
- To familiarize with colloidal state and their properties

##### **Paper no. V Inorganic chemistry**

- To understand chemical properties of the noble gases and chemistry of xenon
- To learn types and theories related to bonding
- To adopt basics and applications of nuclear chemistry
- To study theories of volumetric analysis and its components.

#### **B. Sc. Second Year Chemistry**

#### **Semester III**

##### **Paper no. VII Organic chemistry**

- To understand structure, reactivity, methods of preparation and chemical reactions of different types of organic compounds - alcohols, Phenols, aldehydes, ketones, amines and carboxylic acids.
- To adopt and develop skills of writing mechanism of some named reactions
- To learn uses of reagents in organic chemistry like  $\text{LiAlH}_4$ , LTA, PTC.

#### **Paper no. VIII Physical chemistry**

- Able to learn basic concepts in thermodynamics.
- To understand the laws of thermodynamics
- To study Carnot cycle and its applications,
- To adopt concept of entropy, Gibbs and Helmholtz Functions, Criteria for thermodynamic equilibrium and spontaneity, their advantage over entropy change.
- Able to understand equilibrium constant, free energy and laws related to it.

### **Semester IV**

#### **Paper no. X Inorganic chemistry**

- To gain knowledge of co-ordination compounds
- To learn basic concepts and theories of acids and bases
- To understand Chemistry of d-Block and f-Block Elements
- Able to classify solvents and learn reactions in non-aqueous solvents

#### **Paper no. XI Physical chemistry**

- Know the meaning of phase, component and degree of freedom
- Creates awareness about rate of reactions and factors influencing rate of chemical reaction.
- After completion of these courses students should be able to Know the rate constant and factors affecting rate of reactions
- Write an expression for rate constant (K) for first order, second order reaction.
- Know the terms cell constant, specific conductivity, equivalent conductivity and molar conductivity.

### **B. Sc. Third Year Chemistry**

#### **Semester V**

#### **Paper no. XVII Physical chemistry**

- To study basic concepts of quantum mechanics
- Able to understand properties of wave functions
- To learn depth knowledge of quantum numbers and its importance
- To acquire basic features of spectroscopy
- To familiarize with thermal & photochemical processes
- To study the physical and chemical properties of nonmaterial

#### **Paper no. XIV Organic chemistry**

- Are skilled in solving combined problems of spectroscopy
- To understand concept and mechanism of organometallic compounds
- Able to analyze fats, oils and detergents

#### **Semester VI**

#### **Paper no. XVII Organic chemistry**

- Learn the mechanism of Electrophilic Substitution reaction of Heterocyclic Compounds

- Know the characteristics and Classification of Drugs and Dyes
- Explaining theories of Color and chemical constitution of Dyes
- Get basic knowledge of carbohydrates.
- Able to classify synthetic polymers.

**Paper no. XVI Inorganic chemistry**

- Able to understand fundamentals of organometallic compounds
- Will understand concept of VBT, CFT, etc.
- Able to understand basics of molecular geometries
- Learn concept of chromatography and its applications

**COURSE OUTCOMES**

**M. Sc. Organic Chemistry  
Semester-I**

**CHE-101 Analytical Chemistry**

- Able to define basic concepts of analytical chemistry
- Interpret and evaluate statistics of analytical data
- Will familiar with basic separation techniques
- Able to understand fundamental principles, theories and applications of chromatographic techniques

**CHE-102 Inorganic Chemistry**

- Analyze and interpret symmetry properties of molecule
- Increase critical thinking about symmetry elements
- Able to predict the reaction mechanism of transition metal complexes
- Be able to evaluate Biological activities of metal complexes

**CHE-103 Organic Chemistry**

- Able to understand fundamental concepts of chemical bonding in organic molecules
- Are able to classify reactions and predict intermediates
- To develop skills of writing mechanism
- Able to describe kinetic and thermodynamic properties of molecules
- Able to understand fundamental principles and applications of stereochemistry
- Adopt the concept of chirality

**CHE-104 Physical Chemistry**

- Brief overview of laws of thermodynamics and partial molar properties for different systems and concept
- Discuss concept of theory of reaction rate and isotropic effects
- Will be able to explain most probable distribution and thermodynamic probability  
Concept of partition functions and its significance
- Can relate and explain the entropy production in different system
- Explain adsorption and relate the adsorption models and can use the knowledge of adsorption chemistry in different fields
- Solve problems related to quantum chemistry, will have large horizon of critical thinking and analytical reasoning.

## Semester-II

### CHE-205 Spectroscopic Methods of Analysis

- Able to explain basic principles of rotational, vibration, electronic and Raman spectroscopy.
- Able to identify and explain factors that influence the strength and frequency of peaks in the Microwave, IR, and UV-Vis spectra.
- Will describe the selection rule for UV, IR and NMR spectroscopy.
- Will determine the vibrations for a molecule and identify whether they are active in infrared and/or Raman spectroscopy.
- Justifies the difference between Stokes and anti-Stokes lines in a Raman spectrum and difference in intensity between Stokes and anti-Stokes lines.
- Draw the Stokes and anti-Stokes lines in a Raman spectrum of a compound when given the energies of the different transitions.
- To understand the electronic spectra of atomic and diatomic molecular systems
- Justify the absorption lines in atomic electronic spectra and the broad bands in molecular electronic spectra.
- Able to interpret the molecular electronic spectra and deduce the electronic structure information in ground and excited states of diatomic molecules.

### CHE-206 Inorganic Chemistry

- Grasp concept of spectroscopic term symbol
- Able to elaborate terms regarding magnetic properties and electronic spectra of metal complexes
- To classify and understand properties of different metal carbonyls and metal nitrosyl compounds
- Adopt chemistry of dinitrogen and dioxygen complexes

### CHE-207 Organic Chemistry

- Understand the fundamental principle and application of organic chemistry
- Illustrate the classification of organic reactions
- Have developed their logical reasoning and judgment
- Understand the concepts of stereochemistry and its applications
- Write possible mechanism of the organic reactions and predict their stereochemistry

### CHE-208 Physical Chemistry

- Grasp the fundamental concepts of photochemistry
- Be able to use applications of phase rule to different systems
- Able to understand different theories of quantum chemistry
- Illustrate and classify liquid crystals

## Semester-III

### CHEO-313 Structure Elucidation by Spectral Methods

- Explain the basic principles of UV, NMR, ESR and Mossbauer spectroscopy.
- Identify and explain factors that influence the strength and frequency of peaks
- Understand the electronic spectra of atomic and diatomic molecular systems.
- Justify the absorption lines in atomic electronic spectra and the broad bands in molecular electronic spectra.

- Able to interpret the molecular electronic spectra and deduce the electronic structure
- Able to analyze spectral data and predict structure of organic compound

#### **CHEO-314 Organic Synthesis**

- Able to Write possible mechanism of the organic reactions mechanism
- To acquire knowledge of using different oxidizing and reducing agents in organic synthetic reactions
- Get depth knowledge of organic and organo metallic reagents

#### **CHEO-315 Asymmetric Synthesis and Bio-organic Chemistry**

- Able to classify various asymmetric reactions.
- Acquire applicative knowledge of new techniques and concepts in organic synthesis
- Have a good overview of the core concepts in supramolecular chemistry and explain non covalent interactions, molecular recognition and self-assembly
- Able to identify the biological importance of Enzymes, Nucleic acids & Lipids

#### **CHEO-316 Photochemistry, Free radicals and Pericyclic Reactions**

- To acquire knowledge on Pericyclic reactions, named reactions and their further applications in organic synthesis
- Able to predict the stereochemistry & products of the Pericyclic reactions
- To understand knowledge on organic photochemistry, molecular rearrangement with applications.
- Adopt concepts of free radical reactions and their mechanisms.

### **Semester-IV**

#### **CHEO-417 Organic Synthesis: Retrosynthetic Approach**

- To know the importance of retrosynthesis in designing the synthesis of organic compounds.
- To impart knowledge about the mechanism & importance of the new synthetic reactions.
- Able to apply various disconnection approaches & the retrosynthesis of organic compounds in designing of new compounds.
- Acquire Knowledge about various new modern organic synthetic reactions and their mechanisms involving in the formation of C-C, C-X, C=C bonds.

#### **CHEO-418 Advanced Organic and Heterocyclic Chemistry**

- To learn generation, stability of intermediates and mechanisms of various named reactions
- Adopt knowledge about importance, synthesis of heterocyclic compounds, techniques involved in the extraction, To identify intermediates formed in given reaction and able to write mechanisms for molecular Rearrangements
- To apply synthesis and applications of Heterocyclic compounds

#### **CHEO-419 Chemistry of Natural Products**

- To acquire fundamental knowledge of synthesis and extraction of natural products
- To predict names and structures of alkaloids, steroids, flavones and terpenoids
- Brief elaboration of methods of preparation and structure determination of alkaloids, steroids, flavones and terpenes
- Gain knowledge in Designing of synthesis of natural products by retrosynthesis

- To apply synthesis and applications of alkaloids in the development of new drugs

### **CHEO-420 Medicinal Chemistry**

- Adopt knowledge of synthetic medicinal compounds,
  - Able to understand mechanisms of action and safety of medicinal compounds
  - Applicative knowledge of synthetic medicinal products in development of newer drugs and importance of Pharmacokinetics & pharmacodynamics of drugs
  - To classify and illustrate utilities of drugs.
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## **DEPARTMENT OF BOTANY**

### **COURSE OUTCOMES**

#### **Semester I**

#### **Diversity of Cryptogams I & II (P I & P IV)**

- The courses have been designed to benefit all Botany students to study various aspects of plant science including its practical applications.
- These students can take up teaching at different levels, research work in research institutes and or industry, doctoral work, environment impact assessment, biodiversity studies, entrepreneurship; scientific writing relevant topics have been included in the curriculum.
- Syllabus also deals with study the understand the multi functionality of plant cells in production of fine chemicals and their wide spread industrial applications.
- Cryptogams have an important role & function in bio prospecting.
- Algae, Fungi along with Bryophyte & Pteridophytes have many ecological, economic & industrial applications which can be grasped by students.

#### **Morphology of Angiosperms(P II)**

- Useful in basic botany study.
- Useful in plant classification (Taxonomy study).
- Creates hands on agricultural field practices.
- Benefited in plant breeding study.

#### **Histology, Anatomy and Embryology (P VI)**

- Creates knowledge regarding plant internal cell structure.
- Benefited in plants science research.
- Study of anatomy, embryology useful for research on various aspects of plant.

#### **Practical based on course (P I , II, V AND VI)**

- Useful in identification of plants, fruits, flowers.
- Provides knowledge of pollination and reproduction in plants.
- Useful for identification of different types of flowers and fruits.

#### **B.Sc. II**

#### **Taxonomy of Angiosperm (P IX)**

- Making aware about plant diversity and flowering plants.

- To acquaint with world history about classification of plants.
- To create awareness regarding structural features of plants.
- To develop vision of identifying plants around the world.
- To classify plants on basis of various morphological features.

### **Plant Ecology (P X)**

- In this subject student studies Plant Interactions with nature & Other Organisms.
- It is the study of interactions of organisms with one another as well as with their environment.
- In plants, competition generally is indirect, through the resource, not direct, one-on-one. Plants with the same life form and growth requirements are often in competition but surviving in slightly different microenvironments.
- In a symbiosis, two different kinds of organisms live together in an intimate and more or less permanent relationship.
- There are many practical applications of ecology in conservation biology, wetland management, natural resource management city planning (urban ecology), community health, economics, basic and applied science
- Ecosystems sustain life-supporting functions and produce natural capital, such as biomass production (food, fuel, fiber and medicine).

### **Gymnosperms and Utilizations of Plants resources (P XIII)**

- Create awareness about plant resources.
- To aware regarding non-flowering plants around the world.
- Create awareness about economic important plants.
- To acquaint with agricultural practices for common crops of India

### **Practical's based on (P IX and XIII)**

- Identification of plants based on morphological characters.
- Creates awareness regarding economic important plants and there cultivation practices.

### **Plant Physiology (P XIV)**

- Plant physiology is the study of the structure and function of plants and other processes of plants.
- Plant physiology is a division of biology pertaining to plant life, along with their processes and functions. Fundamental processes such as photosynthesis, respiration, plant nutrition,
- Plant hormone functions, tropisms, nastic movements, photoperiodism, photomorphogenesis, circadian rhythms, environmental stress physiology, seed germination, dormancy and stomata function and transpiration, both parts of plant water relations, are studied by plant physiologists.
- It is an experimental, laboratory-based field of science that requires knowledge of physics and chemistry.
- Plant physiologists study a wide range of processes and functions that plants use to live and survive.
- To function and survive, plants produce a wide array of chemical compounds not found in other organisms.
- Plant physiology includes the study of biological and chemical processes of individual

plant cells.

### **B. Sc. III**

#### **Cell Biology and Molecular Biology (P XVII)**

- To acquaint with basic structure of all cells.
- To acquaint with structures of cell organelles and their function.
- To get detailed knowledge of cell at molecular level.
- To aware about basic terminology of plant cell.
- To apply information for new research in cell and molecular biology.

#### **Plant Breeding and Seed technology (P XVIII B)**

- Provides knowledge of various methods of crop improvement.
- It provides basic knowledge of methods of hybridization in plants which are used as tool in seed companies.
- Useful in agricultural research.

#### **Genetics and Biotechnology (P XXI)**

- To develop knowledge regarding history of Basic genetics.
- To create awareness regarding terminology of genetics.
- Develop the sense of research in genetic engineering.
- Theoretical and practical awareness about genes and its functional features.
- Creating awareness regarding genetic disorders in human and all living organisms.

#### **Practical's based on (P XVII and XXI)**

- Hands on cell division process.
- Identification of various chromosomes.
- Awareness regarding Mendal's experiments.

#### **Economic Botany (XXII B)**

- Useful in agricultural field.
- Gives knowledge of importance of various crop and economic values.

#### **Practical's (XXI and XXII)**

- Hands on plant breeding experiment.
- Useful in study of plants on economic basis.

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## **DEPARTMENT OF PHYSICS COURSE OUTCOMES**

### **Semester-I**

#### **PHY-101 Paper-I**

After completion of this course students is able to know

- Gravitation and its applications for human being.
- Nature and properties of elastic and non-elastic materials.
- Properties of liquid.



- What are ultrasonic waves, how they are produced and its applications in daily life

#### **PHY-102 Paper-II**

##### **Heat and Thermodynamics**

- Learn thermal properties of materials
- How heat is transferred from one medium to other medium.
- How heat engine is worked, What is the process of working of heat engine

#### **PHY-104 Paper-IV**

##### **Geometrical and physical optics**

- It gives the knowledge of nature of light and optical instruments
- Student is able to wave properties of light
- Applications of optical phenomenon in real life

#### **PHY-105 Paper-V**

##### **Electricity and Magnetism**

- By studying this course student is able to know basic mathematics useful in physics.
- Know about electric and magnetic field, its applications in daily life

#### **PHY-201 Paper-VII**

##### **Mathematical, Statistical Physics and Relativity**

- By studying this paper students are able to apply mathematical tools to physics
- Know about the statistical approach to Physics
- Understand classical and quantum statistical mechanics

#### **PHY-202 Paper-VIII**

##### **Modern and Nuclear Physics**

- Understand particle nature of light and its applications in daily life.
- Generation of X-rays and its applications
- Know about the nuclear forces and models and its applications in daily life.

#### **PHY-205 Paper-XI**

##### **General Electronics**

- Student will get basic knowledge of electrical circuits and its applications.
- By studying transistors and amplifiers students will learn basic of computer

#### **PHY-206 Paper-XII**

##### **Solid State Physics**

- After studying this paper students will get basic knowledge of crystal structures.
- Know the thermal properties of materials and its applications.
- Learn connection between chemical approaches of materials.

#### **PHY-301 Paper-XV**

##### **Classical and Quantum Mechanics**

- Understand mechanics of single particles and many particle systems.
- Get knowledge about motion of bodies and its equations of motions.
- Understand link between classical and quantum mechanics.
- Understand dual nature of light and its applications.

### **PHY-302 Paper-XVI**

#### **Electrodynamics**

- Get the knowledge of static and dynamic charges.
- Know the production of electromagnetic waves and its applications in daily life.
- Understand the properties of electromagnetic waves and its interaction with the matter.

### **PHY-305 Paper-XIX**

#### **Atomic and Molecular Physics and LASER.**

- By studying this paper student is able to know basic structure of atom its properties and Different atomic models.
- Know about molecular structure and its applications.
- Understand LASER source and its properties, its applications in industry, medical field and biology.

### **PHY-306 Paper-XX**

#### **Non-conventional energy sources and optical fiber**

- Students are able to know about conventional and non-conventional energy sources.
  - Know about solar energy, wind energy, tidal energy, hydro energy and its production.
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## **DEPARTMENT OF MATHEMATICS**

### **Course Outcome: B. Sc. MATHEMATICS**

#### **Differential and Integral Calculus**

After completing the course, students will able to

- Verify the values of limit of a function at a point using the definition of a limit.
- Students will be familiar with the techniques of integration and differentiation of function with real variables
- Identify and apply the intermediate value theorem, Mean value theorem and  $\square$ Hospital $\square$  rule.
- Student will be able to understand the concept of divergence, curl, gradient and it's applications

#### **Differential Equations**

After completing the course, students will able to

- Identify types of differential equations and solve differential equations such as Exact, homogeneous, non-homogeneous, and linear and Bernoulli differential equations etc.
- Understand homogenous linear equation with constant coefficient and variable coefficient
- Find the solution of non homogenous first order differential equations.
- Find the solution of partial differential equations

#### **Geometry**

After completing the course, students will able to

- Solve the problems of lines in three dimension, planes, spheres, and cylinders and how geometry is related to algebra by using their algebraic equations
- To understand geometrical terminology for plane, right line, sphere, cylinder and cone.

- Student will be able to find angle between two planes and to find length of perpendicular from a given point to a given line.
- Students are able to identify parallel and perpendicular lines

### **Number Theory**

After completing the course, students will able to

- Solve various problems on properties of integers and use the basic concepts of divisibility and their applications in basic algebra.
- Apply Euclid's algorithm and backwards substitution
- Understand the definitions of congruence, residue classes and least residues

### **Numerical Methods**

After completing the course, students will able to

- Formulate and code a finite element method for any given set of partial differential equations.
- Solve the Ordinary differential equation by various methods.
- Learn how to find the Integration & Derivative by various methods.
- Learn how to find the roots of the equation by various methods.

### **Integral Transform and Partial differential Equations**

After completing the course, students will able to

- Learn the methods and properties of Laplace transform and Inverse Laplace Transform, apply them to solve Linear Differential equations.
- Know the difference between linear and nonlinear partial differential equations.
- Solve the linear and nonlinear partial differential equation by various methods like Lagrange's, Charpit's, Jacobi's, Monge's Method.

### **Mechanics**

After completing the course, students will able to

- Know what is projectile and motion of projectile.
- Understand the concepts particle, rigid body, force, equilibrium etc.
- know the differential and pedal equations of central orbits
- Find the components of velocity and acceleration in a given direction.
- Follow the concepts momentum, angular momentum, work, energy and points functions in mechanics.

### **Abstract Algebra**

After completing the course, students will able to

- Identify the various algebraic structures with their corresponding binary operations.
- Generalize the groups on the basis of their orders, elements, order of elements and group relations.
- Compare two groups of same orders on the basis of isomorphism Criteria.
- Compute the possible subgroups of given group of specific orders and will recognize them.

### **Real Analysis**

After completing the course, students will able to

- Understand the concept of series of real numbers, convergence and Divergence.

- Understand the definition of Metric Space and continuous function on metric space and difference between open sets and closed sets.
- Define Riemann integral and its properties and also Fourier Series and its application

### **Ordinary Differential Equations**

After completing the course, students will be able to

- Students are able to find the solution of linear differential equation of first and second order.
- Students understand the initial value problem and its solutions.
- Students know the concept Wronskian of solution.
- Students can find singular point and regular singular point of the differential equation

## **DEPARTMENT OF ZOOLOGY**

### **COURSE OUTCOMES**

#### **Cell Biology**

- Students understand the basic unit of life and its components along with its function and coordination among the cells
- They know the histological techniques of making slides of tissues, staining them with different dyes
- Gain the knowledge of DNA and RNA
- After first Semester students are aware of the basic structure and different parts of the Microscope, their use, how to handle it, focus it.
- Knowledge of Simple Microscope, Compound Microscope, Light Microscope, Phase Contrast Microscope and Electron Microscope is gained by students
- They are also imparted with the knowledge of different types of cancer, its types, causes, Preventive measures and its cure

#### **Protozoa to Annelida and Arthropoda to Echinodermata**

- Students acquire the knowledge of all the invertebrates and their biodiversity in detail
- They grasp the small microscopic animals like protozoa, their evolution and phylogeny
- They yield the knowledge of some Parasitic protozoa and Arthropoda, their structure and their diseases with preventive measures and its cure
- They harvest the knowledge of different molluscan animals, their shells, use of the shells in different industries and ornaments

#### **Genetics I and II**

- Students gain knowledge of basic concepts of genetics, genes and the Laws of Mendel
- They come by with the basics of genetic disorders, gene mutation and its causes and some inborn diseases caused by genes in adults and infants
- They also come across with the cross breeding in plants and interbreeding between different species in animals
- They clinch up with the DNA structure and genetic code, protein synthesis, negative feedback mechanism and how Information is stored on DNA

#### **Vertebrate Zoology**

- Pupils get cleared basic differences between vertebrates and invertebrates (Animals with backbone or vertebral column and without backbone or spine), their classification and behavior
- They understand the importance of all the five classes of vertebrata viz. Pisces, Amphibia, Aves, Reptilia and Mammalia
- They get keen ideas of the organs of the Class Mammalia, also they understand the systems of Mammalia and their function, functions of organs and their diseases and cure
- They get expertise in the information of extinct animals like fishes, for Example Super class Agnatha which includes all the extinct fishes from the formation of earth till today.

### **Animal Physiology**

- Students know that when we intake food it is digested, but how it is digested, its details comes into light in this study
- They have grip on the structure of the different organs of animals, their systems, functioning of the systems and coordination between the different organs in one system
- They are empowered with the knowledge of their own body like respiration, digestion, reproduction and so on.

### **Biochemistry and Endocrinology**

- Human body performs N number of functions, but for each function there is need of some command and instructions which are given by Hormones produced by pituitary gland and controlled by Hypothalamus, this makes the students Pioneer in the practical happenings in their own body and other animals
- They are able to judge and know the functioning of their own body and other animals
- They enrich with the different endocrine and exocrine glands, their structure, function, their diseases and deficiency, cause and cure
- Thorough cognition of enzymes, proteins, lipids, fats, carbohydrates, sugars, cholesterol, their role in functioning the body and diseases related to them and their cure and prevention

### **Ecology and Evolution**

- Firstly, students come to know the meaning of the small word Ecology which has a vast widespread importance
- They understand the different Ecological Niches
- They are able to realize the Natural Selection Process which is continuously going on the earth's surface
- Evolution of human from the very single cell bacteria is understood here
- They have thorough knowledge of Extinction of Species, Natural Selection and Evolution

### **Parasitic Protozoa and Helminthes I and II**

- Students are aware of most of the diseases in the earth's surface, but here they acquire knowledge the parasites which are spreading these diseases
- From cough and cold to Malaria, Typhoid, Kala azar, AIDS and other various disease spread by protozoa and helminth parasite are expertise by students
- Students have a detail knowledge of the parasites, its structure, its role in spreading disease, its precautionary measures and its cure.

## **DEPARTMENT OF MICROBIOLOGY**

### **COURSE OUTCOMES**

#### **B. Sc. I**

##### **Fundamentals of microbiology (P I and P III)**

- Study of types of microorganism
- We study taxonomy of microorganism
- Identification of micro organism on the basis of habitat
- Basic study of virus
- Study of characteristics of all types of microorganism
- Study of microscope which is used to see micro organism not seen by naked eyes

##### **General microbiology (P II and P III)**

- Study of identification of micro organism on by using various method of staining
- Study of production of all types of media which is useful for growth of microorganism
- Study of cultivation of anaerobes
- Study of various method of sterilization
- Study of method required in amplification of microorganism
- Role of micro organism in our life

##### **Cytology and general microbiology (P IV and P VI)**

- Study of microbial cell and cell organelles
- With the help of cytology we can study bacterial cell division
- Study of nutritional requirements to growth of microbial cell
- Study of bacterial growth curve and various aspects
- Study of water purification and degradation of waste

##### **Basic biochemistry and microbial physiology (P V and P VI)**

- Study of biomolecules i.e. carbohydrate ,lipid, proteinetc
- Study of classification of biomolecules
- Study of factors affect on the biomolecules
- Study of various test to detect the biomolecule of present in substance
- Study of photo synthesis of bacterial and uptake of Nutrient

#### **B.Sc. II**

##### **Environmental microbiology ( P VII and P IX)**

- Study of hazardous waste bioremediation
- Study of aquatic microbiology
- We can check water quality in various aspects
- Study of waste water treatment by using microbes
- Certain bacteria can help in cleaning the oil spills
- Microbiologist check factory waste which can cause pollution of air or water thus increasing rate of poisoning or disease in treatment

### **Immunology ( P VIII and P X)**

- Study of host defense mechanism
- Study of antigen i.e. foreign particles which cause disease
- Study of antigen -antibody reaction i.e. mechanism of killing of microorganism
- Study of vaccine and preparation method
- Study of MHC molecules which is useful in grade rejection
- Diagnosis of disease by various tests

### **Applied microbiology ( P XI and P X III).**

- Study of dairy microbiology and production of dairy products
- Study of food microbiology and food poisoning by microorganism
- Study of food borne disease
- Study of production of fermented product and probiotics
- Study of mushroom cultivation
- Methods of preservation of food

### **Clinical microbiology,( P XII and P XIV)**

- Study of human disease caused by bacteria with all dimension and diagnosis method
- Study of all types of viruses which cause disease to human
- Study of enteric bacteria and spirochetes
- Study of oncogenic virus may cause cancer
- Study of protozoa , fungi which cause disease to human and diagnosis method

## **B. Sc. III**

### **Microbial genetics (P XV and P X VII)**

- Study of DNA and RNA of microorganism
- Study of molecular properties of DNA and method of replication
- Study of gene expression i.e. protein synthesis
- Study of genetic code and features
- Regulation of gene expression in microbes
- Study of gene mutation and mutant
- Study of bacterial recombination

### **Microbial metabolism (P XVI and P XVIII)**

- Study of production of enzyme
- Study of types of enzyme and various inhibition method
- Study of factors affect on enzyme
- Commercial use of enzyme in various industries
- Study of microbial metabolism
- Study of respiration
- Study of biosynthesis of nucleotides

### **Recombinant DNA technology, (P XIX and P XXI)**

- Production of genetically modified organisms
- Study of various techniques use in recombinant DNA technology
- Role of microbial DNA in production of GMO
- Study of production of GM crop i.e. pesticide resistant
- RDT help in medical i.e. gene therapy
- RDT help to change genetics of animal or any organism which we required by using various techniques

### **Industrial microbiology (P XX and P XXII)**

- Study of production of biopolymer. biosurfactant, bioflocculant
  - Study of production of vitamins, ethanol,
  - Study of production of biofilm
  - Study of recovery of material
  - Study of treatment of organic waste
  - Study of various micro organism used in industry
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## **DEPARTMENT OF COMPUTER SCIENCE**

### **B. SC. (COMPUTER SCIENCE)/BCS**

#### **I Semester**

#### **CSC101- T      Computer Fundamentals**

- Students will be able to understand the Basics of computer systems
- The knowledge of software and hardware details and their application

#### **CSC102- T      Digital Electronics**

- Students will be able to understand the Electronic parts of computer systems
- The knowledge of functioning of hardware enables student understanding.

#### **CSC103- T      Microprocessor I**

- Students will be able to understand the microprocessor.
- Students can be able to develop codes for hardware of system.

#### **CSC104- T      C Programming I**

- Students will be able to understand the programming skills.
- Students can be able to develop programs.

#### **CSC105- T      Communication Skill I**



- Students will be able to understand the Inter personal Communication skills.
- Student can be able to develop its behavioral skills.

#### **CSC106- T      Mathematical Foundation**

- Students will be able to understand the mathematical skills.
- Students can be able to understand uses of mathematical equation for problem solving.

### **II Semester**

#### **CS201- T      Data structure**

- Students will be able to understand the data, its types and their applications in program development.
- Students can be able to data for different applications.

#### **CS202- T      Operating system**

- Students will be able to understand the Commutation between system and user.
- The knowledge of processor, memory, information and I/O Devices.

#### **CS203- T      Microprocessor II**

- Students will be able to understand the microprocessor 8085, 8086.
- Students can be able to develop codes for hardware of system.

#### **CS204- T      C Programming II**

- Students will be able to understand the programming skills about large and Complex programs.
- Students can be able to develop small application software's.

#### **CS205- T      Communication Skill II**

- Students will be able to understand the Inter personal Communication skills.
- Students can be able to develop its behavioral skills.

#### **CS206- T      Numerical Computation methods**

- Students will be able to understand the mathematical Concepts.
- Students can be able to understand uses of mathematical applications for problem solving.

### **III- Semester**

#### **CS301-T      Advance Data structure**

- Students will be able to understand the algorithms for data handling.
- Students can be able to use different algorithms for different applications.

**CS302-T      Unix Operating system**

- Students will be able to understand the network related operating concepts.
- The knowledge of browsers and their use for different categories of users.

**CS303-T      PC Maintenance**

- Students will be able to understand the concepts of hardware and software.
- The knowledge of solving PC parts problems.

**CS304-T      Programming in CPP**

- Students will be able to understand the Object Oriented programming skills.
- Students can be able to develop programs.

**CS305-T      Database Management System**

- Students will be able to understand the Data Base Management skills like Ms-Access.
- Students can be able to use DBMS as back end for developing programs.

**CS306-T      Statistical Methods**

- Students will be able to understand the statistical Concepts.
- Students can be able to understand uses of Statistical applications for problem solving.

**IV- Semester**

**CS401-T      Software Engineering**

- Students will be able to understand the basics of Software Development.
- Students can be able to develop different application programs.

**CS402-T      Fedora**

- Students will be able to understand the network related operating concepts with controlled environment.
- The knowledge of browsers and their use for different categories of users.

**CS403-T      Basics of Networking**

- Students will be able to understand the basics of Communication between one or more Computers.
- Students can be able to develop LAN networks for laboratories.

**CS404-T      Core Java**

- Students will be able to understand the Object Oriented programming skills.
- Students can be able to develop programs.

**CS405-T      Advance DBMS**

- Students will be able to understand the Data Base Management skills like SQL.
- Students can be able to use DBMS as back end for developing programs.

**CS406-T      Web Fundamental**

- Students will be able to understand the web programming skills.
- Students can be able to develop web pages and websites.

**V- SEM**

**CS501-T      Software Cost Estimation**

- Students will be able to understand the basics of cost measurement for software.
- Students can be able to find cost for different application programs.

**CS502- T      Basic s of Android OS**

- Students will be able to understand the programming skills.
- Students can be able to develop Apps for mobiles.

**CS503-T      Core Java II**

- Students will be able to understand the Object Oriented programming skills.
- Students can be able to develop programs for system and application programs.

**CS504-T      Basics of Computer Graphics**

- Students will be able to understand the graphical skills related to I/O devices.
- Students can be able to develop programs for geometrical applications.

**CS505-T      Beginner's Programming with PHP**

- Students will be able to understand the Object Oriented programming skills.
- Students can be able to develop programs for system and application programs.

**CS506-T      Basics of ASP.net**

- Students will be able to understand the Object Oriented programming skills.
- Students can be able to develop web programs for system and application software's.

**VI -SEM**

**CS601-T      Software Quality & Testing**

- Students will be able to understand the maintaining of quality concepts for software.
- Students can be able to do testing for software's.

### **CS602-T      Android application development**

- Students will be able to understand the programming skills for app development.
- Students can be able to develop Apps for mobiles.

### **CS603-T      Theory of Computation**

- Students will be able to understand the processing states of machines.
- Students can be able to develop grammars for programming languages.

### **CS604-T      Advanced Computer Graphics**

- Students will be able to understand the graphical skills related to I/O devices.
- Students can be able to develop programs for geometrical applications.

### **CS605-T      Advanced Programming with PHP**

- Students will be able to understand the Object Oriented programming skills.
- Students can be able to develop programs for system and application programs.

### **CS606-T      Ethics and Cyber Law**

- Students will be able to understand the basics of Electronic Commerce. Students can be able to understand different laws of IT and Cyber Crime.

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## **FACULTY OF COMMERCE**

### **DEPARTMENT OF COMMERCE** **Course Outcomes**

#### **B. Com. F. Y.**

**The following Course Outcomes are expected after learning the course by students:**

#### **1. Financial Accounting**

To develop conceptual understanding of fundamentals of financial accounting system and to impart skills in accounting for various kinds of business transactions. The course also aims at acquainting the emerging issues with regards to changing scenario in the world of business and accounting system.

#### **2. Business Mathematics and Statistics**

To impart knowledge in order to improve Logical Reasoning, Ability & Interpretation, Application of various statistical and Mathematical Tools and Techniques in making logical and scientific decisions in Business Operations.

### **3. Business and Industrial Economics**

This course is meant to acquaint with the principles of Business Economics as are applicable in business.

### **4. Computer Application in Business**

To provide computer skills and knowledge necessary for today's paradigm shift happening in the world of commerce. Understanding of usefulness of information technology tools for business operations.

### **5. Entrepreneurship Development**

To understand and know the various schemes and initiative policies formulated by the government aims at instill confidence and encouragement steps in order to pave the way for better understanding.

## **B. Com S.Y.**

### **1. Corporate Accounting**

To provide advanced knowledge about accountancy in prevailing subject. This course aids in carried out corporate world transaction and operations happening every day. By means of fundamental knowledge it excels tremendous interest in accountancy.

### **2. Cost Accounting**

This course provides similar concepts regarding about basic knowledge of accounting, only in spite of recording various transactions this dealt with costing which essential for the industries and manufacturing unit.

### **3. I.T Application in Business**

To aims at better and greater knowledge about technology little more addition in existing skills taken away with such a huge excel in computer knowledge that, immense in commerce and business world. It sharpens different computer languages.

### **4. GST (Goods and Services Tax)**

In the changing scenario of taxation system this course aims at enhance ability about existing knowledge. It provides fruitful and indispensable reform happened in past so many years.

### **5. A) Financial Management**

To understand the financial concepts and methodologies related to finance, inculcate greater potential in the financial market in order to figure out unequivocal financial accuracy in great manner.

### **B) Human Resource Management**

This course dealt in process and various methods of human resource development and strategy to make over potential and excellent man powers in working field.

## **B. Com. T.Y.**

### **1. Advanced Financial Accounting**

After studying this course students will be able to understand how to prepare final accounts of Banking and Insurance Companies and record the accounting transactions and events related to investment and departmental affairs. It also enhanced the skill of preparing final accounts in various sub sector of companies.

### **2. Management Accounting**

Management Accounting is an essential tool that enhances a manager's ability. This course is an introduction to the use of accounting information by managers for decision making, performance evaluation and control. The course objective is to increase understanding of the students about the concepts and techniques of management accounting. These issues will be addressed in the background of fast changing global market scenario.

### **3. Auditing**

This course aims at imparting knowledge about the principles and methods of auditing and its applications.

### **4. Business Regulatory Framework**

To acquaint students with basic Concepts, Terms, Provisions and Applications of Business Laws.

### **5. Computerized Accounting with GST**

To benefit the students to work with well-known accounting software e.g. Tally ERP.9  
To enable students to process and record the business transactions and manage the accounts information using software.  
To Equip students "know -how" of GST functionality using e.g. Tally software.

### **6. Rural Development and Agricultural Business**

This course aims at developing the understanding of students regarding the basic theoretical concepts of rural development and agribusiness for future entrepreneurial venture.

#### **M. Com. F.Y. Course Outcomes I & II Semester**

- **Modern Management Practices**
- To learn managerial qualities and practices to enhance the decision making abilities of student.
- **Managerial Economics**
- Update the subject knowledge among the student at corporate level and its use in economic development of nation.
  
- **Corporate financial Accounting**
- The outcome of this course is to learn the issues and practices of corporate financial Accounting.
  
- **Business Environment**
- This course develops ability to understand the conceptual frame work of business

environment and its application in decision making under uncertainty.

- **Organizational Behavior and work culture**
  - To enhance behavior at work place and work culture.
- **Advanced cost Accounting**
  - This course provides theoretical as well as practical knowledge of cost accounting for enhancement of the skill of the students.
- **Tax planning , GST And Management.**
  - To understand the basic skills of taxation to calculate the students with various Tax Planning
  - measures and devices.
- **Marketing Management.**
  - The objective of this course is to facilitate understanding the conceptual framework of Marketing and its application in decision making under environment constraints.

**Class: M.Com S.Y.  
III & VI Semester**

**1) Research Methodology**

To expose the students with research process data collection and analysis sampling report writing etc.

**2) Human Resource Planning and Development**

The objective of this course is to expose students to the human resource planning methodologies and the various aspects of HR practices.

**3) Business Legislation**

Update knowledge about different business legislation in practice.

**4) International Marketing**

To make the student understand the importance of international marketing entry strategies ,foreign market selection, product development and distribution.

**5) Quantitative Techniques**

The objective of this course to expose subject knowledge among students about statistical and mathematical analysis for research problem.

**6) Research Project**

The students must undertake the project work based on practical training in a business firm for the period of six weeks

**7) Securities Analysis**

Update the subject knowledge among the students at corporate level about securities

and portfolio management.

### 8) **International Business**

The objective of this course is to expose student about international business its significance and basic knowledge.

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## **FACULTY OF ARTS AND HUMANITIES**

### **DEPARTMENT OF ENGLISH**

#### **B.A.I (Optional English)**

#### **Paper I, II, III and IV (Sem. I, II)**

#### **Forms of Literature**

After detailed study of the course Forms of Literature students will able to-

- Understand the basic concepts of literature.
- Understand the basic forms of literature.
- Develop taste for literature and its judgment.
- Realize creative language and art
- Interpret texts with their own understanding.
- Understand the various types and aspects of the Fiction, Poetry, Prose and drama.

#### **B. A. II English (Optional)**

#### **Course (Paper No. V, VII)**

#### **Literature in English (1550-1750)**

#### **Semester III, IV**

The aims of this course are to make students aware of-

- Various forms of literature.
- Distinguish and analyze different literary forms like essay, mock epic, drama, novel.
- Multiple interpretations of the texts.

#### **Paper No.VI, VIII**

#### **Literature in English (1750-1900)**

#### **Semester III and IV**

- Understand the literary forms of poetry, Ballad, and romantic poetry, dramatic monologue, prose, play, novel in 18<sup>th</sup> and 19<sup>th</sup> century.
- Appreciate the poems by S.T. Coleridge and Robert Browning.
- Comment on the theme, styles, characterization of Oscar Wilde's play.
- Understand plot, setting, characters, country side dialect in the novel of Thomas Hardy.



**B. A. III (Optional English)**  
**Semester V, VI**

The course of B.A.III year is grouped into two sections. One is subsidiary and other is main. This subsidiary and main comprises of four papers to be studied in two semesters.

**Semester-V**

**Twentieth Century English Literature**  
**Paper IX, XIII**

On successful study of the course the students will able to

- Understand how the literature of modern period relates to the important trends of 20<sup>th</sup> century.
- Appreciate poems by T.S. Eliot and W.B. Yeats with new insights.
- Comment on the theme of G. B. Shaw's plays, its subject matter, characters, plot and techniques.
- Comment on the theme of John Osborne's play.
- Understand plot, setting, characters, techniques in the novels of Kingsley Amis and D.H. Lawrence.
- To explore the multiple interpretations from the prescribed texts.

**Introduction to Literary Criticism and Terms**  
**Sem. V, VI Paper (Course) X, XIV**

On successful completion of the course the students will able to

- Identify and discuss the classical Greek critics of literature.
- Acquaint with the basic critical theories by Aristotle, Sir Philip, Sidney, William Wordsworth and F.R. Leavis.
- Understand the text, tragedy, poetry conception of literature with critical insight.
- Learn the terms related to various genres of literature.
- Cultivate an understanding of major critical and interpretive methods.

**Paper XI and XV Indian Writing in English**  
**Sem. V and VI**

After successfully completion of the course students will be able to

- Understands the background of Indian English literature.
- Critically appreciate the themes in the poems of Nissim Ezekiel and Arun Kolatakar.
- Understands and evaluate the theme, plot, characters in the plays of Girish Karnad

and Vijay Tendulkar.

- Understands the concept of Indianness, Indian local setting, characters in the novels of Raja Rao and U.R. Ananthmurti.
- Understand the Indian Social reading, issues through prescribed texts.

### **Paper XII and XVI**

#### **Project work on History of English Literature.**

- Understand the background and development of English Literature.
- Select topic for project work.
- Understand the aspects of Research Methodology.
- Able to write a research paper.
- Understand the Trends, movements in English literature
- Face viva-voce examination related to Project Work.

### **M.A. ENGLISH PROGRAMME**

#### **Course Outcomes**

#### **Paper No. I Literature in English (1550-1798) Semester I and Semester II**

#### **M. A. English Paper II**

#### **Literature in English (1800-2000)**

##### Sem.I, Sem. II

After completion of the course students will be able to

- Understand the features of all the genres of literature.
- Understand the characteristics of Romantic poetry.
- Understand the features of modern poetry.
- Understand the features of Afro-American literature as well as Indian literature.

#### **M.A. English (Paper III)**

#### **Structure of Modern English**

On completion of the course students will be able to

- Understands the received pronunciation of English.
- Able to pronounce according to British English/American English.
- Understand the voice modulation, accent, intonation in the speech.
- Able to differentiate between acceptable and unacceptable English.
- Show proficiency in written English as well as spoken English.
- To analyze language according to structure of Modern English.

#### **Paper IV-H**

**Study of an Author: William Shakespeare**  
**Semester I, II**

On completion of the course students will be able to

- Understand the contemporary era of Shakespeare
- Understand the Elizabethan age and Elizabethan drama
- Interpret concept of Shakespearean Tragedies, Comedies and Dramatic Romances
- Understand Elizabethan Poetry and Shakespearean sonnets.
- Interpret contemporary sonneteers/poets of Elizabethan age.

**M. A. English II year**  
**Paper V – Critical Theory**  
**Sem. III and Sem. IV**

**Outcomes:**

On completion of the course students will be able to

- Demonstrate an appropriate level of knowledge of literary theory and literature.
- Appreciate and interpret literary text with multidisciplinary approach.
- Understand the socio-political, cultural life of contemporary period.
- Examine theories of feminism and nativism
- Understand the modernism and post modernism theories.

**Paper (Course) VI, Semester III, IV**  
**Paper VI-Indian Writing in English**

**Outcomes:**

On successful completion of the course the students will be able to

- Comprehend themes in Indian English Poetry, Drama and Novel
- Enhance literary and linguistics competition.
- Create literary sensibility and aesthetic response to literary genre.
- Develop sensitization against social evils, gender bias, caste bias and discrimination.

**Paper VII (Course)**  
**English Language Teaching**  
**Semester II, IV**

**Outcomes:**

On successful completion of the course students will be able to understand.

- The learning process and nature and structure of language.
- Understand different methods of teaching of English
- Use of ICT in teaching of English.

- Understand the basic knowledge, application of language and English Grammar in classroom.

**Paper VIII-D  
American Literature  
Semester II, IV**

On successful completion of the course the students will be able to understand

- Classics of American Literature
- The growth of American Literature
- Social, Cultural and Literary scenario of America
- Poetry, Prose, Fiction, Drama and other contemporary literary forms in American Literature.

**M.A. ENGLISH PROGRAMME  
PROGRAMME SPECIFIC OUTCOMES**

After the completion of M.A. English programme students will be able to

- Demonstrate an appropriate level of knowledge of literature, literary history and literary theory.
  - Appreciate and interpret the literary texts.
  - Develop the critical insights by using multidisciplinary approach
  - Develop the sensitization against social evils, gender bias, caste bias, discrimination.
  - Generate theoretical informed interpretation of texts and question for scholarly inquiry.
  - Show proficiency in written English and spoken English.
  - Exhibit high level proficiency in all the fields of life such as media, film, creative writing, research etc.
  - Critical insights, intellectual insights with multidisciplinary approach, cultural studies will help the students to know the society in depth.
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## DEPARTMENT OF HISTORY

### B. A. History Semester I to VI

#### **Paper title: Shivaji and His Times (1630-1818)**

- Introduce innovative study techniques in the study of History of Maratha to make it Value based, conceptual and thought provocative. The secular ruler was very accommodating of all religions
- Introduce International elements in the study of Marathas to facilitate comparative Analysis of this history.
- Highlight the importance of past in exploration of present context.
- Understand the Socio –economic, cultural and political background of 17th century Maharashtra.
- Increase the spirit of healthy Nationalism & Secularism among the student. The secular ruler was very accommodating of all religions. He had numerous Muslim soldiers in his army. His only aim was to overthrow Mughal rule and establish Maratha Empire. He was also very supportive of people who converted to Hinduism.

#### **Paper title: History of Modern Maharashtra (1818-1960)**

- To give the student an introduction to the study of Maharashtra.
- To acquaint the student with the basic understanding of how Maharashtra has grown to the present position and how the state has reached the present day.
- To impart high quality of education to the students.
- To prepare the students for a variety of challenging careers through innovation in teaching and research.
- To develop comprehensive understanding of interdisciplinary issues of the society.

#### **Paper title: History of Early India (up to B.C. 300)**

- The study of ancient Indian history is important to those who want to understand the true nature of many races and tribes intermingled in early India.
- Ancient India also saw the birth of Brahmanism of Hinduism, Jainism, and Buddhism, but all these cultures and religious intermingled and interacted.
- Increase the spirit of healthy nationalism & secularism among the student.
- The study of ancient Indian history is important to those who want to understand the true nature of the past and also to those who seek to understand the nature of the obstacles that impede India's progress as a nation.

#### **Paper title: History General Paper-VIII**

##### History of Mughal India (A.D. 1526- A.D. 1757)

- A major Mughal contribution to the Indian Subcontinent was their unique architecture. Many great monuments were built by the Muslim emperors during the Mughal era including the Taj Mahal. The Muslim Mughal Dynasty built splendid palaces, tombs, minars and forts that stand today in Delhi, Dhaka, Agra, Jaipur, Lahore, Sheikhpura and many other cities of India, Pakistan and Bangladesh.
- The study of Mughal period would see a more fruitful blending of Indian, Iranian and Central Asian artistic, intellectual and literary traditions than any other in India's history.

- Persian art and culture amalgamated with native Indian art and culture.
- The Mughal rulers provided political unity to India. Several parts of the country came under one administration.

### **Paper title: History General Paper – IX**

#### Historiography

- The study of development of history as a discipline.
- The study of the writing of historical accounts.
- Indicate the importance of thinking "historiographically" as well as historically.
- A historiography can give you new angles to research and new interpretations to dispute.
- Most importantly, a historiography shows you which interpretations have been challenged. This keeps you from championing an interpretation using arguments that have already been countered.

### **Paper title: History General Paper-X History of Indian national Movement (A.D. 1885-A.D. 1947)**

- History of Modern India" topic as a part of History is a very important section as far as the Syllabus of any competitive examination is possible, especially Civil Services exams.
- The course aims at providing comprehensive understanding of the transformations in the economy of colonial India. It covers the introduction of land and agrarian policies under the British rule. It also delineates the transformation that was effected in the urban space of British India. It focuses on the endeavors to reconstruct India and also on the emergence of modern industry and the rise of new social classes in colonial India.
- To develop nationalism in student mind.
- Understanding of British economic policy and why Indian revolted.
- All the Government and British Parliamentary Acts that led to the foundation for the constitution

## **M. A. History**

### **Course Code- HIS-401**

#### **Course Title- History of India up to 300 B.C.**

- Explains stage wise development of civilization, morals and ethics and cultural development laying foundation for progression of cultural history from Indus Valley civilization with reference to general overview of India.
- The primary aim of this course is to provide a brief summary of the proto-historic and early historic cultural heritage of the country through a study of material remains that are found in the archaeological context. It provides details of the Harappan urbanism and other Chalcolithic cultural developments in India followed by the Megaliths and their cultural background in peninsular India. It also provides a brief summary of development of architecture and iconography in the early historic period.
- The main objective of this course is to introduce students to archaeology and the methods used by archaeologists. This will be followed by the chronological sequence of the early cultures of India – starting from the beginning of production of stone artifacts till 2700 years ago. Students will also examine the origin and development of domestic and religious architecture and development of various religions in the Indian

subcontinent.

#### **M.A. History- I year Course Code- HIS-402**

• **Course Title- Twentieth century world (up to end of world war II)**

- The main objective of the course is to incapacitate the learners to critically analyze the nature and political discourses of the twentieth century world.
- The emphasis is laid on to examine the trends in history during the first and second world war.
- Along with the historical perspectives of the developed, developing and underdeveloped nations are brought into light through the history of colonization and decolonization.

#### **M.A. History- I year Course Code- HIS-421**

**Course Title- Socio- Religious Movements in Maharashtra (1200-1700 A.D.)**

- The main objective of the course is focusing various approaches of Bhakti movements by modern thinkers and understanding rise of various religious cults related to *Shaivism and Vaishnavism*.
- This course also traces the ideology and protest of various religious sects towards social structure of medieval Indian society.
- This study provides a religious ideas, forms and nature of language and literature during this period.

#### **Course Code- HIS-423**

**Course Title- History of the Marathas 1600 to 1707**

- This course informs students about political history of Chhatrapati Shivaji Particular and orients them to acquire proper understanding of Shivaji's administration and importance of this politics regarding agriculture, trade and religion.

#### **Course Code- HIS-424**

**Course Title- Nineteenth century India**

- The course emphasizes upon the nature of polity, society, culture in India prior and after the coming of the British colonialism.
- It mainly emphasized on the rule of the British East India Company rule in India and its impact on the Indian polity and society.
- Students will be made to critically evaluate the political cultural circumstances during the nineteenth century India.

#### **Course Code- HIS-403**

**Course Title- State, Society and Culture of India (300 B.C. - 500 A.D.)**

- The main objective of the course is to impart knowledge and skills among students about polity, economy, society and culture of period during which the great empires were existing.

#### **Course Code- HIS-404**

**Course Title- Polity in Medieval India**

- This course introduces the theoretical concepts of Medieval Indian history. Students will get to know various sources and historiography of medieval Indian history.
- They will also get to know the recent approaches of medieval Indian History by modern

historians.

- The political content in the syllabus has been reduced and emphasis is laid on various perspectives in
- Medieval administrations highlighting the characteristics of administration in Medieval Indian history.

**Course Code- HIS-430**

**Course Title- History of the Marathas (1707-1818)**

- This course informs students about 18th century political development of India and Particular of Deccan.
- This course also informs about the social and economic institutions expanded in Maharashtra. It also briefs about the political economy and architecture of the Marathas people.

**Course Code- HIS-432**

**Course Title- Hyderabad freedom struggle**

- This course will inform students about the historiography of Hyderabad freedom struggle.
  - This course will provide information various stages of struggles and role of AryaSamaj, congress , Communists in the Hyderabad freedom struggle.
  - Student will get information about Hyderabad Freedom Struggle. (Particularly about Marathwada Region)
  - Student will understand the history of Hyderabad Freedom Struggle and the role of SC Communities in this struggle.
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## DEPARTMENT OF POLITICAL SCIENCE

### Course Outcomes

#### Semester-I

**Pol-101: Basic Concept of Political Science**

- To help the students know the Concept of State and Its origin, Nature & Elements.
- To Study the Development of the Concept of Rights- State background of Political History.
- To analyze transitions in societal systems the structure and order of the system.
- To Enable Students to Understand Basic Concepts in Political Science.

**Pol-102: Government and Politics of Maharashtra**

- Establish pattern of Maharashtra State.
- To examine the government and non-government responses.
- To History of the Freedom Movement in India Collected from the Bombay Government Records and Understand Historical and Political Background of Maharashtra.
- To Explain Structure and Functions of State Government in India and Understand the Political Process of Maharashtra.

#### Semester- II

**Pol-103: Basic Concept of Political Science**

- To defined terms in a social science outside of their immediate area of expertise, for example economist needing information regarding a political science term.



- To create Awareness among students about democracy.
- To Help the Students to Understand Social and Political Values in Indian Political System.
- To understand the concept of Welfare State.

**Pol-104: Government and Politics of Maharashtra**

- To contest elections to be a part of legislative and executive large parties came to be dependent upon smaller parties for the formation of government's power.
- To provide solution to social problems.
- To Help the Students to know the history of Panchayat raj system and their functions.
- To Orient the Student about Ideology and Programme of Political Parties in Maharashtra.

**Semester- III**

**Pol-105, Indian Government and Politics**

- Indian constitution grants many facilities, rights through the constitutional provisions and aware about duty to Indian citizen and the government is to secure all round progress and prosperity of society.
- The more important political events in recent Government of India.
- To understand basic principles of Indian Constitution, their sources and constitutional provisions.
- To Study various Constitutional Institutions in India.

**Pol-106: International Relations**

- This study has important implications for international law and international relations generally.
- To Understand the Stages of Development of International Relation as a separate Discipline.
- To explain the behavior of individual entrepreneurs and firms rather than world politics, liberalism contains a theory of international relations.
- To Explain Some Basic Concepts in International Relations, approaches to the study of international relation.
- To understand basic principles of India's foreign policy, national power and national interest.

**Semester - IV**

**Pol-107, Indian Government and Politics**

- To Understand the Framework of Indian Supreme Court.
- Explain Structure of Union Government and Budgetary Process in India.
- To very well know students about party system and Electoral reforms in India.
- To Evaluate the Federal Structure and Centre State Relation.

**Pol-108, International Relations**

- Explain the role of United Nations in collective Security.
- To explore the nature of informal reasoning in international relations and to consider how instruction could help enhance.
- To Study the Various International and Regional Organization.
- To Aware about some major issues in Internationalism.
- Critically Evaluate the Non-Alignment Movement.

**Semester- V**

**Pol – 109: Indian Political Thinkers**

- To understand the Contribution of Modern Political Thinkers.
- It has been a problem in cultural transformation how best to accomplish the Cultural transformation of Indians into non-Indians.
- To Study the Religious Political, Social and Cultural thoughts of Indian Political Thinkers.

**Pol – 110: Western Political Thinkers**

- To Understand the Ideas of Western Political Thinkers and its Relevance.
- To Understand the Views of Western Political Thinkers.
- To explain the views of Plato and Aristotle's on Various Political Concepts and how he is Father of Political Science.
- To know ideas of Machiavelli about modern political science and social contract theory of Hobbes and Locke.

**Pol – 111: Political Ideologies**

- To understand relevance of Political Ideology in Contemporary Period.
- To Study the Development and Features and critically examine of the Political Ideologies.
- To show how these ideologies originated and how and why they have for most of the twentieth century, the clash of three political ideologies, liberalism, communism, and fascism.
- To relate the theoretical discussion and analysis of ideologies to the transformations, Introduction: Ideology and the Crisis of Modernity.

**Semester- VI****Pol – 113: Indian Political Thinkers**

- To know the Contribution of Modern Political Thinkers.
- To Understand Nehru's Democratic and Secular Views and Its Applicability.
- To Know of Ideas of Maulana Azad Views on Religion and Politics.
- To Critically Evaluate M.N.Roy's Radical Humanism.
- To understand Dr.B.R.Ambedkar's thoughts on Democracy, Economy and Society.

**Pol - 114, Western Political Thinkers**

- To know ideas of social contract theory of Rousseau and its popular sovereignty.
- To present and thoroughly document the wealth of historical and institutional material.
- To Study the Thoughts of J. S. Mill and Its Applicability.
- Critically evaluate the thoughts of Karl Marx and Its Relevance.
- To understand the theory of Utilitarianism.

**Pol – 115: Political Ideologies**

- To Study the Development and Features and critically examine of the Political Ideologies.
- Critically evaluate of ideology of socialism and communism.
- To study of the ideology of fascism.
- To study the development and features of the anarchism.
- To explain the ideology of feminism and environmentalism.

**M. A. POLITICAL SCIENCE****Course Outcomes:**

## **Semester- I**

### **PSC-401: Western Political Theory**

- This course introduce to Western political theory.
- The meaning and nature of political theory, debates as well as recent theoretical trends in the discipline.
- Short introduction to recent trends in political theory.
- To explain the philosophy, political theory and political ideology and uses of political theory.

### **PSC- 402: Theories of International Relations**

- This course outcome of making the students understand changing nature of international relations in terms explains the traditional approaches as well as major scientific approaches.
- To understand the basic concepts of international relations.
- To explain the theories of international relations.
- To study the movements in international politics.

### **PSC- 403, Comparative Politics: Theoretical Perspective**

- This course gives to students modern approaches to the study of comparative politics.
- To help students of politics make such statements the best that since the 1950s, political scientists have increasingly sought to use comparative methods to help build.
- To the research process and ought to precede the other three objectives of comparison description and classification.
- To know the emergence of the new source of polities, comparative politics and comparative governments.

### **PSC- 432, State Politics in India**

- To focus on the study of the evolutionary nature of centre-state relationship in the country after independence.
- To introduce to the dynamics of state politics in India.
- To assist students to know elections and political parties, changing nature of political process in states.
- To focus on the study of identity politics.

## **Semester- II**

### **PSC- 404: Modern Political Ideologies**

- This course is an attempt of teaching student's world's great ideas which are broadly considered as political creeds usually termed political ideologies: liberalism, conservatism, socialism, Marxism etc.
- The ideas serve as the foundation of political system.
- Orient Student about political Ideology and development and other ideological tradition.

### **PSC- 405: World Politics: Issues and Debates**

- This course outcome introduce students the critical analysis of new trends in the field of world politics.
- To understand the role of regional organizations in world politics.
- To create awareness about important issues in contemporary world politics.
- To explain the cold war and its impact on world politics and new economy policy.

**PSC- 406: Western Political Thought**

- To understand the theory debate and unable to make an inquiry into the socio-political problems. It is, therefore, necessary to generate their thinking by appearing this course.
- Political thoughts occupy central position in the knowledge mechanism of political science, without which students are incapable.
- To understand the views of western political thinkers on various political concepts in ancient period to modern period.

**PSC- 435: Public Administration**

- To acquaint the students with the concept of public administration.
- Its theories, management and organization and to imbibe its significance as a growing discipline in all walks life.
- To understand the basic concepts of public administration approaches and new public administration.
- To know very well good governance and transparency in government.

**Semester- III****PSC- 407: Research Methods in Social Sciences**

- To acquaint the student with the basic concepts of research and to familiarize.
- To understand the latest & scientific techniques and modern trends in social research.
- To understand the major study in the research process concepts variables and hypothesis.

**PSC- 408: Indian Political Thought**

- The precise aim of the ant colonial movement in India was to institute citizenship and to put in place a constitutionality that was derived not from colonial authority but from a constituent.
- To evaluate the British impact on Indian society, the theoretical perspective of social reforms movements in 19 century social vs. Political reforms.
- To set the evidence out fairly, interpret it strictly, and alert readers to their political aims were moderate, but pursued with a steady bureaucratic passion: they were driven far more the desire to achieve things than by the desire, common enough in politics.

**PSC- 409: India's Foreign Policy**

- To understand basic approaches in the study of foreign policy.
- To explain elements in the making of foreign policy.
- Particularly focus on the changing nature of India's foreign policy.
- To know the basic principles and approaches to the study of foreign policy.

**PSC- 437: Modern Trends in Political Theory**

- The course provides an overview of the current trends in political theory.
- To throw an insight into the divergent trends in modern political theory.
- To study the import ants of social justice, theory of rights, feminist political theory and theory of welfare state and its critique.

**Semester IV****PSC- 410: Constitutional Process in India**

- To know the framing of the Indian constitution background and working of the constituent assembly and philosophy of constitution.
- To understand the constitution - various provisions, rights and duties.
- The dignity of every citizen the emphasis is on secular values, liberty, equality, justice and brotherhood.

#### **PSC- 411, Political Analysis**

- The focus on modern analytical trends that claim to break a new ground in the study of political theory.
- To familiarize the students with the ever on-going debate on the concepts like liberty, equality and a just social order from Liberal and Marxist perspectives.
- To deal with key issues related to political theory.

#### **PSC- 412: South Asia and the World**

- To understand the challenges of a global job market.
- The course focus on micro study of South Asian region and its very essential for students who study in foreign policy.
- To specialize the students on South Asian study.

#### **PSC- 423: Dr. Babasaheb Ambedkar on Caste: A Study of his text Annihilation of Caste**

- Impact the caste system has constituted major retard the developmental process of Indian democracy. With this reference the course offers caste debate of Dr. B. R. Ambedkar so as to get introduce the student over the problem of caste. Indian caste ridden society has created unprecedented socio-political problems within the frame work of parliamentary system.
- To explain Dr.Ambedkar's theories, vision of ideal society, social vs politics.

### **DEPARTMENT OF PUBLIC ADMINISTRATION**

#### **Paper I – Principles and Concepts of Public Administration**

- To introduce concepts of Public Administration and History of the field of Public Administration.
- To make students competent to face challenges in the field of Public Administration to successfully prepare for the civil services.
- The students should be familiar with importance of Public Administration in routine life.

#### **Paper II- Public Administration in India**

- To introduce Indian Administration structure and Indian Constitutional Framework.
- To analyze the practical knowledge of Indian Administrative System related various Mantralay.
- To familiar with how to administrative adjudication and rule making by executive branch

agencies.

### **Paper III- Maharashtra Administration**

- The students will be aware about the process of administrative rule making as a part of the legal process.
- To analyze the practical knowledge of Maharashtra Administration various Govt. Offices (ex. Collector offices, Superintendent of Police etc.).
- Students will be able to understand about local level District Administration framework and function.

### **Paper IV – District Administration**

- The student will be familiar with
- To introduce the new trends in the Public Administration and how to use them for the society.
- To increase the high emotions of social commitment and Humanity in the students.

### **Paper V – Personnel Administration**

- To make students competent to face challenges in the field of Public Administration & successfully prepare for the civil services.
- To prepare students as a responsible citizen of society.
- To introduce to students with the merit system in Public Administration including the Indian Civil Service system and those used in local government.
- The students will be familiar and able to describe performance evaluation system that are used in Public Personnel Administration.

### **Paper VI – Panchayat Raj and Rural Development**

- To introduce Indian Administration structure and Decentralization Structure.
- The students will be able to understand the problem related agriculture, industries, cooperative sector and infrastructure in the district.
- The student will be conversant in the ethical challenges of rural communities, especially as they relate to issues of privacy and boundaries.

### **Paper VII – Financial Administration**

- To acquaint the students with the concept of Financial Administration.
- To aware about Functions & Role of Agencies of Financial Administration.
- To introduce about parliamentary control over Financial Administration.

### **Paper VIII – Human Resource Development**

- To familiar with need of Human Resource Development Institutions.
- To aware about challenges before Higher Education.

- To identify the content, process and outcomes of HRD applications.
- To aware about growth of organization associated with the development of its workforce.

#### **Paper IX – Administrative Thinker**

- To understand the views of Administrative thinkers.
- To make aware about Public Administration is to secure and strengthen democratic institution and mechanisms

#### **Paper X – Public Policy and Development**

- The student will able to understand public policy analysis involves evaluating issues of public importance with the objectives of providing facts and statistics about the extent and impact of the various policies of the government.
- Students will be familiar with the mechanism operating in the major political institutions for the creation and implementation of public policies.

#### **Paper XI – Health Administration in India**

- To promote awareness of health care among all section of the Indian people.
- Aware about Health Administrative System in India.
- To familiar with providing patient centered services by Govt.
- Student will be able to understand major issues of health in India.

#### **Paper XII – Recent Trends in Public Administration and Important Laws**

- To introduce the new trends in the Public Administration and how to use them for society.
- To aware about Public Administration is to secure and strengthen democratic institution and mechanisms.
- The students will able to understand New Public Administration is an anti-positivist, anti-technical and anti-hierarchical reaction against traditional Public Administration.
- Critically assess various administrative system an modes of governance in specific policy contexts.

## **DEPARTMENT OF ECONOMICS**

### **Course Outcomes**

Economics is the subject of social sciences in dynamic form related to the economic behavior of a person, institution, nation and the world. The study of subject enhances choices of life, career in business as self employment and employment in the several institutions right from

local to global.

### **Paper-I: Micro Economics**

- This paper is related to the personal economic behavior and foundation of economics.
- It able to understand about the behavior of an economic agent specifically consumer, producer, seller and factors of production.
- It support to students for decision making in establishing business.

### **Paper-II: Indian Economy**

- Students should be aware about the situation of economy to be the successful entrepreneur.
- The paper spread awareness about the facts, strongest and weakness of the economy.
- The knowledge of paper is also beneficial to be successful in UPSC, MPSC, IES, RBI, etc.

### **Paper-III: Price Theory**

- It is providing knowledge of types of markets and price determination in that.
- It helps to determine the price of product which will be produced in the future by students.

### **Paper-IV: Money, Banking and Finance**

- This paper is essential for students to understand the monetary and banking system of a country.
- It provides knowledge beneficial to be successful entrepreneurs, citizen and servants in the monetary institutions.

### **Paper-V: Macro Economics**

- It gives the knowledge of community economic behavior in certain economic situation.
- Government and Institutions' policies are being studied which help to entrepreneurs as well as job seekers.

### **Paper-VI: Economics of Development**



- Development is a process and everybody wants to be developed.
- The paper provides knowledge about development theories and success history of development.

#### **Paper-VII: Public Finance**

- This paper provides knowledge of the fiscal policy, public revenues and expenditure, tax system etc.
- It supports to take decisions of business to get benefit from government policies.

#### **Paper-VIII: Statistical Method**

- To be a successful businessman and policy maker the knowledge of data and use of statistical tools is required.
- This paper provides knowledge of statistics which support students to get job in Department of statistics, NSSO, CSO, Banks and National-International research institutes.

#### **Paper-IX: International Economics**

- International trade is work as an engine of development and enhances market for domestic products.
- The paper gives knowledge of globalization and policies of international trade.
- It supports future businessmen to earn more from international trade.

#### **Paper-X: Agricultural Economics**

- Indian economy is based on the agriculture sector.
- The knowledge of agriculture sector promotes students to do farming as business and make business policies according to the situation.

#### **Paper-XI: History of Economic Thoughts**

- It promotes students to be an economist by studying the history of economic thoughts.
- It develops the skill in students to develop new economic theory.

#### **Paper-XIII: Research Methodology**

- Indian economy is less developed economy because of people is not enough research activities.
- This paper develops research oriented mind of the students.
- If student develop its research it gets jobs in research activities right from local to global institutions.

#### **Paper-XIV: Industrial Economics**

- It introduces industrial structure of the economy and progress of industrialization.
- It aware about the scope of new entrepreneur to enter in industrial establishment.

#### **Paper-XV: Indian Economic Thinkers**

- The paper introduces about the research and work of Indian economic thinkers.
- It promotes students to study of them and work for the self as well as economy's development.

#### **Eco: XII (112): Project Work**

- There is 100 marks project work which have to submit and present to the University.
- It enhanced the research oriented analytical view of student which is beneficial to get job and start business with the practical study of Economics.

### **M. A. ECONOMICS**

Economics is the subject of social sciences in dynamic form related to the economic activities of a person, institution, nation and the world. The study of subject enhances choices of life, career in business as self employment and employment in the several institutions right from local to global.

#### **Eco-401, 403: Micro Economics**

- This paper is related to the personal economic behavior and foundation of economics.
- It make understand about the behavior of an economic agent specifically consumer, producer, seller and factors of production.
- It support to students for decision making in establishing business.
- It is providing knowledge of types of markets and price determination in that.
- It helps to determine the price of product which will be profitably produced in the future.

#### **Eco-402, 404: Macro Economics**

- Average economic tendency of the people is being studied in this paper which is most utilized in the government and private business policies.
- It gives the knowledge of community economic behavior in certain economic situations.
- If you want to understand any economy, you have to learn macro economics first.

#### **Eco-423: Demography**

- This paper provides the knowledge of country's population which is also explain the size and structure of market to the producer.
- It gives answer about the questions to the new producer- what to produce? How much to produce?
- It aware about how to get demographic dividend to the Indian economy and businessman.

#### **Eco-424: Agricultural Economics**

- Indian economy is based on the agriculture sector.
- The knowledge of agriculture sector promotes students to do farming as a business and promotes to take business decisions according to the situations.

#### **Eco-430: Insurance Economics**

- Service sector is increasing rapidly in India as well as in the world.
- People are becoming aware about various types of insurance, which is becoming the employment opportunities to the students.

#### **Eco- 431: History of Economic Thoughts**

- It promotes students to be an economist by studying the history of economic thoughts.
- It develops skills in students to develop new economic theory.
- Without reading history of economic thoughts, new history can't be made.

#### **Eco-501, 503: Indian Economic Policy**

- Students should be aware about the situation of an economy to be the successful entrepreneur.
- The paper aware about the facts, strongest and weakness of the economy.
- Knowledge of Government's economic policies required to every citizen special to the businessman and entrepreneur. It gives it.
- The knowledge of paper is also beneficial to be successful in UPSC, MPSC, IES, RBI, etc.

#### **Eco-502, 504: Public Economics/Finance**

- This course explains the significance of the role of Government in a market- oriented liberalizing economic environment.
- The course also introduces various approaches to fiscal policies.
- This paper provides knowledge of the fiscal policy, public revenues and expenditure, tax system etc.
- It supports to take decisions of business to get benefit from government policies.

#### **Eco-522: Banking**

- This paper is essential for students to understand the monetary and banking system of a country.
- It provides required knowledge to be successful entrepreneurs, citizen and servants in the monetary institutions.
- The knowledge of banking opens the door of employment opportunities to the students in banking sector.

#### **Eco- 524: Growth Economics**

- The course introduces some of the major economic ideas in development thinking.
- It answers about how to grow business and economy to the

entrepreneurs and Government respectively.

### **Eco- 527: Financial Markets**

- The course introduces structural organization of financial markets of the economy and world.
- It analyses basics of financial policies and operations of commercial banks and other financial institutions.

### **Eco-529: Development Economics:**

- It introduces economic development theories and contemporary issues of economy.
- Awareness about the development process and economic problems of the economy helps for decision making in the business.
- It promotes development of business and personal career of the student in economics.

### **Service Course- Com-Se-600: Entrepreneurship Development**

- Lack of entrepreneurship is the basic reason of India's backwardness and huge unemployment among educated youth.
- The course work selected for students to aware them about the entrepreneurship development.
- The course promotes students to be a successful entrepreneurs or businessman and create job opportunities for others.

All knowledge of Economics is supportive to be a successful entrepreneur.

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## **DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS**

### **Course outcomes**

#### **B. A. I Year (Semester-I&II)**

#### **Philosophical, Sociological Foundation & history of Physical Education (Phy.Edu.-101):**

- Introduction to the theoretical concept of philosophical and sociological foundation of

physical education.

- To impart knowledge to students regarding the fundamentals of sociological foundation & history of physical education.

#### **Principle & Recent development of Physical Education (Phy.Edu.-102):**

- To develop student's physical competence, knowledge of safe movement, their ability to use these perform in a wide range of activities associated with the development of an active.
- To provide the positive values, attitudes and a good foundation for student's lifelong and life-wide learning in physical education.

#### **Practical in Physical Education (Phy.Edu.-103):**

- To prepare the students in competition of games.
- Develop game skill & abilities.

### **B. A. II Year (Semester-III&IV)**

#### **Health Education & Recreation in Physical Education and Sports (Phy.Edu.-201):**

- To aware about own health.
- To acquire knowledge about the health education
- To develop the personality of students and their socialization through recreation in physical education.

#### **Officiating, Coaching & Training Methods in Physical Education and Sports (Phy.Edu.- 202):**

- To acquire knowledge through the officiating, coaching & training methods.
- To know the different training methods of fitness.

#### **Practical in Physical Education (Phy.Edu.-203):**

- To prepare the students in competition of games.
- Develop game skill & abilities.

### **B. A. III Year (Semester-V&VI)**

#### **Ancient & Modern History of Physical Education and Sports (Subsidiary) (Phy.Edu.-301):**

- To create the interest in Ancient & Modern History in Physical Education and Sports.

#### **Sports Psychology & Management in Physical Education and Sports (Main) (Phy.Edu.- 302):**

- To provide foundation for the basic principles of psychology in physical education.
- To train players how psychological principles can help them to face sports challenges.
- To enable students to relate what they are learning in class to issue that they encounter in their stress, health, personal relationships communication and self-

esteem.

**Organization, Administration & Supervision in Physical Education and Sports Youth Welfare and Youth Services(Subsidiary) (Phy.Edu.-303):**

- To acquire deep knowledge of organization and administration in physical education.
- To use this knowledge in sports competition.

**Anatomy, Physiology and kinesiology of Physical Education(Main) (Phy.Edu.-304):**

- To study anatomy, physiology and kinesiology in physical education.
- To understand the anatomy, physiology and kinesiology effects in physical education.

**Practical in Physical Education (Phy.Edu.-305 [Subsidiary]):**

**Practical in Physical Education (Phy.Edu.-306 [Main]):**

- To prepare the students in competition of games.
- Develop game skill & abilities.
- To cultivate interest in physical education and sports among students.
- To accumulate fitness development and Co-ordination of body.
- To expand Self-Improvement in physical and mental abilities.