

## Internal Quality Assurance Cell

**A. S. College, Deoghar (Jharkhand)**



Program Outcomes (POs),  
Program Specific Outcomes  
(PSOs)

And

Course Outcomes (COs)

**(2020-2021)**

## Program Outcomes (POs)

### Faculty of Science

#### Program Outcomes (POs) for B.Sc. Programme

<b>PO1:</b>	<b>Disciplinary Knowledge:</b> Demonstrate comprehensive knowledge of the disciplines that form a part of a graduate programme. Execute strong theoretical and practical understanding generated from the specific graduate programme in the area of work.
<b>PO2:</b>	<b>Critical Thinking and Problem solving:</b> Exhibit the skills of analysis, inference, interpretation and problem-solving by observing the situation closely and design the solutions.
<b>PO3:</b>	<b>Social competence:</b> Display the understanding, behavioural skills needed for successful social adaptation, work in groups, exhibit thoughts and ideas effectively in writing and orally.
<b>PO4</b>	<b>Research-related skills and Scientific temper:</b> Develop the working knowledge and applications of instrumentation and laboratory techniques. Able to apply skills to design and conduct independent experiments, interpret, establish hypothesis and inquisitiveness towards research.
<b>PO5</b>	<b>Trans-disciplinary knowledge:</b> Integrate different disciplines to uplift the domains of cognitive abilities and transcend beyond discipline-specific approaches to address a common problem.
<b>PO6</b>	<b>Personal and professional competence:</b> Performing dependently and also collaboratively as a part of a team to meet defined objectives and carry out work across interdisciplinary fields. Execute interpersonal relationships, self-motivation and adaptability skills and commit to professional ethics.
<b>PO7</b>	<b>Effective Citizenship and Ethics:</b> Demonstrate empathetic social concern and equity centred national development, and ability to act with an informed awareness of moral and ethical issues and commit to professional ethics and responsibility.
<b>PO8</b>	<b>Environment and Sustainability:</b> Understand the impact of the scientific solutions in societal and environmental contexts and demonstrate the knowledge of and need for sustainable development.
<b>PO9</b>	<b>Self-directed and Life-long learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context of socio-technological changes.



## DEPARTMENT OF BOTANY

### PROGRAMME SPECIFIC OUTCOME

After successful completion of three-year degree programme in Botany students are able -

**BOT 101M** - To gain knowledge about the process of staining, sterilization, culture, culture media and classification, cell structure, reproduction and economic importance of bacteria and general account of TMV and Bacteriophage. Students can also gain knowledge of cyanaenobacteria like Nostoc, Oscillatoria etc.

**BOT 102M** -To gain Knowledge about general characters, classification and economic importance of some Algae and Fungi.

**BOT 201M** - To learn the general account classification and economic importance and life history of some bryophytes and pteridophytes.

**BOT 202 M** - To gain the knowledge about the process of fossilization, importance of fossils major sites of fossils in Jharkhand, general account and life history of fossil genera like Rhynia, Calamites etc. and also general account, anatomy, reproduction and comparative account of some Gymnosperms.

**BOT 301 M**- To learn morphology, systematic of Angiosperm, Modern trends in plants taxonomy and some important family of Angiosperm.

**BOT 302 M** - To learn different types of tissue, tissue system primary structure, and secondary growth of plants.

**BOT 303M**- To learn pathogenesis, host parasite relationship, disease cycle, defence mechanism and plant disease management and some plant diseases.

**BOT 401 M**- To gain knowledge about sporogenesis, gametogenesis, fertilization, development of embryo, endosperm and also to learn some food plants, oil yielding plants, Timber and medicinal plants.

**BOT 402 M** - To gain knowledge about cell organelles, cell division and chromosome structures and morphology.

**BOT 403 M**- To learn plant water relation, nutrition, plant metabolism and also role of mechanism of action of phyto-hormones.

**BOT 501 M**- To learn about Gene, Genetic Code, regulation of genes in prokaryotes, Operon concept, recombinant DNA technology and chromatography.

**BOT 502 M**- To know about Mendel's Law of Inheritance, Interaction of Genes, Linkage and recombination, Determination of sex, Gene mutation and structural and numerical changes in chromosomes and also about the plant breeding and methods of plant improvement.

**BOT 601 M**- To learn about carbohydrates, protein, lipids, amino acid and protein metabolism, nucleic acids, enzymes and Plant Biotechnology.

**BOT 602 M-** To learn about Ecological adaption of Hydrophytes and Xerophytes, Population growth and Population interaction, Community, Characteristic and their measurement and species diversity, structure function and component of ecosystem and ecological pyramids, Flow of energy and Phytogeography, Biodiversity and their conservation, pollution and Bio remediation.

**BOT -SP- I** To known about morphology of Angiospermic plants such as root, stem, leaf, inflorescence, flower, fruit and seed.

**BOT -SP- II** To known about Cereals, Pulses, and oil yielding plant their cultivation and uses in the locality and also Timber yielding Plants, Fibres, Medicinal and Aromatic Plants and their uses.

**BOT -SP- III** To known about general concept of environment and its impact on human beings pollution and its impact on human beings , green house effects, Ozone layer and Ozone Hole and conventional and non- conventional energy resources,

**BOT -SP- IV-** To known about important tribes and their distribution, habit and language of Jharkhand, Primary knowledge about ethno botany of Santhal's and Paharia, Herbarium and its role and some important medicinal plants in Jharkhand.

#### COURSE OUTCOME

After successful completion of three year degree programme in Botany students are able to -

**BOT 101M** - Understand the process of staining, sterilization, culture and culture media and classification, cell structure, reproduction and economic importance of bacteria and general account of TMV and Bacteriophage and general character classification, economic important and life history of Nostoc, Oscillatoria and Rivuliria.

**BOT 102M** -Understand general characters, classification, economic importance and life History of Algae such as Oedogonium, Chara, Vaucheria, Sargassum and Polysiphonia and Fungi like Phytophthora, Peziza, Puccinia, Agriculus and Colletotricum.

**BOT 201M** - Understand general account classification and economic importance and life history of bryophytes such as Marchantia, Anthoceros, Sphagnum, Polytricum and pteridophytes like Psilotum, Selaginella, Equisetum, Marsilia and Pteris.

**BOT 202 M** - Understand the process of fossilization, importance of fossils major sites of fossils in Jharkhand, general account and life history of fossil genera like Rhynia, Calamites, Lepidodendron, Pentoxylon and Williamsonia and also general account, anatomy, reproduction and comparative account of Gymnosperms Cycas, Pinus, Taxus and Gnetum.

**BOT 301 M-** Understand Morphology of Plants and systematic of Angiosperm, Botanical Nomenclature, System of Classification, Modern trends in plants taxonomy and some important family of Angiosperm.

**BOT 302 M** - Understand different types of tissue, tissue system, primary structure, cambium, periderm and secondary growth of plants.



**BOT 303M-** Understand pathogenesis and host parasite relationship, disease cycle and epidemics, defence mechanism and plant disease management and plant diseases like Late blight of Potato, Early blight of Potato, Citrus Canker, Red rot of Sugarcane, Loose smut of wheat, Rust of wheat, Bacterial blight of rice, TMV. Leaf curl of Papaya, Yellow vein mosaic of Bhindi and little leaf of Brinjal.

**BOT 401 M-** Understand the sporogenesis, gametogenesis, fertilization, development of embryo, endosperm and also understand some food plants, oil yielding plants, Timber and medicinal plants.

**BOT 402 M -** Know the structure and function of Plasma membrane, ER, Nucleus, Golgi Bodies, Ribosome, cell division and chromosome structures and morphology.

**BOT 403 M-** Know the diffusion and Osmosis, absorption of water, Ascent of Sap, mechanism of stomatal movement, Photosynthesis, Respiration, Nitrogen metabolism, Photo Periodism and Vernalization and Phytohormones.

**BOT 501 M-** Understand the organization of Genes in prokaryotes and eukaryotes, Genetic Code, transcription, translation, regulation of genes in prokaryotes, Operon concept, RNA Splicing, restriction endonuclease, plasmid, DNA fingerprinting, PCR, Chromosome walking, Northern and southern analysis, and Spectroscopy.

**BOT 502 M-** know the Mendel's Law of Inheritance, Complementary and supplementary genes, coupling and Repulsion, chromosome mapping, mechanism and significance of recombination, mechanism of sex Determination in plants, Sex linked inheritance, cytoplasmic inheritance, Gene mutation and structural and numerical changes in chromosomes, plant breeding and methods of plant improvement.

**BOT 601 M-** Understand classification, structure and examples of different types of carbohydrates, Saturated and unsaturated fatty acids, Fatty acid biosynthesis, oxidation of fatty acids, DNA structure and replication, types of RNA and their roles, types, classification and mode of action of enzymes, structure and classification of amino acids, structure of proteins, amino acid biosynthesis, Cellular differentiation and Totipotency, organogenesis and embryogenesis, somatic hybridization, genetic engineering of plants and role of biotechnology in crop improvement.

**BOT 602 M-** Know the Ecological adaption of Hydrophytes and Xerophytes, Population concept, density and pattern, Population growth and Population interaction, Community Characteristic, species diversity, structure and function and components of ecosystem, ecological pyramids, Flow of energy and Bio geochemical cycle, renewable and non renewable natural resources and their management conservation of biodiversity, pollution (air, water and soil), global warming and Ozone depletion, environmental monitoring, and important legislation related to environment.

**BOT -SP- I** Understand the types modification and function (root and stem), the leaf, types Phylotaxy modification and function, different types of inflorescence, the floral parts and aestivation, fruit and seed definition structure of monocotyledonous and dicotyledonous seeds.

**BOT -SP- II** known cultivation and uses of Cereals, Pulses, and oil yielding plant of the locality, uses of Timber yielding Plants, Fibres, common Medicinal and Aromatic Plants and general concept of plants uses.

**BOT -SP- III** Understand general concept and impact of environment and pollution on human beings, effect of different types of pollution and their control, climate changes and energy resources,

**BOT -SP- IV-** Known the definition scope and methods of study of ethnobotany and medicinal plants, important tribes and ethnic groups of Jharkhand, Knowledge about ethnobotany of Santhal and Paharia, Herbarium and its role and some important medicinal plants in Jharkhand.

## DEPARTMENT OF CHEMISTRY

### Program Outcomes (POs) for B.Sc. Programme in Chemistry

PO1:	Apply knowledge of Chemistry to solution of complex scientific problems. (Scientific knowledge)
PO2:	Identify, formulate and analyze complex scientific problems using principles of chemistry. (Problem analysis)
PO3:	Propose of solutions for complex scientific problems and plan of chemical processes that meet the specified needs with appropriate considerations of public health and safety, and cultural, societal, and environmental considerations (Design/development of solutions)
PO4	Use research-based methods including analysis and interpretation of data and synthesis of chemical products leading to logical conclusions (Conduct investigations of complex problems)
PO5	Create, select, and apply appropriate techniques, resources, and modern scientific and IT tools including prediction and modelling complex scientific activities with an understanding of limitations (Modern tool usage)
PO6	Apply reasoning within the contextual knowledge to access societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional scientific practice (The chemist and society)
PO7	Understand the impact of the professional scientific solutions in the societal and environmental contexts, and demonstrate the knowledge of, and the need for sustainable developments (Environment and sustainability)
PO8	Apply ethical principles and commit to professional ethics and responsibilities and norms of scientific practice (Ethics).
PO9	Function effectively as an individual independently and as a member or leader in diverse teams, and in multidisciplinary settings (Individual and team work)



PO10	Communicate effectively on complex scientific activities with the science community and with society at large such give and receive clear instructions (Communication)
P11	Demonstrate knowledge and understanding of scientific management principles and apply those to one's own work as a member of a team to manage projects in multidisciplinary environments (Project management and finance)
P12	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broad-est context of technological change (Life-long Learning).

#### Program Specific Outcomes (PSOs)

The Programme Specific Outcomes (PSOs) are specific statements that describe the professional career accomplishments that the program is designed. The PSOs of the B.Sc. Program in (Hons.) Chemistry are designed in such a way that at the end:

PSO1:	To have a firm foundation in the fundamentals/concepts/theories and its applications in various branches of chemistry.
PSO2:	Chemistry graduates will be able to understand the basic concepts related with organic, chemistry covering various organic reagents and various types of reactions along with their mechanisms. Along with this student will also learn practical aspects of organic chemistry especially elemental analysis and functional groups.
PSO3:	Chemistry graduates will be understanding various topics of inorganic chemistry which will be a base to improve their career in the area of inorganic chemistry. Here student will learn various theories of inorganic chemistry and their application to define coordination complexes.
PSO4:	Chemistry graduates will learn herein physical properties of various compounds through thermodynamics, electrochemical study, colligative properties etc.
PSO5:	To acquaint with safety measures in laboratory and develop skills in proper handling of chemicals and apparatus/instruments.
PSO6:	To carry out experiments, record the observations and present the inference/results.

#### Course Outcomes (COs)

Semester-I
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<p>Core-1: Inorganic Chemistry I</p>	<p>CO1: Solve the conceptual questions using the knowledge gained by studying the quantum mechanical model of the atom, quantum numbers, electronic configuration, radial and angular distribution curves, shapes of s, p, and d orbitals, and periodicity in atomic radii, ionic radii, ionization energy and electron affinity of elements.</p> <p>CO2: Draw the plausible structures and geometries of molecules using Radius Ratio Rules, VSEPR theory and MO diagrams (homo- &amp; heteronuclear diatomic molecules).</p> <p>CO3: Understand the concept of lattice energy using Born Landé and Kapuscinski expression.</p> <p>CO4: Rationalize the conductivity of metals, semiconductors and insulators based on the Band theory.</p> <p>CO5: Understand the importance and application of chemical bands, inter-molecular and intramolecular weak chemical forces and their effect on melting points, boiling points, solubility and energetics of dissolution.</p>
<p>Core-2:</p>	<p>CO1: Derive mathematical expressions for different properties of gas, liquid and solids and understand their physical significance.</p> <p>CO2: Explain the crystal structure and calculate related properties of cubic systems.</p> <p>CO3: Explain the concept of ionization of electrolytes with emphasis on weak acid and base and hydrolysis of salt.</p> <p>CO4: Apply the concepts of gas equations, pH and electrolytes while studying other chemistry courses and everyday life.</p> <p><u>Methodology to Achieve the Specific Outcomes</u></p> <ol style="list-style-type: none"> <li>1. Students will learn the skills to handle the viscometer and stalagmometer and measure the viscosity and surface tension of different liquids.</li> <li>2. Blended mode of teaching with flip classroom approach along with traditional chalk and blackboard method,</li> <li>3. Video lectures from SWAYAM and NPTEL</li> <li>4. Use of Virtual Labs</li> <li>5. Training to handling basic chemical laboratory instruments and their use in analytical and biochemical determinations</li> <li>6. Assessment based upon continuous evaluation including quizzes, assignments projects, presentations, and class test.</li> <li>7. In Practical, assessment will be done based on continuous evaluation, performance in the experiment on the date of examination and viva voce.</li> </ol>



Practical on Core 1 and Core-2	<p>Student will be able to learn :-</p> <ul style="list-style-type: none"> <li>• Titrimetric Analysis</li> <li>• Acid-Base Titrations</li> <li>• Oxidation Reduction titrimetric</li> <li>• Surface tension measurements</li> <li>• Viscosity measurement using Ostwald's viscometer.</li> </ul>
<b>Semester-II</b>	
Core-3: Organic Chemistry I	<p>CO1: Understand and explain the different nature and behavior of organic compounds based on fundamental concepts learnt.</p> <p>CO2: Formulate the mechanism of organic reactions by recalling and correlating the fundamental properties of the reactants involved.</p> <p>CO3: Learn and identify many organic reaction mechanisms including Free Radical Substitution, Electrophilic Addition and Electrophilic Aromatic Substitution.</p> <p>CO4: Understand the fundamental concepts of stereochemistry.</p>
Core-4:	<p>CO1: Understand the three laws of thermodynamics, concept of State and Path functions, extensive and intensive properties.</p> <p>CO2: Derive the expressions of <math>\Delta U</math>, <math>\Delta H</math>, <math>\Delta S</math>, <math>\Delta G</math>, <math>\Delta A</math> for ideal gases under different conditions.</p> <p>CO3: Explain the concept of partial molar properties.</p> <p>CO4: Explain the thermodynamic basis of colligative properties and applications in surroundings</p>
Practical on Core 3 and Core-4	<p>Student will be able to learn :-</p> <ul style="list-style-type: none"> <li>• Purification of aromatic compounds</li> <li>• Determinations of melting points</li> <li>• Determinations of boiling points</li> <li>• Determinations of heat capacity of the calorimeter</li> <li>• Determinations of enthalpy of hydration.</li> </ul>
<b>Semester-III</b>	
Core-5:	<p>CO1: Learn the fundamental principles of metallurgy and understand the importance of recovery of by products during extraction.</p> <p>CO2: Understand the basic and practical applications in various fields of metals and alloy behaviour and their manufacturing processes.</p> <p>CO3: Apply the thermodynamic concepts like that of Gibbs energy and entropy to the principles of extraction of metals.</p>

	<p>CO4: Understand the periodicity in atomic and ionic radii, electronegativity, ionization energy, electron affinity of elements of the periodic table.</p> <p>CO5: Understand oxidation states with reference to elements in unusual and rare oxidation states like carbides and nitrides.</p> <p>CO6: Understand vital role of sodium, potassium, calcium and magnesium ions in biological systems and the use of caesium in devising photoelectric cells.</p>
Core-6: Organic Chemistry II	<p>CO1: Understand preparation, properties and reactions of haloalkanes, haloarenes and oxygen containing functional groups.</p> <p>CO2: Use the synthetic chemistry learnt in this course to do functional group transformations.</p> <p>CO3: To propose plausible mechanisms for any relevant reaction.</p>
Core-7:	<p>CO1: Understand phase equilibrium, criteria, CST, Gibbs-Duhem-Margules equation.</p> <p>CO2: Learn the working of electrochemical cells, galvanic cell,</p>
Practical on Core 5, Core-6 and Core-7	<p>Student will be able to learn :-</p> <ul style="list-style-type: none"> <li>• Iodo/Iodimetric Titrations</li> <li>• Inorganic preparations</li> <li>• Functional group detection.</li> <li>• Preparation of derivatives of few organic compound</li> </ul>
<b>Semester-IV</b>	
Core-8: Inorganic Chemistry III	<p>CO1: Understand the terms, ligand, denticity of ligands, chelate, coordination number and use standard rules to name coordination compounds. CO2: Discuss the various types of isomerism possible in such compounds and understand the types of isomerism possible in a metal complex.</p> <p>CO3: Use Valence Bond Theory to predict the structure and magnetic behaviour of metal complexes and understand the terms inner and outer orbital complexes.</p> <p>CO4: Explain the meaning of the terms <math>\Delta_o</math>, <math>\Delta_t</math>, pairing energy, CFSE, high spin and low spin and how CFSE affects thermodynamic properties like lattice enthalpy and hydration enthalpy.</p> <p>CO5: Explain magnetic properties and colour of complexes on basis of Crystal Field Theory</p> <p>CO6: Understand the important properties of transition metals like variable oxidation states, colour, magnetic and</p>



	<p>catalytic properties and use Latimer diagrams to predict and identify species which are reducing, oxidizing and tend to disproportionate and calculate skip step potentials.</p> <p>CO7: Understand reaction mechanisms of coordination compounds and differentiate between kinetic and thermodynamic stability</p>
<p>Core-9: Organic Chemistry III</p>	<p>CO1: Gain theoretical understanding of chemistry of compounds having nitrogen containing functional groups, heterocyclic, polynuclear hydrocarbons, alkaloids and terpenes which includes various methods for synthesis through application of the synthetic organic chemistry concepts learnt so far.</p> <p>CO2: Become familiar with their particular properties, chemical reactions, criterion of aromaticity with reference to polynuclear hydrocarbons and heterocyclic compounds, trends in basicity of amines and heterocyclic compounds and their behaviour at different pH.</p> <p>CO3: Learn practical approach to structural elucidation of organic compounds with specific examples of terpenes and alkaloids.</p> <p>CO4: Predict the carbon skeleton of amines and heterocyclic compounds via use of Hoffmann's exhaustive methylation and Emde's modification methods.</p> <p>CO5: Understand the applications of these compounds including their medicinal applications through their reaction chemistry.</p>
<p>Core-10:</p>	<p>CO1: Explain the chemistry of conductance and its variation with dilution, migration of ions in solutions.</p> <p>CO2: Learn the applications of conductance measurements,</p> <p>CO3: Have understanding of rate law and rate of reaction, theories of reaction rates and catalysts; both chemical and enzymatic</p> <p>CO4: Have knowledge of the laws of absorption of light energy by molecules and the subsequent photochemical reactions. :-</p>
<p>Practical on Core 8, Core-9 and Core-10</p>	<p>Student will be able to learn :-</p> <ul style="list-style-type: none"> <li>• Detections of aliments and functional group of organic compounds</li> <li>• Qualitative analysis of unknown organic compounds.</li> <li>• Gravimetric Analysis</li> <li>• Inorganic Preparations</li> </ul>

Semester-V	
<b>Core-11: Organic Chemistry IV</b>	<p>CO1: Understand and demonstrate how structure of biomolecules determines their reactivity and biological functions.</p> <p>CO2: Gain insight into concepts of heredity through the study of genetic code, replication, transcription and translation.</p> <p>CO3: Demonstrate understanding of metabolic pathways, their inter-relationship, regulation and energy production from biochemical processes.</p>
<b>Core-12:</b>	<p>CO1: Learn about limitations of classical mechanics and solution in terms of quantum mechanics for atomic/molecular systems.</p> <p>CO2: Develop an understanding of quantum mechanical operators, quantization, probability distribution, uncertainty principle and application of quantization to spectroscopy.</p> <p>CO3: Interpret various types of spectra and know about their application in structure elucidation.</p>
<b>Practical on Core 11, and Core-12</b>	<p>Student will be able to learn :-</p> <ul style="list-style-type: none"> <li>• Estimations of glycine by Sorenson's methods</li> <li>• Study of the titrations curve of glycine</li> <li>• Saponification value of an oil or a fat.</li> <li>• Colorimetric Experiments</li> <li>• Verify Lambert-Beer's law</li> </ul>
<b>DSE-1: Analytical methods in chemistry</b>	<p>Student will be able to learn :-</p> <ul style="list-style-type: none"> <li>• Concept of spectroscopy</li> <li>• Principal instrumentation of UV, IR and Flame spectrometry</li> <li>• Thermal methods of analysis</li> <li>• Concept of electro analytical methods</li> <li>• Separations techniques</li> </ul>
<b>DSE2: Applications of Computers for Chemists</b>	<p>CO1 : Learn about Basics Programming Language</p> <p>CO2 :Understand about the Constants, variables ,arithmetic expression and hierarchy of operations in BASIC Programming Language.</p> <p>CO3: Learn Applications of BASIC Programming Language in Matrix addition and multiplication.</p> <p>CO4: Learn Applications of BASIC Programming Language in Statistical analysis.</p> <p>CO5 :Learn to write programs using BASIC Programming Language to solve problems based on Numerical methods to</p>



	<p>find roots, to do numerical differentiation and Numerical integration .</p> <p>CO6 : Learn to write programs using BASIC Programming Language to solve problems based on Simultaneous equations.</p>
<p>Practical on DSE-1, and DSE-2</p>	<p>Student will be able to learn :-</p> <p>Computer programs based on numerical methods for</p> <ol style="list-style-type: none"> <li>1. Roots of equations: (e.g. volume of van der Waals gas and comparison with ideal gas, pH of a weak acid).</li> <li>2. Numerical differentiation (e.g., change in pressure for small change in volume of a van der Waals gas, potentiometric titrations).</li> <li>3. Numerical integration (e.g. entropy/ enthalpy change from heat capacity data), probability distributions (gas kinetic theory) and mean values</li> <li>4. Determine the pH of the given aerated drinks fruit juices, shampoos and soaps.</li> <li>5. Determination of Na, Ca, Li in cola drinks and fruit juices using flame photometric techniques.</li> <li>6. Analysis of soil: Determination of pH of soil</li> <li>7. Paper chromatographic separation of <math>\text{Fe}^{3+}</math>, <math>\text{Al}^{3+}</math>, and <math>\text{Cr}^{3+}</math>.</li> <li>8. Separation and identification of the monosaccharides present in the given mixture (glucose &amp; fructose) by paper chromatography. Reporting the <math>R_f</math> values</li> </ol>
<p><b>Semester-VI</b></p>	
<p>Core-13:</p>	<p>CO1: Understand and explain the basic principles of qualitative inorganic analysis</p> <p>CO2: Learn about Types of inorganic polymers and Synthesis, structural aspects and applications of silicones , siloxanes, Borazines, silicates ,phosphazenes and polysulfides</p> <p>CO3: Understand Metal ions present in biological systems, and the classification of elements according to their action in the biological system.</p> <p>CO4: Diagrammatically explain the working of the sodium-potassium pump in organisms and the factors affecting it and understand and describe the active sites and action cycles of the metalloenzymes carbonic anhydrase and carboxypeptidase</p> <p>CO5: Explain the sources and consequences of excess and deficiency of trace metals and learn about the toxicity of certain metal ions, the reasons for toxicity and antidotes</p> <p>CO6: Explain the use of chelating agents in medicine and, specifically, the role of cisplatin in cancer therapy and explain the applications of iron in biological systems with particular</p>

	<p>reference to hemoglobin, myoglobin, ferritin and transferring</p> <p>CO7: Get a general idea of catalysis and describe in detail the mechanism of Wilkinson's catalyst, Zeigler- Natta catalyst and synthetic gasoline manufacture by Fischer-Tropsch process.</p>
Core-14: Organic Chemistry V	<p>CO1: Gain insight into the basic principles of UV, IR and NMR spectroscopic techniques.</p> <p>CO2: Use spectroscopic techniques to determine structure and stereochemistry of known and unknown compounds.</p> <p>CO3: Develop a sound understanding of the structure of Pharmaceutical Compounds. They will also understand the importance of different classes of drugs and their applications for treatment of various diseases.</p> <p>CO4: Learn about the chemistry of natural and synthetic polymers including fabrics and rubbers.</p> <p>CO5: Understand the chemistry of biodegradable and conducting polymers and appreciate the need of biodegradable polymers with emphasis on basic principles.</p> <p>CO6: Learn about the theory of colour and constitution as well as the chemistry of dyeing.</p> <p>CO7: Know applications of various types of dyes including those in foods and textiles.</p>
Practical on Core 13, and Core-14	<p>Student will be able to learn :-</p> <ul style="list-style-type: none"> <li>• Qualitative analysis of Mixture of three salts</li> <li>• Extraction of caffeine from tea leaves</li> <li>• Preparation of sodium poly acrylate, methyl orange</li> <li>• Analysis of Carbohydrates</li> <li>• Qualitative analysis of unknown organic compounds</li> </ul>
DSE-3:Green Chemistry	<p>CO1:Learn about the basic concepts of green chemistry and Twelve principles of Green Chemistry with their explanations and examples:</p> <p>CO2:Learn to design Green Synthesis using Twelve principles of Green Chemistry</p> <p>CO3:Understand how to do Prevention of Waste/ by-products and concept of Atom Economy</p> <p>CO4: Learn about Green solvents, Solventless processes, immobilized solvents and ionic liquids and their uses</p> <p>CO5 Understand the Concept of Green Energy and uses of microwaves and Ultrasonic energy in Green Synthesis</p> <p>CO6:Learn Uses of Green catalytic Reagents</p> <p>CO7:Learn about Designing of biodegradable products:</p> <p>CO8:Understand and learn about Green Synthesis of the following compounds: Adipic acid, Catechol, BHT, Methyl</p>



	<p>methacrylate, Urethane, Aromatic amines (4-aminodiphenylamine), benzyl bromide, Acetaldehyde, Disodium iminodiacetate (alternative to Strecker synthesis), Citral, Ibuprofen, Paracetamol, Furfural.</p> <p>C09: Learn about Future Trends in Green Chemistry with special reference to Biomimetic, Multifunctional reagents; Combinatorial green chemistry; Proliferation of solventless reactions; On covalent derivatization;</p>
DSE-4:	<p>Student will be able to learn :-</p> <ul style="list-style-type: none"> <li>• Production, uses, storage and handling of hazardous chemicals and gases</li> <li>• Concepts of ecosystem and pollution</li> <li>• Effluent treatment Plant</li> <li>• Energy and environment</li> <li>• About biocatalysis</li> </ul>
Practical on DSE-3, and DSE-4	<p>Student will be able to learn :-</p> <ul style="list-style-type: none"> <li>• Using renewable resources Preparation of biodiesel from vegetable oil.</li> <li>• Avoiding waste and apply Principle of atom economy.</li> <li>• Use of molecular model kit to stimulate the reaction to investigate how the atom economy can illustrate Green Chemistry.</li> <li>• Determination of dissolved oxygen in water</li> <li>• Determination of COD</li> <li>• Measurement of chlorine, sulphate and salinity of water</li> <li>• Estimation of total alkalinity of water sample</li> <li>• Determination of percentage of chlorine in bleaching powder</li> </ul>

## DEPARTMENT OF GEOLOGY

### Program Specific Outcomes (PSOs)

PSO1:	Understand the internal and external forces on our planet and how the various features, origin, evolution and preservation of life structures within rocks are formed due to Earth's various processes; identify physical properties of rocks, as well as the optical and physical properties of minerals in hand specimens as well as under the microscope.
PSO2:	Develop the knowledge regarding the basic concepts of stratigraphy in order to understand the Precambrian and Phanerozoic stratigraphy of

	India, along with an understanding of primary and secondary geological structures, recording and collecting data about these structures and reconstructing geological history.
PSO3:	Receive training in hydrogeology, basic meteorology and geological field techniques such as mapping and surveying required for collection, interpretation and application of the geological data.
PSO4:	The students will able to learn the dynamic nature of the Earth processes. They will learn about the geodynamics of the lithosphere, concept of Isostasy, ocean floor spreading, continental drift, plate tectonics, volcanism, earth quakes etc.
PSO5:	The course present concepts of geomorphology in relation with geological processes and evolution of land forms.
PSO6:	Develop the knowledge about ores and fossil fuel, its processes of formation and distribution in India.

### Course Outcomes (COs)

Semester-I	
Core-1:	<ol style="list-style-type: none"> <li>1. Introduction to Geology as a subject and its relation with other branches of science.</li> <li>2. Understanding of the concept of origin, radioactivity and age of the earth and its relation to the solar system.</li> <li>3. An elementary idea of seismic waves and interior of the Earth.</li> <li>4. Concept of the theory of Isostasy, Continental Drift and plate tectonics.</li> <li>5. Study of atmosphere and hydrosphere.</li> </ol>
Core-2:	<ol style="list-style-type: none"> <li>1. Understanding of Rock weathering and erosion.</li> <li>2. Understanding the Geological work of wind, running water, glaciers and oceans.</li> <li>3. Gaining knowledge about Earthquake, its types, causes and its distribution.</li> <li>4. Gaining knowledge about Volcanoes, its types and its distribution.</li> <li>5. Understanding concept of Geomorphology</li> <li>6. Gaining knowledge about the application of mathematics in Geology.</li> </ol>



Practical on Core 1 and Core-2	<ol style="list-style-type: none"> <li>1. Knowledge of toposheet and its features.</li> <li>2. Knowledge of drainage pattern and its identification.</li> <li>3. Knowledge of the calculation of earthquake epicentre.</li> <li>4. Knowledge of the clinographic and stereographic projections of the crystal models.</li> </ol>
<b>Semester-II</b>	
Core-3:	<ol style="list-style-type: none"> <li>1. Gaining knowledge about the basic concept of computer application in geology.</li> <li>2. Knowledge of use of different software and applications.</li> <li>3. Knowledge of the crystal structures, crystalline and amorphous substance.</li> <li>4. Knowledge of crystallographic forms.</li> <li>5. Knowledge of the laws of crystallography.</li> </ol>
Core-4:	<ol style="list-style-type: none"> <li>1. Knowledge of minerals, physical properties of minerals, structures and classification of silicates.</li> <li>2. Understanding about the different mineral groups and there properties.</li> <li>3. Knowledge about the optical properties of minerals.</li> <li>4. Understanding of the concept of use of light in the study of minerals.</li> <li>5. Knowledge of the construction and function of optical microscope.</li> </ol>
Practical on Core 3 and Core-4	<ol style="list-style-type: none"> <li>1. Knowledge of the megascopic study of the rock forming minerals.</li> <li>2. Knowledge of the microscopic study of the rock forming minerals.</li> <li>3. Knowledge about the optical sign determination of uniaxial minerals.</li> <li>4. Knowledge about the composition of plagioclase feldspar.</li> <li>5. Knowledge about the Pleochroic scheme of biotite.</li> </ol>
<b>Semester-III</b>	
Core-5:	<ol style="list-style-type: none"> <li>1. Gaining knowledge about the igneous rock, its structure, texture and classification.</li> <li>2. Knowledge about magma its source its nature and its crystallisation.</li> <li>3. Concept of bowen reaction series.</li> <li>4. Concept of magmatic differentiation and assimilation.</li> <li>5. Knowledge of different igneous rocks and its petrography.</li> </ol>

Core-6:	<ol style="list-style-type: none"> <li>1. Gaining knowledge about the sedimentary rock, its structure, texture and classification.</li> <li>2. Concept of formation of sedimentary rock and factors effecting it.</li> <li>3. Concept of provenance and its relation with sedimentary rocks.</li> <li>4. Knowledge of sedimentary beds and its age determination.</li> <li>5. Knowledge of different sedimentary rocks and its petrography.</li> </ol>
Core-7:	<ol style="list-style-type: none"> <li>1. Gaining knowledge about the metamorphic rock, its structure, texture and classification.</li> <li>2. Concept of metamorphism, its types and agents effecting metamorphism.</li> <li>3. Concept of metamorphic zones, grade and facies.</li> <li>4. Concept of thermal metamorphism and progressive regional metamorphism.</li> <li>5. Knowledge of different metamorphic rocks and its petrography.</li> </ol>
Practical on Core 5, Core-6 and Core-7	<ol style="list-style-type: none"> <li>1. Megascopic study of igneous, sedimentary and metamorphic rocks.</li> <li>2. Microscopic study of igneous, sedimentary and metamorphic rock.</li> <li>3. Microscopic study of textures of rocks.</li> </ol>
<b>Semester-IV</b>	
Core-8:	<ol style="list-style-type: none"> <li>1. Gaining knowledge about the concept of planer structure and linear structures.</li> <li>2. Understanding the concept of dip and strike, concept and use of clinometer and brunton compass.</li> <li>3. Knowledge of the classification and recognition of folds and faults.</li> <li>4. Understanding of the concept of unconformity and related structures.</li> <li>5. Knowledge of joints and its types.</li> </ol>
Core-9:	<ol style="list-style-type: none"> <li>1. Understanding the principles of stratigraphy and stratigraphic correlation.</li> <li>2. Knowledge of geological time scale.</li> <li>3. Understanding the classification , lithological characteristics, fossil contents and economic importance of <ul style="list-style-type: none"> <li>-Precambrian of Singhbhum</li> <li>-Cuddapah Supergroup of cuddapah basin</li> <li>-Vindhyan Supergroup</li> <li>-Gondwana sequence</li> </ul> </li> </ol> <p>Deccan trap and Tertiary of assam.</p>



Core-10:	<ol style="list-style-type: none"> <li>1. Understanding the concept of Fossils and its mode of preservation and uses of fossils.</li> <li>2. Knowledge about the Classification, morphology and geological history of the following: Brachiopoda, Palecypoda, Gastropoda and Trilobita.</li> <li>3. A brief study of Gondwana flora and siwalik vertebrates.</li> <li>4. Knowledge about the Morphological characteristic and geological age of the following: Spirifer, Terebratula, Rhynchonella, Productus, Arca, Gryphaea, Cardita, Unio, Murex, Natica, Voluta, Conus, Phacops, Calymene, Paradoxides, Glossopteris, Gangamopteris, Vertebraria.</li> </ol>
Practical on Core 8, Core-9 and Core-10	<ol style="list-style-type: none"> <li>1. Drawing of geological cross section of important geological maps.</li> <li>2. Structural problems related to dip and strike.</li> <li>3. Identification of important invertebrate and plant fossils.</li> <li>4. Plotting of important Geological formations on the political map of India.</li> </ol>
<b>Semester-V</b>	
Core-11:	<ol style="list-style-type: none"> <li>1. Understanding of the occurrence and vertical distribution of groundwater.</li> <li>2. Understanding of the Hydrological cycle.</li> <li>3. Knowledge about the porosity and permeability of rocks, Aquifers and their types, Specific yield, specific retention and storage coefficient.</li> <li>4. Understanding the Darcy's law and its validity. Hydraulic conductivity and transmissivity. Water table and causes of its fluctuation.</li> <li>5. Knowledge about Groundwater provinces of India. Physical and chemical quality of groundwater.</li> </ol>
Core-12:	<ol style="list-style-type: none"> <li>1. Knowledge about the definition and concept of environmental geology.</li> <li>2. Understanding the processes of soil formation, types of soil, soil degradation and mitigation.</li> <li>3. Knowledge of Environmental changes due to the influence of geological events and anthropogenic activities.</li> <li>4. Knowledge of the Environmental degradation due to mining and related activities and remedies.</li> <li>5. Understanding of the water and air pollution.</li> </ol>

Practical on Core 11, and Core-12	<ol style="list-style-type: none"> <li>1. Hydrological properties of rocks.</li> <li>2. Preparation of hydrographs</li> <li>3. Hydrological properties of Gondwana rocks of Jharkhand</li> <li>4. Hydrological properties of Lower Vindhyan rocks of Jharkhand</li> <li>5. Plotting of Ground water provenance of India on the political map of India</li> </ol>
DSE-1:	<ol style="list-style-type: none"> <li>1. General idea of field geology and its importance.</li> <li>2. Knowledge of the equipment and materials required during field work.</li> <li>3. Knowledge and use of Clinometer and Brunton Compass.</li> <li>4. Understanding of the Interpretation of topographic and geological maps.</li> <li>5. Knowledge about the Methods of sampling.</li> </ol>
DSE-2:	<ol style="list-style-type: none"> <li>1. Understanding of the Concept of mineral exploration.</li> <li>2. Understanding of the Principles and techniques of important methods of Geophysical exploration: Gravity method, Magnetic method, Seismic method and Electrical resistivity method.</li> <li>3. Understanding of the Geochemical exploration.</li> </ol>
Practical on DSE-1, and DSE-2	<ol style="list-style-type: none"> <li>1. Measurement of Forward Bearing and Backward Bearing by Brunton Compass and Clinometer Compass</li> <li>2. Bore hole problems</li> <li>3. Determination of dip and strike</li> <li>4. Completion of outcrop form partial outcrop</li> </ol>
<b>Semester-VI</b>	
Core-13:	<ol style="list-style-type: none"> <li>1. Understanding of the geological considerations in the selection of sites of dams.</li> <li>2. Understanding of the geological considerations in the selection of sites of reservoir.</li> <li>3. Understanding of the geological considerations in the selection of sites of tunnels and bridges.</li> <li>4. Assessment and management of land sliding in the hilly areas.</li> <li>5. Understanding the concept of Slope failure.</li> </ol>
Core-14:	<ol style="list-style-type: none"> <li>1. Knowledge about the definition of ore, ore minerals, gangue minerals, tenor of ore, mineral reserves and mineral resources.</li> <li>2. Understanding the processes of formation of mineral deposits with special reference to Magmatic concentration, Hydrothermal processes, Supergene sulphide enrichment and Mechanical concentration.</li> <li>3. Study of physical properties, chemical composition and uses of following minerals: Galena, Sphalerite, Chromite, Graphite, Asbestos, Kyanite, Sillimanite, Cassiterite, Baryl, Barite, Uraninite, and Monazite.</li> </ol>



Practical on Core 13, and Core-14	<ol style="list-style-type: none"> <li>1. Identification and uses of important ores and industrial minerals.</li> <li>2. Study of geological map for identification of dam establishment</li> <li>3. Field work of at least one week duration in a geologically important area.</li> </ol>
DSE-3:	<ol style="list-style-type: none"> <li>1. Understanding of the elementary idea of Photogeology. Aerial photography, types of aerial cameras and flight planning.</li> <li>2. Knowledge of the human eye and stereoscopic vision, depth perception. Stereoscopes- their types, construction and function.</li> <li>3. Understanding of the Geometric characteristics of aerial photographs. Photogrammetry calculation of height of an object using relief displacement and stereoscopic parallax.</li> <li>4. Interpretation of geographical, geomorphological, structural and lithological features from aerial photographs.</li> <li>5. Application of photogeology in geological mapping and mineral exploration.</li> </ol>
DSE-4:	<ol style="list-style-type: none"> <li>1. A detailed study of the following economic mineral deposits of India with reference to their ores, genesis, mode of occurrence and geographical distribution: Iron ores, Copper ores, Aluminium ores, Manganese ores and Mica deposits, kyanite deposits, china clay.</li> <li>2. Study of Coal, Petroleum and Radioactive minerals of India.</li> </ol>
Practical on DSE-3, and DSE-4	<ol style="list-style-type: none"> <li>1. Visual interpretation of aerial photographs and satellite images.</li> <li>2. Determination of scale of the photographs and images.</li> <li>3. Height measurement using parallax bar.</li> <li>4. Plotting of important Geological formations containing ores on the political map of India</li> </ol>

## DEPARTMENT OF PHYSICS

### Program Specific Outcomes (PSOs)

PSO1: Students will be able to learn about Mathematical physics & Mechanics

PSO2 : Get the knowledge about optics, Electricity & Magnetism

PSO 3 : Students get the knowledge about mathematical physics & thermal.

Physics, Physics thermodynamics Analog system & application.

PSO 4: Understand the basic knowledge about Mathematical, Physics Quantum mechanics & Digital system & application

PSO 5 : Students get the knowledge of Atomic molecular laser & nuclear Physic & Physics

PSO 6 : Students will be able to of Device & Instrument Statistical Mechanics and Nuclear Particle Physics.

### Course Outcomes (Cos)

#### Semester-I

Core-1 : Any five Course Outcome

After Successfully completing the course students will be.

- a) To Understand the Elasticity, Relation between elastic constant, twisting torque, cantilever, young's modulus.
- b) To Understand the Kinematics of moving fluids fluid through a capillary tube.
- c) To Understand the Surface tension, Surface energy, virtual work & effect of temp & pressure on Surface tension
- d) To understand the Oscillation forced Oscillation Damped Oscillation & Resonance
- e) To Understand the frame of reference & special theory of relativity through Michelson Morley experiment. Practical Student will be able to learn :-

Core 1 1) Students have an idea to determine the modulus of rigidity and of a wire by May well's needle.

Core-22) Students gain Basic Knowledge to determine young's modulus of elastically by official lever method.

3) Students gain skill about the elastic constants of wire & find its value by sear's method.

4) Students will be able to Understand that how the value of 'g' find out using Bar Pendulum

5) Students will be able to Understand that how we get the value of g Using Kater's pendulum.

#### Semester- II

Core-4 : Any five Course Outcomes (OPTICS)

- (1) Knowledge of basic ideas of Geometrical optics
- (2) Understand the concept of Interference.
- (3) Understand the concept of Interferometer & Study of michelson + Morley experiment.



- (4) Understand the concept of Fresnel Diffraction.
- (5) Understand the concept of Fraunhofer diffraction i.e. study of single slit double slit

Practical : Student will be able to learn :-

On 1) Students gain an idea to verify Thevenin & Norton theorem

Core 3 2) Students gain idea now determine the wavelength of sodium

and source using Michelson's interferometer

Core-4 3) Students have an idea to determine the wavelength of sodium light Using Fresnel Biprism

4) Students will be able to determine wavelength of sodium light Using Newton's Ring.

5) Students gain Basic knowledge about Refractive index of the material of a Prism.

### Semester - III

Core-6: Any five Core Outcomes

After Successfully Completing this Course Student will be able.

- a) To Understand the Concept of thermo dynamics
- b) To Understand the Concept of Carnot engine cycles of etc efficient, Refrigerate
- c) To understand the concept of Entropy
- d) To understand the concept of thermodynamics Potentials
- e) To understand the concept of Maxwell's thermodynamic Relations

Core-7: Student will be able to learn :-

After Successfully completion this comes student will be able

- a) To understand the concept of Semiconductor diode.
- b) To understand the concept of Bipolar junction Transport
- c) To understand the concept of Amplifiers.
- d) To understand the concept of Coupled Amplifiers Feedback of amplifiers oscillators.
- e) To understand the concept of Network theorems ,Modulation

Practical Student will be able to learn :-

On 1) Students have an idea to design AND, OR, NOT & XOR gates using Core5, NAND gate.

Core-6 and core-7

2) Students gain knowledge about Half adder, full Adder, & 4-bit binary Adder.

- 3) Student get the knowledge, about coefficient of thermal conductivity of ca by Searle's Appertains
- 4) Student have an idea about Timer
- 5) Students have an idea to minimize a given logic circuit

#### Semester-IV

Core-9 : Student will be able to learn :-

After Successfully Completing this course student will be able to

- a) To understand the concept of classical megahits of photo Electric effect.
- b) To understand the concept of wave particle duality
- c) To understand the concept of wave packet & wave function
- d) To understand the concept of Schrödinger wave equation and its application
- e) To understand the concept of operator formulation of Angular momentum and spin.

Core-10 Student will be able to learn :-

After Successfully Completing this concept student will be able to

- a) To Understand the Concept of CRO
- b) To Understand the Concept of Digital Circuits
- c) To Understand the Concept of Boolean Algebra
- d) To Understand Arithmetic Circuit
- e) To understand the Timers

Practical Student will be able to learn :-

On 1) Students will be able to Understand Plank's constant using black Core 8, body radiation & Photo detector

Core 9 2) Students will be able to understand V-I characteristic of PN

and junction diode

Core-10 3) Student will be able to understand the characteristic of bipolar junction transistor

4) Student will be able to understand uses of op-amp

5) Student will be able to understand the analog to digital convertor

#### Semester- V

Core-11 : Student will be able to learn :-

After successfully completing this course student will be able to

- a) To Understand the Atoms in Electric & magnetic fields
- b) To Understand the Pauli Exclusion principle



- c) To Understand the general properties of Nuclei
- d) To Understand the Liquid drop models.
- e) To Understand the Radio activity & Lasers

Practical Student will be able to learn :-

On 1) Students have an idea of Zeeman effect

Core 11, 2) Student have an idea about refractive index of a dielectric layer  
and using SPR

Core-12 3) Student will be able to determine the Hall co-efficient of a semiconductor sample.

4) Student have an idea of tunneling effect in tunnel diode.

5) Student have an idea about resistivity of a semi conductor

DSE-1: Student will be able to learn :-

After Successfully completing this course student will be able

- a) To understand the MOS
- b) To understand the MOSET
- c) To understand the CMOS
- d) To understand the Filters
- e) To understand the modulation & its types

DSE-2: Student will be able to learn :-

Practical Student will be able to learn :-

On 1) Student gain skill about active low pass & high pass filter.

DSE-1,2) Student gain skill about Amplitude Modulator

And 3) Student gain skill about JFET.

DSE-2 4) Student gain skill about Amplitude Modulation

5) Student gain skill about MOSFET

Core-14: Any five course Outcome

After Successfully Completing this course student will be able to

- a) To Understand the Classical statistics.
- b) To Understand the Maxwell Boltzmann distribution Law.
- c) To Understand the Quantum theory of radiation .
- d) To Understand B-E distribution Law.
- e) To Understand the Fermi Dirac Distribution

- Practical Student will be able to learn :-
- On 1) Student have an idea of specific rotation of sugar solution using Core13, polar meter.
- and 2) Student gain knowledge of reflection, refraction of microwares.
- Core-14 3) Student gain knowledge of Polarization & soluble slit interference.
- 4) Student have an idea of Stefan's law of radiation
- 5) Students have an idea of boltzmann Constant.
- DSE-4: Student will be able to learn :-
- After Successfully Completing this concourse student will be able
- a) To Understand the General properties of Nuclei.
- b) To Understand the Liquid drop model.
- c) To Understand the Radio activity decay.
- d) To Understand the Conservation Law.
- e) To Understand the Accelerator
- Practical Student will be able to learn :-
- On 1) Student of lorentz transformation.
- DSE-3, 2) Knowledge of length contraction.
- and 3) Study of Radioactively decay.
- DSE-4 4) Knowledge of Accelerators
- 5) Knowledge of liquid drop model

## Department Of Mathematics

### Course Outcomes (COs)

Semester-I	
Core-1:	Student will be able to learn :- 1.Binary operations- solutions of binary operations problems 2.sets-To solve the problems on Cartesian products. 3.Function- Find out composition of functions 4.Group- Basic concept of groups 5.Abelian group-How to test the group to be abelian
Core-2:	1.Trigonometry-Demoiver's theorem and its applications 2.Hyperbolic functions-Use of Hyperbolic functions 3.-Gregory series-Problem solving 4.Matrices-Basic concepts of matrices 5.Rank- To find the solutions of systems of equation
Semester-II	



Core-3:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1. System of circles- Obtained the radical axis of a pair of circles.</li> <li>2. Conics- Intersection of plane and right circular cone.</li> <li>3. Differentiation- Find out the successive derivatives.</li> <li>4. Geometrical meaning of derivatives- Drawing of tangents and normals.</li> <li>5. Partial derivatives- To solve the partial derivatives problems using Euler's theorem.</li> </ol>
Core-4:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1. Integral calculus- Find out the indefinite integral and definite integral.</li> <li>2. Area- Find the area enclosed by simple curves.</li> <li>3. Reduction formula- Specific integral</li> <li>4. 3-D-D C and D R</li> <li>5. Straight line- Angle between lines in space</li> </ol>
<b>Semester-III</b>	
Core-5:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1. Limits- Existence of limits</li> <li>2. Continuity- To find the continuity of a given function.</li> <li>3. Rolle's theorem - Verify the function for satisfying the Rolle's theorem.</li> <li>4. L M V- Problem verification of LMV.</li> <li>5. Cauchy's theorem- To find remainder.</li> </ol>
Core-6:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1. Sequence- limits of a sequence.</li> <li>2. Convergence- Convergence of a function.</li> <li>3. Divergence- Divergence problems.</li> <li>4. Test- Different types of tests for convergence and divergence.</li> <li>5. Absolute Convergence- Convergence of functions.</li> </ol>
Core-7:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1. Formation of D E- Form the D E of a given function.</li> <li>2. Degree and order- To find the order and degree of a given function.</li> <li>3. Solutions of DE- Methods for solving problems.</li> <li>4. Exact D E- Test the DE to be exact or not.</li> <li>5. Singular solutions- Test the function to be singular or not.</li> </ol>
<b>Semester-IV</b>	
Core-8:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1. Physical quantities- Scalars and vectors.</li> <li>2. Scalar product- To find the work done by external forces.</li> <li>3. Vector product- To find the vector moments.</li> <li>4. Gradient- Find out the gradient of a vector.</li> <li>5. Divergence- Find out the divergence of vector.</li> </ol>
Core-9:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1. PDE- Formation of PDE</li> </ol>

	<p>2.Lagrange's solutions- problems of PDE on Lagrange 's theorem</p> <p>3.Charpit's method-Solutions of complex problems</p> <p>4.LDE- problems of linear partial differential equation of 2nd order</p> <p>5.Homogeneous equation-Problem on homogeneous with constant coefficient.</p>
Core-10:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1.Statics-Principal of virtual works.</li> <li>2.Forces-Coplanar forces,systems of coplanar forces.</li> <li>3.SHM-Introduction of SHM.</li> <li>4.Velocity-Radial and transverse-velocity of a particle.</li> <li>5.planetary motion- statement of planetary motion and Kepler 's law.</li> </ol>
Semester-V	
Core-11:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1.Limits- repeated and simultaneous limits.</li> <li>2. Continuity- test the continuity of a function of two variables.</li> <li>3. Differentiability- test the function to be differentiable.</li> <li>4. Improper integral- test the integral to be improper or not and and the convergence.</li> <li>5. Beta and gamma function - find out the relation between beta and gamma function.</li> </ol>
Core-12:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1. Complex number- Basic fundamentals of complex number.</li> <li>2. Continuity -Test the function of complex variable to be continuous or discontinuous</li> <li>3.Cauchy- Riemann equation - test the function to satisfy the Cauchy-Riemann equation.</li> <li>4. Elementary function- Mappings of Elementary functions.</li> <li>5. Transformation - Mobius transformation.</li> </ol>
DSE-1:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1. Metric spaces- Definition and examples of metric spaces .</li> <li>2. Sets -open and closed sets.</li> <li>3. Separation axioms-Space to be <math>T_0, T_1, T_2</math>.</li> <li>4. Mapping- continuous mapping of sets.</li> <li>5. Topology -Basic fundamental of topology.</li> </ol>
DSE-2:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1. Forces -Equilibrium and coplanar forces.</li> <li>2. Equilibrium -stable and unstable equilibrium of Forces.</li> <li>3. Elastic string- Hook's law</li> <li>4. Planetary motion -Kepler's law of planetary motion.</li> <li>5. Gravitation- Newton's law of gravitation.</li> </ol>
Semester-VI	
Core-13:	<p>Student will be able to learn :-</p> <ol style="list-style-type: none"> <li>1. Coset decomposition - left and right coset decomposition.</li> <li>2. Sub group- normal subgroup</li> </ol>



	<p>3. Ring - Basic concept and examples of ring.</p> <p>4. Subring- characteristic of a subring and its properties.</p> <p>5. Field - Basic definition and properties of a field and integral domain.</p>
Core-14:	<p>Student will be able to learn :-</p> <p>1.Vector spaces- Definition and examples of vector spaces.</p> <p>2.Subspaces- Alebra of subspace.</p> <p>3.Numerical analysis- Solutions of equations.</p> <p>4.Bisection method- solve the equation using Bisection method.</p> <p>5.Linear equation- Solving the equation using Gauss elimination method and others.</p>
DSE-3:	<p>Student will be able to learn :-</p> <p>1. Polynomials- General properties and graphical representation of polynomials</p> <p>2. Cubic equation -.Solve the equation of degree 3 using Cardon 's method. 3.Roots-Relation s between roots and coefficient. 4. Function-Symmetric function of roots. 5.Biquadratic equation- Find out the roots of a biquadratic equation.</p>
DSE-4:	<p>Student will be able to learn :-</p> <p>1. Triangles - Spherical and polar triangles.</p> <p>2.Formula- sine ,cosine and cotangent formula of a spherical and polar Triangle.</p> <p>3.Celestial sphere - Basic concept of celestial sphere in different co-ordinate system.</p> <p>4.Twilight - Condition of twilighting.</p> <p>5.Kepler's law - Kepler's law of planetary motion ,energy integral and laplace integral.</p>

## Department Of Zoology

### Program Specific Outcomes (PSOs)

PSO1:	Students will be able to learn about animal diversity (non chordates and chordates)
PSO2:	Get the knowledge about animal behaviour, mammalian physiology ,developmental biology ,endocrinology and reproductive biology
PSO3:	Students get the knowledge about animals and their environment.

PSO4:	Understand the basic knowledge about cell biology, biochemistry, genetics, biotechnology, evolution, zoogeography and paleontology
PSO5:	Students get the knowledge of applied and economic Zoology
PSO6:	Students will be able to demonstrate the toxicological effect of different chemicals on animals.

### Course Outcomes (COs)

Semester-I	
Core-1:	<p>Animal Diversity (Non Chordates)</p> <p>After successfully completing this course students will be able to -</p> <ul style="list-style-type: none"> <li>a) to understand the difference between non chordates and chordates.</li> <li>b) to understand the invertebrates diversity around us</li> <li>c) to classify invertebrates</li> <li>d) to understand the basis of classification</li> <li>e) to understand the difference between free living and parasitic organisms</li> <li>d) to understand the difference between flatworms and roundworms.</li> </ul>
Core-2:	<p>Animal Diversity (Higher Non-Chordates) and Animal Behaviour-</p> <p>After successfully completing the course, the students will be able to-</p> <ul style="list-style-type: none"> <li>a) differentiate between lower non chordates and higher non chordates.</li> <li>b) development of different organ system in higher invertebrates.</li> <li>c) to understand the different type of behaviour in animals.</li> <li>d) to understand the different type of care taken by parents of fishes and amphibians to protect their species.</li> </ul>



Practical on Core 1 and Core-2	<p>Students would understand</p> <ol style="list-style-type: none"> <li>1) basic knowledge about identification of non-chordates along with larval forms.</li> <li>2) basic knowledge about the classification of non-chordates.</li> <li>3) basic idea of nervous system of invertebrates (earthworm, pila and prawn).</li> <li>4) basic idea of sense organ of invertebrates.</li> <li>5) basic knowledge of animals (fishes and amphibians) showing parental care.</li> </ol>
<b>Semester-II</b>	
Core-3:	<p>Animal Diversity (Chordates)</p> <ol style="list-style-type: none"> <li>1) knowledge of basic character of chordates.</li> <li>2) understand the basic difference between cartilaginous and Bony fishes.</li> <li>3) knowledge of origin and evolution of amphibians, Reptiles and Birds</li> <li>4) Knowledge of general organization of Protochordates.</li> <li>5) Understand the general organization of Prototheria( Egg laying mammals)and Metatheria (Pouched mammals)</li> </ol>
Core-4:	<p>Comparative anatomy of vertebrates and ecology</p> <ol style="list-style-type: none"> <li>1) knowledge of various physiological function and comparative anatomy of organ of vertebrates</li> <li>2) Understand the concept of ecology and environmental biology</li> <li>3) To understand importance of natural resource and aware about conservation of nature</li> <li>4) Understand the effect of population on ecosystem and biosphere.</li> <li>5) Understand nature of ecosystem production, food web, energy flow ,Biogeochemical cycles and ecosystem management.</li> <li>6) Knowledge of global warming and its remedies.</li> </ol>
Practical on Core 3 and	<ol style="list-style-type: none"> <li>1) Basic knowledge about identification of Chordate specimen</li> <li>2) students are able to handle microscope for the study of permanent slides.</li> </ol>

Core-4	<p>3) Gain skill about histological slide preparation, staining and mounting.</p> <p>4) Identification of zoo plankton and phytoplankton.</p> <p>5) survey of different type of ecosystem of our locality.</p>
<b>Semester-III</b>	
Core-5:	<p>Biostatistics-</p> <p>1) understand the basic concept and scope of biostatistics.</p> <p>2) knowledge of asymmetric and symmetric distribution.</p> <p>3) understand the concept of Central tendency ( mean median and mode).</p> <p>4) knowledge of student t test.</p> <p>5) understand the concept of chi square test for testing any experiment</p>
Core-6:	<p>Evolution-</p> <p>1) Know the evolutionary sequence of life on earth .</p> <p>2) Students will be able to understand that how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth.</p> <p>3) Understand the concept of different theories of evolution Lamarckism and Neo Lamarckism and Darwinism. and Neo Darwinism</p> <p>4) Knowledge of concept of heredity variation and role in evolution.</p> <p>5) Understand the concept of speciation.</p>
Core-7:	<p>Biochemistry-</p> <p>1) Understand the structure, classification and significance of different biomolecules.</p> <p>2) Knowledge of basic terms in biochemistry.</p> <p>3) Correlate the changes in the levels of these biomolecules with the diseases in human.</p> <p>4) Understand the metabolic pathway related to the different biomolecules.</p>



Practical on Core 5, Core-6 and Core-7	<p>1) Students have idea of calculation of mean, median, mode of given sample data.</p> <p>2) Students have idea of calculation of standard deviation and standard error of mean of given data.</p> <p>3) Students have concept of comparative study of vertebrae and limb bones of vertebrates.</p> <p>4) Knowledge of different biochemical test related to carbohydrate lipid and protein.</p> <p>5) Understand the impact of temperature, pH on salivary amylase enzyme.</p>
<b>Semester-IV</b>	
Core-8:	<p><b>Palaeontology-</b></p> <p>1) Students understand the concept of fossil and Fossil formation.</p> <p>2) Understand the concept of geological time scale and distribution of animals.</p> <p>3) Knowledge of phylogeny of Horse.</p> <p>4) knowledge of phylogeny of Man.</p>
Core-9:	<p><b>Genetics-</b></p> <p>1) Understand the basic terms in genetics.</p> <p>2) Understand the Mendelian and nonmendelian genetics.</p> <p>3) Understand the concept of chromosomal aberration and gene mutation.</p> <p>4) Understand the concept of cytoplasmic inheritance.</p>
Core-10:	<p><b>Molecular biology-</b></p> <p>1) Learn the scope and importance of molecular Biology.</p> <p>2) Knowledge of DNA and RNA structure and its type.</p> <p>3) Knowledge of Central dogma of molecular Biology.</p> <p>4) Understand the mechanism of replication, transcription and translation.</p> <p>5) Understand the concept of regulation of gene expression.</p>
Practical on	<p>1) Students are able to identify and comment on the models of fossils.</p>

Core 8, Core-9 and Core-10	<p>2) Students are able to calculate and interpret the sample data showing different crosses of genetics.</p> <p>3) Study of phenotypic traits of Pea plant and <i>Drosophila</i></p> <p>4) Understand the technique of DNA extraction and DNA fingerprinting.</p> <p>5) Students are able to identify skull and girdle bones of vertebrates.</p>
<b>Semester-V</b>	
Core-11:	<p>Toxicology, Biotechnology and Zoogeography-</p> <p>1) Understand the basic concept of toxicology.</p> <p>2) Understand the concept of different type of toxicants and health hazards caused by them.</p> <p>3) Understand the scope of biotechnology</p> <p>4) Understand the concept of recombinant DNA technology and genetic engineering.</p> <p>5) Knowledge of various zoogeographical regions of the world and distribution of animals.</p>
Core-12:	<p>Endocrinology and Cell Biology-</p> <p>1) Get knowledge about endocrine glands and about the endocrine disorders.</p> <p>2) Understand the mechanism of hormonal action.</p> <p>3) Knowledge of reproductive cycles with hormonal control.</p> <p>4) Knowledge of structure and function of different cell organelles of eukaryotic cell.</p> <p>5) Understand the concept of cell cycle and cell division -mitosis and meiosis.</p>
Practical on Core 11, and Core-12	<p>1) Students are able to handle microscope work and study the permanent slide of endocrinology and cell biology.</p> <p>2) Students understand the principle of PCR and recombinant DNA technology.</p> <p>3) Students are able to prepare slides of mitosis and meiosis.</p> <p>4) Students are able to locate different endocrine glands in the dissected rat.</p>



DSE-1:	<p>Economic Zoology-</p> <ol style="list-style-type: none"> <li>1) Students understand the technique of beekeeping and its significance.</li> <li>2) Understand concept of sericulture, dairy and poultry farming.</li> <li>3) knowledge of aquaculture( breeding of fish and prawn) and their by-products.</li> <li>4) concept of control of disease in fish farming, sericulture, APi culture and poultry.</li> </ol>
DSE-2:	<p>Biostatistics-</p> <ol style="list-style-type: none"> <li>1) Concept of sampling of data and its diagrammatic and graphical representation.</li> <li>2) concept of measurement of Central tendency( mean median and mode.)</li> <li>3) Concept of measurement of variation</li> <li>4) Understand the concept of test of significance.</li> </ol>
<p>Practical on DSE-1, and DSE-2</p> <p>Understand</p>	<ol style="list-style-type: none"> <li>1) Understand to calculate mean, median, SD and chi-square test.</li> <li>2) understand to draw graph or histogram of given data.</li> <li>3) Study of economically important fishes, cocoon and honeycomb.</li> <li>4) Study of infested lac stick and infested fishes.</li> </ol>
<b>Semester-VI</b>	
Core-13:	<p>Applied and Economic Zoology and Immunology-</p> <ol style="list-style-type: none"> <li>1) Concept and scope of applied and economic Zoology.</li> <li>2) Understand the inland and Marine fisheries of India.</li> <li>3) Basic knowledge of sericulture, lac culture, Apiculture Prawn culture and pearl culture.</li> <li>4) Understand the concept and scope of immunology.</li> <li>5) Knowledge of antigen, antibody ,cytokines and Elisa test.</li> </ol>
Core-14:	Mammalian Physiology and Developmental Biology

	<ol style="list-style-type: none"> <li>1) Understand the physiology of Respiration ,Digestion ,Excretion nerve conduction and muscle contraction in mammals</li> <li>2) Knowledge of composition of blood and lymph.</li> <li>3) Understand the basic concept of gametogenesis and fertilization.</li> <li>4) Knowledge of development of frog and chick.</li> <li>5) Knowledge of organogenesis of chick.</li> </ol>
Practical on Core 13, and Core-14	<ol style="list-style-type: none"> <li>1) Knowledge of economic importance of silkworm, honeybee insect and fishes.</li> <li>2) Understand the principle of determination of blood group and EISA.</li> <li>3) Concept of blood test related experiment.</li> <li>4) Identification of embryological stages of frog and chick.</li> </ol>
DSE-3:	Wild Life Conservation and Management- <ol style="list-style-type: none"> <li>1) Understand the value of wildlife and causes of depletion.</li> <li>2) Knowledge of wildlife habitat.</li> <li>3) Knowledge of wildlife protection act 1972 and its amendments.</li> <li>4) Knowledge of wildlife protected areas in India.</li> </ol>
DSE-4:	Agro chemical and Pest Management- <ol style="list-style-type: none"> <li>1) Understand the fundamentals of pest management according to damage.</li> <li>2) Knowledge of common insecticides and pesticides.</li> <li>3) Study of pest in lab and field.</li> <li>4) Study of different stages of stored grain pest.</li> </ol>
Practical on DSE-3, and DSE-4	<ol style="list-style-type: none"> <li>1) Study of Avian and mammalian fauna.</li> <li>2) Knowledge of basic equipment used in wildlife studies.</li> <li>3) Techniques of collection preservation and slide preparation of pest.</li> <li>4) Knowledge of equipment's used in pest management.</li> <li>5) Knowledge of LD50 determination of generated data.</li> </ol>



## FACULTY OF COMMERCE

### Program Outcomes (POs) for B.Com

PO1:	Understand the role of business and its implications on society , conceptual knowledge of accounting and acquire skills of maintaining accounts
PO2:	Understand the conceptual knowledge of corporate law and managerial principles and applications.
PO3:	Understand the conceptual knowledge of Income Tax, Human Resources Management and Advance Financial Accounting
PO4	Understand the conceptual knowledge of Indirect Tax, Corporate Accounting and Computer Application in Commerce
PO5	Understand the basic concepts of management accounting and various methods involved in cost ascertainment systems and concepts, principles, tools and techniques of marketing
PO6	Understand the basic concepts of Auditing and Corporate Governance and Business Research

### Program Specific Outcomes (PSOs)

PSO1:	apply different concepts in starting and managing business and realize the social responsibilities, social realities and inculcate an essential value system
PSO2:	Develop necessary professional knowledge and skills in principles and applications of management and business law
PSO3:	Develop necessary professional knowledge and skills in finance and taxation
PSO4:	Develop necessary professional knowledge and skills in indirect tax and computer application in commerce and corporate accounts
PSO5:	implement traditional and modern strategies and practices of costing, marketing, financial management, and advertising.
PSO6:	develop competency in students to make them employable in the Indian Share market

PS07:	use mathematical and statistical tools in academics, business and research
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### Course Outcomes (COs)

Semester-I	
Core-1:	<ol style="list-style-type: none"> <li>1. Understand the accounting principles, concepts and convention and to identify various subsidiary books in accountancy.</li> <li>2. Prepare Royalty accounts</li> <li>3. Understand the Business Income and Accounting of N.P.O.</li> <li>4. Accounting of Dissolution of the Partnership Firm including Insolvency of partners</li> <li>5. Understanding the Accounting for hire Purchase system including default in payment and instalment system.</li> </ol>
Core-2:	<ol style="list-style-type: none"> <li>1. To know about the principle of law of contract.</li> <li>2. To know about the specific contract such as contract of Bailment, Insolvency, Indemnity and guarantee.</li> <li>3. To know about the sale of goods act 1930</li> <li>4. To know about the the Indian partnership act 1932 basic to Advance.</li> <li>5. To know about the the negotiable instrument act 1881 such as Promissory notes bills of exchange and cheque.</li> </ol>
Semester-II	
Core-3:	<ol style="list-style-type: none"> <li>1. Develop knowledge about management</li> <li>2. Gain knowledge about Management Thoughts</li> <li>3. Have a better understanding of planning and decision making</li> <li>4. Give an idea about organisation, departmentation and Delegation</li> <li>5. Familiarise with directing, motivation theories, Communication process and leadership theories</li> </ol>
Core-4:	<ol style="list-style-type: none"> <li>1. To know about the basic concept of corporate law.</li> <li>2. To know about the document of corporate law such as memorandum of association, article of association and prospectus.</li> <li>3. To know about the management of corporate law</li> <li>4. To know about the dividend, accounts and audits</li> <li>5. To know about the winding up company such as concept and mode of vending</li> </ol>
Semester-III	
Core-5:	<ol style="list-style-type: none"> <li>1. Prepare branch and departmental accounts</li> <li>2. Prepare Consignment Accounts.</li> </ol>



	<ol style="list-style-type: none"> <li>3. Gain knowledge about Joint venture accounting.</li> <li>4. Analyse and estimate the impact of insolvency accounts</li> <li>5. Understand the various methods of calculating depreciation.</li> <li>6. Gain knowledge about accounting from incomplete records.</li> </ol>
Core-6:	<ol style="list-style-type: none"> <li>1. To know about the basic concept of income tax.</li> <li>2. To know about the income from salary basic to advance.</li> <li>3. To know about the income from house property</li> <li>4. To know about the income from capital gain</li> <li>5. To know about the profits and gain business and profession and other sources.</li> </ol>
Core-7:	<ol style="list-style-type: none"> <li>1. Understand the objectives, scope, functions and environment of Human Resource Management.</li> <li>2. Understand manpower planning, components of a job study and selection process</li> <li>3. Evaluate the need as well as areas of training.</li> <li>4. Understanding the nature and objectives of Performance Appraisal.</li> <li>5. Understanding the industrial dispute.</li> </ol>
<b>Semester-IV</b>	
Core-8:	<ol style="list-style-type: none"> <li>1. To provide basic knowledge about Tax, It's types</li> <li>2. Equip students with applications of principles and Provisions of Service Tax</li> <li>3. To provide knowledge about concept and general principles of VAT</li> <li>4. To provide knowledge about basic concepts of Custom Law</li> <li>5. Equip students with applications of principles and Provisions of Central Excise Duty</li> </ol>
Core-9:	<ol style="list-style-type: none"> <li>1. To know about the valuation of goodwill and valuation of share of the company</li> <li>2. To know about the amalgamation of company</li> <li>3. To about the holding and subsidiary company.</li> <li>4. to know about the financial statement of the company.</li> <li>5. To know about the share and Debenture the company</li> </ol>
Core-10:	<ol style="list-style-type: none"> <li>1. Understand the components of computer</li> <li>2. Provide the knowledge about an overview of E-Commerce and E-business</li> <li>3. Gain knowledge about Spreadsheet and its Business Application</li> <li>4. Understanding the word processing</li> <li>5. Gain knowledge about preparation of presentations.</li> </ol>
<b>Semester-V</b>	
Core-11:	<ol style="list-style-type: none"> <li>1. Understand the importance of costing in companies</li> </ol>

	<ol style="list-style-type: none"> <li>2. Understanding the methods of Methods of costing, unit costing including tender price calculation, contract costing, process costing Understand the objectives and functions of management accounting</li> <li>3. Evaluate the financial position by using ratios</li> <li>4. Gain knowledge about the preparation of fund flow statement</li> <li>5. Evaluate the financial position of a concern through cash flow statement</li> </ol>
Core-12:	<ol style="list-style-type: none"> <li>1. To provide knowledge about basic concepts of marketing</li> <li>2. To know about marketing environment</li> <li>3. To know about channels of distribution</li> <li>4. To know about tools and techniques of marketing</li> <li>5. To know about rural marketing</li> <li>6. To know about types of promotions</li> <li>7. To know about pricing strategies</li> </ol>
DSE-1:	<ol style="list-style-type: none"> <li>1. To familiarize the students with the concept of financial management</li> <li>2. To know about risk and its types</li> <li>3. To provide knowledge about capital budgeting and its methods</li> <li>4. To know about the various sources of finance</li> <li>5. To know about dividend decision</li> <li>6. To know about working capital decision</li> </ol>
DSE-2:	<ol style="list-style-type: none"> <li>1. To know about the basic to advance knowledge of advertising.</li> <li>2. To know about the types of media such as electronic media and print media.</li> <li>3. To know about the message development</li> <li>4. To know about the Measuring advertising effectiveness</li> <li>5. To know about the basic to advance knowledge of AD advertising agency.</li> </ol>
<b>Semester-VI</b>	
Core-13:	<ol style="list-style-type: none"> <li>1. To know about basic concept of auditing and qualities of well audition</li> <li>2. To know about the audit of limited company</li> <li>3. To know about the corporate governance basic to advance.</li> <li>4. to know about the corporate social responsibility such as responsibility towards consumer, customer, businessman, insurance etc</li> <li>5. To keep systematic and complete records of business transactions .</li> </ol>
Core-14:	<ol style="list-style-type: none"> <li>1. Analyse the significance, types and criteria of good research.</li> </ol>



	<ol style="list-style-type: none"> <li>Understand various research designs.</li> <li>Evaluate the various types of sampling designs.</li> <li>Gain knowledge on data collection and guide lines for constructing questionnaire and schedule.</li> <li>Gain knowledge on interpretation and report writing.</li> </ol>
DSE-3:	<ol style="list-style-type: none"> <li>Understanding the investment environment.</li> <li>Gain knowledge about Indian Security Market.</li> <li>Understanding the Approaches to Equity Analysis: Introduction to Fundamental Analysis, Technical Analysis</li> <li>Understanding the Portfolio Analysis and Financial Derivatives</li> <li>Gain knowledge about Mutual funds</li> <li>Gain knowledge about SEBI.</li> </ol>
DSE-4:	<ol style="list-style-type: none"> <li>To familiarize the students with their rights as a consumer</li> <li>To familiarize the students with social Framework of consumer rights</li> <li>to familiarize the students with legal framework of protecting consumer rights.</li> <li>To know about The Consumer Protection Act, 1986</li> <li>To know about Consumer Movement in India</li> </ol>

### Program Outcomes (POs)

#### Faculty of Art's

#### Program Outcomes (POs) for B.A Programme

PO1:	<b>Disciplinary Knowledge:</b> Demonstrate a blend of conventional discipline knowledge and its applications to the modern world. Execute strong theoretical and practical understanding generated from the chosen programme.
PO2:	<b>Critical Thinking and Problem solving:</b> Exhibit the skill of critical thinking and use higher order cognitive skills to approach problems situated in their social environment, propose feasible solutions and help in its implementation.
PO3:	<b>Research-Related Skills:</b> Seeks opportunity for research and higher academic achievements in the chosen field and allied subjects and is aware about research ethics, intellectual property rights and issues of plagiarism. Demonstrate a sense of inquiry and capability for asking relevant/appropriate questions; ability to plan, execute and report the results of a research project be it in field or otherwise under supervision.
PO4	<b>Personal and professional competence:</b> Equip with strong work attitudes and professional skills that will enable them to work independently as well as collaboratively in a team environment.

PO5	<b>Effective Citizenship and Ethics:</b> Demonstrate empathetic social concern and equity centred national development; ability to act with an informed awareness of moral and ethical issues and commit to professional ethics and responsibility.
PO6	<b>Environment and Sustainability:</b> Understand the impact of the scientific solutions in societal and environmental contexts and demonstrate the knowledge of, and need for sustainable development.
PO7	<b>Self-directed and Life-long learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context of socio-technological changes.

## DEPARTMENT OF ENGLISH

### Program Specific Outcomes (PSOs)

PSO1:	Students exposed to best comparative literature in English.
PSO2:	Develop literary skills and understanding and explore possibilities in the field of language and literature.
PSO3:	Develop emotional feelings and independent thinking.
PSO4:	Equip themselves with the socio- political and philosophical fruits Of the age through study of contemporary literature.
PSO5:	Develop the power of imagination and inculcate new prospects and new concept in the field of it.
PSO6:	Development of effective and flawless communication skills.

### Course Outcomes (COs)

Semester-I	
Core-1:	<ol style="list-style-type: none"> <li>1. Enable the students to develop linguistic competence and communication skills.</li> <li>2. Enable the students to see/establish the connection between different language group especially about Indo-European family of languages.</li> <li>3. Provides enough information about the development of English language from its dialectical stage to standard English and ultimately it becoming as a global language.</li> </ol>



	<ol style="list-style-type: none"> <li>4. Gives a better understanding of the interrelated difference of different sort of English used throughout the globe.</li> <li>5. Develops a better communicative skill with comparatively flawless and pronunciation.</li> </ol>
Core-2:	<ol style="list-style-type: none"> <li>1. Provides better understanding of a systematic study of the English literature from the beginning starting with 14th century.</li> <li>2. Provides a chronological development of different traits of literature in English.</li> <li>3. Provides better understanding of the revolutions such as bloodless revolution, French Revolution, Industrial revolution and their impact on English literature.</li> <li>4. Helps to form different ideas, concepts, principles and notions in literary aspects.</li> <li>5. Enable the students about the latest ideas and principles emerging in Modern age and in the post-modern era.</li> </ol>
<b>Semester-II</b>	
Core-3:	<ol style="list-style-type: none"> <li>1. Provides a comprehensive idea about the basic concepts of the dramas of Shakespeare in particular.</li> <li>2. Provides a better understanding of the poetry of Elizabethan age and brings out the spirit of renaissance through the poetry.</li> <li>3. Embibes the students with the approach of spiritual, metaphysical and puritan feelings.</li> <li>4. Prepare the students to go for a detail understanding of the literature of contemporary age.</li> <li>5. Students are acquainted with the best of dramatic potentials.</li> </ol>
Core-4:	<ol style="list-style-type: none"> <li>1. Students are introduced to drama of the contemporary age i.e., restoration and Augustin period.</li> <li>2. Acquaint the students with one of the most used forms of literature i.e., satire.</li> <li>3. To increase the student's interest in the facility of dramatic art.</li> <li>4. Develops the skills of writing and speaking in a literary/dramatic style.</li> <li>5. To acquaint the students with the dramatic concept and temperament of the age concerned.</li> </ol>
<b>Semester-III</b>	
Core-5:	<ol style="list-style-type: none"> <li>1. To acquaint the students with the background of in which their flourished particular sort of literature.</li> <li>2. Introduction to students with the basics of literature before romantics.</li> </ol>

	<ol style="list-style-type: none"> <li>3. Students acquainted and familiarized with the poetry of particular taste.</li> <li>4. Develops the sense of natural philosophy.</li> <li>5. Students are exposed to learn the quality of being humble, pure and simple.</li> </ol>
Core-6:	<ol style="list-style-type: none"> <li>1. Students are exposed to get the basic concepts of humanity.</li> <li>2. Motivated to sprayed the feeling of liberty, equality and fraternity.</li> <li>3. Enable the students to develop the importance of folk, colloquial words and language.</li> <li>4. To understand and compare the changing and temperament of the ages.</li> <li>5. Can develop a sense of mysticism.</li> </ol>
Core-7:	<ol style="list-style-type: none"> <li>1. To acquaint the students with the true literary spirits of age.</li> <li>2. Students can develop the interest in the aesthetics of poetry.</li> <li>3. Students get familiar to some excellent pieces of poetry of the age.</li> <li>4. Students can understand and analyze the conflict of the age.</li> <li>5. Develop the student's power/ability to compare and contrast the different literary taste.</li> </ol>
<b>Semester-IV</b>	
Core-8:	<ol style="list-style-type: none"> <li>1. Students get the basics of a particular branch of literature i.e., Novel.</li> <li>2. They are introduced to a very popular form of novels i.e., psychological novels.</li> <li>3. Students can develop the sense of judgement based on different physio/psychological situations.</li> <li>4. Introduction of the students to some specific novels of a particular genre.</li> <li>5. Students acquaint themselves with the literary contribution made by the great novelist of 19th century.</li> </ol>
Core-9:	<ol style="list-style-type: none"> <li>1. Students are acquainted with the true spirits of modern age.</li> <li>2. Students are exposed to the use of symbolism, imagism and so on.</li> <li>3. Develops the interest among the students to appreciate the literary taste of the modern literature.</li> <li>4. Students are acquainted with the use of new words, expressions frequently used in the modern-day literature.</li> <li>5. Students get familiar to some excellent pieces of poetry of the time.</li> </ol>



Core-10:	<ol style="list-style-type: none"> <li>1. Students are exposed to develop an understanding of 20th century fictional art.</li> <li>2. They can better understand the different psychological status of human mind.</li> <li>3. Students develop their skills to face day to day problems.</li> <li>4. They can cope up with the mental and emotional stress in a better way.</li> <li>5. They can form their own conception and shade away complexes.</li> </ol>
<b>Semester-V</b>	
Core-11:	<ol style="list-style-type: none"> <li>1. Students are exposed to develop an understanding of 20th Century dramatic art.</li> <li>2. Students come to know and realize the social, human and moral disintegration of the age.</li> <li>3. They develop their ability to restore the human values.</li> <li>4. They are exposed to learn the illusion behind romantic feelings and love.</li> <li>5. They came across a particular sort of drama that led them to find out many probable conclusions.</li> </ol>
Core-12:	<ol style="list-style-type: none"> <li>1. Students form different concepts of criticism.</li> <li>2. They are acquainted with the basic fundamentals of criticism.</li> <li>3. Students get inspired to be good critics.</li> <li>4. They develop a sense of responsibility to bring the truth before the world.</li> <li>5. Get the opportunity to make good and effective judgements of someone/something.</li> </ol>
DSE-1:	<ol style="list-style-type: none"> <li>1. Students are exposed to know and understand the different elements of drama.</li> <li>2. Understand drama in different spheres such as text and stage performance.</li> <li>3. Develop a keen, thorough understanding of origin and growth of English drama.</li> <li>4. Got the opportunity to know about the English theatre and theatrical practices.</li> <li>5. Acquaint and enlighten the students regarding different dimensions of drama.</li> </ol>
DSE-2:	<ol style="list-style-type: none"> <li>1. Students are especially exposed to the traits and depth of Shakespeare drama.</li> <li>2. Can understand the different types of drama.</li> </ol>

	<ol style="list-style-type: none"> <li>3. Can develop the power of imagination and fantasy.</li> <li>4. Enables the students to know about the tragic flaws.</li> <li>5. Develops the sense to understand that one demerit can led a man to his/her total destruction.</li> </ol>
<b>Semester-VI</b>	
<b>Core-13:</b>	<ol style="list-style-type: none"> <li>1. Students are introduced to the major text that led to the growth of American literature.</li> <li>2. Students are exposed to the basics of American literature in total.</li> <li>3. Students become familiar to the issues and problems America experienced /phased in its long walk in the field of literature.</li> <li>4. Students know about the socio-political, religious, cultural and literary movements in America.</li> <li>5. Students can have abroad historical view of the entire period from the early settlers to the modern time.</li> </ol>
<b>Core-14:</b>	<ol style="list-style-type: none"> <li>1. Students are exposed to know understand and appreciate the marvel of Indian English literature.</li> <li>2. They understand and realize the glory of Indian philosophy, culture, tradition and universal thoughts.</li> <li>3. Students are led to develop a flair for writing in English.</li> <li>4. Provides enough opportunity to translate the Indian literature in English.</li> <li>5. Instill the sense of Indian-ness and provides the opportunity to take India at broader canvas.</li> </ol>
<b>DSE-3:</b>	<ol style="list-style-type: none"> <li>1. Gives enough opportunity to explore different facts about English drama of different periods.</li> <li>2. Students are exposed to know about different types of drama that were in fashion in the contemporary age.</li> <li>3. Develop some basics about human, satire and farce.</li> <li>4. Students are acquainted with the demerits and frivolities of the restoration of era.</li> <li>5. Students get inspired to make some comparative study and research in the field of drama.</li> </ol>
<b>DSE-4:</b>	<ol style="list-style-type: none"> <li>1. Students are acquainted with the socio-economic condition of 20th century English society.</li> <li>2. They become familiar with the introduction of problem plays or the drama of ideas.</li> <li>3. Students get themselves acquainted with the uprising feministic approach in English literature.</li> </ol>



4. Encourage the students to make a detail study of some selected masterpieces of English drama.
5. Students are inspired to understand the aesthetics of drama and to evaluate drama as a distinct literary form.

## Department of Political Science

### Program Specific Outcomes (PSOs)

PSO1:	Give an understanding of certain key concepts and theories prevalent in traditional as well as contemporary Indian and Western political thinking.
PSO2:	Introduce and acquaint students with the debates surrounding contemporary concepts in political theory.
PSO3:	Students will get an understanding of theoretical as well as practical aspects of the structures and functions of various constitutional institutions in India and selected countries.
PSO4:	Acquaint with the relevance of the study of foreign affairs to understand the impact of foreign policies of major world powers on India and world.
PSO5:	
PSO6:	Course contents prepare students for various competitive exams. It also encourages students to choose careers in the field of journalism, policy science, pursue courses on law, public administration, international relations and area studies etc.

### Course Outcomes (COs)

Semester-I	
Core-1:	<ol style="list-style-type: none"> <li>1. Introduces students to political theory and its nature, significance and relevance</li> <li>2. Helps in understanding of the basic concepts in political theory.</li> <li>3. Gives an insight on the origin, development, meaning, types, and significance of certain key concepts in traditional political theory.</li> <li>4. Acquaints students with the contemporary debates on the key concepts of political theory.</li> <li>5. Enables students to critically think and assess the contemporary economic, social and political realities.</li> </ol>
Core-2:	<ol style="list-style-type: none"> <li>1. Introduces students to major western political thinkers from various time periods namely Plato, Aristotle, Hobbes, Locke, Rousseau, J.S. Mill &amp; Marx.</li> </ol>

	<ol style="list-style-type: none"> <li>2. Gives an understanding of the major trends in the field of western political thought with special reference to contribution of prominent thinkers.</li> <li>3. Helps in understanding the historical development of various traditions of political thought and the leading thinkers of each tradition.</li> <li>4. Encourages students to examine selected political thoughts in a comparative and critical perspective.</li> </ol>
<b>Semester-II</b>	
<b>Core-3:</b>	<ol style="list-style-type: none"> <li>1. Introduces students with certain contemporary concepts of political theory like Behaviouralism, Post-Behaviouralism, Multiculturalism, Post-Modernism and so on.</li> <li>2. Acquaints students with the contemporary debates and trends in political theory.</li> <li>3. Helps in understanding the importance and relevance of these contemporary concepts.</li> <li>4. Encourages students to critically think and develop skills to debate on these contemporary concepts.</li> </ol>
<b>Core-4:</b>	<ol style="list-style-type: none"> <li>1. Introduces the students to the field of Indian political thought from the perspective of cultural relativism and distinct from western political thought.</li> <li>2. Gives insight on political ideas of both ancient and modern Indian political thinkers.</li> <li>3. Helps in understanding of various concepts given by prominent Indian political thinkers.</li> <li>4. Acquaints with the knowledge to shape the philosophical and ideological foundations of the students.</li> <li>5. Encourages to comparatively and critically analyse the Indian political thoughts relevant to contemporary Indian social, economic and political realities.</li> </ol>
<b>Semester-III</b>	
<b>Core-5:</b>	<ol style="list-style-type: none"> <li>1. Introduces the various approaches to the study of Indian politics.</li> <li>2. Enriches the knowledge on salient features, basic structure and making of Indian Constitution.</li> <li>3. Gives an insight on Fundamental Rights and Directive Principles of State Policy and their meaning, types, importance and restrictions.</li> <li>4. Helps in understanding the structures and functions of Indian polity.</li> <li>5. Encourages students to develop critical thinking and debating skills on issues in Indian politics.</li> </ol>
<b>Core-6:</b>	<ol style="list-style-type: none"> <li>1. Introduces the meaning, nature and scope of Comparative Politics.</li> <li>2. Gives the informed perspectives on various approaches in comparative study of governments, politics and political systems.</li> </ol>



	<p>3. Help in comprehending the notion of government and governance through comparative analysis of structures and functioning of four major governments namely US, UK, China and Switzerland.</p> <p>4. Attain knowledge on the changing nature of Nation-State in the context of the Globalisation.</p> <p>5. Enable students to comparatively analyse the political experience, institutions, behaviour and working of the above major Governments.</p>
Core-7:	<p>1. Introduces the students to the evolution, nature and scope of Political Sociology.</p> <p>2. Helps to understand and grasp the meaning of Political Sociology as a discipline primarily concerned with the relationship between state and society.</p> <p>3. Gives insight into various social bases of politics, politicization of social phenomena, socio-political structures and their working.</p> <p>4. Analyses the nature, meaning, process and types of socio-political institutions and agents/instruments involved in their functional interface with political structures.</p> <p>5. Develops the ability to understand the impact of society on politics and vice versa.</p>
<b>Semester-IV</b>	
Core-8:	<p>1. Introduces the institutional aspects of the democracy and the working of certain institutions within a constitutional and democratic framework in India.</p> <p>2. Gives an insight on the ideology and the organisation of political parties and changing party system in India.</p> <p>3. Enriches the knowledge on the strategies of development in India since independence.</p> <p>4. Encourages to objectively assess the various social movements in India.</p> <p>5. Helps in understanding the role of civil society, and the political significance of media and political culture in India.</p>
Core-9:	<p>1. Introduces the students to the meaning and determinants of foreign policy.</p> <p>2. Enables students to objectively evaluate the End of Cold War and Post-Cold War World Order.</p> <p>3. Gives an insight on the major issues in the foreign policies of the major powers of the world in the post-cold war era.</p> <p>4. Helps in understanding meaning, nature and growing significance of diplomacy.</p> <p>5. Encourages students in shaping their opinion on the issues in world politics which have contemporary relevance.</p>
Core-10:	<p>1. Introduces students to the fundamentals of foreign-policy making in India.</p>

	<ol style="list-style-type: none"> <li>2. Gives an insight of the principles and objectives of India's foreign policy.</li> <li>3. Helps in understanding India's policy towards major powers like US and Russia, and her neighbours China and Pakistan.</li> <li>4. Students gain knowledge on India's approach towards the emerging major global issues like globalisation, terrorism and environment.</li> <li>5. Encourages students to critically analyse India's role in non-alignment, its relevance and India as an emerging power.</li> </ol>
<b>Semester-V</b>	
<b>Core-11:</b>	<ol style="list-style-type: none"> <li>1. Introduces the students to various approaches to the study of International Relations.</li> <li>2. Helps in understanding the meaning, nature, elements and limitations of national power and national interest.</li> <li>3. Helps in understanding balance of power and the meaning, nature and techniques of collective security.</li> <li>4. Gives an insight on cold war, detente, arms race and disarmament.</li> <li>5. Acquaints students with the aims, objectives and issues of reforms in United Nation.</li> </ol>
<b>Core-12:</b>	<ol style="list-style-type: none"> <li>1. Introduces meaning, scope and significance of Public Administration as a discipline.</li> <li>2. Helps in comprehending traditional and emerging theories and principles of public administration.</li> <li>3. Acquaints students with the aspects of personal and financial administration.</li> <li>4. Gives an insight on the exercise of the legislative and judicial control over administration.</li> <li>5. Critically evaluates the changing nature of public administration the age of globalisation.</li> </ol>
<b>DSE-2:</b>	<p><b>DSE 2 A</b></p> <ol style="list-style-type: none"> <li>1. Introduces the theoretical understanding of the origin and evolution of the concept of human rights.</li> <li>2. Gives a historical and Indian perspective on human rights.</li> <li>3. Enables students to understand the human rights of various vulnerable sections of the society in India.</li> <li>4. Students gain knowledge on institutional framework established to deal with human rights violations.</li> <li>5. Helps in understanding the issues and challenges of human rights in India.</li> </ol>
<b>Semester-VI</b>	
<b>Core-13:</b>	<ol style="list-style-type: none"> <li>1. Introduces the students to the origin and development of International Law.</li> <li>2. Helps in understanding of concepts, sources and subjects of international law.</li> </ol>



	<ol style="list-style-type: none"> <li>3. Enables students to apply the international legal provisions into the question of war and peace.</li> <li>4. Gives an insight on settlement of disputes, privileges and immunities of diplomats.</li> <li>5. Acquaints the students with the limitations and possibilities of international law.</li> </ol>
Core-14:	<ol style="list-style-type: none"> <li>1. Introduces students to major political ideologies.</li> <li>2. Acquaints the students with the historical development of the major political ideologies.</li> <li>3. Gives an insight on the nature, assumptions, forms and ideologies of these political ideologies.</li> <li>4. Helps in understanding the relevance of the contemporary political ideologies</li> <li>5. Enables students to apply the knowledge to critically assess the political realities.</li> </ol>
DSE-3:	<p>DSE 3 A</p> <ol style="list-style-type: none"> <li>1. Introduces students to public opinion polling in the context of electoral democracies with special reference to India.</li> <li>2. Helps in comprehending public opinion and its definition, characteristics, role and usage in a democratic political system.</li> <li>3. Acquaints students with the tools and techniques of data collection- questionnaire and interviews.</li> <li>4. Gives an understanding on the usage of sampling, its meaning, significance, types and selection.</li> <li>5. Enables students in interpreting polls through data processing and analysis.</li> </ol>
DSE-4:	<p>DSE 4 A</p> <ol style="list-style-type: none"> <li>1. Introduces students to evolution and nature of federalism in India.</li> <li>2. Gives an insight on the issues and challenges in the centre-state relations.</li> <li>3. Helps in understanding the question of demand for state autonomy.</li> <li>4. Acquaints students with nuances of Sarkaria Commission Report</li> <li>5. Enables students to critically analyse the role of regional political parties in impacting the Indian federal system and emerging trends in Indian federalism.</li> </ol>

**DEPARTMENT OF HINDI**  
**Department of Hindi**

**Program Specific Outcomes (PSOs)**

<b>PSO1:</b>	आदिकाल एवं भक्तिकाल के इतिहास एवं साहित्य का अध्ययन । 1000 ईस्वी से 1650 ईस्वी तक ।
<b>PSO2:</b>	त्रिकाल के इतिहास एवं साहित्य का अध्ययन एवं आधुनिककाल और उसके साहित्य का अध्ययन । 1650 से आज तक ।
<b>PSO3:</b>	आधुनिककाल और साहित्य के समग्र अध्ययन के साथ साथ हिंदी उपन्यास का अध्ययन ।
<b>PSO4:</b>	हिन्दी कहानी, हिन्दी नाटक एवं हिन्दी एकांकी का विस्तृत अध्ययन ।
<b>PSO5:</b>	हिन्दी आलोचना का विस्तृत अध्ययन एवं काव्य शाला का अध्ययन । इसके अलावा उपन्यास कहानी नाटक और एकांकी का सम्यक अध्ययन ।
<b>PSO6:</b>	जनसंघार एवं पत्रकारिता का विस्तृत अध्ययन । साथ ही सूरदास/ तुलसीदास , राष्ट्रीय हिंदी / कामकाजी हिंदी का विस्तृत अध्ययन ।

**Course Outcomes (COs)**

<b>Semester-I</b>	
<b>Core-1:</b>	<p><b>Any five Course Outcomes</b></p> <p>छात्रों को आदिकाल के इतिहास एवं साहित्य की जानकारी देना । आदिकाल की प्रेरक परिस्थितियों एवं सांस्कृतिक पृष्ठभूमि की जानकारी देना । आदिकाल की काव्य प्रवृत्तियों एवं काव्य धाराओं से छात्रों का परिचय करवाना । आदिकाल के नामकरण एवं सौमार्जन के बारे में विस्तार से बताना । विद्यापति के गीतों से छात्रों को अभ्यस्त करवाना ।</p>
<b>Core-2:</b>	<p><b>Any five Course Outcomes</b></p> <p>छात्रों को भक्तिकाल के इतिहास एवं साहित्य की जानकारी देना । भक्तिकाल के नामकरण और प्रेरक परिस्थितियों पर विचार करना । विभिन्न काव्य धाराएं – जनाश्रयी एवं प्रेमाश्रयी तथा राम और कृष्ण संबंधी काव्य धाराओं से छात्रों का परिचय करवाना । भक्ति आंदोलन एवं उसके काव्य प्रवृत्तियों की जानकारी छात्रों को देना ।</p>



कबीर जायसी सुर एवं तुलसीदास के बारे में छात्रों को बताना ।

## Semester-II

**Core-3:** Any five Course Outcomes

रितिकाल के इतिहास एवं साहित्य की जानकारी देना ।  
रितिकाल के नामकरण और सीमांकन के बारे में विस्तार से बताना ।  
रितिकाल के प्रेरक परिस्थितियों और सांस्कृतिक पृष्ठभूमि के बारे में विस्तार से बताना ।  
रितिबद्ध रितिमुक्त और रितिसिद्ध काव्य के बारे में बतलाना ।  
बिहारीलाल और घनानंद के बारे में विस्तार से बताना ।

**Core-4:** Any five Course Outcomes

अधुनिककाल के साहित्य के बारे में विस्तार से बताना ।  
आधुनिकता की अवधारणा और प्रेरक परिस्थितियों के बारे में छात्रों की समझ विकसित करना ।  
भारतेन्दु युग और द्विवेदी युग के बारे में छात्रों की समझ विकसित करना ।  
राष्ट्रीय काव्य धारा की विशेषता बताना ।  
हरिऔध रामनरेश त्रिपाठी मैथलीशरण गुप्त माखनलाल चतुर्वेदी और सोहनलाल द्विवेदी को कविताओं के राष्ट्रीय स्वर की पहचान कराना ।

### Semester-III

Core-5:

Any five Course Outcomes

अधुनिककाल और छायावाद के बारे में छात्रों को बताना ।  
छायावाद के नामकरण परिस्थितियाँ और उपलब्धियों के बारे में छात्रों को विस्तार से बताना ।  
प्रगतिवाद की व्याख्या करते हुए उसके नामकरण परिस्थितियाँ और उपलब्धियों के बारे में विस्तार से छात्रों को बताना ।  
पंत प्रसाद निराला और महादेवी वर्मा के बारे में विस्तार से छात्रों को बताना ।  
प्रगतिवाद के बारे में विस्तार से बताना ।  
दिनकर और त्रिलोचन के बारे में विस्तार से बताना ।

Core-6:

Any five Course Outcomes

अधुनिककाल और प्रयोगवाद के बारे में छात्रों को जानकारी देना ।  
प्रयोगवाद की परिस्थितियाँ नामकरण और उपलब्धियों के बारे में विस्तार से बताना ।  
नई कविता के नामकरण और परिस्थितियों का परिचय देना ।  
नई कविता की उपलब्धियों के बारे में विस्तार से बताना ।  
अज्ञेय और भवानी प्रसाद मिश्र की कविताओं के बारे में विस्तार से बताना ।  
मुक्तिबोध और सर्वेश्वर दयाल सक्सेना की काव्य यात्रा की चर्चा करना ।



<b>Core-7:</b>	<p><b>Any five Course Outcomes</b></p> <p>हिंदी उपन्यास की परिभाषा , स्वरूप और विशेषताओं की चर्चा करना ।  स्वतंत्र पूर्व हिंदी उपन्यासों के उद्भव और विकास की चर्चा करना ।  स्वातंत्र्योत्तर हिंदी उपन्यासों के उद्भव और विकास की चर्चा करना ।  भगवतीचरण वर्मा के चित्रलेखा उपन्यास के बारे में पढ़ाना ।  मुंशी प्रेमचंद के उपन्यास निर्मला के बारे में विस्तार से पढ़ना ।</p>
<b>Semester-IV</b>	
<b>Core-8:</b>	<p><b>Any five Course Outcomes</b></p> <p>हिन्दी कहानी की परिभाषा स्वरूप और विशेषताओं की चर्चा करना ।  स्वतंत्रता पूर्व हिंदी कहानी के उद्भव और विकास की चर्चा करना ।  स्वातंत्र्योत्तर हिंदी कहानी के उद्भव और विकास की चर्चा करना ।  प्रेमचंद के ईदगाह , चंद्रधर शर्मा गुलेरी की उसने कहा था और जय शंकर प्रसाद की मधुआ कहानी को विस्तार से पढ़ाना ।  ताई कहानी और हल्दी घाटी को विस्तार से पढ़ाना ।</p>
<b>Core-9 :</b>	<p><b>Any five Course Outcomes</b></p> <p>हिंदी नाटक की परिभाषा स्वरूप और विशेषताओं की चर्चा करना ।</p>

स्वित्रिा पूवा हहदंी नाटक के उद्भव औ ववकास की चचा किना ।  
स्वािंत्र्योत्ति हहदंी नाटक के उद्भव औ ववकास की चचा किना ।  
मोहन िाकेश के नाटक लहिं के िाजहंस के बािे में ववस्िाि से  
जानकािी देना । िामवधू बेनीपीु के अंबपाली नाटक के बािे में  
ववस्िाि से जानकािी देना ।

**Core-10:**

हहदंी नाटक की परिभाषा स्वरूप औ ववशेषिाओं की चचा किना । हहदं  
ी एकांकी के उद्भव औ ववकास को चचा किना । नाटक औ एकांकी में  
अंिि स्िावपि किना ।

भवनेशिु के साइक , जगदीश चंद्र मािि के भोिु का िािा औ लक्ष्मी  
नािायण लाल के मम्मी ठकुिाइन की ववस्िाि से चचा किना ।

उदय शंकि भट्ट , उपेंद्र नाि अशक के सखी डाली औ मभष्ण प्रभाकि के सीमाु  
िेखा एकांकी को ववस्िाि से बिना ।

Semester-V  
Semester-V



Core-11:	<p>हहदं ी आलोचना की परिभाषा स्वरूप औ ववशेषिओं को िेखांककि किना । स्विंत्रिा पूवा हहदंी आलोचना के उद्भव औ ववकास की चचाा किना । स्वािंत्र्योत्ति हहदं ी आलोचना के उद्भव औ ववकास की चचाा किना । हहदं ी की ऐतिहामसक औ िलनात्मकु आलोचना की वववेचना किना । हहदं ी की सैद्धान्तिक आलोचना औ मनोववश्लेषणवादी आलोचना की व्याख्या किना ।</p>
Core-12:	<p><i>Any five Course Outcomes</i></p> <p>काव्यशास्त्र के सभी अंगों की सप्रसंग व्याख्या करना ।  शब्द शक्ति , रस निष्पत्ति और साधारणीकरण की व्याख्या करना ।  छंद की सप्रसंग व्याख्या करना ।  अलंकार और उसके सभी भेदों की चर्चा करना ।  काव्य गुण और काव्य दोष की चर्चा करना ।</p>
DSE-1: CORE -13	<p><i>Any five Course Outcomes</i></p> <p>हिंदी उपन्यासों की विशेषता महत्व और भेदों की चर्चा करना ।  <b>A</b> रेणु के उपन्यास परती परी कथा की विस्तार से जानकारी देना ।  मनू भंडारी के उपन्यास आपका बंदी के बारे में विस्तार से बताना ।  कृष्ण सोबती के उपन्यास ऐ लड़की की विस्तार से चर्चा करना ।</p> <p><b>B</b> हिंदी कहानी की विशेषता महत्व और भेदों की चर्चा करना ।  बंग महिला की कहानी दुलाई वाली , प्रसाद के वीरामचिन्ह की चर्चा करना ।  प्रेमचंद के मलक भोज और यशपाल के समय कहानी की चर्चा करना ।  रेणु के संवदिया और मोहन राकेश के क्लेम कहानी की चर्चा करना ।</p>

<p>DSE-2: CORE-14 A</p>	<p>Any five Course Outcomes</p> <p>एकांकी की विशेषता महत्व और भेदों की चर्चा करना । उदयशंकर भट्ट कत - परदे के पीछे एकांकी का अध्ययन करना । विष्णु प्रभाकर कत - मां एकांकी का अध्ययन करना । लक्ष्मीनारायण लाल कत - कालपुरुष और अजंता की नर्तकी एकांकी का अध्ययन करना ।</p>
<p><b>Semester-VI</b></p>	
<p>Core-15:</p>	<p>Any five Course Outcomes</p> <p>जनसंचार की परिभाषा एवं महत्व का अध्ययन करना । जनसंचार स्वरूप एवं विस्तार का अध्ययन करना । जनसंचार के ( इलेक्ट्रॉनिक मीडिया) माध्यम का अध्ययन करना । जनसंचार के माध्यम ( प्रिंट मीडिया) का अध्ययन करना ।</p>
<p>Core-16:</p>	<p>Any five Course Outcomes</p> <p>हिंदी पत्रकारिता को परिभाषा स्वरूप एवं महत्व की चर्चा करना । हिंदी पत्रकारिता के उद्भव एवं विकास का अध्ययन करना । समाचार के संकलन एवं सम्पादन का अध्ययन करना । हिंदी के विभिन्न समाचार पत्र और पत्रिकाएं के बारे में विस्तार से बताना ।</p>



<b>DSE-3: CORE-17</b>	<p>Any five Course Outcomes</p> <p>सूरदास के जीवन और दर्शन की जानकारी देना ।  सूरदास के रचना संसार का अध्ययन करना ।  सूरदास के बाललीला के बारे में बताना ।  सूरदास के भ्रमरगीत का अध्ययन करना ।</p>
<b>DSE-4: CORE-18</b>	<p>Any five Course Outcomes</p> <p>मातृभाषा एवं राजभाषा के रूप में हिंदी का अध्ययन करना ।  संपर्कभाषा और राष्ट्रभाषा के रूप में हिंदी का अध्ययन करना ।  देवनागरी लिपि के उद्भव और विकास की घर्षा करना ।  देवनागरी लिपि के गुण और दोष का अध्ययन करना ।  देवनागरी लिपि की वैज्ञानिकता और मानकीकरण का अध्ययन करना ।</p>

## DEPARTMENT OF PSYCHOLOGY

### Program Specific Outcomes (PSOs)

PSO1:	Psychology as a discipline, and its basic concepts. To understanding of fundamental psychological processes in human beings.
PSO2:	To use skills in specific areas related to chosen specialization (e.g., cognitive, industrial organizational, clinical, counselling, health, educational, social, community)
PSO3:	To understand models of behaviour, perception, memory thinking and learning process.
PSO4:	To understand basic professional skills pertaining to psychological testing, assessment and counselling.
PSO5:	To develop positive attributes such as empathy, compassion, optimism, social participation, and accountability
PSO6:	To understand how psychology can be applied to solve problems facing humankind

### Course Outcomes (COs)

Semester-I	
Core-1:	*Develop a working knowledge of Psychological contents, areas and applications of psychology.
SEM-I Foundation of Psychology	*Develop a base in cognitive psychology with the help of relevant examples of everyday life. *Comprehend and analyse situations in real life appropriately and enable others to exercise in the same way. *Appreciate and apply various theories of learning in the practical world. *Identify the importance of experiments in the field of memory and other cognitive aspects and analyse the way it shaped cognitive psychology



<p>Core-2: Statistical method for psychological research.</p>	<ul style="list-style-type: none"> <li>*Understand the basic concept of statistics in psychology.</li> <li>*To understand Importance and Utilities of statistics in psychology</li> <li>*Graphic representation of frequency distributions.(e.g., Histogram. Frequency Polygon Cumulative Frequency Curve.</li> <li>*To calculate measurement of central tendency, Mean,Median,Mode</li> <li>*To understand Properties of the Standard Deviation. Calculation of SD</li> </ul>
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### Semester-II

<p>Core-3 Bio Psychology</p>	<ul style="list-style-type: none"> <li>*To understand basic concept ,Nature, scope ethics and method of Biopsychology</li> <li>*To understand structure of Human Brain. Organization of nervous systems</li> <li>* To define Functions of neuron, Neural conduction of neuron Synaptic transmission</li> <li>*Biological basis of learning and memory, Functional abnormalities of neurotransmitter, Neuroendocrine system and development of brain behaviour</li> <li>*Meaning of Heredity. Basic genetic Principles. Law of Heredity. Importance of Heredity</li> </ul>
<p>Core-4: Educational Psychology</p>	<ul style="list-style-type: none"> <li>*Basic concept of Educational Psychology, its significance, Aims Scope</li> <li>*Education for special children like mentally retarded children, extra order nary children</li> <li>*To understand educational technology and programmed learning</li> <li>*Develop skill of class room management, Ecology of Classroom</li> <li>*To connect theory of programmed learning</li> </ul>

### Semester-III

<p>Core-5: Research Methodology</p>	<ul style="list-style-type: none"> <li>*Learn, review, understand and to apply of the concepts of research methodology in psychology</li> <li>*Develop the skills of conducting and documenting Research project in the field of psychology.</li> </ul>
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	<ul style="list-style-type: none"> <li>*Knowledge about non experimental methods e.g., case study, observation and survey</li> <li>*Psychology and explanation of the contributions of various thinkers in the field of research methodology</li> <li>*Analyse and apply the understanding of psychological testing.</li> </ul>
Core-6: Health Psychology	<ul style="list-style-type: none"> <li>*Analysing Historical perspective on Health &amp; Illness</li> <li>*Introduction on how theoretical and empirical findings are applied to improve the lives and development of individuals and groups with the help of health psychology.</li> <li>*Analyse and critically evaluating fundamental issues, with a particular focus on how to promote health across a range of settings this course will be relevant for students who want to work in health settings.</li> <li>*The course will provide an insight into how psychology can be used to understand important health issues</li>   <li>*How to motivate patients to change their health-related behaviour and how to improve lifestyle</li> </ul>

Core-7:	
Applied Social Psychology	<ul style="list-style-type: none"> <li>*Basic concept, Definition and Nature of Applied Social Psychology</li> <li>*Importance and Applications of Applied Social Psychology.</li> <li>Scope and Current status of Applied Social Psychology.</li> <li>*Nature and Characteristics of Crime and Criminals Psychological, Biological and Socio-cultural explanation of Crime and Criminals</li> <li>*Violence against woman ,Type, Causes and Consequences.</li> <li>*Legal Act in for Prevention.</li> </ul>
Semester-IV	

<p>Core-8: Emergence and growth of Psychology</p>	<ul style="list-style-type: none"> <li>*Origin, development of psychology as an independent science</li> <li>*Contribution of scholars in development of psychology</li> <li>*Main contributions- Wilhelm Wundt, E.B. Titchener, William James</li> <li>*Foundation of gestalt psychology, experimental contributions of gestalt psychology</li> </ul>
<p>Core-9: Statistics II</p>	<ul style="list-style-type: none"> <li>*The nature of normal probability curve Characteristics of normal probability curve Use of normal probability curve</li> <li>*Historical perspectives and Coefficient of correlation.</li> <li>*Concept of Null hypothesis .Testing of divergence of observed result from expected on the hypothesis of equal probability</li> <li>*Hypothesis testing and making inferences, Significance of mean difference</li> <li>*Computation of <math>t</math> - value - correlated and uncontrolled.</li> <li>Interpretation of <math>t</math> - value</li> </ul>
<p>Core-10:  Social Psychology</p>	<ul style="list-style-type: none"> <li>*Develop insight and analyse the contribution of social psychologists to the understanding of human society.</li> <li>*Evaluate effective strategies in socialization, group processes (both inter and intra-group) and helping behaviour.</li> <li>*Ability to register the progression of theories in major areas in Social Psychology.</li> <li>*Interpret attitude formation and various methods to be used to change the attitude.</li> <li>Psychological understanding of social system. Indian family system.</li> <li>*Social stratification- caste, class, power, social identities- religious ethics</li> </ul>

Semester-V



<p>Core-11:</p> <p>Organizational Psychology</p>	<ul style="list-style-type: none"> <li>*Students will be able to describe concepts of psychology in the process of manpower training.</li> <li>*Design training &amp; development process of an organizations, apply various methods in organizational setting</li> <li>*The goal of this course is to understand how psychological principal improve efficiency and quality of employee life.</li> <li>*Students gain knowledge about the history of I/O psychology, job analysis, motivation, leadership, job satisfaction, work stress and health.</li> </ul>
<p>Core-12:</p> <p>Abnormal Psychology</p>	<ul style="list-style-type: none"> <li>*This course will impart in students an appreciation of the complex issues surrounding abnormal behaviour both as experts and novices think about it.</li> <li>*Students would be able to diagnose a disorder, prescribe a treatment, and make a prognosis. They would also get an insight into the skills which are required by a psychologist.</li> <li>*The type of knowledge this course imparts is precisely the type used by professional practitioners.</li> <li>*Students can review current research findings and trends relative to the development and description of maladaptive behaviour, as well as gender and demographic influences on the prevalence of psychological illness.</li> <li>*Students also learn to describe the diagnostic criteria, symptoms, course, incidence, prevalence, ethology, prognosis and correlates of major mental disorders and learn the psychological, biological, and sociocultural theoretical perspectives of abnormal psychology</li> </ul>

<p>DSE-1:</p> <p>Educationa I Psychology - II</p>	<ul style="list-style-type: none"> <li>*Basic concept of educational psychology.</li> <li>*Contribution of psychology in education. How can psychology improve the learning ability of student?</li> <li>*Concept, principles and sequential stages of Human *development</li> <li>Developing knowledge and skills in different aspects of Learning and Motivation as implied in Educational Settings</li> </ul>
<p>DSE-2:</p>	<ul style="list-style-type: none"> <li>*Understanding emotional intelligence. Difference of Personality and emotional intelligence.</li> <li>*Model Emotional intelligence of emotional intelligence The Trait model of emotional intelligence. The Mixed model of emotional intelligence.</li> <li>*Criticism of the theoretical foundation and measures of assessment of emotional intelligence.</li> <li>*Emotional Intelligence, personality disorders, and Individuals on the autism spectrum</li> <li>* Emotional Intelligence and Personal Relationships.</li> <li>*Adjustment of teaching- learning process to suit individual difference, learning style and teaching strategies</li> </ul>

#### Semester-VI

<p>Core-13:</p> <p>Clinical Psychology</p>	<ul style="list-style-type: none"> <li>*Develop an understanding about major mental disorders e.g.Schizophrenia,Bipolar disorder, personality disorder its Type, cause, etiology, treatment.</li> <li>*Antisocial- Personality. Borderline personality disorders. Sexual disorders (Clinical Picture): Paraphilias, Gender Identity Disorder Sexual Dysfunction</li> <li>*Students would be able to diagnose a disorder, prescribe a treatment, and make a prognosis.</li> <li>*To understand an Intervention and Management of mental diseases by different clinical methods.</li> </ul>
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<p>Core-14: Counselling Psychology</p>	<ul style="list-style-type: none"> <li>*Define basic fundamentals of counselling.</li> <li>*To understand counselling as a profession:- training, activities and professional ethics.</li> <li>*How to become an effective counselor, what should be the personality of the counsellor.</li> <li>* What is self-counselling ,how should do self-counselling.</li> <li>*Counselling Theory and Techniques.e.g Individual counseling theory and techniques-Psychoanalytic, Humanistic, Behavioral, Cognitive.Group techniques</li> </ul>
<p>DSE-3: Human Resource Managem ent</p>	<ul style="list-style-type: none"> <li>*Introduction to Human Resource Management, Difference between HRM and HRD, Context and issues in HRM.</li> <li>* Human Resource Practices Job analysis, recruitment and selection, training, performance, evaluation.</li> <li>*The context of globalization, Forms of IHRM/Types of cross-national organizations (Domestic, International, Multinational, Global, Transnational), Role of culture in IHRM, Dimensions of cultural difference.</li> <li>*Policies and practices in the multinational enterprise. Selection for international assignees, expatriate failure, training: development of a global mind set, Cross-cultural training, well-being of the global work force</li> </ul>
<p>DSE-4: Community Psychology</p>	<ul style="list-style-type: none"> <li>*Historical and Social contexts of Community Psychology: Concept, evolution and nature of community mental health.</li> <li>*Models of mental health services: mental, social, organizational and ecological.</li> <li>*Community mental health, intervention and community-based rehabilitation. Issues, principles and programmers, evaluation of CBR,</li> <li>*Training the Para - professional and non-professionals.</li> <li>*Community mental health in India: Issues and challenges</li> </ul>



## Department of Economics

### Program Specific Outcomes (PSOs)

On successful completion of B.A. Course (Economics) the students are able to:

PSO1:	Understand the basic Concepts of Micro Economics as well as Money and Banking.
PSO2:	Understand the Principles of Macro Economics and Indian Economy.
PSO3:	The students are able to analyse the Market Structure and Consumer behaviour in Practice.
PSO4:	Students are able to know Economic Model of a country and developed their own Economic way of thinking.
PSO5:	The ability of students enhances about the Current Events of Economy and Economic Environment.
PSO6:	The ability of students to write their Economic Ideas.
PSO7:	The students are able to tackle their Economic Problems through the entire course.
PSO8:	The students are able to advice on several Economic Problems .

### Course Outcomes (COs)

Semester-I	
Core-1: Micro Economics	<ol style="list-style-type: none"><li>1. After the successful completion of the course the students are able to understand about subject matter of Economics.</li><li>2. Impart knowledge of microeconomics.</li><li>3. Analyse and interpret charts, graphs and figures.</li><li>4. Develop an understanding of basic theories of micro economics and their application.</li><li>5. Demonstrate that the theories discussed in class will usually be applied to real-life situations.</li></ol>
Core-2: Money and Banking	<ol style="list-style-type: none"><li>1. Introduce students to the role of money in an economy.</li><li>2. Understand the recent trends and developments in banking system.</li><li>3. Understand the role of the Reserve Bank of India in Indian financial system.</li></ol>

	<p>4. Provide the knowledge of various financial and non-financial institutions.</p> <p>5. Provide the students the intricacies of Indian financial system for better financial decision making.</p>
<b>Semester-II</b>	
<p><b>Core-3:</b> <b>Macro Economics-1</b></p>	<p>1. Information over Meaning, Nature &amp; scope of macroeconomics.</p> <p>2. Students will learn to calculate National income &amp; its importance.</p> <p>3. Analysis of trade cycles and their occurrence after certain specified period will be studied by students.</p> <p>4. Learning the evolution of different Employment theories.</p> <p>5. Information Public finance and its policy approached will be given to students</p>
<p><b>Core-4:</b> <b>Indian Economics</b></p>	<p>1. Students will be familiarized about background of Indian economic environment and basic Features.</p> <p>2. Ability to compare the Indian economic environment with international economic environment will be generated.</p> <p>3. Students will be awarded about the banking system</p> <p>4. Students will get a primary introduction of different sector of Indian economy such as agriculture, industry and service.</p> <p>5. Awareness about digital economy will be generated and they will be ready for the digital India.</p>
<b>Semester-III</b>	
<p><b>Core-5:</b> <b>Micro Economics-2</b></p>	<p>1. After the successful completion of the course the students are able to understand the Basic Economic Problems.</p> <p>2. The students are accompanied with to retrieve the relation between different variables through various laws like Law of Demand, Law of Supply etc.</p> <p>3. The students will understand the Indifference curves, Elasticity of Demand and Their Types as well as measures.</p> <p>4. The students are able to understand the relation between various variables through Law of Variable Proportion and Law of Returns to Scale.</p> <p>5. The Students are able to understand Market structure social welfare and welfare economics inculcate the values among the students.</p>
<p><b>Core-6:</b></p>	<p>1. Information over Meaning, Nature &amp; scope of Statistics</p> <p>2. Students will learn to calculate basic rules of Statistical Methods.</p>



<b>Statistical Methods in Economics</b>	<p>3. Students will learn about concept and operations of Statistical Tools.</p> <p>4. After the successful completion of the course the students are able to understand Average, Dispersion, Correlation, Regression and Others.</p> <p>5. After the successful completion of the course the student should have a thorough knowledge on Data Collection, Tabulation and Presentation.</p>
<p>Core-7:</p> <p><b>Macro Economics-2</b></p>	<p>1. Introduce students to the historical background of the emergence of macroeconomics.</p> <p>2. Familiarize students with the differences between microeconomics and macroeconomics</p> <p>3. Familiarize students with various concepts of national income, Keynesian macroeconomic theoretical framework of consumption and investment functions.</p> <p>4. Introduce students to the role of money in an economy and theoretical framework of inflation, deflation and stagflation, Business Cycle.</p> <p>5. Introduce students to the various instruments of monetary and fiscal policies</p>
<b>Semester-IV</b>	
<p>Core-8:</p> <p><b>Mathematical Methods for Economics</b></p>	<p>1. Information over Meaning, Nature &amp; scope of Mathematical Economics.</p> <p>2. Students will learn to calculate basic rules of Mathematical Economics.</p> <p>3. Students will learn about concept and operations of Set Theory.</p> <p>4. After the successful completion of the course the students are able to understand Maxima, Minima, Calculus and Others.</p> <p>5. After the successful completion of the course the student should have a thorough knowledge on the Inter- Relationships among Total, Marginal and Average cost and Revenue.</p>
<p>Core-9:</p> <p><b>International Economics</b></p>	<p>1. On successful completion of this course the student is enabled with the Knowledge in Classical and Modern Theories of International Trade.</p> <p>2. Understanding nature scope &amp; Importance of international Economics</p> <p>3. Understanding of theories of international trade</p> <p>4. Understanding the role of international financial Institutions</p> <p>5. After the successful completion of the course the student</p>



	should have a thorough knowledge on the Gains from International Trade & Concepts of Terms of Trade other allied aspects.
<b>Core-10: Economic Development and Policy</b>	<ol style="list-style-type: none"> <li>1.The students are able to familiarizes with theories of Economics growth and development</li> <li>2.The students are able to understand the Human Development Index and Others</li> <li>3. The students are able to Understand Problems of Population and its Measures.</li> <li>4.The students are able to understand the Income distribution among the People</li> <li>5. They will know the causes and impacts of unemployment, poverty, inequality etc.</li> </ol>
<b>Semester-V</b>	
<b>Core-11: Growth and Development</b>	<ol style="list-style-type: none"> <li>1.Introduction of the concept like indicators of growth &amp; development</li> <li>2. Students will study different development theories</li> <li>3.Students will study different growth modeless</li> <li>4. Importance of economic Planning &amp; importance of foreign capital will be studied by students.</li> <li>5.The students are able to understand Concepts of Growth and Development</li> </ol>
<b>Core-12: History of Economic Thought</b>	<ol style="list-style-type: none"> <li>1. The students are able to understand Concepts of Economic Thought.</li> <li>2. The students are acquaintance with different Economic Ideas of great economist of India and abroad.</li> <li>3. The students are able to understand the relationship between western and Indian Economic Thought.</li> <li>4. The student will be Learn about Mercantilism and Physiocracy.</li> <li>5. Develop an understanding of theories of economics and their application.</li> </ol>
<b>DSE-1: Agricultural Economics-1</b>	<ol style="list-style-type: none"> <li>1. The students will understand the Agricultural Economics and their terms as well as various theories.</li> <li>2. The students will acquaint with Present Agricultural Scenario of Indian Economy</li> <li>3.The students will be understood the Problems of farmers and Agricultural Sector</li> <li>4. They will know the causes and impacts of various government schemes on agricultural Productivity.</li> </ol>

	5. The students will become familiarize with Agricultural Challenges and Barriers.
DSE-2:  Demography-1	<ol style="list-style-type: none"> <li>1. The students are able to understand Nature, Scope and relation between development and population.</li> <li>2. The student will be Understand the various theories of population.</li> <li>3. The student will be Learn about Structure and characteristics of Indian population.</li> <li>4. The students are able to an analysis of Indian population policy.</li> <li>5. The students are acquaintance with Crude Birth Rate, Crude Death Rate and Standardized Birth Rate etc</li> </ol>
<b>Semester-VI</b>	
Core-13:  Public Finance	<ol style="list-style-type: none"> <li>1. Through this subject the students are able to understand the role of government in economic activities.</li> <li>2. The students are able to understand the difference between public goods, Private goods as well as their benefits</li> <li>3. The students are acquaintance with various theories and Models of Public economics.</li> <li>4. The students are become familiarizes with theories of Public Expenditure</li> <li>5. The students are able to understand the concepts of Budget, Deficit Finance and Public debt etc.</li> </ol>
Core-14:  Environmental Economics	<ol style="list-style-type: none"> <li>1. Ability to develop an understanding of the Elementary Ecology and Entropy Law</li> <li>2. Ability to analyse and evaluate the subject with reference to various aspects of the economics of environment.</li> <li>3. Ability to develop an understanding of the economics of environment and various analytical tools to comprehend environmental issues</li> <li>4. Ability to analyse and evaluate causes and effects of Environmental Degradation like Degradation of Land, Forest and Natural Resources.</li> <li>5. The students are able to understand the Environmental Policies.</li> </ol>
DSE-3:  Agricultural Economics-2	<ol style="list-style-type: none"> <li>1. The students will know the role of Technology in agriculture.</li> <li>2. The students will understand importance of sustainable agriculture.</li> <li>3. The students will understand the effect of Green Revolution on human health as well as environment.</li> </ol>



	<p>4. They will know the emerging trends in agricultural technology; Dry Land Farming etc.</p> <p>5. The students will become familiarize with different Agricultural Policies; Agricultural Price Policies, Public Distribution System etc.</p>
<p>DSE-4:</p> <p>Demography-2</p>	<p>1. Ability to analyse and evaluate causes and effects of increasing population in India.</p> <p>2. The students are able to understand the relationship between population and Economic Growth</p> <p>3. The student will be Understand the Meaning, Types and Uses of Population Projection.</p> <p>4. The student will be Learn about Marriage and Marital Status, Reproduction and Child Health etc.</p> <p>5. The students are able to an analysis of Demographic Status and Household Behaviour.</p>

## DEPARATMENT OF SOCIOLOGY

### COURSE OUTCOME

After successful completion of three-year degree programme in Sociology students are able to -

#### CORE-1

Understand about Sociology- Meaning, Scope, Nature, Origin and Development of Sociology, with special reference to India uses of Sociology, Basic Concepts- Society, Community, Association, Institution, Social Group, Social Structure, Status and Role, Social Control, Norms, Values, Social Change- Meaning, Factors, Theories, Social Evolution, Social Progress, revolution, Development, transformation, Social Stratification and Social Mobility- Meaning, Forms, Theories.

#### CORE-2

To know Basic Institutions of Indian Society- caste and its changing Dimensions, Family, Marriage, The Structure and Composition of Indian Society- Villages, Towns, Cities, Rural-Urban Differences, tribes, Weak Sections, Dalits, Minorities, Women Population Profile and its related issues, Change and Transformation in Indian society, Sanskritization, Westernisation, Modernisation, Industrialisation, Urbanisation, Status of Women, national Integration- Problems and Prospects.



### CORE-3

Understand Social Research- Meaning, Stages and Significance, Scientific Method- Meaning, Characteristics, Hypothesis- Meaning, Characteristics, Types, Source of Formulation, methods of Social Research- Observation and case study, techniques of Data Collection- Survey, Sampling, Questionnaire, Schedule and Interview, Primary and Secondary Sources of data, Measures of Central Tendency.

### CORE-4

Understand Structural\_ Poverty, Inequality of caste and Gender, Disharmony- Religions Ethnic, Regional, Minorities, Backward Classes and Dalits. Familial- Dowry, Domestic Violence, Divorce, Problem of Elderly, Developmental- Regional Disparities, Development induced, Displacement, Crisis of value, Disorganisation- Crime and Delinquency, White Collar Crime, Corruption Drug Addiction, Suicide.

### CORE-5

Understand the Emergence of Social Thought, Aguste Comte- Positives, Law of Three Stages, Herbert Spencer-Social Evolution, Organismic Concept of Society, Emile Durkheim- Suicide, Division of labour, Maxweber- The Protestant Ethic and The Spirit of Capital issue, Authority, Karl Mark- Class Struggle, Materialistic Conception of History, Vilfredo pareto- circulation of Elite, Functionalism and Conflict perspectives, Social Thinking of Mahatma Gandhi, Vivekanand and Raja Ram Mohan Roy.

### CORE-6

Understand Basic Concepts : Sex, gender, patriarchy, matriarchy, masculinity, femininity, gender identity. Sex Ratio and its Social Implications. Theories of Feminism : Liberal, Radical, Marxist, socialist and Post, modernist Women and Family : Role of women, Cultural perspective, Cultural perspective, Invisibility of women's work, Role of women in economy, Position of Women in : A historical perspective. Indian Society, Emerging Issues: Women in politics, Violence against women.

### CORE-7

Understand Importance of popular culture and mass media, Basic concepts: Popular culture; mass communications and mass ideology, Theoretical approaches: McLuhan (The medium is the message), Baudrillard (The world of hyper reality), Habermas (The public sphere), Roland Barthes (Semiology), Popular Culture: Films, Music, Sports, Soap shows, Components: Artists - Audience, Medium: Traditional-Fairs and festivals,

Folklore, Modern: Cinema, Television, Multimedia, Internet, Globalization of media and popular culture.

#### **CORE-8**

Understand Crime- Meaning, Types, Causes and Theories, Juvenile Delinquency- Meaning, Causes, Punishment- Meaning, Types, Theories, Correctional Measures and Reforms, Role of police in crime control, Indian Social problems and their implications for Crime & Juvenile, Delinquency, Alcoholism, Beggary.

#### **CORE-9**

UNDERSTANDING the following

1. Tribe : Meaning, Tribe and Caste.
2. Classification of Tribal People : Food gathers and hunter, shifting cultivators, Nomads, Pastoralists, Peasants, Settled agriculturalists and Artisans.
3. Socio-Cultural Profile : Ethnic and cultural diversity, Features of Tribal, Society, Family, Marriage, Kinship, Youth Dormitory Totem, Taboo, Religion and Magic.
4. Status of Tribal Women.
5. Tribal Problems Developments.
6. Tribal Communities of Jharkhand, Santhal, Paharia, Munda, Oraon & Ho.

#### **CORE-10**

UNDERSTANDING the following

1. Rural Sociology- Meaning, Scope, Significance.
2. Rural Community- Meaning, Characteristics.
3. Rural- Urban Dichotomy.
4. Rural Society Structure- Caste System, Dominant Caste, Jajmani System.
5. Social and Economic Problems of Rural Society and their solutions.

#### **CORE-11**

UNDERSTANDING the following

1. Urban Sociology- Meaning, Scope, Importance.
2. Urban Community- Meaning, Characteristics.

3. Features of Urban Society.
4. Industrialization, and Urbanization- Meaning Consequences.
5. Urban Problems- Slums, Migration.

#### **CORE-12**

UNDERSTANDING the following

1. Social Demography: Nature and Scope
2. Demographic Factors in Social Change.
3. Population, Fertility, Morbidity & Mortality Profile.
4. Health, Disease and Poverty.
5. Environment, Population and Community Health.
6. Ethnomedicine, Primary Health care and Health for All.

#### **CORE-13**

UNDERSTANDING the following

1. Nature and Scope of Industrial Sociology.
2. Evolution of Industrial Society. Nature and Process of Industrialization in World System.
3. Indian Social Structure and Industrialization.
4. Problems of Automation.

#### **CORE-14**

UNDERSTANDING the following

1. Rise of Working class in India and Trade Union Movement.
2. Labour Legislation and Development of Industrial Polity in India.
3. Conflict in Industrial Society, Problems of Industrial Peace in Developing Societies.
4. Post-Industrial Society.

#### **DSE-I**

UNDERSTANDING the following

1. National Integration: Challenges and Solutions
2. Secularism: Theory and Practice in India



3. Coalition Politics in India
4. Naxal Movements in India
5. Electoral Reforms
6. Role of Press in Indian Democracy

#### **DSE -II**

UNDERSTANDING the following

1. Meaning and Definition of Globalisation
2. Economic, Political and Cultural Dimensions of Globalisation
3. Merits and Demerits of Globalisation
4. Contemporary World Actors:
  - A) United Nations
  - B) World Trade Organization (WTO)
5. Contemporary World Issues:
  - A) Global Issues (Global Warming and Bio-diversity)
  - B) Poverty and Inequality
  - C) International Terrorism

#### **DSE-III**

1. Understanding Conflict
2. Types of Conflicts; Economic, Ethnic, Religious and others
3. Conflict Management & Conflict Resolution
4. Gandhian Method of Peace Building
5. Conflict Response: Diplomacy as a Tool

#### **DSE-IV**

1. Introduction of Demography: Concepts; Definitions; Nature; Scope and Importance.
2. Population Study and Demography: Similarities and Dissimilarities.
3. Relationship of Demography with other Disciplines.
4. Theories of Population: A. Malthusian Theory of Population.  
B. Optimum Theory of Population.

### C. Theory of Demographic Transition.

#### 5. Structure of Population:

##### A. Population Trends, Historical Evidence of

Growth of Population and its Distribution in India.

##### B. Age and Sex Structure of Population in India: Pattern: Determinants: Age Pyramids; Individual and Population Ageing; Temporal and Spatial Variations in Sex Ratios.

##### C. Population Explosion in India: Causes and Consequences.

## DEPARTMENT OF HISTORY

### Program Specific Outcomes (PSOs)

PSO1:	Enable the students to understand background of our religion.
PSO2:	To develop students interests in the study of history and activities relating to history.
PSO3:	It will help students in discussion and to understand different peoples and cultures in past
PSO4:	Enable the students to produce their own historical analysis of documents and develop the ability to think critically and historically.
PSO5:	They will develop ability to collect ancient arts, old coins and other historical material.
PSO6:	Student will understand how those cultures chants interests in the study of history and activities relating to history.

### Course Outcomes (COs)

Semester-I	
Core-1:	<ul style="list-style-type: none"><li>*Students will acquire knowledge regarding the primitive life.</li><li>*They can learn about socio- cultural status of the people of ancient India.</li><li>*They can gather knowledge about the society, culture, religion and political history of ancient India.</li><li>*They will learn about trade and urbanization of ancient civilization, like Harappan civilization.</li><li>*They can learn about Vedic civilizations etc.</li></ul>
Core-2:	<ul style="list-style-type: none"><li>*They will learn about the French Revolution and its impact of European countries. Unity and power make</li></ul>

	<p>people to strength which has showed in the French revolution in 1789.</p> <p>*How the Industrialization had occurred and it's affected on socio economic transformation of Europe.</p> <p>*They will know about the politics of super power among the European countries.</p> <p>* How the sense regarding the nationalism and unification had developed among the European countries on eve of the 2nd worldwar. *Students can understand about the rise of imperialism and how far German imperialism was responsible for the first and second world war.</p> <p>*They will know about the Bolshevik revolution and the politics between two world war.</p>
<b>Semester-II</b>	
Core-3:	<p>They can learn about the economic transformation of India during this period. They can understand the rise of Indian feudalism and evolution of the political structures of early-medieval north and south India.</p> <p>*They can get a thorough idea of rise of ancient Indian empire. They can learn how the early Indian society.</p> <p>*They can learn about culture, religion.</p> <p>*They can learn about agrarian structures was transformed at the advent of the Islam.</p> <p>*They will achieve knowledge about the religious and cultural changing scenarios after the advent of the Islam in India.</p> <p>*They will gather knowledge how the Sultanate of Delhi had established in 1206.</p>
Core-4:	<p>*Students will learn about the nature and structure of the traditional Chinese society and how to transform the Chinese society from traditional to modern cultures.</p> <p>*They can also learn about how the strong countries of the World were captured the Chinese society, culture and economy during the nineteenth century.</p> <p>*They will be aware how the Chinese were united towards the foreign colonial powers and defeated them and ultimately gain to freedom</p> <p>*This course will make the student of history aware about the transformation of feudal society and rise of capitalism in Japan.</p>



	<ul style="list-style-type: none"> <li>*They will know the process through which Japan emerged as a Fascist power.</li> </ul>
<b>Semester-III</b>	
<b>Core-5:</b>	<ul style="list-style-type: none"> <li>*They will learn how to rise &amp; Growth of the Gupta's Empire in ancient India and to raise regional Kingdoms in different parts of India after downfall of the Empire.</li> <li>*They can acquire knowledge towards the society, economy and culture in early medieval India.</li> <li>*They can gather knowledge towards the Arabs conquest of Northern part of India from this paper.</li> <li>*They will achieve knowledge about the religious and cultural changing scenarios after the advent of the Islam in India; especially impact bhakti culture and Tantrism.</li> <li>*They will gather knowledge how the Sultanate of Delhi had established in 1206.</li> </ul>
<b>Core-6:</b>	<ul style="list-style-type: none"> <li>*Students will learn about Tudor age.</li> <li>*They will learn about divine right theory of James I</li> <li>*They will learn about Problem of personal liberty</li> <li>*They will learn about Act of settlement</li> <li>* They will learn about glorious revolution.</li> </ul>
<b>Core-7:</b>	<ul style="list-style-type: none"> <li>*Student will learn about how English arrived in Jharkhand.</li> <li>*Student will learn about establishment in British power in Bengal.</li> <li>*They will learn about colonial politics and its impact on agriculture, land, forest and railways.</li> <li>*Student will learn about Tana bhagat movement.</li> <li>*Student will learn about Ramgarh congress.</li> </ul>
<b>Semester-IV</b>	
<b>Core-8:</b>	<ul style="list-style-type: none"> <li>*Students of history will learn about the foundation, expansion and consolidation of the Sultanate Delhi and also to the downfall of the Delhi Sultanate.</li> <li>*They will learn towards the emergence of provincial dynasties &amp; Consolidation of regional identities like, Bahaman, Vijayanagar and Bengal.</li> <li>*They also acquire the knowledge about the Changing scenarios of the urban and rural societies after consolidation of the rule of the Sultanate of Delhi.</li> <li>*They can learn about the activities of Delhi Sultanate i.e., revenue systems monetization, market regulations, growth of urban centers, trade and commerce, Indian Ocean trade etc.</li> </ul>

	<ul style="list-style-type: none"> <li>*Students can get the idea of religious syncretism; rise of Sufi and Bhakti and their impact on Indian society.</li> </ul>
Core-9:	<ul style="list-style-type: none"> <li>*They will learn about our Indian constitution.</li> <li>*Student will learn about regulating act 1773.</li> <li>*They will learn about Pitts Indian act 1784</li> <li>*They will learn about act of 1813.</li> <li>*They will learn about Morley Minto reforms 1909.</li> </ul>
Core-10:	<ul style="list-style-type: none"> <li>*Student will learn about Different theories of origin of states.</li> <li>*Student will learn about republican states in ancient India.</li> <li>*They will learn about Mauryan polity.</li> <li>*They will learn about Kushan polity and</li> <li>*Students will learn about administrative apparatus ex-revenue system, Mantri parishad.</li> </ul>
<b>Semester-V</b>	
Core-11:	<ul style="list-style-type: none"> <li>* Students will learn about the historiography and sources.</li> <li>*Students will learn about Babur as an Empire builder.</li> <li>*Students will learn about theory of kingship.</li> <li>Students will learn about society and economy system of Mughal empire.</li> <li>*They will understand cultural development during Mughal period.</li> </ul>
Core-12:	<ul style="list-style-type: none"> <li>*After completed core 12 they will learn about opium war.</li> <li>* Student will learn about how modernization form in Japan.</li> <li>*Student can learn about boxer rebellion.</li> <li>*Student will learn about the history about san-yat-sen</li> <li>*Student will learn about Manchurian crisis.</li> </ul>
DSE-1:	<ul style="list-style-type: none"> <li>*They can learn about how British power rise in Bengal.</li> <li>*They can learn about Anglo Maratha relation.</li> <li>* They can learn about administrative system under east India company.</li> <li>*They can learn about socio religious reforms.</li> <li>* They can learn about how modern education rise in India.</li> </ul>
DSE-2:	<ul style="list-style-type: none"> <li>*Student can learn about historiography of Indian nationalism.</li> <li>*Student can learn about Gandhi an ideology.</li> </ul>

	<ul style="list-style-type: none"> <li>*Student will learn about lower caste movement.</li> <li>*Student will learn about communal movement.</li> <li>*Student will learn about how Pakistan form.</li> </ul>
<b>Semester-VI</b>	
<b>Core-13:</b>	<ul style="list-style-type: none"> <li>*Student will understand about sources of economic history for British India.</li> <li>*Student will learn about land revenue system during British India.</li> <li>* Student will understand about drain of wealth.</li> <li>* Student will learn about famines.</li> <li>* Student will learn about expansions of railways.</li> </ul>
<b>Core-14:</b>	<ul style="list-style-type: none"> <li>*Student will understand about sources of economic history for British India.</li> <li>*Student will learn about land revenue system during British India.</li> <li>* Student will understand about drain of wealth.</li> <li>* Student will learn about famines.</li> <li>* Student will learn about expansions of railways.</li> </ul>
<b>DSE-3:</b>	<ul style="list-style-type: none"> <li>*Student will learn about formation of UNO.</li> <li>*Student will understand about nature of cold war.</li> <li>*Student will understand about social and technological developments in contemporary world.</li> <li>*Students will learn about oil polices.</li> <li>*Student will learn about nonaligned movement.</li> </ul>
<b>DSE-4:</b>	<ul style="list-style-type: none"> <li>*Student will learn about formation of UNO.</li> <li>*Student will understand about nature of cold war.</li> <li>*Student will learn about nonaligned movement.</li> <li>*Student will learn about oil policy.</li> <li>*Student will understand about social and technological developments in contemporary world.</li> </ul>



## Department of BBA

### Outcomes (POs) for BBA Programme

PO1:	To produce industry ready graduates have highest regard for Personal & Institutional Integrity, Social Responsibility, Teamwork and Continuous Learning.
PO2:	To impart knowledge of the fundamentals of Management theory and its application in problem solving.
PO3:	Select and apply appropriate tools for decision making required for solving complex managerial problems.
PO4	To develop capabilities in students to independently conduct theoretical as well as applied research.
PO5	To develop sound knowledge of the entrepreneurial process and inculcate creativity and innovation among students.

### Program Specific Outcomes (PSOs)

PSO1:	1) Demonstrate the knowledge of management science to solve complex corporate problems using limited resources.
PSO2:	2) Review literature, define and analyze management research problems.
PSO3:	3) Identify business opportunities, design and implement innovations in the workspace.
PSO4:	4) Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to management practice.
PSO5:	5) Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Course Outcomes (COs)

<b>BBA Semester-I</b>	
<b>Core-1:</b>	<p><b><u>Fundamentals of Management and Organizational Behaviour</u></b></p> <ol style="list-style-type: none"><li>1) To analyse the concept of management and its functions.</li><li>2) To apply the basic knowledge of subject area</li><li>3) To apply management skills required at each level</li><li>4) To apply various leadership role in the community</li><li>5) To demonstrate the Intellectual curiosity to see the world around</li><li>6) To illustrate individual differences based on personality, attitude and perception and its implications.</li><li>7) To demonstrate good leadership qualities.</li><li>8) To handle and resolve various types of conflicts in the organization.</li><li>9) To motivate people with enhanced interpersonal skills.</li></ol>
<b>Core-2:</b>	<p><b><u>Statistics for Business Decisions</u></b></p> <ol style="list-style-type: none"><li>1. Appraise the need for data analysis.</li><li>2. Formulate the statistical problem and solve it.</li><li>3. Interpret the results of statistical analysis for improved managerial decision making.</li><li>4. Design and describe problems of inferential statistics.</li><li>5. Apply analytical skills in both private and public business organizations in the country.</li></ol>

<p>Generic / Interdisciplinary 1:- Paper code 104 - Entrepreneurship Development</p>	<p>Any five Course Outcomes :- On Successful Completion of the Course</p> <ul style="list-style-type: none"> <li>❖ The students are able to understand the methodology of setting up, proper execution of , resource mobilisation and Problems of business</li> <li>❖ They are equipped with the information to retrieve the relation between different variables of market - Demand, &amp; Supply, Market structure</li> <li>❖ Through this subject the students are able to understand the role of government in promoting MSME ,Start ups , and related economic activities</li> <li>❖ The students understand the role of entrepreneurship in handling employment challenge in a country like India</li> <li>❖ The project attached to this paper enables the student to actually get in the feel of setting up one's own business plan</li> </ul>
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**Semester-II**

<p>Core-3:</p>	<p><b><u>Managerial Economics</u></b></p> <ol style="list-style-type: none"> <li>1) Demonstrate its importance in making managerial decisions.</li> <li>2) Develop an understanding of demand and supply function in determining market equilibrium.</li> <li>3) Analyze how decisions are made about what, how and for whom to produce.</li> <li>4) Analyse the pricing and output decisions.</li> <li>5) Various pricing practices followed by firm in reality</li> </ol>
<p>Core-4:</p>	<p><b><u>Business Accounting</u></b></p> <ol style="list-style-type: none"> <li>1) To familiarize students with the mechanics of preparation of financial statements, understanding corporate financial statements, their analysis and interpretation.</li> <li>2) Demonstrate the role of accounting in business in the economic world</li> <li>3) Explain the principles of accounting and bookkeeping.</li> <li>4) Apply accounting rules in determining financial results and preparation of financial statement</li> <li>5) Develop and practice the maintenance of accounting books for non-profit making organization</li> <li>6) Determine the processes of billing in business and banking transaction</li> </ol>



<p>Generic / Interdisciplinary 2- Paper code 304 Business Ethics &amp; CSR</p>	<p>Any five Course Outcomes :- On Successful Completion of the Course</p> <ul style="list-style-type: none"> <li>❖ Through CSR the students undergo the details of Social welfare and welfare economics which inculcate the values among the students</li> <li>❖ They get a clear vision on the Role of Ethical practices in setting up a long run path of success for a business</li> <li>❖ The paper clearly elaborates the students on the Human development factors and building of an ethical and moral frame work in life</li> <li>❖ The provisions to curb corporate frauds and model of Good Corporate Governance have also been detailed in this paper</li> <li>❖ The project on CSR attached with the paper enables the student to act as an Executive of the Corporate and implement it on the ground.</li> </ul>
<p><b>BBA Semester-III</b></p>	
<p>Core-5:</p>	<p><b>MacroEconomics</b></p> <ol style="list-style-type: none"> <li>1) Determination of and linkages between major economic variables; level of output and prices, inflation, interest rates and exchange rates.</li> <li>2) To study the impact of monetary and fiscal policy on the aggregate behavior of individuals.</li> <li>3) Appraise basic banking and financial markets operations.</li> <li>4) Evaluate the current practices in banking, capital market, etc.</li> <li>5) Formulate changes in the financial sector.</li> <li>6) To design and correlate the financial markets and banking performances with the economic performance.</li> <li>7) Formulate and develop policies in the field of banking and insurance.</li> </ol>
<p>Core-6:</p>	<p><b><u>Principles of Marketing</u></b></p> <ol style="list-style-type: none"> <li>1) To equip the students with understanding of the Marketing Mix elements and sensitize them to certain emerging issues in Marketing.</li> <li>2) To use and focus on Indian experiences, approaches and cases</li> <li>3) Apply the basic concepts of marketing and Marketing environment</li> <li>4) Analyze and identify market segments and explore targeting and positioning.</li> <li>5) Distinguish the product mix of various companies and identify the relevance of branding</li> </ol>

	<p>6) Enumerate the significance of pricing and distribution decisions of a firm.</p> <p>7) Analyse the importance of promotion and identify various vehicles used in promotion of products.</p>
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<b>Core-7:</b>	<p><b><u>Management Accounting</u></b></p> <ol style="list-style-type: none"> <li>1) Explain the application of management accounting and the various tools used.</li> <li>2) Make inter-firm and inter-period comparison of financial statements.</li> <li>3) Analyse the financial statement using various ratios.</li> <li>4) Prepare Fund Flow Statement and Cash Flow Statement.</li> <li>5) Prepare different budgets for the business</li> </ol>
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**BBA Semester-IV**

<b>Core-8: Paper code 401 - Business Research</b>	<p><i>On Successful Completion of the Course</i></p> <ul style="list-style-type: none"> <li>❖ The students are able to understand the various scientific method of Analysis</li> <li>❖ The students are able to Understand Population and Sampling</li> <li>❖ They Understand the methods of collecting Primary and secondary data &amp; their role in business decision making, through various analytical tools</li> <li>❖ Introduction on how theoretical and empirical findings are applied to improve the lives and development of individuals and groups</li> <li>❖ Students will be given an opportunity to get exposed to a few elements of research and also they are expected to complete a small research project under the expert guidance and supervision,. It is essentially a job oriented exercise to enable them to take up the exciting career in the field of (social and economic) research.</li> </ul>
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<b>Core-9:</b>	<p><b><u>Human Resource Management</u></b></p> <ol style="list-style-type: none"> <li>1. Appraise the importance of human resource management as a field of study and as a central management function</li> <li>2. Apply the concepts of human resource planning and Job design</li> <li>3. Design the HR function (e.g. - recruitment, selection, training and development, etc.)</li> <li>4. Apply the principles and techniques of human resource</li> </ol>
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	<p>management.</p> <p>5. Design the processes and programmes related to employee empowerment in their organisation.</p>
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BBA Semester-V	
DSE-1:	<p><u>Consumer behaviour</u></p> <p>1 Appraise the need for understanding of consumer behaviour in any business</p> <p>2 Interpret attitude formation and reason for change in attitude</p> <p>3 Evaluate various personality traits and their significance</p> <p>4 Evaluate various socio cultural factors which influences consumer behaviour</p> <p>5 Design consumer decision making process .</p>
DSE-2: Paper code 504 - Personal selling & sales force Management	<p>Any five Course Outcomes :- On Successful Completion of the Course</p> <ul style="list-style-type: none"> <li>❖ They will understand basic concepts in Marketing and Personal selling through Market segmentation, Marketing Mix</li> <li>❖ They will get introduced to the concept of Salesmanship</li> <li>❖ They will get insight about various techniques required for the salesman and tools to handle larger man power force in sales</li> <li>❖ They will inculcate the importance of Rural Marketing</li> <li>❖ They will get acquainted with recent trends in marketing and social media marketing</li> <li>❖ To provide basic knowledge about various forms of sales organizations</li> </ul> <p>1.</p>
Semester-VI	



Core-13:	<p><b><u>Business Policy and Strategy</u></b></p> <p>1 Describe the basic knowledge of Strategic management</p> <p>2 Appraise environment to determines the long - run strategies</p> <p>3 Examine different strategies applied in organisations at different levels</p> <p>4 Correlate Corporate strategies in action in organisations</p> <p>5 Employ the Intellectual curiosity for successful performance of a corporation</p>
Core-14:	<p><b><u>Financial Institutions and Markets</u></b></p> <p>1. Explain and analyse the workings of Indian Financial system, Market and its assets</p> <p>2. Explain the role of the money market in the Indian Financial System and its regulatory environment.</p> <p>3. Explain the role of the capital market in the Indian Financial System and its regulatory environment.</p>
DSE-3: Paper code 603 - Distribution & Supply Chain Management	<p><b><u>any They will get to know Definition and meaning of supply chain management and get the knowledge about the approach's and Important feature of setting a distribution network</u></b></p> <p>a) They will know Definition and meaning of supply chain management and get the knowledge about the approach's and Important feature of setting a distribution network</p> <p>b) To understand the practical knowledge through project's work and Important feature of setting a distribution network</p> <p>c) They will get to broad knowledge about the means of project various transportation used in supply chain</p> <p>d) They get a wide perspective of warehousing, logistics and stock management used in supply chain</p> <p>e) They have got a view about the technological, logistics and advancement in this sector</p> <p>❖ They are made aware about the technological advancement in this sector</p>

**DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE**  
**Program Specific Outcomes (PSOs)**

<b>PSO1:</b>	<b>Professional Skills - Graduate will be able to develop efficient and effective professional skills using modern Electrical &amp; Electronics engineering techniques.</b>
<b>PSO2:</b>	<b>Disciplinary knowledge: Capable of demonstrating comprehensive knowledge and understanding of major concepts, principles, theories and laws of various subjects in Library and Information Science and other related fields of study, including broader interdisciplinary subfields such as management, economics, information and communication technologies, etc.</b>
<b>PSO3:</b>	<b>Digitally literate: Capable of using digital technology for communication purpose, for library housekeeping operations, and for searching information from OPAC, Internet and online databases</b>
<b>PSO4:</b>	<b>Librarianship as a profession- Ability to serve the information for advancement of society and self.</b>
<b>PSO5:</b>	<b>Classify: Classify simple , compound and complex documents using standard classification schemes.</b>
<b>PSO6:</b>	<b>Calalogue: capability to catalogue all types of documents.</b>

### **Course Outcomes (COs)**

<b>Semester-I</b>	
<b>Paper-1:</b>	<ol style="list-style-type: none"> <li>1. Explain Concept of Library and describe version types of library.</li> <li>2. Inter and analyze the five law of library science.</li> <li>3. Compare the different activities of library Association at national level.</li> <li>4. Analyze the different activities of library Association at international level.</li> <li>5. Explain ethics of librarianship.</li> </ol>
<b>Paper-2:</b>	<ol style="list-style-type: none"> <li>1. Describe the concept of Physical Bibliography.</li> <li>2. Classify the different types of Paper and paper making method.</li> <li>3. Explain binding process and use of materials.</li> <li>4. Explain different parts of book.</li> <li>5. Giving practically knowledge for preservation of library materials.</li> </ol>
<b>Paper- 3:</b>	<ol style="list-style-type: none"> <li>1. Apply foundational concepts, theories, and principles to problems of Library Classification.</li> <li>2. To make the students acquainted with the process of knowledge organization.</li> <li>3. To train students tools and technique of knowledge organization.</li> <li>4. To knowledge use of devices processing of Classification.</li> </ol>



	5. Describe about technical team of Classification.
Paper 4 Practical	<ol style="list-style-type: none"> <li>1. To provide practical training about library Classification of the documents using DDC 19th Ed.</li> <li>2. To provide practical training about library Classification of the documents using CC 6th Ed.</li> <li>3. To expose the real working environment of library operation.</li> <li>4. To improve knowledge and skills.</li> <li>5. To train the students about arrangements of documents according to class number.</li> </ol>
<b>Semester-II</b>	
Paper-5:	<ol style="list-style-type: none"> <li>1. To acquaint with the basic concepts of management.</li> <li>2. To familiarize students with the library housekeeping operations.</li> <li>3. To create understanding about financial management.</li> <li>4. To acquaint with the recent trends in library management.</li> <li>5. To knowledge about TQM.</li> </ol>
Paper-6:	<ol style="list-style-type: none"> <li>1. To provide in-depth knowledge about information services and products.</li> <li>2. To familiarize students with various information services, information repackaging and consolidation.</li> <li>3. To introduce the nature and purpose of reference and other services.</li> <li>4. Skills for Library and Information Science Professionals</li> <li>5. To make the students aware about latest Information Sources.</li> </ol>
Paper-7:	<ol style="list-style-type: none"> <li>1. To be acquainted with the process of Library Cataloguing and metadata and its standards</li> <li>2. To understand Bibliographic Formats and Standards, deriving subject headings</li> <li>3. To have hands on practice of cataloguing of different types of documents.</li> </ol>



	4 Apply foundational concepts, theories, and principles to problems of Library Cataloguing.
Paper-8 : Practical	<ol style="list-style-type: none"> <li>1. To provide practical training about library Cataloguing of the documents using AACRII</li> <li>2. To provide practical training about library Cataloguing of the documents using CCC.</li> <li>3. To expose the real working environment of library operation.</li> <li>4. To improve knowledge and skills.</li> <li>5. To give practical hands on training on Information searching from various sources.</li> </ol>