

# RAJMATA SCINDIA GOVT. PG GIRLS COLLEGE, CHHINDWARA

## LEARNING OUTCOMES

### DEPARTMENT OF BOTANY AND MICROBIOLOGY

Bachelor of Science

#### Program outcome

Bachelor of Science program under Department of Botany and Microbiology will equip students with the knowledge to work with flora and microbes. As well as facilitates learning of basic instrumentation used in botany and microbiology laboratories.

#### Course outcome

Students will be trained to perform various methods and advanced techniques and the expertise gained will be applied for advanced research.

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

S.NO.	Class	Paper name	Learning outcomes
<b>BOTANY</b>			
1.	<b>B.Sc. First Year</b>	Diversity of lower plants	<ul style="list-style-type: none"><li>• Comprehend general account of plant and animal viruses, as well as Bacteriophage and their importance.</li><li>• Develop basic understanding of algae and its classification.</li><li>• Structure and life cycle of Volvox.</li><li>• Structure and life cycle of Oedogonium.</li></ul>
2.		Diversity of higher plants	<ul style="list-style-type: none"><li>• Know the general characters, classification and distribution of Gymnosperm in India.</li><li>• Create understanding about Heterospory and origin of seed habit.</li><li>• Fossil Gymnosperms – Lyginopteris &amp; Williamsonia.</li><li>• Learn about morphology, anatomy, reproduction and life cycle of Cycas, Pinus and Ephedra</li></ul>
3.	<b>B.Sc. Second Year</b>	Taxonomy and Embryology of Angiosperm	<ul style="list-style-type: none"><li>• Know the origin and evolution of Angiosperm.</li><li>• Comprehend the principles and rules of botanical nomenclature.</li><li>• Modern trends in taxonomy.</li><li>• Develop understanding in museum, herbarium and botanical gardens.</li></ul>

4.		Plant ecology- Biodiversity of Phytogeography	<ul style="list-style-type: none"> <li>• Know the structure and types of Ecosystem.</li> <li>• Develop critical understanding of trophic level – Food chain, Food web, Ecological pyramids.</li> <li>• Ecological adaptations.</li> <li>• Learn about morphological, anatomical and physiological responses of Hydrophytes &amp; Xerophytes.</li> </ul>
5.	<b>B.Sc. Third Year</b>	Plant Physiology and Biochemistry	<ul style="list-style-type: none"> <li>• Understand about properties of water and importance of water in plant life.</li> <li>• Learn about diffusion, osmosis and osmotic relation of plant cell.</li> <li>• Transpiration: structure, physiology and mechanism of stomata.</li> <li>• Know about factors affecting the rate of transpiration.</li> </ul>
6.		Cell biology, Genetics and Biotechnology	<ul style="list-style-type: none"> <li>• Comprehend the knowledge of cell and cell organelles.</li> <li>• Know more about Plasma membrane, Nucleus, Chloroplast, Mitochondria, Golgi bodies, Endoplasmic Reticulum, Peroxisomes and Vacuoles.</li> <li>• Understand about lipid bilayer, structure and functions of Cell wall.</li> <li>• Learn the techniques used in cell biology.</li> </ul>
<b>MICROBIOLOGY</b>			
1.	<b>B.Sc. First Year</b>	General Microbiology in Cell Biology	<ul style="list-style-type: none"> <li>• Basic concepts of microbiology and instruments.</li> <li>• History and Development of microbiology.</li> <li>• Gather knowledge to work with microbes and microscope.</li> <li>• Create understanding of microbiology in human welfare.</li> <li>• Basic components of Prokaryotic and Eukaryotic cell.</li> </ul>
2.		Tools and techniques in Microbiology	<ul style="list-style-type: none"> <li>• Gain specialized knowledge that explains the tools.</li> <li>• Enable students to gain practical skills.</li> <li>• Gain an appreciation and application for the modern scope of learned scientific methods.</li> </ul>
3.	<b>B.Sc. Second Year</b>	Biochemistry and Microbial Physiology	<ul style="list-style-type: none"> <li>• Understand the importance of biochemistry and microbial physiology.</li> <li>• General knowledge of classification and properties of Carbohydrates, Proteins</li> </ul>

			<ul style="list-style-type: none"> <li>and Lipids.</li> <li>Learn about the energy production via aerobic and anaerobic processes.</li> </ul>
4.		Microbial Genetics and Molecular Biology	<ul style="list-style-type: none"> <li>Comprehend knowledge of microbial genetics and its importance.</li> <li>Understand the processes of genetic recombination in Bacteria.</li> <li>Basic concepts of DNA and RNA.</li> <li>Learn about the DNA replication, Transcription and Translation.</li> <li>Basic features of genetic code.</li> </ul>
5.	<b>B.Sc. Third Year</b>	Applied and Environmental Microbiology	<ul style="list-style-type: none"> <li>Learn about soil fertility and management.</li> <li>Apply obtained knowledge into their field.</li> <li>Understand concepts of environment in relation to microbes, and how microbes are making soil fertile.</li> <li>Learn about food products.</li> </ul>
6.		Immunology and Medical Microbiology	<ul style="list-style-type: none"> <li>Develop critical understanding about immune cells and organs of human body.</li> <li>Learn about types and functions of immune cells.</li> <li>Know about virology and adverse effects of viruses.</li> <li>Learn about mycology and bacteriology.</li> <li>Demonstrate proficiency.</li> </ul>

# RAJMATA SCINDIA GOVT. PG GIRLS COLLEGE, CHHINDWARA

## LEARNING OUTCOMES

### DEPARTMENT OF CHEMISTRY

Bachelor of Science & Master of Science

#### Program outcome

Bachelor of Science program under Department of Chemistry must enable students to attain, by the time of graduation: an ability to apply obtained knowledge and an ability to identify, formulate, and develop solutions to scientific challenges. Apply their knowledge in problem solving and future course of their career development in higher education and research.

#### Course outcome-

- The course gives an opportunity to the students to acquire practical knowledge on ecological systems by visiting places of chemical interest.
- The course makes the students familiar with tools and techniques used in biological study.

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

S.no.	Class	Paper name	Learning outcome
1	Bsc. I Year	Physical chemistry	<ul style="list-style-type: none"><li>• Student should be able to describe the characteristic of the three state of matter</li><li>• Understand the basic principle of electro chemistry</li></ul>
			<ul style="list-style-type: none"><li>• Understand rate of reaction and factor affecting it.</li></ul>
		Inorganic chemistry	<ul style="list-style-type: none"><li>• Able to tell the name of orbital by recognizing shapes of orbitals</li><li>• Able to draw structure of different ionic solids</li><li>• Able to calculate bond order of different molecules</li></ul>
		Organic chemistry	<ul style="list-style-type: none"><li>• Understand various types of reactive intermediate and factor affecting their stability</li><li>• Understand the nomenclature, synthesis and physical properties of alkanes and cycloalkanes</li><li>• Recognize and draw constitutional isomers, stereoisomer, including enantiomers and diastomers racemic mixture and meso compound.</li></ul>
		Physical chemistry	<ul style="list-style-type: none"><li>• List and explain the basic principles of thermodynamics and electro chemistry</li><li>• Able to predict the reversible and irreversible reaction</li><li>• Understand the concept of electrochemistry</li></ul>

2	B.Sc. II year	Inorganic chemistry	<ul style="list-style-type: none"> <li>The student will be able to understand about recently lanthanide have been used in lasers</li> <li>Understand that importance of periodic table of the elements</li> <li>Understand the laboratory skills needed to design, safety conduct and interpret chemical research.</li> </ul>
		Organic chemistry	<ul style="list-style-type: none"> <li>Understand how to name different aldehydes and ketons</li> <li>Able to recognize the reactivity of substituted aromatic amines</li> <li>Understand the chemical reactions of phenols</li> </ul>
3	B.Sc. III year	Physical chemistry	<ul style="list-style-type: none"> <li>Able to use concept of polarizability</li> <li>Understand that basic features of spectroscopy</li> <li>Understand the behavior of ideal and non ideal solutions</li> </ul>
		Inorganic chemistry	<ul style="list-style-type: none"> <li>Understand the nomenclature, classification properties and preparation of coordination compounds</li> <li>Understand the uses inorganic polymer</li> <li>Students are able to name different organometallic compound</li> </ul>
		Organic chemistry	<ul style="list-style-type: none"> <li>Students are able to identify and solve chemical problems and explore new areas of research</li> <li>Understand the monosaccharide and disaccharide and their structure and function</li> </ul>
			<ul style="list-style-type: none"> <li>The students will be able to introduce about basic chemistry of the heterocycle</li> </ul>

### M.Sc. Chemistry

S.no.	Class	Paper name	Learning outcomes
1.	M.Sc. I semester	Inorganic chemistry	<ul style="list-style-type: none"> <li>Understanding of the stereochemistry and bonding in main group compounds.</li> <li>Develop an interest in bonding between metal &amp; ligand.</li> <li>Brief discussion on metal carbonyl.</li> </ul>
		Organic chemistry	<ul style="list-style-type: none"> <li>Learned basic concept of GOC like aromaticity, anti - aromaticity, hyperconjugation, resonance, conjugation, cross conjugation.</li> <li>Developed understanding of the reaction mechanism and types of mechanism</li> </ul>
		Physical chemistry	<ul style="list-style-type: none"> <li>Understand Schrodinger equation and the postulates of quantum mechanics.</li> <li>Understand application of variation method and perturbation theory to the helium atom.</li> </ul>

		Group theory and spectroscopy	<ul style="list-style-type: none"> <li>• Learned that how many symmetry elements and symmetry operations in any object and how to find point group.</li> <li>• Explained the importance of spectroscopy for identifying the structure of molecule &amp; atom</li> </ul>
		Mathematics for chemists	<ul style="list-style-type: none"> <li>• Understand the basic concept of vectors &amp; differential calculus.</li> <li>• Learned permutation and probability.</li> <li>• Understand basic rules for integration.</li> </ul>
2.	M.Sc. II semester	Inorganic chemistry	<ul style="list-style-type: none"> <li>• Understand the reaction mechanism of transition metal complex in a detail and find out the difference between inert and labile complexes.</li> <li>• Understood many reactions found in transition metal complexes such as substitution reaction, Redox reaction, electron transfer reaction, outer and inner sphere type reaction, cross reaction.</li> <li>• studied electronic spectra in transition 27 metal complexes by Orgel and Tanabe Sugano diagram.</li> </ul>
		Organic chemistry	<ul style="list-style-type: none"> <li>• understand aromatic electrophilic substitution and aromatic nucleophilic substitution.</li> <li>• Understand free radical reaction their types and mechanism.</li> </ul>
			<ul style="list-style-type: none"> <li>• Learned elimination reaction the E2 E1 and E1CB mechanism and their spectrum.</li> </ul>
		Physical chemistry	<ul style="list-style-type: none"> <li>• Detailed study of chemical dynamic and knowing the various theories related to it.</li> <li>• How are micelles made? What is critical micellar concentration? Factor affecting the critical micelle concentration, learn that facts.</li> <li>• Understand electrochemistry of solution. Debye-Hückel Onsager and its extinction.</li> </ul>
		Spectroscopy and diffraction method II	<ul style="list-style-type: none"> <li>• Chemical shift in nuclear magnetic Spectroscopy factor affecting it, and how to measure it? learn that fact.</li> <li>• Understand the diffraction method such as x-ray diffraction electron diffraction.</li> <li>• Detailed study about electron quadrupole resonance spectroscopy and electron spin resonance spectroscopy.</li> </ul>
		Computer for chemists	<ul style="list-style-type: none"> <li>• Understand introduction to computer and computing, basic structure and function of computer.</li> <li>• Experimentally learned computer programming.</li> <li>• Understood the importance of internet application for chemistry.</li> </ul>

3.	M.Sc. III semester	Application of	<ul style="list-style-type: none"> <li>Understand symmetry and shapes at AB<sub>2</sub>, AB<sub>3</sub>. AB<sub>2</sub>, AB<sub>3</sub> and AB<sub>4</sub> type molecule under vibrational spectroscopy.</li> <li>Detailed study of all the concepts of all the concepts of NMR and Understood its importance</li> </ul>
		Photochemistry	<ul style="list-style-type: none"> <li>Understand interaction of electro magnetic radiation with matter &amp; types of excitation.</li> <li>Detailed study of photochemistry of aromatic compounds such as cisomerisation, addition and substitution.</li> </ul>
		Environmental Chemistry	<ul style="list-style-type: none"> <li>Understand air pollution in detail and also understand the effect it has on visibility, climates and health</li> <li>Knowing the damaging effect of acid rain on aquatic life, plants, buildings and health.</li> </ul>
		Heterocyclic Chemistry	<ul style="list-style-type: none"> <li>Learned replacement and systematic nomenclature for monocyclic fused and bridged heterocyclic.</li> <li>Understand the introduction, nomenclature synthesis and characteristics of P, As, Sb &amp; B Containing heterocyclic systems.</li> </ul>
		Polymers Chemistry	<ul style="list-style-type: none"> <li>Understand the importance of polymers, their methods of preparation, their types.</li> <li>Survey on inorganic polymer and their structure, properties and applications.</li> <li>Understand polymer characteristics.</li> </ul>
4.	M.Sc. IV semester	Application of spectroscopy II	<ul style="list-style-type: none"> <li>Understand various electronic transitions in ultraviolet and visible spectroscopy.</li> <li>Detailed study of vibrational frequencies of carbonyl compounds.</li> <li>Structure elucidation of simple molecule using UV visible, IR NMR and mass spectroscopy.</li> </ul>
		Solid state chemistry	<ul style="list-style-type: none"> <li>Understand the Crystal defect and non stoichiometry.</li> <li>Understand electronic properties and band theory.</li> <li>detailed study of magnetic and optical properties of solids.</li> </ul>
		Biochemistry	<ul style="list-style-type: none"> <li>Understand the metal ion in biological system.</li> <li>Understand the kinds of reaction catalyzed by enzymes.</li> <li>Understand the cell membrane and transport of ions.</li> </ul>
		Analytical chemistry	<ul style="list-style-type: none"> <li>Understand the role of analytical chemistry.</li> <li>Analysis of soil, body fluid and drugs.</li> <li>Understand the clinical chemistry.</li> </ul>

		Medicinal Chemistry	<ul style="list-style-type: none"><li>• Knowing the relation between chemical structure and biological activity.</li><li>• Understand the anti bacterial and antibiotics.</li><li>• Understand the non steroidal inflammatory drugs..</li></ul>
--	--	---------------------	---

# RAJMATA SCINDIA GOVT. PG GIRLS COLLEGE, CHHINDWARA

## LEARNING OUTCOMES

### DEPARTMENT OF COMMERCE

Bachelor of commerce & Master Of commerce

**Program outcome** - The student of Bachelor of commerce & Master Of commerce will be ready for employment in functional area like accounting, taxation, banking, insurance, and corporate law, An attitude for working effectively and efficiently in a business environment.

#### **Course outcome -**

- Outcome of logical reasoning ability in students.
- Knowledge about Profit Planning and .
- Skill to evaluate the segment Business units.
- Skill to manage financial resources and business buying behaviour.
- Capacity to assess the significance of online banking.
- Understanding of the different techniques of risk management.
- Learn principles and concepts of Accountancy.

After successfully competing this course , the students will be able to

S.N	class	Paper name	Learning outcomes
1.	B.com 1 <sup>st</sup> year	(Accounting Group) (1) Financial Accounting (2) Business Maths	<ul style="list-style-type: none"><li>• Student are enable with the knowledge in the practical application of accounting</li><li>• Learn Principles and concept of Accounting.</li><li>• Basic concept of partnership accounting, company accounting</li><li>• Students acquire new skills on the application of gaining and sacrificing ratio percentage, discount in business decision making.</li></ul>
		( management group) (1) Business Law (2) Business Organisation and communication	<ul style="list-style-type: none"><li>• To learn about Indian contract Act 1872-Definitions Nature</li><li>• To aware of foreign Exchange management Act 2000 (FEMA)</li><li>• To develop knowledge about Business organization communication, Body Language.</li></ul>
		(Applied Economics group) (1) Micro Economics (2) Macro Economics	<ul style="list-style-type: none"><li>• TO provide students knowledge about micro economics concept and inculcate an analytical approach of the subject matter</li><li>• To aware national income, monetary theories ,Foreign Direct Investment</li><li>• To apply economic reasoning to solve the problem of the economy</li></ul>

2	B.Com 2 <sup>nd</sup> Year	(Accounting Group) (1) Corporate Accounting (2) Cost Accounting	<ul style="list-style-type: none"> <li>• Student Skills about accounting standard will be developed.</li> <li>• To impart Knowledge about holding company accounts, amalgamation, absorption and reconstruction of company.</li> <li>• To make aware the students about basic cost concept, Elements of cost.</li> <li>• Providing knowledge about difference between Financial accounting and cost accounting.</li> </ul>
		( management group) 1. Principles of statistics 2. Principles of management	<ul style="list-style-type: none"> <li>• To understand the different concept of population and sample to make students familiar with calculating various types of average and variation.</li> <li>• To aware of management meaning, Nature, Function , planning and Decision making, Direction, Control Process &amp; methods</li> </ul>
		(Applied Economics group) (1) Indian Company Act (2) Banking & insurance	<ul style="list-style-type: none"> <li>• To aware of Indian company Law, listing, characteristics, Share membership, Wining up of Companies.</li> <li>• To make the students aware of banking business and practices.</li> <li>• To familiar the students with the fundamentals of banking thorough knowledge of banking operation.</li> </ul>
3	B.Com 3 <sup>rd</sup> Year	(Accounting Group) (1) Income Tax Law (2) Indirect Tax Law	<ul style="list-style-type: none"> <li>• To aware of Agriculture Income, Taxable Income, Depreciation, Taxable Income under the head of Capital gains.</li> <li>• To of central sales tax, value added Tax, Service Tax</li> </ul>
		( management group) (1) Auditing (2) Management Accounting	<ul style="list-style-type: none"> <li>• To Develop an understanding of audit Concept</li> <li>• To aware of Ratio Analysis, Cash flow statement, fund flow statement, Responsibility Accounting, Reports for management</li> </ul>
		(Applied Economics group) (1) Principles of marketing (2) International marketing	<ul style="list-style-type: none"> <li>• To develop an understanding of Buyer Behaviors</li> <li>• To knowledge about product, policy &amp; planning, pricing, Distribution, Sales Force,</li> <li>• To aware of international marketing Environment</li> <li>• To learn product planning &amp; product Designing for International marketing</li> </ul>
1		Management Concept	<ul style="list-style-type: none"> <li>• To introduce concept of management</li> <li>• To aware of Business to Effective communication.</li> <li>• TO learn the 2- theory of management</li> </ul>

	M.Com 1 <sup>st</sup> Sem	Business Environment	<ul style="list-style-type: none"> <li>To understand (MRTP)monopolistic, Restricted Trade practice Act &amp; (FEMA) Foreign Exchange Management</li> </ul>
		Advanced Accounting	<ul style="list-style-type: none"> <li>To provide the knowledge of various accounting concepts.</li> <li>To impart the knowledge about accounting methods, procedures and techniques.</li> </ul>
		Cost analysis and Control	<ul style="list-style-type: none"> <li>To aware of concept of break Even Analysis , cost Audit, Use of managerial Costing in business Decision.</li> </ul>
2	M.Com 2 <sup>nd</sup> Sem	Corporate Legal Framework	<ul style="list-style-type: none"> <li>To understand about Company Act,1956, Memorandum of Association, Articles of Association, Crossing and Types of Cheque, Customs Valuation.</li> </ul>
		Oraganisation	<ul style="list-style-type: none"> <li>To aware of organization Behavior</li> </ul>
		Behavior	Concept, Nature, Determinants and impotance, theaories of group formation & organization Conflict.
		Advanced Statistical Analysis	<ul style="list-style-type: none"> <li>To Understand the theory of probability,Distribution, Analysis of variance, chi- square Test, To aware of Association of Attributes, Regression Analysis</li> </ul>
		Functional Management	<ul style="list-style-type: none"> <li>To aware of financial function, Planning, capitalization, Advertising management, Standardisation.</li> </ul>
3	M.Com 3 <sup>rd</sup> Sem	Managerial Economics	<ul style="list-style-type: none"> <li>Ability to forecast demand in lidht of changing circumtances business plans.</li> <li>Ability to check out business policies.</li> <li>Knowledge about profit planning and control.</li> </ul>
		Tax planning & management	<ul style="list-style-type: none"> <li>To aware of meaning,scope, importance of tax planning.</li> <li>Knowledge about capital structure Decision, Dividend.</li> </ul>
		Entrepreneurship skill Development	<ul style="list-style-type: none"> <li>To aware about Entrepreneurial development programme relevance and achievements.</li> <li>To introduce Innovation and Entrepreneurship</li> </ul>
		Accounting for managerial decisions	<ul style="list-style-type: none"> <li>To provide the knowledge of nature and limitations of financial statement.</li> <li>To give knowledge about fund flow &amp; cash flow analysis.</li> </ul>
4		Advertising & sales management	<ul style="list-style-type: none"> <li>To aware about Role of Advertising in marketing, Advertising media, Budget, Advertising copy, layout,appeal</li> </ul>
		Consumer Behavior	<ul style="list-style-type: none"> <li>To understand the Behavior of consumer personality, socioal mobility, market Economy.</li> </ul>

	M.Com 4 <sup>th</sup> Sem	Rural and Agriculture Marketing	<ul style="list-style-type: none"> <li>To aware of concept, scope ,nature, and Evalution of Rural marketing, consumer Behavior, Agriculture Marketing, Recent trends in Rural marketing.</li> </ul>
		International Marketing	<ul style="list-style-type: none"> <li>To understand Export trade, Export finance, international Distribution, Export Import policy of india</li> </ul>

**RAJMATA SCINDIA GOVT. PG GIRLS COLLEGE, CHHINDWARA**

**LEARNING OUTCOMES**

**DEPARTMENT OF COMPUTER APPLICATION**

**B.A., B.Com., B.Sc.**

**Program Outcome:-** Computer Application subject is being studied at the undergraduate level in the govt. college Junnardeo . In this course student will be familiar with various application of Computer Application . They obtained the knowledge in the field of in the field of Desktop Publishing & Multimedia ,Fundamental of computer & PC Software .Students Studies about Web Designing ,Internet & E-commerce RDBMS and importance of Digital Marketing .

**Course Outcome :-**

- The course intends to aquire knowledge about about internet and E-commerce Applications.
- Students get the practical aspects about PC software, web designing and digital Marketing
- Students get the knowledge in the field of DTP and multimedia and DataBase Management System.

S.No	Class	Paper Name	Learning Outcome
1	<b>BA, B.com, Bsc I -Year</b>	Fundamentals Of Computer Software	<ul style="list-style-type: none"><li>• Computer hardware &amp; Software Definition</li><li>• Introduction of Input Device – Keyboard mouse, Scanner</li><li>• Introduction of Output Device\</li><li>• Introduction of Strobe Device</li><li>• Window Operating System</li><li>• Document Far mating -Page setup ,Font, Applying Page Boarder.</li></ul>
		Desktop Publishing and Multimedia	<ul style="list-style-type: none"><li>• Introduction definition of DTP,Advantage of DTP</li><li>• Software of DTP,Commericaial Of DTP Package</li><li>• Make a Calendar ,News Letter Newspaper</li><li>• production printer ,Printing Method</li></ul>
2	<b>BA, B.com, Bsc II -Year</b>	Relational Database Management System	<ul style="list-style-type: none"><li>• File Oriented System</li><li>• Strategic Database Planning &amp; Database Management System</li><li>• Transformation of E-R model to a relation database &amp; specialization</li><li>• Functional Dependencies</li></ul>

		Internet and E-commerce Paper-1	<ul style="list-style-type: none"> <li>• What is internet actually</li> <li>• types of connectivity</li> <li>• Introduction to TCP/ IP</li> <li>• meta - search</li> <li>• Concept of E-mail</li> <li>• what is E-commerce</li> </ul>
3	<b>B.A ,B.com, Bsc III year</b>	Web designing	<ul style="list-style-type: none"> <li>• Webpage overview</li> <li>• Types of website</li> <li>• Heading</li> <li>• Net beans</li> <li>• Table</li> </ul>
		Digital marketing	<ul style="list-style-type: none"> <li>• web traffic</li> <li>• retention</li> <li>• Growth Of Internet</li> <li>• Understanding websites</li> <li>• Understanding goals and conversions</li> </ul>

# RAJMATA SCINDIA GOVT. PG GIRLS COLLEGE, CHHINDWARA

## LEARNING OUTCOMES

### DEPARTMENT OF ECONOMICS

Bachelor of Art & Master of Art

#### Program Outcome

Bachelor of Art & Master of Science of Art program under the Department of Economics will develop intense knowledge of economy and its importance in every aspect of life.

#### Course Outcome

- Understanding the importance of Indian economy and its effects in every Indian's life.
- Solve the problems regarding inflation and overcome it by using scientific methods.

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

S.N.	Class	Paper name	Learning outcomes
1	B.A. I Year	Micro economics paper -I	<ul style="list-style-type: none"><li>• Law of diminishing margined utility.</li><li>• mention the methods of economic study</li><li>• the practical importance of elasticity of demand</li><li>• How is price determined under market.</li></ul>
		Indian economy paper -II	<ul style="list-style-type: none"><li>• Indian economy is a rural economy and Agriculture based.</li><li>• Multiple aspects of India population.</li><li>• Structure of co-operative marketing system.</li><li>• Efforts are create by gout. For the development of small and cottage industries.</li></ul>
2	B.A. II Year	Micro economics - I	<ul style="list-style-type: none"><li>• The fundamental concepts of macro economies.</li><li>• How the amount and distribution of national income affected economic welfare in a nation.</li><li>• Role of bank in developing economy.</li><li>• The sources and causes if black money in India and effect of black money in our economy.</li></ul>
		Public finance and international economics II	<ul style="list-style-type: none"><li>• Nature and scope of Public finance.</li><li>• Concept and types of budget and sources of revenues.</li><li>• International trade area economics development.</li></ul>
3	B.A. III Year	Development and environment economics paper I	<ul style="list-style-type: none"><li>• Factors of economics growth and development.</li><li>• Classical theory of economics growth.</li><li>• Infrastructure development in India power transport communication etc.</li><li>• Environmental implication of development.</li></ul>
		Statistics paper II	<ul style="list-style-type: none"><li>• Basic concepts and linear Algebra</li><li>• census and sample investigation</li><li>• Construction of index numbers.</li></ul>

## M.A. Economics

S.N.	Class	Paper Name	Learning Outcomes
1	M.A.I Sem Economics	Micro Economics	<ul style="list-style-type: none"> <li>• Basic concept at micro economics and methods of economics analysis.</li> <li>• Factor pricing – marginal productivity theory, modern theory and adding up theorem.</li> <li>• Demand and supply equilibrium</li> </ul>
		Macro Economics	<ul style="list-style-type: none"> <li>• Concept of national income and its structure.</li> <li>• Measurement of national income and social accountancy.</li> <li>• Theory of output and Employment.</li> </ul>
		Quantitative Techniques	<ul style="list-style-type: none"> <li>• Collection of data and measures of control tendency.</li> <li>• Correlation, regression and analysis of time series.</li> <li>• To prepare frequency distribution.</li> </ul>
		Economics of Growth And Development	<ul style="list-style-type: none"> <li>• Human resource development.</li> <li>• Population and economics development</li> <li>• Capital formation level of technology and industries.</li> <li>• Factors in economics development</li> </ul>
2	M.A.II Sem Economics	Micro Economics Analysis - II	<ul style="list-style-type: none"> <li>• Theory of distribution in imperfect product and factor market.</li> <li>• Social welfare function.</li> <li>• Theorem equity –efficiency trade off.</li> <li>• Individual behavior towards risk.</li> </ul>
		Macro Economics Analysis - II	<ul style="list-style-type: none"> <li>• Renewal of monetarism.</li> <li>• Banking system in Indian.</li> <li>• Relative efficacy of monetary.</li> <li>• And fiscal policy.</li> </ul>
		Research Methodology and Statistical Inference	<ul style="list-style-type: none"> <li>• Types of research, steps in scientific research.</li> <li>• Research design.</li> <li>• Analysis of variance.</li> </ul>
		History Of Thought	<ul style="list-style-type: none"> <li>• History of thought classical school.</li> <li>• History of thoughts historical.</li> <li>• School and mathematical school.</li> </ul>
		Public Economics	<ul style="list-style-type: none"> <li>• Government and its control an economics.</li> <li>• Sources of revenue of control and state government .</li> <li>• Concept and type of budget.</li> </ul>

3	M.A.III Sem Economics	International Economics	<ul style="list-style-type: none"> <li>• International trade and economics development.</li> <li>• Commercial policies and its instruments.</li> </ul>
		Labour Economics	<ul style="list-style-type: none"> <li>• Third world related to labour standard.</li> <li>• Demand for labour in relation to size and pattern of investment.</li> <li>• Employment and development relationship- poverty and unemployment.</li> </ul>
		Industrial Economics	<ul style="list-style-type: none"> <li>• Role and importance of industrializations.</li> <li>• Growth of the firm size and growth of a firm.</li> </ul>
			<ul style="list-style-type: none"> <li>• Industrial policy in Indian.</li> </ul>
4	M.A.IV Sem Economics	Indian Economics Policy and Issues	<ul style="list-style-type: none"> <li>• Frame work of Indian economics.</li> <li>• Trend and structure of national incomes.</li> <li>• Economics reforms in Indian.</li> <li>• Multinational corporation and forage capital.</li> </ul>
		Demography	<ul style="list-style-type: none"> <li>• Components of population growth and their enter dependence.</li> <li>• Population trends in the twentieth Century, population explosion.</li> <li>• Life table construction and uses concepts of stable populations.</li> </ul>
		Labour Economics-II	<ul style="list-style-type: none"> <li>• Analysis of rigidity in labour markets.</li> <li>• Theories of labour movements.</li> <li>• State and labour security of labour.</li> <li>• Globalization and labour market.</li> </ul>
		Industrial Economics-II	<ul style="list-style-type: none"> <li>• Regional industrial growth in India.</li> <li>• Cost benefit analysis.</li> <li>• Structure of industrial labour.</li> <li>• Labour market reforms.</li> </ul>

# RAJMATA SCINDIA GOVT. PG GIRLS COLLEGE, CHHINDWARA

## LEARNING OUTCOMES

### DEPARTMENT OF ENGLISH

Bachelor of Art

#### Program Outcome

Govt. College Junnardeo undergraduate English students should be able to: Demonstrate a broad understanding of literatures in English and translation and appreciate the role that historical context plays in the creation and interpretation of literary works Engage questions of justice, value, spirituality, and meaning raised by literary texts Read, closely analyze, interpret, and produce texts in a variety of formats and genre For Literature: Draw from different critical perspectives and appreciate how differences in theoretical framework can produce multiple readings of a text.

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

S.N.	Class	Paper Name	Learning Outcomes
01	BA Ist Year Paper Ist	Poetry	To familiarize students with excellent pieces of poetry in English so that they realize the beauty and communicative power of English. To develop students' interest in reading literary pieces
02	BA Ist Year Paper IInd	Prose	To familiarize students with excellent pieces of Prose in English so that they realize the beauty and communicative power of English. To develop students' interest in reading literary pieces
03	BA IInd Year Paper Ist	Drama	To encourage students to make a detailed study of a few sample masterpieces of English Drama from different parts of the world. To develop interest among the students to appreciate and analyze drama independently
04	BA IInd Year Paper IInd	Fiction	To introduce students to the basics of novel as a literary form. To make students aware of different types and aspects of novel. To expose students to some of the best examples of novel.
05	BA IIIrd Year Paper Ist	Contemporary literature	To acquaint students with the basic concepts and issues in Literature and various sub-disciplines of Literature. To enhance the knowledge of learners syntactic features of the English literature.
06	BA IIIrd Year Paper IInd	Indian English Literature	After Completion of this Course Students will be able to ... How and why Indian literature emerged as a distinct field of study. Trace the development of history of English literature from its beginning to the present day. Interpret the works of great writes of Indian writers in English. Demonstrate, through discussion and writing, an understanding of significant cultural and societal issues presented in Indian English literature.

07	BA BCom BSc first year learning outcomes	Foundation course English language	Students will review the grammatical forms of English and the use of these forms in specific communicative contexts, which include: class activities, homework assignments, reading of texts and writing Students will attain and enhance competence in the four modes of literacy: writing, speaking, reading and listening Students will develop their ability as critical readers and writers Student will produce a short research paper using the drafting process.
08	BA BCom BSc second year	Foundation course English language	Students will develop reading skills and reading speed Students will read and expand their vocabulary Students will develop abilities as critical thinkers, readers and writers Students will attain and enhance competence in the four modes of literacy: writing, speaking, reading & listening
09	BA BCom BSc e final year	Foundation course English language	Students will write 3 summaries in which they will communicate appropriately, accurately and effectively what has been read Students will achieve these outcomes through the development of the following skills: focused reading skills work and exams; discussions of longer articles; and summary writing including the drafting process.

# RAJMATA SCINDIA GOVT. PG GIRLS COLLEGE, CHHINDWARA

## LEARNING OUTCOMES

### DEPARTMENT OF HOME SCIENCE

Bachelor of Art

#### **Program outcome**

Bachelor of Art program under Department of Home Science will develop professional skills in food nutrition, textiles, housing and ultimately human development. This program will provide well being of individual, families and the whole communities.

#### **Course outcome**

- Understand the importance of food and health to enhance the quality of life of people.
- Acquire professional and entrepreneurial skills for economic empowerment of self in particular and community in general.
- Students become aware of the interdisciplinary of Home Science education and its potential for personal and professional enhancement.

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

S.NO.	Class	Paper name	Learning outcome
1.	B.A. First year	Family Resource Management	<ul style="list-style-type: none"><li>• To understand the fundamentals of resource management in a changing scenario.</li><li>• To inculcate skill in identifying, creating, selecting and using available resources.</li><li>• To understand the scientific application of the process of management in the judicious use of resources.</li></ul>
2.		Human Development	<ul style="list-style-type: none"><li>• Developing awareness of important aspects of development during the life span of an individual.</li><li>• Become acquainted with developmental stages from birth to old age.</li><li>• Perceive the importance of family and the community in the development of the children with social needs.</li></ul>
3.	B.A. Second year	Clothing and Textile	<ul style="list-style-type: none"><li>• Gain knowledge on the characteristics of fabrics and their use.</li><li>• Understand the methods of maintaining different fabrics, their finishing and storage.</li><li>• Learn the basic stitching skills, basic printing and acquiring knowledge about embroidery.</li></ul>
4.		Personal Empowerment	<ul style="list-style-type: none"><li>• The student will become aware of the need competencies and skills to be developed for empowerment.</li><li>• Personality development and personal growth.</li></ul>
5.	B.A. Third year	Foods and Nutrition	<ul style="list-style-type: none"><li>• Understand the concept of food and nutrition.</li><li>• Understand the effects of cooking of food.</li><li>• Create awareness about food representation, meal planning and nutritional requirement.</li></ul>

6.		Extension and Communication	<ul style="list-style-type: none"><li>• To understand the concept of communication and its relevance for self and national development.</li><li>• To appreciate the role of home science extension in community development.</li><li>• To sensitize students towards identifying methods and prepare suitable materials for effective communication.</li></ul>
----	--	-----------------------------	--

# RAJMATA SCINDIA GOVT. PG GIRLS COLLEGE, CHHINDWARA

## LEARNING OUTCOMES

### DEPARTMENT OF PHYSICS

Bachelor of Science

#### Program outcome

Physics subject is being studied at the undergraduate level in the govt. college Junnardeo . In this course student will be familiar with various application of physics . They obtained the knowledge in the field of Electricals, Electronics, Nano materials , Nuclear physics and Thermodynamics processes.

#### Course Outcome

- The course intends to acquire knowledge about mathematical physics, general properties of matter, thermodynamics experiments and statistical physics concepts.
- Students get the practical aspects about light and electricity applications.
- Students get the knowledge in the field of semiconductor technology and atomic and molecular spectroscopy .

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

S.No	Class	Paper name	Learning outcomes
1	B.sc. First Year	Mathematical Physics, Mechanics and Properties of Matter	<ul style="list-style-type: none"><li>• Understand the scalar and vector addition , subtraction and product . Divergence and curl .</li><li>• Gravitational law and field , Newton's law and its explanation with problems.</li><li>• Elastic module and their relations , applications of surface tension and viscosity.</li><li>• Concept of oscillation with example , moment of inertia and their products .</li><li>• Michelson – Morley experiment and its outcome.</li></ul>
		Thermodynamics and Statistical Physics	<ul style="list-style-type: none"><li>• Understand the concept of Thermodynamics rules , Carnot's theorem and its applications .</li><li>• Concept of entropy and Liquefaction of gases.</li><li>• Description of a system .</li><li>• Statistical Mechanics , Quantum Statistics .</li><li>• Contributions of Physicists (S.N. Bose , Fermi , Bardeen etc. )</li></ul>

2	B.Sc. second year	Optics	<ul style="list-style-type: none"> <li>• Studies about the Geometrical Optics and waves .</li> <li>• Interference of Light (Fabry – Perot interferometer).</li> <li>• Studies about the Diffraction .</li> <li>• Understanding the process of Polarization .</li> <li>• Fibre Optics and Laser .</li> </ul>
		Electrostatics , Magneto statics and Electrodynamic	<ul style="list-style-type: none"> <li>• Studies about the fundamentals of electrostatics.</li> <li>• Understand the Lorentz force</li> </ul>
			<p>equation and definition B. ampere’s law.</p> <ul style="list-style-type: none"> <li>• Studies about current electricity and bioelectricity</li> <li>• Studies about motion of charge particles in electric and magnetic fields.</li> <li>• Electromagnetic induction, faraday’s laws, Rayleigh scattering, fresnel’s laws.</li> </ul>
3.	B.Sc. 3 <sup>rd</sup> year	Quantum mechanics and spectroscopy	<ul style="list-style-type: none"> <li>• Studies about the particles and waves, photo electric effect, schrodingers equation .</li> <li>• Time dependent schrodingers equations.</li> <li>• Atoms in electric and magnetic fields .</li> <li>• Studies of the various types of spectra raman effect and its applications.</li> <li>• Understand the Basic properties of nucleus ,nuclear fission and fusion.</li> </ul>
		Solid state physics and devices	<ul style="list-style-type: none"> <li>• Studies on the crystal structure an bonding.</li> <li>• Lattice structure and properties.</li> <li>• Studies about the semiconductor devices and characteristics of transistor.</li> <li>• Studies about the emplifiers, CB,CE and CC configuration, modulation and demodulation.</li> <li>• Studies about the nano structures and applications of nano materials</li> </ul>

**RAJMATA SCINDIA GOVT. PG GIRLS COLLEGE, CHHINDWARA**

**LEARNING OUTCOMES**

**DEPARTMENT OF POLITICAL SCIENCE**

Bachelor of Art

**Program Outcome**

Bachelor of Art of Art program under the Department of political science will develop intense knowledge of economy and its importance in every aspect of life.

S.N.	Class	Papers name	Learning outcome
1	B.A. I Year	Basic principle of political science	<ul style="list-style-type: none"> <li>• Student know political science defination, nature and scope</li> <li>• Understand political parties and pressure group</li> </ul>
		Indian government and politics	<ul style="list-style-type: none"> <li>• Understand unitary and federal government, parliament and presidential government</li> <li>• Know a brief of history of Indian national movement</li> <li>• Understand Indian constitution</li> <li>• Understand Union executive, cabinet, prime minister, state executive, chief minister, India parliament ,state legislature, High Court and Supreme Cou</li> </ul>
2	B.A. II Year	Representative political thinker	<ul style="list-style-type: none"> <li>• Understand salient features of ancient indian political thought-manu, kautilya</li> <li>• Know the salient features of westorn political thought-plato, Aristole</li> <li>• Know the salient features of modern political thought-Gandhi, Ambedkar, Ram manohar lohia,Mn rai, Lenin,Marx,Js mill,Lock,Rousseau, Hobbes, Machiavelli, Benthum</li> </ul>
		Constitution of major countries	<ul style="list-style-type: none"> <li>• Know the salient features of American constitution</li> <li>• Know the salient features of British constitution</li> <li>• Know the salint features of swiss constitution and china constitution</li> </ul>
		Indian foreign policy	<ul style="list-style-type: none"> <li>• Know the indian foreign policy, India and super power relation</li> <li>• Understand regional organization</li> <li>• Understand contemporary international issues</li> </ul>

3	<b>B.A. III Year</b>	Public administration	<ul style="list-style-type: none"><li>• Understand the public administration and organisation</li><li>• Understand the financial administration, personal administration</li><li>• Understand role of beurocracy, panchayat raj institution</li></ul>
---	------------------------------	--------------------------	---

# RAJMATA SCINDIA GOVT. PG GIRLS COLLEGE, CHHINDWARA

## LEARNING OUTCOMES

### DEPARTMENT OF SOCIOLOGY

Bachelor of Art & Master of Art

#### Program Outcome

Bachelor of Art & Master of Art programs under the Department of Sociology will develop critical understanding of society and its relations to each individual residing in it.

#### Course outcome

- Understand the importance of all the factors of society with the aspect of Sankritization, Westernization, and Secularization.
- Acquire skills to solve emerging problems in nowadays social life.
- Students become aware of the interdisciplinary of sociology and its potential for personal and professional enhancement.

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

S.No.	Class	Paper name	Learning outcome
1.	B.A. First year	Basic Concepts of Sociology	<ul style="list-style-type: none"><li>• To develop understanding the basic concepts, nature, scope and importance of Sociology.</li><li>• Develop understanding social structure, status, role and culture.</li><li>• To develop understanding of society, community and what is social change.</li></ul>
2.		Indian Society	<ul style="list-style-type: none"><li>• To develop understanding on Indian Society.</li><li>• Explain caste, class, family and marriages.</li><li>• Enable to take stand against problems such as; Dowry, Domestic violence, Castism, Regionalism, Communalism, Cyber-crime and Gender Equality.</li></ul>
3.	B.A. Second year	Social Processes and Change	<ul style="list-style-type: none"><li>• To develop the concept of social structure and social organization.</li><li>• Introduce the Social disorganization concept.</li><li>• To understand Social Legislation- Domestic Violence Act 2005, Atrocities Act 1989, Human Right Act 1993.</li></ul>
4.		Rural, Urban and Tribal Society	<ul style="list-style-type: none"><li>• Develop understanding rural leadership, Panchayati Raj, Peasant Tensions.</li><li>• Various discussions on Urban Society.</li><li>• Explanation on Tribes, meaning and characteristics to develop understanding on Tribal problems.</li></ul>

5.	<b>B.A. Third year</b>	Sociological Thinkers	<ul style="list-style-type: none"> <li>• Understand the law of three stages of Auguste Comte.</li> <li>• Understand the theory of Authority of Max Weber.</li> <li>• The students understand the Sankritization, Westernization, and Secularization of M.N. Srinivas.</li> </ul>
6.		Method of Social Research	<ul style="list-style-type: none"> <li>• Students understand the Social Research importance of scientific method.</li> <li>• Understand the Testing Research Design, Central tendency and presentation of Data.</li> <li>• Students learn the use of computer in Social Research.</li> </ul>
7.	<b>M.A. First Sem</b>	Classical Sociological Traditions	<ul style="list-style-type: none"> <li>• Students understand the brief history of development of social thought of Auguste Comte.</li> <li>• Understand the theory of social change of Karl Marx and intellectual background of Emile Durkheim.</li> <li>• Know the theory of Authority and power; theory of conspicuous and consumption.</li> </ul>
8.		Methodology of Social Research	<ul style="list-style-type: none"> <li>• Develop scientific approach and nature of social reality among social researchers.</li> <li>• Ethnography-how do you used this methods and practicable for social phenomena.</li> <li>• Logic of inquiry of social researches its utility for development of scientific temperament.</li> </ul>
9.		Rural Society in INDIA	<ul style="list-style-type: none"> <li>• Comprehend the basic concepts of rural society and folk society.</li> <li>• Rural political life-useful for students who want to enter politics.</li> <li>• Rural problem-how to overcome rural poverty as a practical approach.</li> </ul>
10.		Urban Society in INDIA	<ul style="list-style-type: none"> <li>• To understand Urbanization. To explain students changing patterns of Urbanization in Recent Times.</li> <li>• Explanation on classification of urban centre.</li> <li>• To develop the concept of occupation and town planning.</li> </ul>
11.		Classical Sociological Traditions	<ul style="list-style-type: none"> <li>• Know the impact of industrial revolution in society and economy &amp; positivism.</li> <li>• Durkheim-theory of suicide and methodology.</li> <li>• Theory of Bureaucracy of Max Weber.</li> </ul>
12		Methodology of Social Research	<ul style="list-style-type: none"> <li>• Understand the quantitative methods and survey research and affirmative action developed by social researcher.</li> <li>• Application of computer and enable to write reports.</li> <li>• Thinking process developed among students from Sociometry.</li> </ul>
	<b>M.A.</b>		

13.	<b>Second Sem</b>	Rural Society in INDIA	<ul style="list-style-type: none"> <li>Do field work and collect the data for affecting rural society positively.</li> <li>Understand digital India and information approach.</li> <li>Understand green revolution and social change.</li> </ul>
14.		Urban Society in INDIA	<ul style="list-style-type: none"> <li>Develop understanding of urban family and its recent trends.</li> <li>To know about Indian city, housing problems, slums and its growth.</li> <li>Enable to understand metropolis local governance in urban community.</li> </ul>
15.	<b>M.A. Third Sem</b>	Sociology of Kinship, marriage and family	<ul style="list-style-type: none"> <li>To develop concept of marriage and it's types.</li> <li>Awareness regarding various problems of matrimony and divorce.</li> <li>Impact of globalization.</li> </ul>
16.		Indian Society and Culture	<ul style="list-style-type: none"> <li>Components of Indian society - Demographic, religious, linguistics and cultural group.</li> <li>Aware of social life and changes.</li> </ul>
17.		Criminology	<ul style="list-style-type: none"> <li>Understand the concept of crime.</li> <li>Cyber crime</li> <li>Know the punishment.</li> </ul>
18.		Tribal Society in INDIA	<ul style="list-style-type: none"> <li>Get new approaches, status and role of women in tribal society.</li> <li>Socio-economic profile and development of tribes.</li> <li>Tribal culture and various forms of tribal institutions.</li> </ul>
19.		Sociological Essay	<ul style="list-style-type: none"> <li>Generate understanding for social activities like; N.G.O., Human Rights and self help group etc.</li> <li>Develop entrepreneur skills.</li> </ul>
20		Theoretical Perspective in Sociology	<ul style="list-style-type: none"> <li>To explain formation process of sociological theory.</li> <li>Understand the functional dimensions of social system of T. Parsons.</li> <li>Understand the Ethnomethodology.</li> </ul>
21.	<b>M.A. Fourth Sem</b>	Sociology of Change and Development	<ul style="list-style-type: none"> <li>Explain culture as an aid to development.</li> <li>Know development capitalist.</li> <li>Approaches and strategies of planning and development.</li> </ul>
22.		Political Sociology	<ul style="list-style-type: none"> <li>Understand political system and it's classification.</li> <li>Develop understanding of democratic system, characteristics, merits and types of democracy.</li> <li>General public opinion.</li> </ul>
23.		Project Work / Dissertation	<ul style="list-style-type: none"> <li>To understand the importance of social life and use it to make a good society.</li> </ul>

# RAJMATA SCINDIA GOVT. PG GIRLS COLLEGE, CHHINDWARA

## LEARNING OUTCOMES

### DEPARTMENT OF ZOOLOGY AND BIOTECHNOLOGY

Bachelor of Science

#### Program outcome

Bachelor of Science program under Department of Zoology must enable students to attain, by the time of graduation: an ability to apply obtained knowledge and an ability to identify, formulate, and develop solutions to scientific challenges. Apply their knowledge in problem solving and future course of their career development in higher education and research.

#### Course outcome-

- The course gives an opportunity to the students to acquire practical knowledge on ecological systems by visiting places of zoological interest.
- The course makes the students familiar with tools and techniques used in biological study.
- The project assignment will also give them a flavor of research to find the process involved in studying zoology besides improving their writing skills.

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

S. N.	Class	Paper name	Learning outcomes
<b>ZOOLOGY</b>			
1.	<b>B.Sc. first year</b>	Invertebrates	<ul style="list-style-type: none"><li>• Comprehend the basic concepts of animal taxonomy and zoological nomenclature.</li><li>• Develop understanding on the diversity of life with regard to Invertebrates.</li><li>• Group animals on the basis of their morphological characteristics/ structures.</li><li>• Develop critical understanding how animals changed from a primitive cell to a collection of simple cells to form a complex body plan.</li></ul>
2.		Cell biology and Developmental Biology	<ul style="list-style-type: none"><li>• Understand the functioning of nucleus and extra nuclear organelles and understand the intricate cellular mechanisms involved.</li><li>• Develop critical understanding how a single-celled fertilized egg becomes an embryo and then a fully formed adult by going through three important processes of cell division, cell differentiation and morphogenesis.</li><li>• Explain and contrast the processes of spermatogenesis, oogenesis.</li></ul>
3.		Vertebrates and Evolution	<ul style="list-style-type: none"><li>• Enable the students to understand the evolution of the universe and life.</li><li>• Understanding of the process and theories in evolutionary biology.</li><li>• Develop an interest in the debates and discussion taking place in the field of evolutionary biology.</li></ul>

4.	<b>B.Sc. Second year</b>	Animal Physiology and Biochemistry	<ul style="list-style-type: none"> <li>• Understand about the importance and scope of biochemistry.</li> <li>• Understand the structure and biological significance of carbohydrates, proteins, lipids and nucleic acids.</li> <li>• Understand the concept of enzyme, its mechanism of action and regulation. Learn biochemical tests for amino acids, carbohydrates, proteins and nucleic acids.</li> <li>• Understand the process of digestion and its control.</li> <li>• Understand the organization of the nervous system and process of nerve conduction.</li> <li>• Develop understanding in muscle structure and contraction mechanism</li> <li>• Learn the process of respiration and transport of gases, understand kidney structure and regulation of urine formation and understand function of endocrine glands and the mechanism of hormone action.</li> </ul>
5.	<b>B.Sc. Third year</b>	Genetics	<ul style="list-style-type: none"> <li>• Understand how DNA encodes genetic information and the function of mRNA and tRNA.</li> <li>• Understand the process of DNA replication, transcription and translation.</li> <li>• Apply the principles of Mendelian inheritance.</li> <li>• Understand the cause and effect of alterations in chromosome number and structure.</li> <li>• Discuss and analyze the epigenetic modifications and imprinting and its role in diseases.</li> <li>• Get new avenues of joining research in related areas such as genetic engineering of cells, cloning, genetic disorders etc.</li> </ul>
6.		Ecology and Applied Zoology	<ul style="list-style-type: none"> <li>• Know the evolutionary and functional basis of ecology.</li> <li>• Solve the environmental problems involving interaction of humans and natural systems at local or global level.</li> <li>• Develop the ability to use the fundamental principles of wildlife ecology to solve local, regional and national conservation and management issues.</li> <li>• Understand the culture techniques of prawn, pearl and fish.</li> <li>• Understand silkworms rearing and their products. Learn various concepts of lac cultivation.</li> </ul>

<b>BIOTECHNOLOGY</b>			
1.	<b>B.Sc. first year</b>	Cell structure and Biology	<ul style="list-style-type: none"> <li>• Students will learn basic concepts of prokaryotic and eukaryotic cell</li> <li>• How cell generates and utilize energy.</li> <li>• Understand about cell cycle and cell division.</li> </ul>
2.		Microbiology	<ul style="list-style-type: none"> <li>• Basic concepts of microbiology and instruments.</li> <li>• History and Development of microbiology.</li> <li>• Gather knowledge to work with microbes and microscope.</li> <li>• Create understanding of microbiology in human welfare.</li> </ul>
3.	<b>B.Sc. Second year</b>	Biophysics and Biochemistry	<ul style="list-style-type: none"> <li>• Comprehend knowledge of general biophysical methods.</li> <li>• Develop understanding about fundamental of biochemistry.</li> <li>• Concepts of different crystal structures.</li> <li>• Learn about chemical structure of various atoms.</li> </ul>
4.		Bioinstrumentation, Biostatistics and Bioinformatics	<ul style="list-style-type: none"> <li>• Introduction to Biostatistics, their scope and application.</li> <li>• Learn various biostatistics methods.</li> <li>• Learn database for Bioinformatics.</li> <li>• Basic knowledge of bioinstrumentation.</li> </ul>
5.	<b>B.Sc. Third year</b>	Molecular Biology and Genetic Engineering	<ul style="list-style-type: none"> <li>• Basic concepts of DNA and RNA.</li> <li>• Learn about the DNA replication, Transcription and Translation.</li> <li>• Basic features of genetic code.</li> <li>• Develop critical understanding of genetic engineering and procedures.</li> </ul>
6.		Applied Biotechnology	<ul style="list-style-type: none"> <li>• Enable students to take professional and scientific communication appropriate for biotechnology.</li> <li>• Learn about commonly use cell lines.</li> <li>• Fundamental of plant and animal tissue culture.</li> </ul>