

Program outcomes, program specific outcomes and course outcomes  
for programs offered by the institution (2019-2020)

DEPARTMENT OF ZOOLOGY

Programme Outcome- Bachelor of Science (B.Sc.)

- To provide knowledge of scientific aspects of Botany, zoology and chemistry.
- To develop Scientific temperament.
- To develop critical thinking.
- To build confidence, better communication skills and creativity
- To enrich the problem-solving capability and understanding of concept herein.
- To develop writing, teaching and presentation skills.
- To promote group activities, team work, social values.
- To motivate the students for being an active learner.
- To familiar with ethical approaches within concerned subjects and make them a good citizen.

Programme Specific Outcome- Bachelor of Science (B.Sc.) Zoology

PSO1 – Students will able to understand basic concept of cell biology and immunology.

PSO2 – Students will have idea of animal diversity

PSO3 – Students will able to characterize and classify non chordate animals.

PSO4 – Students will be able to understand characters and classification of chordates.

PSO5 – Students will be able to understand adoptive features of higher animals

PSO6 – Students will be able to understand embryonic development of animals.

**Course outcome – B.Sc. 1, Zoology, Paper 1 (Cell biology and Non- chordata)**

CO1 – Students will able to understand organization of cell.

CO2 – Students will be able to know Structure and function of cell organelles.

CO3 – Students will be able to understand cell division.

CO4 – Students will have elementary idea of cancer biology, cell transformation and immunology.

CO5 – Students will be able to characterize and classify protozoans, poriferas and coelenterates.

CO6 – Students will be able to understand defining features (type study), physiology and life cycle of paramaecium, sycon and obelia.

CO7 – Students will be able to characterize and classify nematodes, annelids and arthropods.

CO8 – students will be able to study Fasciola, ascaris, pheretima and palaemon as type.

CO9 – Students will be able to characterize and classify molluscs and echinoderms.

CO10 – Students will be able to study pila and starfish as type.

**Course outcome – B.Sc. 1, Zoology, Paper -2 (Chordata and Embryology)**

CO1 – Students will be able to classify hemichordates and study balanoglossus as type.

CO2 – Students will be able to classify chordates and study amphioxus as a protochordate type.

CO3 – Students will be able to understand Petromyzon and myxine.

CO4 – Students will be able to study skin, migration and parental care in fishes.

CO5 – Students will get idea on neoteny and parental care in amphibians.

CO6 – Students will be able to understand poison apparatus and differentiate between poisonous and non-poisonous snakes.

CO7 – Students will be able to study extinct reptiles.

CO8 – Students will understand adaptive features and migration in birds.

CO9 – Students will be able to characterize and compare features in mammals.

CO10 – Students will be able to Describe adaptations in aquatic mammals.

CO11 – Students will be able to understand embryonic development of animals.

CO12 – Students will be able to describe early embryonic development in chick and frog.

CO13 – Students will be able to explain placenta in mammals.

### **Program Specific Outcome – B.Sc. 2, Zoology**

PSO1 – Students will be able to describe anatomy and physiology of different systems in vertebrates.

PSO2- Students will be able to understand functioning of animal body in vertebrates.

PSO3 – Students will be able to study endocrinology of vertebrate.

PSO4 – Students will be able to explain reproductive biology in vertebrates.

PSO5 – Students will be able to understand evolution and behavior of animals.

PSO6 – Students will be able to apply knowledge of aquaculture, sericulture, poultry and pest control for economic wellbeing.

### **Course Outcomes – Zoology B.Sc.-2 Paper-1 (Anatomy and Physiology)**

CO1 – Students will be able to understand and compare Integumentary system and derived structures such as scales, hair and feathers.

CO2 – Students will be able to understand and compare digestive system of vertebrates.

CO3 – Students will be able to understand respiratory organs in vertebrates.

CO4 – Students will be able to study Endoskeleton, circulatory system and excretory system in vertebrates.

CO5 – students will be able to explain evolution of heart and aortic arches in vertebrates.

CO6 – Students will be able to understand nervous system.

CO7 – Students will be able to study structure and function of Eye and ear.

CO8 – Students will understand anatomy of gonads and genital ducts.

CO9 – Students will be able understand physiology of digestion.

CO10 – Students will be able to understand physiology of heart and explain cardiac cycle and ECG.

CO11 – Students will be able to understand blood coagulation.

CO12 – Students will be able to understand mechanism and control of breathing

CO 13 – Students will be able to understand physiology of excretion and osmoregulation.

CO14 –Students will learn about physiology of muscle contraction and nerve impulse conduction.

**Course outcome – B.Sc. 2 Zoology Paper -2 (Vertebrate endocrinology, Reproductive Biology, Behavior, Evolution and Applied Zoology)**

CO1 – students will be able to learn about endocrine glands, hormone receptor and biosynthesis of hormones.

CO2 – Students will be able to understand endocrine disorders related to some endocrine glands.

CO3 – Students will be able to understand reproductive cycle in vertebrates and hormonal regulation herein.

CO4 – Students will be able to describe organic evolution.

CO5- students will be able to understand theories of organic evolution.

CO6- students will be able to explain variation, Mutation, isolation and natural selection.

CO7 – Students will be able to explain evolution of Horse.

CO8 – Students will be able to understand different types of animal behavior.

CO8- Students will understand effect of hormone and Drugs on behavior.

CO9 – students will study aquaculture, sericulture, apiculture, poultry farming and pest control and apply its concepts for economic prospect.

**Program Specific Outcomes – B.Sc. – 3 Zoology**

PSO1- students will be able to understand Ecology and environment and its interaction with living beings.

PSO2- understand Population Ecology

PSO3- Students will be able to understand energy flow in living world.

PSO4 – Students will learn about toxicology, animal poison and food poisoning.

PSO5- Students will be able to understand microbiology and medical zoology.

PSO6- Students will learn about advanced field of biology such as Genetics, Biochemistry, cell physiology and Biotechnology.

PSO7- Students will be able to study aquaculture, sericulture, apiculture, poultry farming and pest control and apply its concepts for economic prospect.

**Course Outcomes B.Sc. – 3 Zoology Paper 1 (Ecology, Environmental biology, Toxicology, Microbiology and Medical Zoology)**

CO1- Students will be able to understand aims and scope of ecology and major ecosystems of world.

CO2- Students will be able to explain population, communities and its characters.

CO3- students will be able to understand biogeochemical cycles, pollution and ecological succession.

CO4 – Students will be able to learn laws of limiting factor and energy flow within ecosystem.

CO5- Students will be able to learn about conservation of natural resources and Environmental Impact Assessment.

CO6- Students will be able to understand concept of Toxicology.

CO7- Students will be able to learn Heavy Metal toxicity, animal poisons and food poisoning.

CO8- Students will be able to understand pathogenic microorganisms, protozoans, nematodes and diseases associated with it.

CO9- Students will be able to understand vector insects.

**Course Outcomes B.Sc.- 3 Zoology Paper – 2 (Genetics, Cell physiology, Biochemistry, Biotechnology and Biotechniques)**

CO1 – Students will be able to understand linkage, linkage maps and sex determination.

CO2- Students will be able to learn about Gene interactions and Mutation.

CO3- Students will be able to understand chromosomal alteration syndromes and single gene disorders with reference to humans.

CO4- Students will be able to learn about pH and Buffer.

CO5- Students will be able to understand transport across membrane and Enzyme's classification and action.

CO6- Students will be able to explain structure and function of amino acids and protein.

CO7- Students will be able to understand metabolism of Carbohydrate, lipid and protein.

CO8- Students will be able to learn Recombinant DNA technique, gene cloning and application of biotechnology. CO9- Students will be able to understand functioning of pH meter, colorimeter, microscope, centrifuge, chromatography and electrophoresis.

## DEPARTMENT OF BOTANY

### Programme Outcome (B.Sc.)

- To provide knowledge of scientific aspects of Botany, zoology and chemistry.
- To develop Scientific temperament.
- To develop critical thinking.
- To build confidence, better communication skills and creativity
- To enrich the problem-solving capability and understanding of concept herein.
- To develop writing, teaching and presentation skills.
- To promote group activities, team work, social values.
- To motivate the students for being an active learner.
- To familiar with ethical approaches within concerned subjects and make them a good citizen.

### Course outcome

#### B.Sc. Part – 1 (Botany)

##### Paper -1

CO1- Students will be able to understand life cycle of virus and viral diseases.

CO2- Students will be able to understand types, structure and life cycle of bacteria. They will be aware about bacterial diseases.

CO3- Students will be able to understand life cycle and importance of algae.

CO4 -Students will be able to understand life cycle i and diseases of fungus.

CO5- Students will be able to understand importance of cyanobacteria and lichens.

CO6- Students will be able to understand importance of mushroom technology.

### **Paper – 2**

CO1 – Students will be able to understand basic concept of bryophytes.

CO2 – Students will be able to understand basic information of living and fossil pteridophytes.

CO3- Students will be able to understand living and fossil gymnosperms.

CO4- Students will be able to know evolution during different era of geological time scale.

CO5- Students will be able to understand fossilization methods.

### **Practical (B.Sc.1)**

CO1 -Students will be able to study practically algae, fungi, gymnosperm, Bryophyta and pteridophyte.

### **B.Sc. Part – 2 (Botany)**

#### **Paper – 1**

CO1- Students will be able to understand classification, binomial nomenclature, Herbarium and Botanical garden.

CO2- Students will be able to understand characteristics of some angiosperm family.

CO3- Students will know economic importance of some valuable plants.

CO4 -Students will be able to understand basic concept of anatomy in angiosperms.

CO5- Students will be able to understand basic concept of embryology in angiosperm.

#### **Paper – 2**

CO1- Students will be able to understand Introduction and scope of ecology- environment and ecological factors, hydrophytic and xerophytic and epiphytic plants.

CO2- Students learn about population community characteristics, Raunkiaer's life forms, ecological niches, ecosystem and biogeochemical cycles.

CO3- Plant water relation: diffusion, osmosis, types of soil, water holding, mineral, nutrition and absorption.

CO4- Photosynthesis – photosynthetic apparatus, light reaction mechanism, ATP, C3, C4, CAM pathway of carbon, Respiration: aerobic and anaerobic respiration.

CO5 -plant growth hormones: Auxin, Gibberellin, cytokinin, florigen, photoperiodism, vernalization, seed dormancy, and germination plant movement.

### **Practical (B.Sc.2)**

CO1- students will be able to understand and perform practical related to – plant description, plant anatomy, plant embryology, photosynthesis, respiration, diffusion and osmosis, growth hormones

### **B.Sc. Part – 3 (Botany) Paper – 1**

CO1- students will be able to understand plant water relations and mineral nutrition.

CO2- students will be able to understand transport of organic substances and concept of enzymology.

CO3- students will be able to understand concept of respiration, nitrogen and lipid metabolism.

CO4- students will be able to understand growth and developments in plants.

CO5- Students will be able to understand concept of genetic engineering and biotechnology,

### **Paper – 2 (Ecology and utilization of plant)**

CO1- students will be able to understand plant and environment: atmosphere, soil, light, temperature, hydrophytic and xerophytic plants

CO2- Community ecology: community, ecology and ecosystem, biochemical cycles

CO3- Population ecology: Growth curves, ecotypes, ecades, biogeochemical regions, vegetation, types of India.

CO4- Utilization of plants: food plan, fibers, vegetable oils.



CO5- Spices – General account on medicinal plants, beverages, rubbers Practical

CO1- Students will be able to perform practical on transpiration rate in plants.

CO2- Biochemical tests.

CO3- Ecological exercise / soil analysis

## DEPARTMENT OF CHEMISTRY

### Program Outcome- Bachelor of Science (B.Sc.)

- To provide knowledge of scientific aspects of Botany, zoology and chemistry.
- To develop Scientific temperament.
- To develop critical thinking.
- To build confidence, better communication skills and creativity
- To enrich the problem-solving capability and understanding of concept herein.
- To develop writing, teaching and presentation skills.
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- To motivate the students for being an active learner.
- To familiar with ethical approaches within concerned subjects and make them a good citizen.

### Course Outcomes

#### B.Sc. I year Inorganic chemistry

##### Subject-Chemistry

##### Class-B.Sc-I

1. **Course Description:** - This course covers fundamental principles and law of chemistry. Topic including Bohr's theory, atomic spectrum of hydrogen, quantum theory, electronic configuration, shape of atomic orbital just like s,p,d,f periodic properties, some properties of periodic element ex. Atomic and ionic Radii, Ionization energy, electro negativity etc.
2. **Chemical bonding-I:** - Including topic Ionic solid, Ionic, Structure, co-ordination number, bom-Haper cycle.
3. **Chemical bonding-II:** - Including topic-Lewies Structure, VBT, hybridization VSEPR Theory.

4. **S-Block element**- Including topic general concept on group relationship and gradation properties.
5. **Chemical of Noble Gases**-Including topic chemical properties of Noble gases, chemistry of xenon, bonding in xenon com.

**Course Outcomes:** -

1. To understand the concept of electronic configuration.
2. To understand the structure of atoms.
3. To understand the spectrum of Hydrogen.
4. To understand the bonding nature in atoms.
5. To understand the fundamental properties of periodic table.
6. To understand the concept of Hybridization.
7. To understand Chemical properties of noble gases.

**Course Outcomes for B.Sc. I year Organic chemistry**

**Subject-Chemistry**

**Class-B.Sc.-I**

**Course Description:** -

1. **Basic of Organic chemistry:** - Including topic, Hybridization, Shape of organic mol<sup>n</sup>. Electrophic and nucleophilic Reaction.
2. **Introduction of Stereochemistry:** - Optical Isomerism, geometrical isomerism, enantiomer.
3. **Conformation analysis of Alkenes:** - Conformation Analysis of Alkenes, ethane, butane, cyclohexene.
4. **Chemistry of Aliphatic Hydrocarbons:** - Including topic- Chemistry of Alkenes, Formation name Rea<sup>n</sup>.
5. **Chemistry of Aliphatic Hydrocarbons:** - Including topic- Aromaticity, Huckel Rule Cyclic carbocation and heterocyclic.

**Course Outcomes:-**

1. To understand the chemical Rea<sup>n</sup>.
2. To understand the dipole moment.
3. To understand the stereochemistry of Organic molecule.
4. To understand Carbon-Carbon a bond.

5. To understand Aromaticity and electrophonic and Nucleophilic Rea<sup>n</sup>.

### Course Outcomes for B.Sc. I year Physical Chemistry

**Subject-Chemistry**

**Class-B.Sc.-I**

#### Course Description :-

1. **Mathematical concept for chemist:** - Including topic- Logarithmic Relations, linear graph.
2. **Gases State Chemistry:** - Including topic- Kinetic molecular model, Maxwell distribution degree of freedom.
3. **Liquid State Chemistry:** – Including topic- Intermolecular force, structure of liquid.
4. **Solid State Chemistry:** – Including topic-nature of solid, Bragg's equation.
5. **Chemical Kinetics:** – Including topic- Rate of Rea<sup>n</sup>, zero, first, second order Rea<sup>n</sup>.

#### Course Outcomes: -

1. To understand Rate of Reaction.
2. To understand Structure of Solid.
3. To understand Solvation of liquid.
4. To understand some basic Mathematic concept.
5. To understand Ideal gases.
6. To understand mean free path.
7. To understand colloidal state.
8. To understand properties of gel, micelles and emulsion.

**Course Outcomes for B.Sc. II year Inorganic chemistry**

#### Course Description: -

1. Chemistry of element of first transition series.
2. Chemistry of element of Second and Third transition series.
3. Oxidation and Reduction.
4. Chemistry of Lanthanide.
5. Acid and Bases.

**Course Outcomes: -**

1. To understand characteristic properties of d-block element.
2. To understand coordination number and geometry of d-block element.
3. To understand Redox Reaction.
4. To understand Valence bond theory.
5. To understand concept of Acid and base.
6. To understand non-aqueous solvent just like  $\text{NH}_3$ ,  $\text{SO}_2$
7. To understand electronic configuration of d-block element, Actinide Lanthanides.

**Course Outcomes B.Sc. II Organic Chemistry: -****Course Outcomes: -**

1. To understand formation and chemical Reaction of glycol and glycerol.
2. To understand coordination number and geometry of d-block element.
3. To understand Redox Reaction.
4. To understand Valence band theory.
5. To understand concept of Acid and base.
6. To understand non-aqueous solvent just like  $\text{NH}_3$ ,  $\text{SO}_2$
7. To understand electronic configuration of d-block element, Actinide, Lanthanides.

**Course Outcomes B.Sc. II Physical Chemistry**

1. Students will be able to understand concepts of thermodynamics and thermochemistry.
2. To study concepts Chemical, Ionic and Phase equilibrium.
3. To study Photochemistry related concepts.

**Course Outcomes B.Sc. III Inorganic Chemistry**

1. Students will be able to know metal ligand bonding in transition metal complexes and their magnetic properties.
2. To develop understanding on Organometallic compounds and Bioinorganic chemistry.
3. To study Hard and Soft acids and bases, Inorganic Polymers.

**Course Outcomes B.Sc. III Organic Chemistry**

1. Students will study about heterocyclic compounds, organometallic reagents.
2. To understand organic synthesis via enolates.
3. Able to know Biomolecules such as carbohydrate, amino acids, proteins and nucleic acids.
4. Students will be able to understand synthetic polymers and synthetic dyes.
5. Types and functioning of infra-red spectroscopy, UV- visible spectroscopy and NMR spectroscopy.

### **Course Outcomes B.Sc. III Physical Chemistry**

1. Students will be able to explain concepts of quantum mechanics, vibrational spectroscopy and Raman Spectrum.
2. Students will learn about concepts related to Electrochemistry.

### **B.Sc. PHYSICS PROGRAM OUTCOME**

1. The main mission of the U.G. degree program is to understanding of core knowledge in physics, including the major premises of classical mechanics, quantum mechanics, electromagnetic theory, Basic electronics, optics, special theory of relativity and modern physics. Students will demonstrate written and oral communication skills in communicating physics-related topics.
2. Students will design and conduct an experiment (or series of experiments) demonstrating their understanding of the scientific method and processes.
3. Students will demonstrate an understanding of the analytical methods required to interpret and analyze results and draw conclusions as supported by their data.
4. Students will demonstrate a thorough understanding of the analytical approach to modeling of physical phenomena.

## **Environmental Studies (For B.Sc. 1<sup>st</sup> Year)**

### **Subject-Environment Studies**

#### **Program specific Outcomes: -**

1. Understanding environmental Circumstances by the students at the undergraduate level.

2. Understanding the relationship of man with the environment and how then change his attitude and more positive ecofriendly and sustainable life style.
3. Greeting information about climate change global warming, Acid rain, green house effect, ozone.
4. Cultivating attitude to safeguard the environment built particularly with field experience.
5. Greeting information about environment protection Acts.

### **Course Outcomes: -**

Students will be able to understand and explain following aspects relevant to environmental concern-

1. The multi-disciplinary nature of environmental studies. Nature resource renewable and nonrenewable studies.
2. Eco system: - Concept Structure and function of an ecosystem. Biodiversity and its Conservation.
3. Cases effect and control measures of- Air, Water, Soil, Marine, Nuclear, Pollution, Solid waste Management, Disaster Management.
4. Environmental management- Environmental Protection Act.
5. General Background and historical perspective, Human Rights UNO charter, Human Rights 1948.
6. Impact of human rights norms of India, Human rights under the constitution of India. National human rights commission, state human right commission and human right court in India.

## **DEPARTMENT OF ECONOMICS**

### **Program Specific Outcomes for B.A.**

On completion of B.A.(Economics) students will be –

1. able to understand basic concept of economics.
2. able to analyze economic behavior in practice.
3. able to Understand the economic way of thinking.
4. able to analyze historical and current events from an economic perspective.

5. able to write clearly expressing on economic point of view.
6. exposed to alternative approaches to economic problem through.
7. To create students ability to suggest of the various economic problems.

**B.A. Part-1 Economics**  
Course Outcome Paper-1

1. To understand fundamental concept of economics.
2. To understand consumer behavior like cardinal and ordinal utility analysis.
3. To understand indifference curve analysis in deriving Demand curve, Price effect, Income effect and substitution effect.
4. To understand Basic concept of micro economics such as law of Demand and supply and elasticity etc.
5. To understand Theory of production, Production function, Production decisions, Isoquant, returns to scale, Law of variable proportion, Concept of cost.
6. The decision-making process in different market situations such as Perfect competition, Monopoly, Monopolistic competition, Duopoly and Oligopoly Markets.
7. To deal with the theoretical issue and their practical application of distribution theories.
8. To understand Various aspects of consumer behavior and economic welfare.
9. To understand Theory of Rent, Wage, Interest and Profit.
10. To understand Market equilibrium of firm and market.

**B.A. Part 1-Economics**  
**Course outcome Paper-2**

After successful completion of this course student will be able to understand the Indian Economy –

1. Planning in pre and post Indian economy, Planning commission and Niti Aayog.
2. To understand Economic Reforms, Liberalization, Privatization, Globalization.

3. To understand Indian economic problems (Poverty, Inequality ,Unemployment).
4. Population and human development, Demographic trends and issues of Education, Health, Nutrition and Migration.
5. To understand Role of Agriculture in economic development including land reforms, green revolution, Rural credit, Agricultural marketing. New agriculture strategies, Natural resources,
6. Infrastructure development-Performance, problem and policies, MUDRA YOJANA.
7. To understand industrial growth and productivity, Industrial policies and reforms, Growth and problems of small and cottages scale industries.
8. To understand role of foreign trade, Trends in exports and imports, directions of india's foreign trade, Exports promotion measures. New trade policies.
9. To understand Recent macro-economic scenario-: National Income, Investment, Savings and inflation.
10. Current macro-economic policies and their impact Fiscal policies, Monetary policies.

**B.A.Part**

**2**

**Economics**

**Course outcome Paper -1**

After completion of this course the students will be able to-

1. Define and explain process of calculating National Income Identify it's Components. demonstrate circular flow of income, concept of social accounting, green accounting.
2. Understand Say's law of market, Classical theory of employment and Keynes Objection to the classical theory. Demonstrate the principle of effective demand and Income determination.
3. Explain the concept of consumption function. relationship between APS and MPS Keynes's psychological law of consumption. determinants of the consumption Function.



4. Understand the relationship between investment and saving. Demonstrate Investment multiplier and concept of MEC and MEI.
5. Explain the nature and characteristics of trade cycle and various theories of trade Cycle. analyze the control of trade cycle.
6. Identify the basic difference between inter regional and international trade and Various international trade theory Comparative advantage theory, Opportunity Cost theory and Heckscher Olhin theory. International trade and their contribution to Economic development.
7. understand Tariffs & import quotas, optimum tariff. Balance of trade & balance of Payment, Equilibrium & disequilibrium in BOP. Merit and demerits of devaluation foreign trade multiplier.
8. Evolution of IMF, World Bank, WTO, International monetary reforms and India.
9. Foreign trade in India, recent change in composition and direction of foreign trade. India's balance of payment, Export promotion and import substitution in India. Multi National Corporation and India.

**B.A. Part- 2 Economics**  
 Course outcome Paper-2  
 After successfully completion of this paper a students will be able to Understand -:

1. Meaning and functions of money, Gresham's law. illustrate various versions of quantity theory of money.
2. Illustrate the Inflation, deflation, and reflation types, causes and effects on Different sectors of the economy. Demand pull and cost push inflation. Measures to control inflation. Philip's curve, Demonetization.
3. Banking- meaning, types and function of commercial banks, credit creation, Liabilities and assets of banks, Evolution of commercial banking, Function of central bank, Role and function Reserve bank of India. Objective and Limitation of Monetary policy with special reference to India.
4. Understand the meaning and scope of public finance. distinction between private And public finance, Public and private goods, principle of maximum social advantage  
 Demonstrate the role of government in economic activities.



7. Prevention control and abatement of pollution, environmental legislation, indicators  
of sustainable development, environmental accounting.
8. Concept of intellectual capital: Food, Security, Education, Health & Nutrition.
9. Role of agriculture in economic development including land reforms Efficiency & productivity in agriculture.
10. New technology & sustainable agriculture. Globalization & agriculture growth, the choice of technique appropriate technology & employment.

**B.A.**

**Part-3**

**Economics**

**Course outcome Paper-2**

After successful completion of this paper a student will be able to understand:-

1. Definition and limitation of statistics, importance of statistics in economics, statistical investigation, census and sampling, methods of statistical investigation, statistical data, collection of data, primary & secondary data.
2. Basic concept of statistics such as measure central tendency, measure of skewness, basic concept of probability.
3. Dispersion: Meaning and method of measuring dispersion: Range, Quartile deviations, Mean deviation, coefficient of mean deviation, standard deviation.
3. Correlation analysis, meaning and types of correlation, degree of correlation, coefficient of correlation- Karl Pearson's method, spearman's Rank Difference Method, probable and standard Error.
4. Method of constructing index Number, Fisher's method, Dorbish- Bowles method, paasches method ,Laspeare Method, Consumers price index numbers, Reversal test ,circular test.
5. Time series analysis- Meaning and component of time series, measurement of long term trend by Average Method.

## **DEPARTMENT OF SOCIOLOGY**

Courses offered – 3 years degree program of Bachelor of Arts (B.A.) with annual examination pattern.

Subject include in the program – Sociology, Geography, Economics, Foundation course Hindi and English

### **Program Outcome- Bachelor of Arts (B.A.)**

- To develop Scientific temperament.
- To develop critical thinking.
- To build confidence, better communication skills and creativity
- To enrich the problem solving capability and understanding of concept herein.
- To develop writing, teaching and presentation skills.
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- To motivate the students for being an active learner.
- To familiar with ethical approaches within concerned subjects and make them a good citizen.

### **Class- B.A.-I**

#### **Subject-Sociology-I**

#### **Introduction to Sociology**

#### **Program specific outcome:-**

- Acquaintance with social Transactions social Relations, Social formation, Social control, social value and culture.
- Knowing the signification of social institution caste system Religion, Nationalism integrity equality and justice.
- Getting the knowledge of the work of social reforms all over the nations.
- Ability to follow new stream of thought and theories of social thinkers.
- Getting the deep knowledge about various social groups like tribal community woman bulk etc.
- Ability to deal with research in sociology.

#### **Course Outcomes**

By the end of the course students will be able to reflect on following concepts-

1. The meaning of sociology- The sociological perspective sociology and social science the basic concept, society, community, institution association, group social structure, status and Role.
2. Institution family and kinship the religion, education, politics, the individual and society culture and socialization.
3. Social stratification and mobility meaning forms and theories.
4. Social change- meaning and type evolution and progress factor of social change.
5. The use of sociology introduction to applied sociology and social problem and social change the development of sociology and profession.

### **Class- B.A.-I**

### **Subject-Sociology-II**

### **Contemporary Indian Society**

#### **Program specific outcome:-**

- Introduction to the basic concept of sociology subject matter and importance of sociology and origin and development of sociology.
- Understanding in brief the knowledge of human society and sociology.
- Introduction to the various scientific methods in the students.
- Understanding various segment and unity of the Indian society.
- Understanding the social aspects of tribes in India.
- Introduction the Indian rural social structure.
- Understanding the nature of village studies conduct by different audiology given by various Indian sociologists.
- Understanding the economic and developmental of tribes in India.

#### **Course Outcomes**

By the end of the course students will be able to reflect on following concepts-

1. View about Indian society – The classical view Varna, Ashram, Karma and Dharma, field view M.N.Shriniwas and S.C.Dubey.
2. The structure and composition of Indian society village, town, cities and Rural Urban tribes Dalits, woman and minorities.

3. Basic institution of Indian society caste system kinship, family marriage, changing dimension.
4. Family problem Dowry, domestic violence, divorce, conflict problems of elderly.
5. Social problems- surrogate motherhood, leave in relationship, castism, Religionism, Communalism, corruption, youth unrest.

## **Class- B.A.-II**

### **Program specific outcome:-**

- Introduction to the basic concept of sociology subject matter and importance of sociology and origin and development of sociology.
- Understanding in brief the knowledge of human society and sociology.
- Introduction to the various scientific methods in the students.
- Understanding various segment and unity of the Indian society.
- Understanding the social aspects of tribes in India.
- Introduction the Indian ruler social structure.
- Understanding the nature of village studies conduct by different audiology given by various Indian sociologists.
- Understanding the economic and developmental of tribes in India.

### **Course Outcomes**

#### **Paper 1 – Sociology of Tribal Society**

Students will show knowledge on-

1. Tribes and Caste
2. Classification of tribal people
3. sociocultural profile of tribal society
4. Tribal sensitization
5. Problems of tribal people.

#### **Paper – 2 Crime and Society**

1. Conception and type of crime yearly explanation classical, positive, physiological.
2. Social structure and anomic, suicide organized crime, white color, cases terrorism.

3. Indian social problem- nature of social change and crime in India, social disorientation, Alcoholism, Drug Addiction, beggary.
4. Correctional process- Role of police and judiciary in India, Development of jail reform in India sociology of prison.
5. Punishment- Objectives and forms major theories of punishment, modern correctional concept, probation, parole, open prison.

### **Class- B.A.-III**

#### **Paper 1 – Sociology of Tribal Society** (from old syllabus)

Students will show knowledge on-

1. Tribes and Caste
2. Classification of tribal people
3. sociocultural profile of tribal society
4. Tribal sensitization
5. Problems of tribal people.

#### **Paper 2 Social Research Methods**

Students will be able to know research in sociology-

1. Meaning and significance of research.
2. Hypothesis formation
3. Scientific methods
4. types of research
5. Techniques and data collection
6. Representation and analysis of data

## **Department of Hindi**

**कोर्स आउटकम**

**बीए/ बीएससी/ बी कॉम - भाग -1 हिन्दी भाषा आधार पाठ्यक्रम**

1. प्रथम वर्ष के विद्यार्थी हिन्दी भाषा में आधार पाठ्यक्रम में प्रथम इकाई में पल्लवन, पत्राचार, पारिभाषिक शब्दावली और अनुवाद के बारे में सीखेंगे ।
2. दूसरी इकाई में शब्द, वाक्य शुद्धि, पर्यायवाची, विलोम अनेकार्थी, अनेक शब्दों के एक शब्द और सामाजिक जीवन में प्रयोग होने वाले मुहावरों, लोकोक्तियों के बारे में पढ़ेंगे ।
3. तीसरी इकाई में देवनागरी लिपि क्या है, इसकी विशेषताएँ एवं वर्तनी का मानक रूप के महत्व के बारे में सीखेंगे ।
4. चौथी इकाई में विद्यार्थी कम्प्यूटर में हिन्दी के अनुप्रयोग करना सीखेंगे और हिन्दी में पदनाम के बारे में पढ़ेंगे ।
5. पाँचवी इकाई में अपठित, संक्षेपन के बारे में सीखेंगे ।

### बीए/ बीएससी/ बी कॉम - भाग -2 हिन्दी भाषा आधार पाठ्यक्रम

1. द्वितीय वर्ष में खंड "क" में विभिन्न लेखकों के निबंध जैसे - महात्मा गांधी जी द्वारा लिखा गया निबंध 'सत्य और अहिंसा', विनोबा भावे (ग्राम सेवा), आचार्य नरेंद्र देव (युवकों का समाज में स्थान), हरी ठाकुर (डॉ खूब चंद बघेल), वसुदेव शरण अग्रवाल (मातृभूमि ), भगवत शरण उपाध्याय (हिमालय की व्युत्पत्ति) आदि पढ़ेंगे ।
2. खंड 'ख' में हिन्दी भाषा और उसके विविध रूप जैसे कार्यालयीन भाषा, मीडिया की भाषा, वित्त एवं वाणिज्य की भाषा, मशीन की भाषा के विषय में विस्तार से अध्ययन करके इसके महत्व को जानेंगे ।
3. खंड 'ग' में संज्ञा, सर्वनाम, विशेषण, क्रिया विशेषण, समास, संधि एवं संक्षिप्तियाँ पढ़ेंगे।

### बीए/ बीएससी/ बी कॉम - भाग -3 हिन्दी भाषा आधार पाठ्यक्रम

1. तृतीय वर्ष में विद्यार्थी सुमित्रानंदन पंत द्वारा लिखित कविता "भारत माता" के बारे में पढ़ेंगे । परशुराम की प्रतीक्षा, रामधारी सिंह दिनकर, बहुत बड़ा सवाल, मोहन राकेश का नाटक, कथन की शैलियों के बारे में पढ़ेंगे ।
2. विकासशील देशों की समस्याओं, प्रोद्योगिकी एवं नगरीकरण का अध्ययन करेंगे ।
3. पर्यावरण प्रदूषण और धारणीय विकास एवं कार्यालयीन पत्र के महत्व की जानकारी प्राप्त करेंगे ।
4. भारत के संदर्भ गरीबी तथा बेरोजगारी के प्रकारों के बारे में जानकारी प्राप्त करेंगे और इन्हें दूर करने के प्रयासों के बारे में पढ़ेंगे ।
5. अनुवाद करने और अनुवादक के गुणों के बारे में सीखेंगे ।



6. ऊर्जा के अर्थ व महत्व के बारे में सीखेंगे तथा घटनाओं, समारोहों आदि का प्रतिवेदन और विभिन्न प्रकार के निमंत्रण पत्रों को लिखना सीखेंगे ।

## Department of History

### बी.ए. प्रथम वर्ष प्रश्न पत्र –1

भारत का इतिहास (प्रारम्भ से 1206 ई. तक)

1. पृथ्वी के विकास के फलस्वरूप मनुष्य का विकास धीरे-धीरे किस प्रकार से हुआ ।
2. मनुष्यों ने औजार व हथियार व खेती-बाड़ी, पशुपालन फल-फूल, को उपयोग में लाना कैसे सिखा ।
3. हमारी प्राचीन संस्कृति कैसी थी । पाषाण काल, हड़प्पा काल, ऋग्वैदिक काल, उत्तर वैदिक काल की समाजिक, आर्थिक, धार्मिक व राजनीतिक स्थिति को भी समझ पायेंगे ।
4. आज जो हम भारतवर्ष को देखते हैं उसका निर्माण कैसे हुआ भारत की प्रारंभिक राज्यों को समझ पायेंगे । महाजनपद क्या था राज्यों का निर्माण कैसे हुआ ।

### बी.ए. प्रथम वर्ष प्रश्न पत्र –2

विश्व का इतिहास (1453 से 1890 ई. तक)

1. हमे देश विदेश को समझने में आसानी होती है क्योंकि इसमें हम विश्व के देशों का प्राचीन इतिहास का अध्ययन करते हैं ।
2. विश्व के बहुत सारे देशों में धर्म सुधार आंदोलन कैसे पुनर्जागरण लाया गया । कैसे जब लोगों को जरूरत महसूस हुआ तब लोगों ने नये-नये चीजों का अविष्कार किया
3. गुलामी की जंजीरों को केवल भारत ने ही नहीं बल्कि विश्व की बहुत सारी स देशों ने झेला है, फ्रांस, इंग्लैण्ड, अमेरिका, जर्मनी, इत्यादि देश भी किसी समय में गुलाम हुआ करते थे ।
4. इंग्लैण्ड के संविधान में क्या-क्या कमी थी और उसमें सुधार किस प्रकार से किया गया ।

### बी.ए. द्वितीय वर्ष प्रश्न पत्र –1

“भारत का इतिहास” (1206 से 1761 ई. तक)

1. मध्य काल की स्थिति को समझने में आसानी होगी ।
2. मोहम्मद बिन कासिम, मोहम्मद गजनवी, गौरी ने भारत पर आक्रमण किया ।

3. गुलाम वंश, खिलजी वंश, तुगलक वंश, सय्यद वंश, लोदी वंश, व मुगल वंश के बारे में समझ व उनके राज्य के विस्तार का विवरण।
4. मध्यकाल की सामाजिक, आर्थिक, राजनीतिक, धार्मिक व भू-राजस्व व्यवस्था की समझ।

### बी.ए. द्वितीय वर्ष प्रश्न पत्र –2

‘विश्व का इतिहास’ (1890 से 1964 ई. तक)

1. अफ्रिका का विभाजन, जापान का आधुनिकीकरण, तथा जापान व रूस के मध्य युद्ध।
2. प्रथम विश्व युद्ध के बाद देशों के मध्य संधि व समस्याएं।
3. वर्साय की संधि को अपमानजनक संधि कहा जाता है, युद्ध के दौरान ही सन् 1917 में रूस में युद्ध हुआ।

### बी.ए. तृतीय वर्ष प्रश्न पत्र –1

‘आधुनिक भारत का इतिहास’ (1761 से 1950 ई. तक)

1. आधुनिक भारत पर पुर्तगाली, डच, अंग्रेज, फ्रांसिसियों, व डेनिस व्यापार के माध्यम से भारत आये, अंग्रेजों ने भारत को अपना गुलाम बना लिया।
2. अंग्रेजों ने बंगाल, कलकत्ता, मुंबई, व मद्रास, दिल्ली पर अपना अधिकार स्थापित किया।
3. आधुनिक भारत में भारतीय राष्ट्रीय कांग्रेस का निर्माण हुआ।

### बी.ए. तृतीय वर्ष प्रश्न पत्र –2

‘विश्व का इतिहास’ (1871 से 1945 ई. तक)

1. वर्साय की संधि के फलस्वरूप ही द्वितीय विश्व युद्ध का बीजारोपण हुआ।
2. मुसोलिनी व हिटलर की द्वितीय विश्व युद्ध में विशेष भूमिका रही।
3. द्वितीय विश्व युद्ध के फलस्वरूप संयुक्त राष्ट्र संघ का निर्माण किया गया।
4. विश्व की घटनाओं को आसानी से समझ पायेंगे।

## Department of English

UG Class- I, II, III

**Goals, Objectives and Learning outcomes**

## **Course Outcomes**

### **By the end of this course students will be able to :-**

- Interact with academic content Reading, Listening and Speaking.
- Demonstrate ability to think critically.
- Demonstrate behavior and attitudes appropriate to a university environment.

### **Reading Goals:-**

- Apply the skills and strategies of a successful reader.
- Read critically.
- Students will interpret texts with attention to ambiguity, Complicity and aesthetic value.
- Students will read diverse texts within their historical and cultural contexts developing a critical understanding of how literature can both uphold and resist existing structures of power.

### **Course objectives for reading and Vocabulary:-**

This course will develop the Students ability to:-

- Skim for main idea.
- Develop reading speed.
- Build academic vocabulary.
- Make use of contextual clues to infer meaning of unfamiliar words from context.
- Discuss and respond to context of the text orally and in writing.
- Reflect on and evaluate learning and performance and set goals per progress.
- Demonstrate behavior and attitudes appropriate college environment.

### **Students learning outcomes:-**

Given an academic reading passage the students will be able to:-

- Identify the main idea (s) in the text.
- Identify specific details.
- Distinguish fact from opinion.
- Make inferences and predictions based on information in the text.
- Identify author's purpose and tone.
- Produce academic vocabulary appropriately orally and in writing and summarize paraphrase information text.

### **Writing:-**

- Understand and apply the conventions of academic writing in English.

### **Course objectives writing and Grammar:-**

This course will develop the student's ability to:-

- Write effective and coherent paragraphs.
- Use pre-writing strategies to specific topics.
- Develop coherent content and support with relevant details.
- Give critical peer feedback.
- Use peer and teacher feedback to edit writing.
- Build academic vocabulary.
- Use a variety of accurate sentence structures.
- Use grammatical structures accurately.

### **Students learning outcomes:-**

Give writing prompt, the students will be able to:-

- Write a paragraph with a topic sentence, support and concluding sentences.
- Produce coherent and unified paragraphs with adequate support and detail.
- Write an effective introduction and conclusion.
- Produce a well organized academic essay.
- Produce appropriate vocabulary and correct verb forms.
- Produce accurate grammatical structures, demonstrate control of mechanics.

### **Listening:-**

**Goal:** – apply the skills and strategies of a successful listener.

Course objectives for listening:-

This course will develop the student's ability to :

- Take organized notes on lectures and listening passage.
- Identify and distinguish main ideas from supporting details.
- Make use of contextual clues to infer meaning of unfamiliar words from context.
- Identify speaker's purpose and tone.
- Make inferences and predictions about spoken discourse.

### **Speaking:-**

**Goal:**-apply the skills and strategies of a successful speaker.

Course objectives for speaking and oral presentation:-

This course will develop the student's ability to:-

- Discuss and respond to content of a reading or listening passage.
- Use communication strategies to participate in group and class discussions.
- Select, compile and synthesize information for an oral presentation.
- Paraphrase and cite sources.
- Use vocabulary appropriately.
- Use grammatical structures appropriately.

Student learning outcomes:-

Given a topic to research and present in class the student will be able to:-

- Focus the topic.
- Apply research procedures.
- Locate and select relevant information.
- Produce appropriate vocabulary.
- Produce accurate grammatical forms.
- Give an oral presentation in class using effective delivery strategies.

## Department of Commerce

### **Bachelor of Commerce (B.Com)**

#### **Program Outcomes**

B.Com Students who have taken admission in this program are expected to concentrate upon the following outcomes:-

- (1) Develop Managerial skills
- (2) Commercial Sense.
- (3) Budgeting Policy.
- (4) Entrepreneurial Skill.
- (5) Human Resource Management.

- (6) Develop Numerical ability.
- (7) Well versed with business regulatory framework.

## **B.Com-I**

### **Course Outcome**

- To provide adequate basic understanding about accounting principle among the students.
- To train the students in (Business) communication skills effectively.
- To aware about the basic knowledge of national/domestic business law.
- To deliver knowledge about the principles of business economics which are applicable in business.
- To inculcate mathematical ability as is applicable to business.
- To prepare students with the emerging issues in business at the national and international level in the light of new business policies.

### **Course Outcome**

#### **1. Financial Accounting:-**

- To enable the students to learn principles and concept of accounting.
- To enable the students to learn the basic concept of partnership accounting and allied aspects of accounting.
- To find out the technical expertise in the maintaining the books of accounts.
- To encourage the students about maintaining the books of accounts for further reference.
- Getting working knowledge of generally accepted auditing procedure techniques and skills.

#### **2. Business Communication:-**

- To develop spoken communication and written communication.
- To understand the concept process and important of communication.
- To provide knowledge of various media of communication.
- To develop awareness regarding new trends in business communication.
- To develop business communication skills through the application and exercises.

### 3. **Business Mathematics:-**

- To understand the concept of simple interest, Compound interest and the concept the ratio and proportion.
- To understand the application of matrix in business.
- To understand the linear programming and problem relating to two variables.
- To understand the concept of commission brokerage discount and profit and loss.
- To know the valuation of simple loans and debentures as well as problem relating to sinking funds.

### 4. **Business Regulatory Framework:-**

- To know the students with the basic concept terms & provisions of mercantile and business laws.
- To develop the awareness among the students regarding this loss affecting trade business and commerce.
- To develop well verse in basic provisions regarding legal framework governing the business world.
- Knowing the rights and liability of every citizen regarding consumer protection act.
- To provide understanding about Negotiable Instruments and law of contract.

### 5. **Business Environment:-**

- Understand business environment at national and international level.
- Knowing the impact of liberalization, Privatization and Globalization (LPG) in Indian business/Economy.
- To know the economic problems like growth, poverty, Unemployment and Industrial sickness.
- To Understand the International Environment and International Economic groupings WTO, UNCTAD, IMF and GATT etc.
- Knowing about agricultural development Industrial development and service sector development in India.

### 6. **Business Economics:-**

- The objective of the course is to familiarize the students the basic concept of macro and macro economics.

- To stimulate the students interest by showing the relevance use of the various economic theories.
- To apply economic understanding to problems of business.
- Justifying the demand function and production function.
- Understanding the link between business economics and business decision.

## **B.COM-II**

### **(Program Outcomes)**

- Students can get through knowledge of finance and accounting.
- Students can independently start up their own business.
- Capability of the students to make decision at personal as well as professional level will increase.
- Students will gain through systematic and subject skills within various disciplines of corporate accounting law, Cost Accounting, Management and entrepreneurship.
- Students will be able to do their higher education and can make research in the field of finance and commerce.

### **Course Outcomes**

#### 1. **Corporate Accounting:-**

- This course aims to enlighten the students on the accounting procedures followed by the companies.
- To make the students about the valuation of goodwill and shares.
- To Impart Knowledge about the amalgamation, absorption and holding company account.
- To provide adequate understanding about final accounts of companies spare companies act 2013.
- To know accounting entries regarding issue forfeitures and Re-issue of shares.

#### 2. **Company Law:-**

- To impart students the provision and procedures under company act.
  - To provide knowledge of capital management and rules and procedure of appointment of director.
  - To acquaint the students with the company meetings.
  - To update the knowledge of provisions of winding up and majority powers and minority rights.



- To aware students regarding kinds of companies and promotion and incorporation of companies.

### 3. **Cost Accounting:-**

- To understand basic cost concept, elements of cost and cost sheet.
  - Ascertainment of material and labour cost.
  - To develop understanding to apply theoretical knowledge in practical situation.
  - To provide knowledge about cost Ascertainment and cost Records.
  - To impart knowledge about the concept and principles application of overheads.

### 4. **Principles of Business Management:-**

- To enable student understand Principles, functions and different management theories.
  - To impart knowledge about various functions of management.
  - To provide knowledge about leadership and managerial control.

### 5. **Business Statistics:-**

- To know use of frequency distribution to make decision.
  - To use correlation and regression analysis to estimate the relationship between two variables.
  - To understand the concept and techniques of the different types of index numbers.
  - To understand the measures of dispersion and skewness.
  - Making familiar with statistical tools which are relatively used in business.

### 6. **Fundamentals of Entrepreneurship:-**

- Developing entrepreneurship skill among the students.
  - Enable students to acquire the skill to be an entrepreneur.
  - Creating awareness among students about self-employment.
  - Providing various innovative business ideas to the society.
  - Developing entrepreneurial behavior and social responsibility among students.

## **B.COM- III**

### **Program Outcome**

The objective of the programme shall be to provide sound academic base from which an advanced carrier in accounting/finance can be developed.

Conceptual grounding in accounting usages as well as its practical business application will be provided.

### **Course Outcomes**

- To enables the students to know the basics of income tax act and its implications.
- Students are imparting knowledge about the principles and methods of auditing and their applications.
- To impart basic knowledge about GST and apply the provision of GST law to various situations.
- To provide the students an understanding of the application of accounting techniques for management.
- The objective of this is to help students understand the conceptual framework of financial management.
- This is aims at acquainting the students with the working of financial market in India.

### **Subject Specific Outcome**

#### **1. Income Tax :-**

- Knowing the procedure of calculation of income tax.
- Acquiring the knowledge about general deduction from income.
- Obtaining the knowledge about tax free incomes.
- Exposure to income tax planning.
- Getting known with application of principles and provision of direct tax laws in  
Computation of taxable income under various heads of income.

#### **2. Auditing:-**

- Knowledge about auditing principles and techniques of auditing.
- Getting knowledge of vouching of cash and credit transactions.
- Knowing the appointment procedure of auditor.
- Acquiring the skills of audit program of co-operative societies and banks.

- Knowledge about writing of audit reports.

### **3. Indirect Taxes with GST**

- Students will be able to compute the assessable value of transactions related to goods and services for levy and determination of duty liability.
- Students will be able to understand the basic principles underlying the indirect taxation statutes.
- 
- Students will be able to identify and analyze the procedural aspects under different applicable statutes related to GST.
- Students will be able to understand tax liability and taxable entities.
- Student will be able to examine the method of tax credit. Inflow and outflows. Outflows: tax imposition, tax exemption, tax deduction.

### **4. Management Accounting**

After completion of this course the student would be able to-

- Explain the financial concept used in making accounting management decision.
- Use business finance terms and concept when communicating.
- Use effective communication skills to promote respect and relationship for financial deals.
- Demonstrate a basic understanding of accounting management.
- Utilize information by applying a variety of business and industry software and hardware to major financial functions.

### **5. Financial Management:**

After completion of this course the student would be able to-

- Use business finance terms and concepts when communicating.
- Use effective communication skills to promote respect and relationship for financial deals.
- Explain the financial concept used in making financial management decision.
- Utilize information by applying a variety of business and industry software and hardware to major financial function.
- Demonstrate a basic understanding of financial management.

### **6. Financial Market Operation:**

- Students will be able to describe the types of equity security that a company can use to raise equity capital and how these securities can be listed and traded on the Indian Stock Exchange.
- Student will be able to apply different company valuation techniques to determine share prices.
- Students will be able to describe the characteristics of different types of debt securities and be able to price them.
- Student will be able to describe different theories of how interest rates are determined and explain the relationship between the term maturity, risk and interest rates.
- Student will be able to understand the mechanics and conventions of the foreign exchange market and the motivation of different participants in trading foreign currencies.

## **PROGRAMME SPECIFIC OUTCOMES – M.COM**

- To impart the knowledge of basic accounting principles and the latest application oriented corporate accounting methods.
- To develop the decision making skill through costing methods and practical application of management accounting principles.
- To enhance the horizon of knowledge in various fields of commerce through advertising and sales promotion.
- To create awareness in application oriented research through Research Methodology
- To equip Post Graduate students to accept the challenges of business world
- To develop independent logical thinking and facilitate personality development
- To equip the students for seeking suitable careers in management and Entrepreneurship
- To inculcate the knowledge of business and the techniques of managing the business with special focus on marketing,

### **COURSE OUTCOMES M.COM.**

#### **MANAGERIAL ECONOMICS**

- The course will acquaint the students about basic principles of Micro and Macro economics
- Students will be familiar with the theory of the firm, Market and Macro environment
- The student will be able to make managerial decisions

### **ADVANCED ACCOUNTING**

- To study the basic concepts of corporate accounting
- To prepare the final accounts of companies
- To analyse the internal or external reconstructions of companies
- To know the liquidators final statement of accounts
- To summarize the consolidated financial statement and balance sheet for holding companies

### **MANAGEMENT ACCOUNTING**

- To know the basics of management accounting
- To study the financial statement analysis
- To familiarize fund flow cash flow statement
- To analyze various budget
- To familiarize with marginal costing
- To provide knowledge about management process and evolution of management.

### **RESEARCH METHODOLOGY & COMPUTER APPLICATION BASICS**

- To explain the students with the areas of Business Research Activities.
- To enhance capabilities of students to conduct the research in the field of social sciences and business.
- To facilitate students, in developing the most appropriate methodology for their research studies.
- To aware the students with the art of using different research methods and techniques.
- To make the students aware about the methods of data collection
- To study the analysis and interpretation of data
- To familiarize report writing
- To make the students aware about uses of computer for research work.

## **MARKETING MANAGEMENT**

- To know the modern marketing concepts and evaluation
- To study the consumer behavior
- To analyze the product and price
- To analyze the promotion mix
- To explore the place mix and strategies decisions

## **ADVANCED STATISTICS**

- To update about Interpolation and Extrapolation
- To update the students about Association of Attributes
- To know the advanced statistical tools for analysis T,Z and F
- To familiarize the the students about Stastical Quality Control
- To study the advanced application oriented tests – F , test and Anova

## **ACCOUNTING FOR MANAGERIAL DECISIONS**

1. Identify accounting information and tools for business decision making.
2. Compute and interpret different ratios for business decision making.
3. Prepare and present fund flow statement.
4. Prepare and present cash flow statement
5. Prepare report on financial state of affairs to the stakeholders
6. facilitate students to acquire sound knowledge of concepts, methods and techniques of management accounting
7. To aware the students develop competence with their usage in managerial decision making and control

## **INVESTMENT MANAGEMENT**

- To study investment concept, types feature and function
- To analyze investment goals, risk and return analysis
- To know the investment valuation measures and approach
- To familiarize investment portfolio, mutual funds and efficient market

hypothec

- To study derivative investment port and calls options.

### **SPECIALIZED ACCOUNTING**

- To know the banking company accounts
- To study the insurance company accounts
- To know the double accounts concepts
- To familiarize Royalty accounting
- To study Investment accounting

### **Business Finance**

- To familiarize the students to acquire sound knowledge of concepts, structure and nature of business finance.
- To impart knowledge regarding strategic financial planning.

### **Business Laws**

- Students will acquire sound knowledge of relevant provisions of various laws influencing business operations.
- Students will know about WTO, Doha declaration, Dispute settlement system.
- Students will get knowledge about TRIP, TRIMS and GATS.

### **PRODUCTION MANAGEMENT**

- The students will know about basic principles of production management.
- Students will learn project planning methods like PERT & CPM.
- Students will learn about production control functions.

### **ADVERTISING AND SALES MANAGEMENT**

- Knowledge of advertising and sales management will help students to build their conceptual framework.
- Student will be efficient in sales management.
- Students will be able to make quick and firm decision related to advertising, marketing and sales promotion
- Students will learn about promotional management.

## **ADVANCED COST ACCOUNTING**

- To study the costing concept and methods
- To analyse the unit cost and job costing
- To know about Operating costing and Estimate costing
- To know about Wage payment methods
- To know the process costing with normal and abnormal loss
- To update the standard costing methods
- To prepare the reconciliations statements.

## **BANK MANAGEMENT**

- To familiarize the banking sector reforms
- To know the banking functions deeply.
- To study the employment of different types of funds
- To analyze the differently types of customers and the services offered by bank

## **MANAGEMENT CONCEPT**

- To know the overview of management
- To study planning procedure
- To identify the organizational structure and forms
- To familiarize with communication motivation and leadership towards directing
- To analyse the process of controlling

## **FINANCIAL INSTITUTIONS AND MARKETS**

- To know the financial system and economic development
- To familiarize with stock exchange functions
- To study the merchant banking functions and services
- To analyse the factoring services and depository system in India
- To know the trend in Global financial market



## **INTERNATIONAL MARKETING**

- To know about International Marketing
- To familiarize Foreign Market Selection
- To study about Quality issues and after sales service
- To study about promotion of products and services abroad
- To know about policies and practices related to international business

## **GOODS AND SERVICE TAX**

- To know about registration process under GST
- To know about Administration of GST
- To study about Assessment under GST
- Understand the fundamental principles and rationale of indirect tax system with special reference to GST.
- Know the “place of supply rules” and applicability of the same under GST
- Getting familiar with the technology and the flow of return filing under GST
- Compute the assessable value of transactions related to goods and services.

## **STRATEGIC MANAGEMENT**

- To provide understanding of the Tasks, Functions and Skills of strategic management and latest developments.
- To aware the students about principles and functions of strategic management.

## **ORGANIZATIONAL BEHAVIOUR**

- To provide in depth knowledge about process of formation of group behavior in an organization set up
- To make the students understand various concepts of organization behavior

## **INTELLECTUAL PROPERTY, HUMAN RIGHTS**

### **& COMPUTER APPLICATION BASICS**

- To facilitates the study of the concept of Human Rights and its development in the context of India.
- It familiarise the students regarding the rights of marginalised groups such as SC/STs and Physically Challenged etc

- It enables the students to understand the role of judiciary in the protection of bare minimum rights of downtrodden sections in the country
- To make aware the students about Intellectual property rights like patents rights, Copyrights etc
- Students will be able to understand about sustainable development and environment governance

### **Business Economics**

- The course will develop managerial perspective to economic fundamentals among students.
- The students will be able for decision making under given environmental constraints.
- The students will understand about business cycles as well as inflation.

## **M. Sc. Botany Outcomes**

### **Programme Outcome (M.Sc. Botany)**

PO1 – To develop critical thinking and scientific temperament.

PO2- Students will be able to enhance research and problem solving skills.

PO3- Understand and apply knowledge of Botany in day to day activities.

PO4- To develop collaborative, team work, ethical skills and become a lifelong learner.

PO5- identify issues relevant to environment.

### **Programme Specific Outcomes (M.Sc. Botany)**

PSO1- To give students exposure to recent developments and advance topic of subject.

PSO2- Apply research methodologies and able to use instruments in Botany.

PSO3- Able to collect data, analyze and prepare necessary documentation of botanical importance.

PSO4- Identify characters of plants and classify them.

## Course Outcome (M.Sc. Botany)

### M.Sc. 1st Semester (Botany)

#### Paper -1 (Cell and Molecular Biology)

CO1- Students will be able to understand basic concept of instrumentation, cell and molecular biology.

CO2- This course is aimed towards generating fundamental knowledge, concepts and dimensions of botany/plant science.

#### Paper -2 (Genetics and Cytogenetics)

CO1- Students will be able to understand basic concept of genetics and cytogenetics.

PO2- This course is aimed towards generating fundamental knowledge, concepts and dimensions of botany.

#### Paper -3 (plant physiology and biochemistry)

CO1-Students will be able to understand basic concept of plant physiology and biochemistry.

CO2- This course is aimed towards generating fundamental knowledge, concepts and dimensions of botany.

#### Paper – 4 (Research Methodology and computer application)

CO1- Students will be able to understand basic concept of research.

CO2- Gets acquainted with various resources for research, computer fundamentals, office software packages and become familiar with tools of research.

CO3- Gets conversant with sampling techniques, methods of research and techniques of analysis of data.

CO4- Achieves skills in various research writings.

#### Paper – 5 (Recombinant DNA technology)

CO1- Students will be able to understand basic concept of recombinant DNA technology.

CO2- This course is aimed towards generating fundamental knowledge, concepts and dimensions of botany.

CO3- Students will be able to understand basic concept of electrophoresis and column chromatography technique.

### **M.Sc. 2nd semester (Botany)**

#### Paper -1 (Developmental Biology)

CO1- Students will be able to understand basic concept of developmental biology in plants includes vascular system, flower development and embryology. This course is aimed towards generating fundamental knowledge, concepts and dimensions of botany.

#### Paper -2 (Pathogens and Pests of Crop Plants)

CO1- Students will be able to understand basic concept of pathogens and pests in crop plants.

CO2-Students will be able to understand basic concept of plant pathogen interactions. This course is aimed towards generating fundamental knowledge, concepts and dimensions of botany.

#### Paper -3 (Plant Biotechnology and Resource Utilization)

CO1-Students will be able to understand various concept of plant tissue culture.

CO2- Students will be able to understand various concepts of gene transfer technology in plants. This course is aimed towards generating fundamental knowledge, concepts and dimensions of botany.

CO3- Students will be able to know the importance of economically important plants.

#### Paper – 4 (Elective paper – Systematics, Evolution and environmental science)

CO1- Students will be able to understand basic concept of plant taxonomy, evolution and environment.

#### Project Work – Skill development & Social outreach.

CO1 – Students will be able to study enhance practical skills and engage in society through this skill development and social outreach course.

### **M.Sc. 3rd semester (Botany)**

Paper – 1 (Algae, Environment and Human Welfare)

CO1- Students will be able to understand characteristics, classification and economic importance of algae.

Paper – 2 (Principle of Ecology)

CO1-Students will be able to understand basic concept of ecology.

CO2- Students will be able to understand various type of environmental pollution.

Paper – 3 (Advances in Archegoniatae)

CO1- Students will be able to understand some advanced concept of bryophyte and some advanced concept of pteridophytes.

CO2- Students will be able to understand some advanced concept of gymnosperms.

Paper – 4 (other supportive course – Intellectual property, Human Rights and Environment:Basics)

CO1- Students will be able to understand basic concept of intellectual property right includes copyright and patents.

CO2- Students will be able to understand concept of human right and environment.

Paper – 5 (Evolutionary Biology)

CO1- Students will be able to understand advanced evolutionary concepts.

### **M.Sc.4th semester (Botany)**

Paper -1 (In Vitro Technology and Industrial applications)

CO1- Students will be able to understand micropropagation of various plants.

CO2- Students will be able to understand problems in plant tissue culture system.

CO3- Students will be able to understand use of bioreactor for secondary metabolite production.

Paper -2 (Reproductive Biology of Flowering plants)

CO1- Students will be able to understand plant embryology of flowering plants.

Paper – 3 (Molecular interactions of plants with symbionts, pathogens and pests)

CO1- Students will be able to understand molecular interaction of plants with symbionts, pathogens and pests.

Paper – 4 (Agriculture ecology- principle and application)

CO1- Students will be able to understand principles and application of agricultural ecology.

Paper 5 – Dissertation Work –

CO1- Through dissertation work students will be able to enhance scientific temper, research skill, critical think and analyze.

## **M.SC. CHEMISTRY COURSE OUTCOME**

Semester-I

Paper I- Inorganic Chemistry

Knowledge the concept of coordination Chemistry, stability of the complexes and stereochemistry of complexes. Knowledge about structure and bonding.

Paper II- Organic Chemistry

Students able to learn the concepts of stereochemistry, conformational analysis and their application in the determination of reaction mechanism. To understand the nucleophilic and electrophilic substitution.

Paper III- Analytical Chemistry

Students able to learn about the chemical analysis, solvent extraction, separation technique and spectroscopic technique.

Paper IV- Group Theory Spectroscopy and Diffraction method

Knowledge of the diffraction techniques and to learn about group theory and spectroscopy.

## Paper V- RESEARCH METHODOLOGY & COMPUTER APPLICATION

Understands the concept and place of research in concerned subject

Gets acquainted with various resources for research

Becomes familiar with various tools of research

Gets conversant with sampling techniques, methods of research and techniques of analysis of data - Achieves skills in various research writings -

Gets acquainted with computer Fundamentals and Office Software Package.

## Semester-II

### Paper I- Inorganic Chemistry

Knowledge about the theories of coordination complexes, Chemistry of lanthanides, to learn about Nanotechnology and use of Inorganic Compounds in Biological Chemistry.

### Paper II- Organic Chemistry

Students able to learn the various types of reactions, rearrangements and their synthetic utility.

### Paper III- Physical Chemistry

Knowledge of the various types of spectroscopy and radio chemistry.

### Paper IV- Applied Chemistry

Students able to gain the knowledge in the preparation, properties, characterization and Uses of polymers.

### Paper V- Social outreach and Skill development

Students able to knowledge about social outreach and project.

## Semester-III

### Paper I- APPLICATIONS OF SPECTROSCOPY-INORGANIC CHEMISTRY

Knowledge about application of Spectroscopy in various field of In organic Chemistry.

### Paper II - APPLICATIONS OF SPECTROSCOPY-ORGANIC CHEMISTRY

Knowledge about application of Spectroscopy in various field of Organic Chemistry.

#### Paper III - PHOTOCHEMISTRY

Students able to learn about principle and application of Photochemistry in various fields.

#### Paper IV- HETEROCYCLIC CHEMISTRY

Knowledge of Nomenclature, Preparations, Characteristics and Structure of Heterocyclic.

#### Paper V- INTELLECTUAL PROPERTY RIGHTS, HUMAN RIGHTS & ENVIRONMENT: BASICS

Understands the concept and place of research in concerned subject

Gets acquainted with various resources for research

Becomes familiar with various tools of research

Gets conversant with sampling techniques, methods of research and techniques of analysis of data.

#### Semester-IV

#### Paper I- BIOINORGANIC CHEMISTRY

Knowledge about Trace metal ions, Enzymes and medicinal bio inorganic chemistry.

#### Paper II - ENVIRONMENTAL CHEMISTRY

Knowledge about Earth, Biosphere and Pollution and its Control.

#### Paper III - SOLID STATE CHEMISTRY

Knowledge of Solid States and their structure and application.

#### Paper IV - PHOTO INORGANIC CHEMISTRY

Knowledge about Photochemistry, Excited States and Ligand field Photochemistry.

#### Paper V-

Dissertation Students able to orient about minor project and research in different field of chemistry.



