

**2.6.1 Programme outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution**

**ARTS**

<b>Programme : Psychology</b>	
<b>Programme Outcome</b>	• To enhance and encourage knowledge and understanding of psychology.
	• To apply the knowledge of psychology in various settings such as personal, professional and social environment.
<b>Programme Specific Outcomes</b>	• Student become aware and prepare themselves for various courses such as MA, MSW and MBA.
	• Students develop self awareness , confidence and competency for using the skills of psychology.
<b>Course Outcome</b>	• Students pursue higher education.
	• At the end of the course, the students develop self awareness and
<b>Programme : Geography</b>	
<b>Course Outcome : Geography and Environmental Studies</b>	
<b>Course outcome</b>	BA and B.Com courses are designed in six semesters. Our college offers Geography as optional subject in B.A course at F.Y. and S.Y. levels as Environmental Studies is compulsory subject in B.Com course at F.Y level.
<b>Course and</b>	<b>Outcome</b>
<b>F.Y.B.A</b>	<b><u>Geography : At F.Y.B.A level 2 papers are included in Sem I and II</u></b>
<b>I. Geomorphology</b>	• Understand structure of interior of earth with Continental drift and Wegner's theories.
	• Study Endogenic processes like folding, faulting, volcanoes and earthquakes.
	• Study Exogenic processes like erosion, mass wasting, land forms created by river, glacier, underground water and sea waves.
<b>II. Human Geography</b>	• Understand branches and approach of human geography, migration and population.
	• Gain knowledge about types and patterns of settlement with practical topic 'Nearest Neighbour Analysis'.
<b>S.Y.B.A</b>	<b><u>Geography : At S.Y.B.A level 4 papers are included in Sem III and IV</u></b>

<b>III. Physical Geography of India</b> <b>IV. Agriculture Geography of India</b> <b>V. Oceanography</b> <b>VI. Climatology</b>	<ul style="list-style-type: none"> <li>• Understand Physiographic divisions of India, rivers, climate, soils ,natural vegetation and mineral resources distribution with map filling of India .</li> </ul>
	<ul style="list-style-type: none"> <li>• Gain the knowledge about agricultural types, practices, green revolution and recent trends in agriculture.</li> </ul>
	<ul style="list-style-type: none"> <li>• Practical application of agricultural geography through thematic map interpretation and preparation of graphs and statistical diagrams.</li> </ul>
	<ul style="list-style-type: none"> <li>• Understand climatology and oceanography as branches of physical Geography. It includes study of atmosphere, wind circulation, humidity, precipitation, climate weather phenomena, bottom ocean relief, movements of ocean water, marine pollution and man and ocean relationship.</li> </ul>
	Practicals of world map filling.
<b>F.Y.B.COM</b>	<b>Environmental Studies: At F.Y.B.Com level 2 papers are included in Sem I and II</b>
<b>I. Environmental Studies</b>	<ul style="list-style-type: none"> <li>• Understand basic concepts in environmental studies like eco-system, food chain, food web, natural resources, population, problems of urbanisation.</li> </ul>
	<ul style="list-style-type: none"> <li>• Create awareness about various environmental problems like pollution, global warming, ozone depletion and degradation of natural resources.</li> </ul>
	<ul style="list-style-type: none"> <li>• Gain the knowledge about waste, tourism, environmental movements, use of geo-spatial technology like GIS, GPS and remote sensing in environmental management.</li> </ul>
	<ul style="list-style-type: none"> <li>• Marking and naming the environmentally significant features on outline maps of the World, Kokan and Mumbai.</li> </ul>
<b>Programme : Foundation Course</b>	
<b>Course Outcome</b>	It includes topics from various streams of Arts, Science and Commerce. It is a compulsory subjects for first and second year students of Arts, Science & Commerce.
<b>Course</b>	<b>Outcome</b>
	After completion of following courses student should be able to
	<b>Sem I</b>
	<ul style="list-style-type: none"> <li>• Indian society.</li> </ul>
	<ul style="list-style-type: none"> <li>• Problems in India like language, conflict etc.</li> </ul>
	<ul style="list-style-type: none"> <li>• Basics of Indian constitution.</li> </ul>

<b>Foundation Course</b>	<ul style="list-style-type: none"> <li>• Political areas like Gram panchayat, Municipality, problems faced by political parties etc.</li> </ul>
	<b>Sem II</b>
	<ul style="list-style-type: none"> <li>• Globalization, human rights, environment, ethics, stress etc.</li> </ul>
	<b>Sem III</b>
	<ul style="list-style-type: none"> <li>• Human rights, NHRC, ecology, science and technology and soft skills in communication.</li> </ul>
	<b>Sem IV</b>
	<ul style="list-style-type: none"> <li>• Citizen rights like consumers right, PIL, RTI.</li> <li>• Various approaches to ecology like anthropocentrism.</li> <li>• Recent technologies like Laser, Biotech, computer, etc.</li> <li>• Soft skills in vacation and career, theories of motivation etc.</li> </ul>
<b>Programme : Economics</b>	
<b>Programme outcome</b>	<ul style="list-style-type: none"> <li>• Graduate of this degree will be critical thinkers in relation to microeconomics and macroeconomics.</li> </ul>
<b>Programme specific outcomes</b>	<ul style="list-style-type: none"> <li>• Students will be able to describe and explain the fundamental principal influencing markets.</li> </ul>
	<ul style="list-style-type: none"> <li>• Evaluate the impact of various social, political and environmental factors on economic policy.</li> </ul>
	<ul style="list-style-type: none"> <li>• Interpret and evaluate articles in economic research and literature.</li> </ul>
<b>Course Outcome</b>	
<b>Course</b>	<b>Outcome</b>
	After completion of following courses student should be able to understand
<b>Economics</b>	<b>F.Y.B.A./S.Y.B.A</b>
	<ul style="list-style-type: none"> <li>• Basic principles of Economics to help the students understand the different concepts.</li> </ul>
	<ul style="list-style-type: none"> <li>• Methods and tools used in economic analysis to help students understand the complex economic issues.</li> </ul>
	<ul style="list-style-type: none"> <li>• Importance of trade, market, demand and supply in economic</li> </ul>
	<ul style="list-style-type: none"> <li>• The concepts of Cost, revenue market structures, pricing policies used in production process in Business decision.</li> </ul>
	<ul style="list-style-type: none"> <li>• The students should understand the trends in Maharashtra economy through understanding economic survey and other older published.</li> </ul>
	<ul style="list-style-type: none"> <li>• The students understand the issues in Indian Economy like fiscal</li> </ul>

	<ul style="list-style-type: none"> <li>• The students understand the issues in Indian Economy like fiscal framework universal basic incomes, health and fertility etc.</li> </ul>
<b>Micro economics and Macroeconomics</b>	<b>T.Y.B.A (Economics)</b>
	<ul style="list-style-type: none"> <li>• This is advanced Economics theory helping the students to understand the specific issues of monopoly, oligopoly, game theory etc.</li> </ul>
	<ul style="list-style-type: none"> <li>• General Equilibrium and Welfare Economics teaches them macro economic impact of policy decisions.</li> </ul>
	<ul style="list-style-type: none"> <li>• The topics on international trade and policy help students understand the its importance in the economy.</li> </ul>
<b>Economics of Development and International Economics</b>	<ul style="list-style-type: none"> <li>• This course inculcates diverse concepts related to economic growth and development.</li> </ul>
	<ul style="list-style-type: none"> <li>• It creates an awareness on policy options, the pressing problems on the part of development such as inequality, poverty and technological aspects.</li> </ul>
	<ul style="list-style-type: none"> <li>• The modules on international trade helps students understand the composition, direct and consequences international trade.</li> </ul>
	<ul style="list-style-type: none"> <li>• Students also learn causes and consequences of international financial flows.</li> </ul>
<b>Economics of Agriculture and cooperation</b>	<ul style="list-style-type: none"> <li>• Students should understand the role of agriculture in Economics Development.</li> </ul>
	<ul style="list-style-type: none"> <li>• Problems related to agricultural productivity, labour, credit, marketing, technology etc.</li> </ul>
	<ul style="list-style-type: none"> <li>• The paper on Cooperation is designed to provide various aspects of cooperation and cooperatives organization in the globalized economy.</li> </ul>
<b>Research Methodology</b>	<ul style="list-style-type: none"> <li>• Students understand the principals and methods of economic research based on qualitative and quantitative data.</li> </ul>
	<ul style="list-style-type: none"> <li>• Students get an insight unto the applications of modern analytical tools and techniques related to economic decision making.</li> </ul>
	<ul style="list-style-type: none"> <li>• This also strengthens the Critical thinking and listening skills in conducting economic research.</li> </ul>
<b>Environmental Economics and Development theory and experience</b>	<ul style="list-style-type: none"> <li>• Students understand the economic course of environmental problems.</li> </ul>
	<ul style="list-style-type: none"> <li>• Policies formulation for environment issues are understand .</li> </ul>
	<ul style="list-style-type: none"> <li>• The development theory paper helps students learn the demographic concepts market failures, migration etc.</li> </ul>

<b>History Economic thought and International Trade policy and practice</b>	• The course provide basic understanding about the celebrated economics and their contributions.
	• It helps students to know the contributions of Nobel laureates.
	• The paper on International Trade Policy and Practice exposes students to current trends in International development.
<b>Programme : Marathi</b>	
<b>Course Outcome</b>	
<b>Course</b>	<b>Outcome</b>
	After completion of following courses student should be able to understand
<b>मराठी</b>	<b>F.Y.B.A. Compulsory- मराठी</b>
	• मराठी कथा व कवितांचा प्राथमिक परिचय असला पाहिजे.
	• मराठीतून कार्यालयीन पत्रव्यवहार अवगत होणे अभिप्रेत.
	<b>F.Y.B.A Marathi Literature – Paper No. 01</b>
	• नाटक व प्रवासवर्णन या वाङ्मय प्रकारांचे भान आवश्यक.
	• मराठी नाटक व प्रवासवर्णनाच्या परंपरेचे भान आवश्यक.
	<b>S.Y.B.A. Marathi Paper No. 02</b>
	• कादंबरी व आत्मकथन या वाङ्मयप्रकारांचे भान आवश्यक.
	• मराठी कादंबरी व आत्मकथनाच्या परंपरेचे भान आवश्यक.
	<b>S.Y.B.A. Marathi Paper No. 03</b>
	• भाषाविज्ञान व बोली यांचे किमान ज्ञान आवश्यक.
	• मालवणी बोलीचा परिचय आवश्यक.
	<b>T.Y.B.A. Marathi Paper No. 04</b>
	• प्राचीन मराठी वाङ्मयाचा इतिहास, प्राचीन मराठी वाङ्मयाची परंपरा व त्यातील महत्वाचे प्रवाह व त्यांची स्वरूप वैशिष्ट्ये यांचे भान आवश्यक.
<b>T.Y.B.A. Marathi Paper No. 05</b>	
• भारतीय व पश्चात्य साहित्यशास्त्राचे भान व त्यामागील सिद्धांत यांचा	
<b>T.Y.B.A. Marathi Paper No. 06</b>	
• साहित्य व समाज यांच्या तांत्रिक संबंधाचे भान आवश्यक.	
• मराठीतील काही प्रमुख वाङ्मयीन प्रवाहांचे ज्ञान आवश्यक.	
<b>SCIENCE</b>	
2.6.1 Programme outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution	
<b>Programme : Chemistry</b>	

<b>Programme outcome</b>	After successful completion of three years programme in Chemistry a student should be able to
	<ul style="list-style-type: none"> <li>• Use modern instruments like spectrophotometer, flame photometer, nephelometer, colorimeter, pH meter and classical techniques such as chromatography, HPTLC to design experiments &amp; to properly record result of their experiments .</li> </ul>
	<ul style="list-style-type: none"> <li>• Demonstrate solve &amp; understand major concepts in all disciplines of chemistry.</li> </ul>
	<ul style="list-style-type: none"> <li>• Employ critical thinking and the scientific knowledge to design, carry out, record and analyse the results of Chemical reactions.</li> </ul>
	<ul style="list-style-type: none"> <li>• Create awareness of the impact of the chemistry on the environment, society &amp; development of outside the scientific community.</li> </ul>
	<ul style="list-style-type: none"> <li>• Follow proper procedures &amp; regulations for safe handling when using hazardous chemical as well as regular chemicals.</li> <li>• Find game full environment in industry, pharmaceutical industries, forensic laboratories, in schools, etc.</li> </ul>
<b>Programme specific outcomes</b>	<ul style="list-style-type: none"> <li>• Gain knowledge of chemistry through theory &amp; practicals.</li> </ul>
	<ul style="list-style-type: none"> <li>• Explain nomenclatures, structures, reactivity, stereochemistry, reaction mechanisms of chemical reaction, spectral analysis of various compounds.</li> </ul>
	<ul style="list-style-type: none"> <li>• Identify chemical formulae, balance chemical reaction, solve various numerical problems &amp; derivations.</li> </ul>
	<ul style="list-style-type: none"> <li>• Use modern chemical tools, models, charts &amp; equipments.</li> </ul>
	<ul style="list-style-type: none"> <li>• Understand good laboratory practises &amp; safety.</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop research oriented attitude &amp; skills.</li> </ul>
<b>Course Outcome</b>	B.Sc. course is design in six semesters which includes the study of four branches of chemistry i.e. Physical, Organic, Inorganic & Analytical Chemistry and along with this at the last two semesters Drugs & Dyes as an applied component.
<b>Course</b>	<b>Outcome</b>
	After completion of following courses student should be able to understand
	<ul style="list-style-type: none"> <li>• The terms normality, molarity, molality , formality &amp; thermodynamic terms.</li> </ul>
	<ul style="list-style-type: none"> <li>• Write an expression for rate constant, solve numerical problems on same.</li> </ul>

<b>Physical Chemistry</b>	• Kinetic theory of gases, ideal gas law, law of mass action. Law of thermodynamics.
	• The effect of temperature on rate of reaction.
	• Arrhenius theory & collision theory.
	• Laws of crystallography.
	• Types of catalyst & catalysis and mechanism & kinetics of Michaelis Menten equation.
	• Concepts of Nuclear chemistry, working & construction of nuclear power .
	• Principle & detail study of rotational spectra, vibrational spectra, rotational-vibrational spectra & Raman spectra.
	• Concepts & application of colligative properties & numericals.
	• Detail study for classification of polymer & numericals.
	• Concept of quantum chemistry .
	• Principle, construction & working of NMR & ESR.
<b>Practicals</b>	• Classification of cells & applied electrochemistry.
	• Standardisation of secondary standard.
	• Chemical kinetics.
	• pHmetry, colorimetry.
	• Spectrophotometry.
<b>Organic Chemistry</b>	• Conductometric titration.
	• Nomenclature of organic compounds .
	• Fundamentals of organic reaction mechanism.
	• Types of organic reaction such as addition, elimination, substitution.
	• Bonding & structure of organic compounds with respect to hybridisation.
	• Classification & nomenclature & aromaticity of heterocyclic compounds related to this synthesis o furan, pyrrole, thiophene & pyridine and their reactivity.
	• Stereochemistry of SN1, SN2 & SNi reaction, addition reactions to olefins.
	• Stereoselectivity & stereospecificity of organic compounds.
	• Comparison between E1 & E2 reaction.
	• Study of amino acids, nucleic acid, proteins & carbohydrates.
	• IR, NMR spectroscopy theory & applications.
	• Types of synthesis of polymers & their applications.
	• Study of catalyst and reagents.
• Pericyclic reaction & their types, pyrolytic reactions.	



	• Molecular rearrangement reactions.
	• Photochemistry.
	• Amines.
	• Study of carbonyl compounds.
<b>Practicals</b>	• Chromatography of organic compound-Rf value.
	• Recrystallization.
	• Organic spotting.
	• Separation of binary compounds & identification of one the compound.
	• Preparation of derivative of organic compounds.
	• Conductometric titration.
	• Chemical kinetics.
<b>Inorganic Chemistry</b>	• Classification of elements in the periodic table.
	• Acid-base theories.
	• Basic concept of qualitative analysis.
	• Chemistry of group 13 elements along with structure of boranes & borax preparation, properties & uses.
	• Chemistry of group 14 elements along with purification of Si & Ge and their applications.
	• Chemistry of group 15 elements, chemistry of nitrogen compounds & synthesis of NH <sub>3</sub> by Hyber's process.
	• Study of ions in aqueous medium, Latimer equation.
	• Uses & environmental chemistry of volatile oxides & oxoacids like sulphuric acid, nitric acid & phosphoric acid & their adverse effect on environment & on living and non living objects.
	• Limitations of VBT.
	• MO diagrams of homonuclear diatomic molecules.
	• Born-hyber cycle & its application & numerical problems based on it.
	• Study of co-ordination compound with reference to nomenclature, types of ligands, Werner's co-ordination theory, structures of co-ordination compounds on the basis of VBT.
	• Chemistry of first, second & third series of transition elements with reference to their periodic position, electronic configuration, oxidation state, magnetic behaviour & colour and detection of elements of first transition series with the help of various semi-micro tests.



	<ul style="list-style-type: none"> <li>• Chemistry of titanium &amp; vanadium, their compounds, properties &amp; applications.</li> </ul>
	<ul style="list-style-type: none"> <li>• Bioinorganic chemistry, essential &amp; nonessential elements, role of Na, K in biological system.</li> </ul>
	<ul style="list-style-type: none"> <li>• Complete chemistry of lanthanides &amp; periodic positions of actinide.</li> </ul>
	<ul style="list-style-type: none"> <li>• MO diagrams of heteronuclear diatomic molecules such as HCl, CO, NO &amp; MO diagrams of Beryllium dihydride, water &amp; H<sub>3</sub><sup>+</sup> ions &amp; Walsh co-relation diagram.</li> </ul>
	<ul style="list-style-type: none"> <li>• Symmetry elements, point groups for H<sub>2</sub>, HCl, water, ammonia &amp; trans dichloro ethylene.</li> </ul>
	<ul style="list-style-type: none"> <li>• Chemistry of group 16 elements.</li> </ul>
	<ul style="list-style-type: none"> <li>• Manufacture of sulphuric acid by contact process involving physico chemical principles applied to pressure, temperature, effect of concentration &amp; types of catalyst.</li> </ul>
	<ul style="list-style-type: none"> <li>• Chemistry of group 17 &amp; 18 elements.</li> </ul>
	<ul style="list-style-type: none"> <li>• Chemistry of non aqueous solvents ammonia &amp; dinitrogen tetroxide.</li> </ul>
	<ul style="list-style-type: none"> <li>• Various types of solvents.</li> </ul>
	<ul style="list-style-type: none"> <li>• Metallurgy.</li> </ul>
<ul style="list-style-type: none"> <li>• Extraction of Cu.</li> </ul>	
<b>Practicals</b>	<ul style="list-style-type: none"> <li>• Standardisation of commercial samples.</li> </ul>
	<ul style="list-style-type: none"> <li>• Gravimetric analysis-% composition of a mixture.</li> </ul>
	<ul style="list-style-type: none"> <li>• Determination of % purity of water soluble salt &amp; qualitative detection with respect to added cation &amp; anion from impurity.</li> </ul>
	<ul style="list-style-type: none"> <li>• Inorganic preparation.</li> </ul>
<b>Analytical Chemistry</b>	<ul style="list-style-type: none"> <li>• Scope &amp; objectives &amp; role of analytical chemistry.</li> </ul>
	<ul style="list-style-type: none"> <li>• Terms involved in sampling &amp; types and techniques of sampling &amp; numericals.</li> </ul>
	<ul style="list-style-type: none"> <li>• Classical methods of analysis like titrimetric analysis &amp; gravimetric analysis.</li> </ul>
	<ul style="list-style-type: none"> <li>• Terms like primary &amp; secondary standard in titrimetric &amp; calculation involved .</li> </ul>
	<ul style="list-style-type: none"> <li>• Neutralisation titration- concept of pH, endpoint, equivalence point, construction of titration curve.</li> </ul>
	<ul style="list-style-type: none"> <li>• Types of gravimetric analysis.</li> </ul>
	<ul style="list-style-type: none"> <li>• Various steps involved in precipitation gravimetric analysis.</li> </ul>
	<ul style="list-style-type: none"> <li>• Applications of gravimetric analysis.</li> </ul>

	• Spectrometry.
	• Beer lambert law & its deviation.
	• Colorimeters & spectrophotometer (double beam & single beam) & detail component & applications.
	• Separation techniques like electrophoresis, solvent extraction, chromatography- principle, basic instrumentation & working.
	• Potentiometry, pH metry, conductometry- principle, construction, working, various type of electrodes.
	• Statistical treatment & analytical data.
<b>Practicals</b>	• Total hardness.
	• EDTA titrations.
	• Gravimetric and semi micro analysis.
	• Colorimetry.
	• Solvent extraction & paper chromatography.
	• Estimation of talcum powder.
	• COD of water sample.
	• Estimation of Zn & Mg by anion exchange resins.
	• Detection sulphate by turbidimeter.
• Detection of K by flame photometer.	
<b>Drugs &amp; Dyes</b>	• Concepts of drugs involving nomenclature & medicinal terms.
	• Various routes of drug administration .
	• Classification of drugs, synthesis of different kind of drugs like tramadol, paracetamol, sodium diclofenac, cetirizine, atenolol etc.
	• Concepts of dyes involving terms like solubility, linearity, coplanarity, substantivity, economic viability.
	• Types of dyes i.e. natural dyes, synthetic dyes & substrate for dyes.
	• Classification of dyes based on application & dyeing methods .
	• Unit process & dyeing intermediates.
	• Drug discovery, computer assisted design and development of drugs.
	• Synthesis of various drugs like antimalarial, antibiotics, antivirals, chemotherapeutics, antitubercular, anti HIV drugs.
	• Application of drugs & dyes in various fields.
<b>Practicals</b>	• Preparation of different drugs like aspirin, ibuprofen.
	• Separation of natural pigments by chromatography.
	• Estimation of acid.

<b>PG : Organic Chemistry</b>	
<b>Programme : Chemistry</b>	
<b>Programme outcome</b>	After successful completion of two years programme in Chemistry a student should be able to
	<ul style="list-style-type: none"> <li>• use modern instruments like spectrophotometer, flame photometer, nephelometer, colorimeter, pH meter and classical techniques such as chromatography, HPTLC to design experiments &amp; to properly record result of their experiments .</li> </ul>
	<ul style="list-style-type: none"> <li>• Demonstrate solve &amp; understand major concepts in all disciplines of chemistry.</li> </ul>
	<ul style="list-style-type: none"> <li>• Employ critical thinking and the scientific knowledge to design, carry out, record and analyse the results of Chemical reactions.</li> </ul>
	<ul style="list-style-type: none"> <li>• Create awareness of the impact of the chemistry on the environment, society &amp; development of outside the scientific community.</li> </ul>
	<ul style="list-style-type: none"> <li>• follow proper procedures &amp; regulations for safe handling when using hazardous chemical as well as regular chemicals.</li> </ul>
	<ul style="list-style-type: none"> <li>• find game full environment in industry, pharmaceutical industries, forensic laboratories, in schools, etc.</li> </ul>
<b>Programme specific outcomes</b>	<ul style="list-style-type: none"> <li>• Gain knowledge of chemistry through theory &amp; practicals.</li> </ul>
	<ul style="list-style-type: none"> <li>• Explain nomenclatures, structures, reactivity, stereochemistry, reaction mechanisms of chemical reaction, spectral analysis of various compounds.</li> </ul>
	<ul style="list-style-type: none"> <li>• Identify chemical formulae, balance chemical reaction, solve various numerical problems &amp; derivations.</li> </ul>
	<ul style="list-style-type: none"> <li>• Use modern chemical tools, models, charts &amp; equipments.</li> </ul>
	<ul style="list-style-type: none"> <li>• Understand good laboratory practises &amp; safety.</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop research oriented attitude &amp; skills.</li> </ul>
	<ul style="list-style-type: none"> <li>• develop research oriented deskill .</li> </ul>
	<ul style="list-style-type: none"> <li>• make aware &amp; handle the sophisticated instruments &amp; equipments.</li> </ul>
<b>Course Outcome</b>	M.Sc. course is designed in four semesters which includes the study of four branches of chemistry i.e. Physical, Organic, Inorganic & Analytical Chemistry for first two semesters at Part-I level and semester III & IV i.e. part-II level is specialization in Organic chemistry.
<b>Outcome</b>	

Course	After completion of following courses student should be able to understand
<b>Physical Chemistry</b>	Maxwell thermodynamic relation & its significance.
	• Joule Thomson experiment.
	• Third law of thermodynamic.
	• Study of quantum chemistry & its applications.
	• Particle wave and its equations, operators & their algebra.
	• Composite reactions, polymerization reactions, reaction in gas phase.
	• Electrochemistry involving study of Debye-huckel limiting law with derivation, Debye-huckel Onsager equation, Debye-falkenhagen effects.
	• Bio electrochemistry.
	• Numericals based on theory.
	• Study of chemical thermodynamics, real solution.
	• Laplace equation, kelvin equation, Gibb's adsorption isotherm
	• Bioenergetics.
	• Study of Schrodinger wave equation and its applications.
	• Huckel molecular orbitals theory for ethylene, 1,3-butadiene, benzene.
	• Chemical kinetics study.
	• Kinetics of reaction catalysed by enzymes.
	• Kinetics of reactions in the solid state.
	• Study of recapitulation and their types.
• Two component system.	
• Three component system.	
<b>Practicals</b>	• Heat of solution of a sparingly soluble acid.
	• Graph plotting of mathematical functions.
	• Conductometer, pH meter, potentiometer.
	• Chemical kinetics.
	• Phase diagram.
	• Spectrophotometer.
	• MOT for polyatomic species .
	• Weak forces of attraction in molecules.
	• Molecular symmetry & group theory.
	• Electronic structures of solid & methods of preparation inorganic solids.
	• various methods of preparation & application of nanomaterial.
	• Characterization of co-ordination compounds.

<b>Inorganic Chemistry</b>	• Various ligand substitution reaction mechanism apply to octahedral & square planar complexes.
	• learn trans effect, its theory & application.
	• 18, 16 electron rule for organometallic compound.
	• Structure & bonding on the basis of VBT for organometallic compound such as ferrocene, Zeise's salt.
	• Can learn toxicity of heavy metals such as mercury, lead, copper, cadmium, arsenic, chromium .
	• Prepare case studies for Itai-itai disease for cadmium toxicity.
	• Arsenic poisoning in the Indo Bangladesh region.
	• Effect of radiation on environment & cell proliferation & cancer.
<b>Practicals</b>	• Inorganic preparation & characterization.
	• Determination of equilibrium constant by slope intercept method.
	• Conductivity meter.
	• Ores & alloys analysis.
	• Potentiometric estimation.
<b>Organic Chemistry</b>	• Hammonds postulates.
	• Factors affecting acidity & basicity.
	• Aromaticity.
	• Nucleophilic substitution reactions involving SN1, SN2, S <sub>N</sub> i with factors affecting on it.
	• Application of HMO theory to noncyclic conjugated system.
	• All the concepts of stereochemistry including .
	• Concepts of oxidation & reduction, oxidation reaction of aldehyde, ketone, alcohol and reduction reaction of aldehyde and ketone .
	• Dissolving metal reductions.
	• Alkylation of aldehyde, ketone, ester, amides and nitriles.
	• Nitrogen analogues of enols and enolates.
	• Alkylation of carbon nucleophiles.
	• Various reactions such as Baylis-Hillman reaction, McMurry coupling.
	• Different rearrangement such as cationic rearrangement anionic
• MOT for ethylene, butadiene .	
• Concepts of HOMO and LUMO.	
• Introduction to FMO and its application.	

	<ul style="list-style-type: none"> <li>• Brief description and application of UV, IR, NMR, Mass spectroscopy.</li> </ul>
<b>Practicals</b>	<ul style="list-style-type: none"> <li>• Preparation of various organic compounds.</li> </ul>
	<ul style="list-style-type: none"> <li>• Separation of binary mixture using microscale technique.</li> </ul>
<b>Analytical Chemistry</b>	<ul style="list-style-type: none"> <li>• learn different analytical methods of analysis.</li> </ul>
	<ul style="list-style-type: none"> <li>• Processes for safety in laboratory.</li> </ul>
	<ul style="list-style-type: none"> <li>• Good laboratory practices with principle, objectives, OECD guidelines, Klimisch score.</li> </ul>
	<ul style="list-style-type: none"> <li>• Numericals based on calculations of ppm, ppb, concepts of mmol, stoichiometric calculation, calculation of pH, oxidation numbers, normality, molarity.</li> </ul>
	<ul style="list-style-type: none"> <li>• introduction to Fourier transform.</li> </ul>
	<ul style="list-style-type: none"> <li>• Concepts of molecular UV &amp; visible spectroscopy with application.</li> </ul>
	<ul style="list-style-type: none"> <li>• Instrumentation of IR absorption spectroscopy including sample handling, transducers with application of IR.</li> </ul>
	<ul style="list-style-type: none"> <li>• Learn thermal methods with its application.</li> </ul>
	<ul style="list-style-type: none"> <li>• Automation in chemical analysis.</li> </ul>
	<ul style="list-style-type: none"> <li>• Recapitulation of basic concepts in chromatography.</li> </ul>
	<ul style="list-style-type: none"> <li>• Detailed study of Gas chromatography, HPLC .</li> </ul>
	<ul style="list-style-type: none"> <li>• Principle , instrumentation &amp; application of X-ray spectroscopy, mass spectrometry, radio analytical method, atomic spectroscopy.</li> </ul>
	<ul style="list-style-type: none"> <li>• Surface analytical techniques .</li> </ul>
<ul style="list-style-type: none"> <li>• Electroanalytical methods including polarography, electrogravimetry, coulometry.</li> </ul>	
<b>Practicals</b>	<ul style="list-style-type: none"> <li>• Determination of % purity of various samples using pH meter, potentiometer.</li> </ul>
	<ul style="list-style-type: none"> <li>• Determination of amount of different compounds by using colorimeter &amp; spectrophotometer.</li> </ul>
	<ul style="list-style-type: none"> <li>• Volhard's method, statistical method.</li> </ul>
	<ul style="list-style-type: none"> <li>• Ion exchange capacity &amp; breakthrough capacity of cation resin.</li> </ul>
	<ul style="list-style-type: none"> <li>• Titrimetric method for determination of metal in alloys.</li> </ul>
	<ul style="list-style-type: none"> <li>• Determination of nitro group.</li> </ul>
	<ul style="list-style-type: none"> <li>• Mechanism &amp; reaction of neighbouring group participation.</li> </ul>
	<ul style="list-style-type: none"> <li>• Classification of pericyclic reaction, Woodward-Hoffmann rules explanation.</li> </ul>

<b>Theoretical organic chemistry</b>	• Photochemical reactions, cycloaddition reaction such as ene reaction, cheletropic reaction, Diels-alder reaction.
	• Cycloaddition reaction of ketene, allene, carbene, etc.
	• Stereochemistry - Classification of point group, Conformational analysis, Breadt's rule, Anancomeric systems, molecular rearrangement, determination of enantiomer and diastereomer composition, co relating methods, racemisation and resolution of racemates, CDA, CSA, LSR methods based on NMR spectroscopy.
	• Principle of photochemistry, photochemistry of carbonyl compound, arenes, photocycloaddition of aromatic ring.
	• Structural effect and reactivity, Taft model, Okamoto-Brown Equation, Swain-Scott equation etc., Thermodynamic implications.
	• Structure & properties of crown ether, cryptands, cyclophanes.
	• Principle of asymmetric synthesis, synthesis of L-DOPA.
<b>Synthetic organic chemistry</b>	• Asymmetric reaction with mechanism.
	• Name reaction with mechanism such as mukaiyama esterification, mitsonovu reaction, Peterson olefination, Ritter reaction etc.
	• Various types of domino reaction.
	• Different multi component reaction.
	• Radical in organic synthesis, characteristic reaction.
	• Metal/non-metals in organic synthesis with its mechanism, reaction and its application to carry out organic reaction.
	• Designing organic synthesis, Concept of umpolung, Introduction to retrosynthetic analysis, general strategies, carbon carbon disconnection.
	• Introduction of electro organic chemistry including cathodic reduction and anodic oxidation.
• Application of various rare earth metals in organic synthesis.	
<b>Natural product and spectroscopy</b>	• Introduction to carbohydrates.
	• Synthesis of various natural pigments such as carotenoids, quinones, flavones, etc.
	• Synthesis, general structure and importance of pheromones.
	• Alkaloids- occurrence, physiological importance.
	• Various multistep synthesis of natural products.
	• Classification, structure and importance of prostaglandins, lipids,



	steroids, vitamins, antibiotics, terpenoids.
	• Problems based on spectroscopic techniques.
<b>Medicinal, biogenesis &amp; green chemistry</b>	• Heterocyclic compounds- classification, nomenclature and various reactions.
	• Drug discovery, design & development including introduction, terms involved.
	• Synthesis of drugs such as cetirizine, labetalol, fluconazole etc.
	• Basic pathways of biogenesis & biosynthesis of natural products.
<b>Research methodology</b>	• Introduction, principle & designing of green chemistry, green catalyst.
	• Learn how to do data analysis.
	• Library sources, information sources for research .
	• Chemical safety and ethical handling of chemicals.
	• Writing scientific paper.
<b>Practicals</b>	• Separation of ternary mixture and identification including derivative preparation using microscale technique.
	• single step organic preparation involving purification by steam distillation/vacuum distillation or column chromatography.
	• two step synthesis.
	• interpretation of spectral data of organic compounds (UV, IR, PMR, CMR, Mass spectra).
	• research project.
<b>Course Physics</b>	
<b>Programme : Physics</b>	
<b>Course Outcome</b>	B.Sc. Course in Physics is designed in four semester
<b>Course</b>	<b>outcome</b>
	After completion of the course student should be able to understand
	<b>Semester I &amp; II</b>
	• Use the apparatus without fear .
	• Theoretical and practical Physics .
	• To estimate and correct errors .
	• Understand and numbers law and apply them in calculations of the motion of simple systems.
	• To analyse forces on object diagram using free body diagram.

<b>Physics</b>	• Understand concept of friction, elasticity, fluid mechanics, lens system and interfaces.
	• Laws of thermodynamics and understand the processes.
	• Basic mathematical concept and their applications.
	• Circuit theorem & digital electronics should to be understood.
	• Electronic and Magnetostatics laws should be applied to different systems.
	• Structure of nuclei, Radio activity and its applications.
	• Use of PC for plotting graphs and making ppts.
	<b>Semester III &amp; IV</b>
	• The diffraction and polarization process and applications of them in physical situations.
	• The application of interference in design and working of interferome .
	Understand resolving power of different optical instruments.
	• IC555 timer and digital circuits for timing applications.
	• The postulates of quantum mechanics and its significance.
	• Basic concepts of Geology and Geophysics .
	• Comprehend the necessary conditions and impact of geo environmental sciences should be able to programme using Mino processors 8085 family .
• Radiation physics radiation detectors and beam calibration.	
<b>Programme : Zoology</b>	
<b>Programme outcome</b>	After successful completion of two years programme in Zoology a student should be able to
	• Use modern instruments like sphygmomanometer, colorimeter, pH meter and classical techniques such as chromatography, experiments & to properly record result of their experiment
	• To nurture interest in the students for the subject of Zoology.
	• The importance of abiotic and biotic factors of environment and their conservation.
<b>Programme specific outcomes</b>	• An insight to the basic nutritional and health aspects of human life
	• To inculcate good laboratory practices in students and to train them about scientific handling of important instruments.
	• Develop research oriented attitude & skills
<b>Course Outcome</b>	B.Sc. course is design in four semester wonders of animals ecology

Course Outcome	& wildlife management sem -I & II
<b>Course</b>	<b>Outcome</b>
	After completion of following courses student should be able to understand
<b>Wonders of Animal World, Biodiversity and its Conservation</b>	• Student understand the wealth of marvellous animal world.
	• Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.
	• Fascinating world of animals which would enhance their interest and love for the subject of Zoology.
	• Understand innovative and novel work of scientists/philosopher/entrepreneurs in the field of biological sciences.
	• Student appreciate treasure of Biodiversity, its importance and hence would contribute their best for its conservation.
<b>Practicals</b>	• Students are able to identify the different types of microscopic shells.
	• Mounting of scales of fish.
	• Concept of adaptive radiations.
	• Understand venomous & non venomous species of snakes.
<b>Animal Biotechnology and Instrumentation</b>	• Measurements, units of temperature, Biostatistics.
	• Work safety symbols in the laboratory and avoid occurrence of accidents (mishaps) which will boost their scholastic performance and economy in use of materials/chemicals during practical sessions.
	• Scope achievements of biotechnology, Transgenesis, Cloning, Ethical issues for cloned animals.
	• Students will be skilled to select & operate suitable instruments for the studies of different components of zoology.
	• DNA fingerprinting, Gene therapy, Green genes.
	• Applications of Biotechnology.
	• Applications of new techniques for the betterment of mankind.
	• Uses of instruments like spectroscopy, chromatography, electrophoresis & microscopy.
	• Young minds would turned to think out of the box.
	• Interpretation of safety symbols.
	• Central tendencies and plotting of Bar diagram, histogram and pie diagram.
	• Calculation of pH of three different samples.
	• Application of DNA Fingerprinting in criminology.

<b>Practicals</b>	<ul style="list-style-type: none"> <li>• Study of parts of microscope and their functions. Technique of focussing a permanent slide under 10x and 45x.</li> </ul>
	<ul style="list-style-type: none"> <li>• Colorimetry .</li> </ul>
	<ul style="list-style-type: none"> <li>• Adsorption chromatography using chalk. Separation of lipids by TLC.</li> </ul>
	<b>sem- II</b>
<b>Ecology &amp; Wildlife Management</b>	<ul style="list-style-type: none"> <li>• Grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment</li> </ul>
	<ul style="list-style-type: none"> <li>• Concept of Endangered and Critically Endangered species using examples of Indian Wildlife with respect to National Parks and Wildlife sanctuary.</li> </ul>
	<ul style="list-style-type: none"> <li>• understand the nature of animal population, impact on the population of other life form.</li> </ul>
	<ul style="list-style-type: none"> <li>• Different components of ecosystem and essentials of coexistence of human beings with all other living organisms.</li> </ul>
	<ul style="list-style-type: none"> <li>• Current status of wildlife conservation in India in the light of guidelines from different relevant governing agencies with adversity of poaching and biopiracy.</li> </ul>
	<ul style="list-style-type: none"> <li>• Inspired to choose career options in the field of wild life conservation, research, photography and ecotourism.</li> </ul>
<b>Practicals</b>	<ul style="list-style-type: none"> <li>• Interpretation of different pattern of population nature.</li> </ul>
	<ul style="list-style-type: none"> <li>• Estimation of hardness from given water sample.</li> </ul>
	<ul style="list-style-type: none"> <li>• Study Biodiversity hotspots using world map.</li> </ul>
	<ul style="list-style-type: none"> <li>• Estimation of Free carbon dioxide (Free CO<sub>2</sub>) from two different samples-</li> </ul>
<b>Nutrition , Public Health &amp; Hygiene</b>	<ul style="list-style-type: none"> <li>• Importance of balanced diet and essential nutrients of food at different stages of life.</li> </ul>
	<ul style="list-style-type: none"> <li>• Healthy dietary habits would be inculcated in the life style of learners.</li> </ul>
	<ul style="list-style-type: none"> <li>• Prevent risk of developing health hazards in younger generation due to faulty eating habits.</li> </ul>
	<ul style="list-style-type: none"> <li>• Need for conservation of fast depleting water resource.</li> </ul>
	<ul style="list-style-type: none"> <li>• Optimizing use of electronic gadgets.</li> </ul>
	<ul style="list-style-type: none"> <li>• Recognize stress related problems at initial stages and would be able to adopt relevant solutions.</li> </ul>
	<ul style="list-style-type: none"> <li>• Acquire knowledge of cause, symptoms and precautions of infectious diseases.</li> </ul>
<ul style="list-style-type: none"> <li>• Avoiding addiction, thus facilitating achievement of the goal of</li> </ul>	

	healthy youngsters.
	• Encouragement for maintaining adequate personal hygiene.
<b>Practicals</b>	• Qualitative estimation of Vitamin C by Iodometric method.
	• Study of microscopic structure of starch granules of different cereals.
	• Estimation of maltose from brown/white bread.
	• Moisture content from biscuits or other suitable food products.
	• Food adulteration test.
	• Estimation of protein content of two egg varieties.
	• Study of efficacy of different antacids (any two antacids).
	• Study of Human Parasites.
	• Screening of anaemic/non-anaemic persons using CuSO <sub>4</sub> method.
<b>Genetics, Evolution &amp; Research Methodology</b>	• Understand the mechanisms of sex determination.
	• Classical and Modern concept of Gene.
	• Principles of inheritance & heredity. Pedigree Analysis.
	• Concept of sex determination and its types, sex influenced and sex-limited genes.
	• Understand the concept of multiple alleles, linkage & crossing over.
	• Able to correlate the disorders linked to a particular sex chromosome.
	• Understand the importance of nucleic acids as genetic material.
<b>Practicals</b>	• Extraction and detection of DNA & RNA.
	• Study of polytene chromosome & bar body.
	• Study of mitosis.
	• Pedigree analysis.
	• Detection of blood groups and Rh factor.
	• Problems based on molecular biology.
	• Problems in Genetics.
	• Chromosome morphology.
<b>Nutrition and</b>	• Concepts of physiology of nutrition, excretion & osmoregulation.
	• Able to correlate the habit and habitat with nutritional, excretory and osmoregulatory structures.
	• Understand the increasing complexity of nutritional, excretory & osmoregulatory physiology.
	• Principle nitrogenous excretory products.

<b>Excretion, Respiration and Circulation, Control and Coordination of Life Processes, Locomotion and Reproduction</b>	• concepts of physiology of respiration & circulation.
	• various respiratory and circulatory organs in different classes of organisms.
	• Concepts of physiology of respiration & circulation.
	• locomotory and reproductive structures in different classes of organisms.
	• Understand the process of control and coordination by nervous and endocrine regulation.
	• Locomotory structures found in the animal kingdom.
	• Acquainted with various reproductive strategies present in
	• Respiratory and circulatory organs in different classes of organisms.
	• Habit and habitat of animals with respiratory and circulatory organs.
<b>Practicals</b>	• Urine analysis—Normal and Abnormal constituents.
	• Detection of ammonia, uric acid from animals waste products.
	• Study of nutritional apparatus, respiratory structures, locomotory organs.
	• Learn different types of heart in animals.
	• Study of permanent slides on reproduction.
	• Study of striated and non-striated muscle fibre.
<b>Ethology, Parasitology, Economic Zoology</b>	• A sound knowledge of how animals interact with one another and their environment.
	• Types of animal behaviour & their role in biological adaptations.
	• Sensitized to the feelings which are instrumental in social behaviour.
	• Concepts of parasitism and its relationship in the environment.
	• Modes of transmission of parasites.
	• General epidemiological aspects of parasites that affect humans.
	• life cycle of specific parasites, the symptoms of the disease and its treatment.
	• Parasitological significance.
	• Economic aspects of animals like apiculture, vermiculture and dairy science.
	• Learn the modern techniques in animal husbandry.
	• Gain knowledge on animals useful to mankind & the means to make the most of it.

	<ul style="list-style-type: none"> <li>• Learner would pursue entrepreneurship as a career.</li> </ul>
<b>Practicals</b>	<ul style="list-style-type: none"> <li>• Extraction of casein from milk and its qualitative estimation.</li> </ul>
	<ul style="list-style-type: none"> <li>• Preparation of paneer from given milk sample.</li> </ul>
	<ul style="list-style-type: none"> <li>• Measurement of density of milk using different samples by Lactometer.</li> </ul>
	<ul style="list-style-type: none"> <li>• Study of Honey Bee, Ethological aspects, Parasitic adaptations.</li> </ul>
	<ul style="list-style-type: none"> <li>• Identify Ectoparasites, Protozoan parasites, Helminth parasites.</li> </ul>
<b>Origin and Evolution of Life, Population Genetics and Evolution, Scientific Attitude, Research Methodology</b>	<b>sem IV</b>
	<ul style="list-style-type: none"> <li>• Understand the origin of life.</li> </ul>
	<ul style="list-style-type: none"> <li>• Analyse and critically view the different theories of evolution.</li> </ul>
	<ul style="list-style-type: none"> <li>• Understand the forces that cause evolutionary changes in natural populations.</li> </ul>
	<ul style="list-style-type: none"> <li>• Learner would comprehend the mechanisms of speciation.</li> </ul>
	<ul style="list-style-type: none"> <li>• Able to distinguish between microevolution, macroevolution and mega evolution.</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop qualities such as critical thinking and analysis.</li> </ul>
	<ul style="list-style-type: none"> <li>• Theories of organic evolution.</li> </ul>
	<ul style="list-style-type: none"> <li>• Skills of scientific communication.</li> </ul>
	<ul style="list-style-type: none"> <li>• Understand the forces that cause evolutionary changes in natural populations.</li> </ul>
	<ul style="list-style-type: none"> <li>• Distinguish between microevolution, macroevolution and mega evolution.</li> </ul>
	<ul style="list-style-type: none"> <li>• scientific knowledge about how life originated on our planet.</li> </ul>
<ul style="list-style-type: none"> <li>• He/she will understand the ethical aspects of research.</li> </ul>	
<b>Practicals</b>	<ul style="list-style-type: none"> <li>• Study of population density by Line transect method &amp; Quadrant method and calculate different diversity indices.</li> </ul>
	<ul style="list-style-type: none"> <li>• Study of prokaryotic cells (bacteria) by Crystal violet staining technique.</li> </ul>
	<ul style="list-style-type: none"> <li>• Study of eukaryotic cells (WBCs) from blood smear by Leishman's stain.</li> </ul>
	<ul style="list-style-type: none"> <li>• Identification and study of fossils</li> </ul>
	<ul style="list-style-type: none"> <li>• Preparation of Power Point Presentation based on research paper.</li> </ul>
	<ul style="list-style-type: none"> <li>• Bibliography/ Abstract writing.</li> </ul>
	<ul style="list-style-type: none"> <li>• Structural and functional organization of cell.</li> </ul>
	<ul style="list-style-type: none"> <li>• cell and its organelles for its maintenance and composition of cell.</li> </ul>
	<ul style="list-style-type: none"> <li>• Transport across membrane.</li> </ul>



<b>Cell biology, Endomembrane System &amp; Biomolecules</b>	• Ultrastructure of cell organelles and their functions.
	• Endomembrane system.
	• Understand the interlinking of endomembrane system for functioning of cell.
	• Importance of biomolecules and their clinical significance.
	• students understand structure & functions of amino acids.
	• Structure function & biological role of biomolecules.
	• Understand the concept of vitamins.
<b>Practicals</b>	• Vitamin deficiency
	• Study of permeability of cell through plasma membrane.
	• Measurement of cell diameter by coulometer.
	• Qualitative tests for carbohydrates, proteins , lipids.
	• Study of rancidity of lipids by titrimetric method.
	• Ultrastructure of cell organelles.
<b>Comparative Embryology, Aspects of Human Reproduction, Pollution and its effect on organisms</b>	• Study of clinical disorders due to carbohydrates, proteins and lipid imbalance
	• Able to understand and compare the different types of eggs and sperms
	• Understand and compare the different pre- embryonic stages
	• Different aspects of human reproduction.
	• Aware of the causes of infertility, techniques to overcome infertility and the concept of birth control
	• Human reproductive physiology
	• Familiar with advances in ART and related ethical issues.
	• Impact of human activities leading to pollution and its
	• Adverse effects of pollution and measures to control it.
	• Pollution by radioactive substances.
• Global warming & climate change.	
<b>Practicals</b>	• Study of air microflora.
	• Estimation of dissolved oxygen from the given water sample.
	• Estimation of salinity by refractometer from the given water sample.
	• Estimation of conductivity by conductometer from the given water sample.
	• Study of physical properties of soil: temperature, moisture and texture
	• Study of chemical properties of soil- pH, organic matter.
	• Study of sound pollution monitoring device.
• Detection of pregnancy from given sample of urine.	

	<ul style="list-style-type: none"> <li>• Study of birth control measures applicable to humans.</li> </ul>
	<ul style="list-style-type: none"> <li>• Study of the following permanent slides, museum specimens and materials.</li> </ul>
	<ul style="list-style-type: none"> <li>• Study of natural ecosystem and field report of the visit.</li> </ul>
	<ul style="list-style-type: none"> <li>• Review writing based on programmes telecast by Door darshan, Gyan darshan, UGC programmes or other media sources.</li> </ul>
<b>Programme : Botany</b>	
<b>Programme outcome</b>	After successful completion of 1st years programme in botany a student should be able to
	<ul style="list-style-type: none"> <li>• To use classical techniques such as chromatography, HPTLC to design experiments &amp; to properly record result of their experiments .</li> </ul>
	<ul style="list-style-type: none"> <li>• Dissect specimens of various plants and their parts .</li> </ul>
	<ul style="list-style-type: none"> <li>• Employ critical thinking and the scientific knowledge to design, carry out, record and analyse the results .</li> </ul>
	<ul style="list-style-type: none"> <li>• Create awareness of the impact of the botany on the environment, society &amp; development of outside the scientific community.</li> </ul>
	<ul style="list-style-type: none"> <li>• Follow proper procedures &amp; regulations for safe handling when using hazardous chemical as well as regular chemicals.</li> </ul>
<b>Programme specific outcomes</b>	<ul style="list-style-type: none"> <li>• Gain knowledge of Botany through theory &amp; practicals.</li> </ul>
	<ul style="list-style-type: none"> <li>• Explain nomenclatures, classification, identification, dissection of different plant parts .</li> </ul>
	<ul style="list-style-type: none"> <li>• Use modern chemical tools, models, charts &amp; equipments.</li> </ul>
	<ul style="list-style-type: none"> <li>• Understand good laboratory practises &amp; safety.</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop research oriented attitude &amp; skills.</li> </ul>
<b>Course Outcome</b>	
B.Sc. course is design in six semesters which includes the study of four branches of botany i.e. Physical, Organic, Inorganic & Analytical botany and along with this at the last two semesters Drugs & Dyes as an applied component	
<b>Course</b>	<b>Outcome</b>
	After completion of following courses student should be able to understand
	<ul style="list-style-type: none"> <li>• Structure, life cycle and systematic position of Nostoc and Spirogyra.</li> </ul>
	<ul style="list-style-type: none"> <li>• Economic importance of Algae.</li> </ul>

**Botany**

- Structure, life cycle and systematic position of Rhizopus and Aspergillus.

- Economic importance of Fungi.

Modes of nutrition in Fungi (Saprophytism and Parasitism).

- BRYOPHYTA.

- General characters of Hepaticae.

- Structure, life cycle and systematic position of Riccia.

**Paper II – Form and Function 1****CELL BIOLOGY**

- General structure of plant cell: cell wall

- Ultra structure and functions of the following cell organelles: Endoplasmic reticulum and Chloroplast.

- Energy pyramids, energy flow in an ecosystem.

- Types of ecosystems: aquatic and terrestrial.

- Phenotype/Genotype, Mendelian Genetics- monohybrid, dihybrid; test cross; back cross ratios.

- Epistatic and non epistatic interactions; multiple alleles.

- Study of stages in the life cycle of Nostoc and spirogyra from fresh/ preserved material and permanent slides.

- Economic importance of algae: Ulva (Biofuel), Spirulina (Nutraceutical), Gelidium (Agar).

- Study of stages in the life cycle of Rhizopus from fresh/ preserved material and permanent slides.

- Study of stages in the life cycle of Aspergillus from fresh/ preserved material and permanent slides.

- Economic importance of Fungi: Mushroom , Yeast, wood rotting fungi (any bracket fungus).

- Study of stages in the life cycle of Riccia from fresh/ preserved material.

- Study of stages in the life cycle of Riccia with the help of permanent slides.

- Examining various stages of mitosis in root tip cells (Allium).

- Cell inclusions: Starch grains (Potato and Rice); Aleurone Layer (Maize).

- Cystolith (Ficus); Raphides (Pistia); Sphaeraphides (Opuntia).

- Identification of cell organelles with the help of photomicrograph: Plastids: Chloroplast, Amyloplast, Endoplasmic Reticulum and Nucleus.

	<ul style="list-style-type: none"> <li>• Identification of plants adapted to different environmental conditions:</li> </ul>	
	<ul style="list-style-type: none"> <li>• Calculation of mean, median and mode.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Frequency distribution, graphical representation of data-frequency polygon, histogram, pie chart.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Study of Karyotypes: Human: Normal male and female, Allium cepa .</li> </ul>	
	<b>SEMESTER 2</b>	
	<ul style="list-style-type: none"> <li>• Study of stages in the life cycle of Nephrolepis : Mounting of ramentum, hydathode, T.S. of rachis. T.S. of pinna of Nephrolepis passing through sorus. Stelar evolution with the help of permanent slides: Protostele: haplostele, actinostele, plectostele, mixed protostele, siphonostele: ectophloic, amphiphloic, dictyostele, eustele and atactostele.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Cycas: T.S of leaflet, Megasporophyll, microsporophyll, coralloid root, microspore, L.S. of ovule of Cycas – all specimens to be shown.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Economic importance of Gymnosperms: Pinus.</li> </ul>	
	<b>Practical Paper II</b>	<ul style="list-style-type: none"> <li>• Leaf morphology ,Types of inflorescence: families: Malvaceae, Amaryllidaceae.</li> </ul>
		<ul style="list-style-type: none"> <li>• Primary structure of dicot and monocot root. Primary structure of dicot and monocot stem. Study of dicot and monocot stomata.</li> </ul>
<ul style="list-style-type: none"> <li>• Epidermal outgrowths: with the help of mountings, Unicellular: Gossypium/Radish.</li> </ul>		
<ul style="list-style-type: none"> <li>• Multicellular: Lantana/Sunflower</li> </ul>		
<ul style="list-style-type: none"> <li>• Stellate: Erythrina/Sida acuta/Solanum/Helecteris</li> </ul>		
<ul style="list-style-type: none"> <li>• Separation of chlorophyll pigments by strip paper chromatography. Separation of amino acids by paper chromatography.</li> </ul>		
<ul style="list-style-type: none"> <li>• Change in colour because of change in pH: Anthocyanin: black grapes/Purple cabbage.</li> </ul>		
<ul style="list-style-type: none"> <li>• Test for tannins: tea powder/catechu.</li> </ul>		
<ul style="list-style-type: none"> <li>• Identification of plants or plant parts for grandma’s pouch as per theory.</li> </ul>		
<ul style="list-style-type: none"> <li>• Photosynthesis: Light reactions, photolysis of water, photophosphorylation (cyclic and non cyclic), carbon fixation phase (C3, C4 and CAM pathways).</li> </ul>		

	<ul style="list-style-type: none"> <li>• Concept of primary and secondary metabolites, difference between primary and secondary metabolites.</li> </ul>
	<ul style="list-style-type: none"> <li>• Grandma’s pouch: Following plants have to be studied with respect to botanical source.</li> </ul>
	<ul style="list-style-type: none"> <li>• part of the plant used, active constituents present and medicinal uses:</li> </ul>
	<ul style="list-style-type: none"> <li>• Oscimum sanctum, Adathoda vasica, Zinziber officinale, Curcuma longa, Santalum album, Aloe vera.</li> </ul>
	<ul style="list-style-type: none"> <li>• Identify chemical formulae, balance chemical reaction, solve various numerical problems &amp; derivations.</li> </ul>
<b>Course Outcome</b>	<ul style="list-style-type: none"> <li>• Understand good laboratory practises &amp; safety.</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop research oriented attitude &amp; skills.</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop research oriented skill .</li> </ul>
<b>COMMERCE</b>	
<b>Programme : Accountancy</b>	
<b>Programme outcome</b>	After successful completion of three years programme in Commerce a student should be able to
	<ul style="list-style-type: none"> <li>•Understand direct and indirect taxation.</li> </ul>
	<ul style="list-style-type: none"> <li>•Assist in audit.</li> </ul>
	<ul style="list-style-type: none"> <li>•Do accounting with the help of tally.</li> </ul>
	<ul style="list-style-type: none"> <li>•Handle banking transaction independently.</li> </ul>
	<ul style="list-style-type: none"> <li>•Apply managerial skills.</li> </ul>
	<ul style="list-style-type: none"> <li>•Possess analytical skills, ethics , professionalism, oral and written communication skill, critical thinking self motivation, decision making etc.</li> </ul>
	<ul style="list-style-type: none"> <li>•Be an input for CA,CS ICWA etc.</li> </ul>
	<ul style="list-style-type: none"> <li>•Fill and file income tax return.</li> </ul>
	<ul style="list-style-type: none"> <li>•Do GST registration to avail GST number for the clients.</li> </ul>
<b>Programme specific outcomes</b>	<ul style="list-style-type: none"> <li>•Learn basic accounting skills.</li> </ul>
	<ul style="list-style-type: none"> <li>•Solve basis cost accounting problem.</li> </ul>
	<ul style="list-style-type: none"> <li>•Be aware of accounting standards, IND AS, IFRS, GAAP.</li> </ul>
	<ul style="list-style-type: none"> <li>•Know accounting concepts, conventions and principles</li> </ul>
	<ul style="list-style-type: none"> <li>•Handle foreign currency transactions.</li> </ul>
	<ul style="list-style-type: none"> <li>•Handle partnership accounting, corporate accounting etc.</li> </ul>
	<ul style="list-style-type: none"> <li>•Calculate fire insurance claim.</li> </ul>
	<ul style="list-style-type: none"> <li>•Know transactions between head office and branches.</li> </ul>
<ul style="list-style-type: none"> <li>•Know basis concepts of GST and how GST work throughout the</li> </ul>	

	country.
	•Be aware about various taxation policies introduced by
	• Develop research oriented attitude & skills
<b>Course Outcome</b>	B.Com. course is design in six semesters which includes the study of Five branches of Accountancy i.e. Financial Accounting, Costing, Management Accounting, Auditing and along with this at the last two semesters Direct Tax & Indirect Tax as an applied component
<b>Course</b>	<b>Outcome</b>
	After completion of following courses student should be able to understand
<b>Accounting and Financial Management Paper- I</b>	•Disclosure of Accounting Policy - Its Purpose and Area of Disclosure.
	•Valuation of Inventories -Meaning and Methods of Valuation.
	•Revenue Recognition - Meaning and Scope.
	•Differentiation between Capital, Revenue Expenditure and Receipts.
	•Final Accounts of Manufacturing Concerns.
	•Departmental Accounts - Meaning, Basis of Allocation of Expenses, Receipts and Transfers.
	•Accounting for Hire Purchase - Meaning, Calculation of Interest, Accounting for Transactions, Journal Entries, Ledger Accounts in the books of hirer and vendor.
<b>Accounting and Financial Management Paper- II</b>	•Single Entry System, Conversion method .
	•Preparation of Consignment accounts, Stock valuation.
	•Preparation of Dependent Branch Accounts , a) Debtors system, b) Stock & Debtors system.
	•Calculation of fire Insurance Claim and Average clause under fire Insurance claim.
<b>Accounting and Financial Management Paper- III</b>	• Final accounts of partnership firms. Various Adjustments. Process
	• Order of Payment on Dissolution of a Firm.
	• Concept of Amalgamation. Objects of Amalgamation. Accounting for Amalgamation.
	• Concept of Conversion of Partnership into a limited company .Calculation of Purchase Consideration. Accounting of Conversion.
	• Meaning of a Company. Types of Companies. Formation of a Company.
	• Concept of Redemption of preference shares Methods of

<b>Accounting and Financial Management Paper- IV</b>	• Concept of Redemption of Preference Shares. Methods of Redemption. Accounting Procedures of Redemption. Preparation of Balance sheet of the Company after Redemption.
	• Terms of Redemption. Methods of Redemption of Debentures. Accounting Procedures for Redemption of Debentures.
	• Concept of Profit Prior to Incorporation. Its Treatment in Accounts. Allocation of Various Expenses. Calculation of Profit prior to incorporation and Post incorporation.
<b>Accounting and Financial Management Paper- V (Management Account)</b>	• Concept of Management Accounting, Nature, Scope and Functions of Management Accounting.
	• Income Statement, Balance Sheet, Vertical Form of Financial Statements.
	• Concept of Analysis and Interpretation, Types of Analysis, Comparative Statements, Common Size Statements, Trend Analysis.
	• Importance of Ratio Analysis, Calculation of Various Ratios, Interpretation of Financial Statements, Preparation of Financial Statements from the given Ratios.
	• Concept of Working Capital, Management of Working Capital, Projection of Working Capital Requirements.
	• Importance of Capital Budgeting, Different Techniques of Capital Budgeting.
<b>Accounting and Financial Management Paper- VI (Auditing)</b>	• Understand the Basics of Auditing, Errors and Frauds, Principles of Audit, Types of Audit.
	• Understand the Audit Planning, Audit Program, Audit Working Papers and its importance and its contents.
	• Understand the Test check, Audit Sampling, Internal Control, Internal Audit techniques of Audit.
	• Understand Audit of Income, Audit of Expenditure, Audit of Assets, Audit of Liabilities.
	• To Know the Revised Schedule VI of Companies Act 2013 and Financial Statements as per the revised Schedule.
	• To understand the concept of Internal Reconstruction, Legal aspect of Internal Reconstruction, Accounting procedure, Draw Balance Sheet of Company after Reconstruction.
<b>Accounting and</b>	• To Learn concept of Buyback of shares. Condition of Buyback



<b>Accounting and Financial Management Paper- VII ( Financial Accounting)</b>	<ul style="list-style-type: none"> <li>• To learn concept of Buyback of shares, Condition of Buyback, Methods of Buyback, Accounting of Buyback and own Debentures.</li> </ul>
	<ul style="list-style-type: none"> <li>• To know why investments are made. Types of Investments, Accounting of Purchase and Sales, Apportioning Income Pre and Post Acquisition Period, Treatments of Bonus Shares., Treatments of Right Shares Subscribed and Right Renounced of Sale.</li> </ul>
	<ul style="list-style-type: none"> <li>• Concept of Ethical Behaviour , Financial Report, Implication of Ethical Values, AS setting Process, IFAC Code of Ethics for Professional Accountants and Company Code of Ethics and Increasing role of Whistle - Blowing.</li> </ul>
<b>Accounting and Financial Management Paper- VIII ( Costing)</b>	<ul style="list-style-type: none"> <li>•Importance and uses of Cost Accounting.</li> </ul>
	<ul style="list-style-type: none"> <li>•Decision making and control.</li> </ul>
	<ul style="list-style-type: none"> <li>•Inventory Control.</li> </ul>
	<ul style="list-style-type: none"> <li>•Procurement Procedures of material.</li> </ul>
	<ul style="list-style-type: none"> <li>•Economic Order quantity.</li> </ul>
	<ul style="list-style-type: none"> <li>•Material Turnover ratio.</li> </ul>
	<ul style="list-style-type: none"> <li>•Labour Turnover.</li> </ul>
	<ul style="list-style-type: none"> <li>•Remuneration and Incentive schemes.</li> </ul>
	<ul style="list-style-type: none"> <li>•Attendance and Payroll procedures.</li> </ul>
	<ul style="list-style-type: none"> <li>•Functional analysis of overheads.</li> </ul>
<b>Accounting and Financial Management Paper- IX (Financial Accounting)</b>	<ul style="list-style-type: none"> <li>• Concept of Amalgamation, Meaning of Purchase Consideration, Methods of computing purchase consideration, accounting of amalgamation with reference to AS - 14.</li> </ul>
	<ul style="list-style-type: none"> <li>• To understand Foreign Currency Transaction, Need for conversion, Recognition of Exchange Difference and Accounting of Foreign Currency Translation.</li> </ul>
	<ul style="list-style-type: none"> <li>• To Know the concept of Liquidation, Modes of Liquidation and Procedure of Preparation of Liquidators Final Statement of Account.</li> </ul>
	<ul style="list-style-type: none"> <li>• To learn Concept of Underwriting, determination of Liabilities and Underwriting Commission.</li> </ul>
	<ul style="list-style-type: none"> <li>•Concept of Limited Liability Partnership, Formation of LLP, Accounts and Audit of LLP and its Final Accounts.</li> </ul>
	<ul style="list-style-type: none"> <li>•Classification of costs.</li> </ul>
	<ul style="list-style-type: none"> <li>•Preparation of Cost sheet.</li> </ul>
	<ul style="list-style-type: none"> <li>•Reconciliation of cost and financial accounts.</li> </ul>

<b>Accounting and Financial Management Paper- X (Costing)</b>	•Non-integrated system of cost accounting.
	•Preparation of Contract Account.
	•Preparation of Process Account.
	•Marginal costing and Decision making .
	•Importance of Standard Accounting.
	•Variance Analysis.
	•Life cycle costing.
<b>Applied Component Direct Tax Paper -I</b>	•Target Costing.
	•Basic Terminologies in Direct Taxation.
	•Residential Status and Scope of Total Income.
	•Incomes that are exempted from Tax.
	•Different Heads of Income and Income head specific deduction.
	•Exclusions from Total Income.
	•Deductions that are available from Total Income.
<b>Applied Component Indirect Tax Paper -II</b>	•Payment of Tax. Computation of Total Income for Individual.
	•Basic Terminologies in Goods and Service Tax Act.
	•Levy and Collection of Goods and Service Tax.
	•Composition Scheme.
	•Taxable Event under Goods and Service Tax Act.
	•Time, Place and Value of Supply.
	•Payment of Tax.
<b>Programme : Commerce</b>	
<b>Programme outcome</b>	After successful competition of three years programme in Commerce a student should be able to
	• The graduate of this faculty has studied a variety of subjects related.
	• he/she has substantial knowledge of the working mechanism of business, entrepreneurship, legal framework and current economic conditions prevailing in the country.
<b>Programme specific outcomes</b>	• The commerce faculty handles 3 compulsory papers and 3 optional papers in first year, second year and third year. Commerce paper I & II introduces them to the basic concept of business, entrepreneurship and service sector in first year.
	• In the second year students get a glimpse of commerce Paper III & IV wherein Management, Production and finance is dealt with.
	• In the third year Paper V & VI introduces them to Marketing and Human Resource management.

	<ul style="list-style-type: none"> <li>Optional papers such as advertising in second year and export marketing and marketing research in third year enables them to understand the practical side of commerce.</li> </ul>
<b>Course Outcome</b>	
<b>Course</b>	<b>Outcome</b>
	After completion of following courses student should be able to understand
<b>Commerce Paper I</b>	<ul style="list-style-type: none"> <li>Introduction to Business- To familiarize the students with basic concepts of business and to develop their knowledge and understanding of business.</li> </ul>
	<ul style="list-style-type: none"> <li>To make students aware of the different trends in business and the prevailing business environment.</li> </ul>
	<ul style="list-style-type: none"> <li>To acquaint the students with concepts of project planning, feasibility study and entrepreneurship.</li> </ul>
<b>Commerce Paper II</b>	<ul style="list-style-type: none"> <li>To introduce service sector in detail with reference to retail, banking, insurance, ITES, logistics and E-commerce.</li> </ul>
<b>Commerce Paper III</b>	<ul style="list-style-type: none"> <li>To make students aware about conceptual knowledge and evolution of management.</li> </ul>
	<ul style="list-style-type: none"> <li>To familiarize the students with functions of management.</li> </ul>
<b>Commerce Paper IV</b>	<ul style="list-style-type: none"> <li>To acquaint the students with the basic concepts of Production management, Inventory Management and Quality Management.</li> </ul>
	<ul style="list-style-type: none"> <li>To provide basic knowledge about Indian Financial Systems.</li> </ul>
	<ul style="list-style-type: none"> <li>To update the students with the recent trends in Finance.</li> </ul>
<b>Commerce Paper V</b>	<ul style="list-style-type: none"> <li>Marketing function of business is explained with reference to marketing management considering today's competitive market environment, rising customer expectations and latest trends in marketing.</li> </ul>
<b>Commerce Paper VI</b>	<ul style="list-style-type: none"> <li>Human Resource Management which us an important ingredient of today's competitive corporate world is discussed in length.</li> </ul>
	<ul style="list-style-type: none"> <li>Variety of topics such as HRM, HRD, Human relations, Leadership, Motivation theories, employee morale, challenges and latest trends in HRM are covered.</li> </ul>
	<b><u>Second year – Applied components</u></b>
	<ul style="list-style-type: none"> <li>To get the students acquainted with fundamentals of advertising, different roles of advertising in marketing, economy and society at large.</li> </ul>

<b>Advertising – III</b>	• To introduce the students to advertising agency's working and its role.
	• To expose the students to the regulatory framework of advertising in Indian context.
	• To explain the students the role of advertising for the success of brands and its importance within the marketing unction of a company.
<b>Advertising – IV</b>	• To get the students acquainted with media and aspects of media planning.
	• To highlight the importance of creativity in advertising.
	• To prepare the students for post-graduate courses in advertising.
<b>Export Marketing- V</b>	<b><u>Third year applied component.</u></b>
	• To enable the students to understand the growing importance of exports for a nation.
	• To highlight the global framework for Export marketing, India's foreign trade policy and various export incentives and assistance.
<b>Export Marketing- VI</b>	• To enlighten the students with in depth knowledge of various aspects of Export marketing such as product planning and pricing decisions for export marketing, export distribution and promotion, export procedure and documentation.
	• To encourage the students to pursue the subject at higher level of specialization through advanced degree or diploma courses.
<b>Marketing Research - V</b>	<b><u>Third year applied component</u></b>
	• To explain the students Marketing research as a subject which is an integral part of marketing management.
	• To enhance the students understanding of the marketing research industry.
	• To develop students' skills required by the researcher and understand different applications of marketing research.
	• To enable the students to exploit Marketing Research data for management decision making.
<b>Marketing Research - VI</b>	• To educate the students in terms of applications of marketing research in areas of importance to marketing management.
	• To expose the students to the exciting career opportunities in marketing research.
<b>Business Law</b>	

<b>Business Law</b>	B.com course is designed on six semesters which include Business Law at III and IV semesters.
<b>Course</b>	<b>outcome</b>
	After completion of the following course contents the student should be able to understand
<b>Business Law Paper - I</b>	<ul style="list-style-type: none"> <li>• Contract Act, 1872, Special Contract Act, 1872, Sale of Goods Act, 1930, Negotiable Instrument Act, 1881 in semester III.</li> </ul>
<b>Business Law Paper - II</b>	<ul style="list-style-type: none"> <li>• Indian Companies Act, 2013, Indian Partnership Act, 2013, Limited Liability Partnership (LLP), 2008, Consumer Protection Act, 1986, Competition Act, 2002 and Intellectual Property Rights.</li> </ul>
<b>Programme : English</b>	
	<b>F.Y.B.A. English Literature</b> <b>Semester: I &amp; II</b> <b>Paper I: Introduction to Literature</b>
	<ul style="list-style-type: none"> <li>• To acquaint students with the characteristics of various literary genres.</li> </ul>
	<b>F.Y.B.A</b> <b>Communication Skills in English (Paper I &amp; Paper II)</b> <b>Semester: I &amp; II</b>
	<ul style="list-style-type: none"> <li>• To enhance language proficiency by providing adequate exposure to reading and writing skills.</li> <li>• To orient the learners towards the functional aspects of language.</li> <li>• To increase the range of lexical resource through a variety of exercises.</li> </ul>
	<b>FYBCom</b> <b>Business Communication (Paper I &amp; Paper II)</b> <b>Semester: I &amp; II</b>

- To develop awareness of the complexity of the communication process.
- To develop effective listening skills in students so as to enable them to comprehend instructions and become a critical listener.
- To develop effective oral skills so as to enable students to speak confidently interpersonally as well as in large groups.
- To develop effective writing skills so as to enable students to write in clear, concise, persuasive and audience centred manner.
- To demonstrate effective use of communication technology.

**S.Y.B.A. English Literature**  
**Semester: III & IV**  
**Paper II: Indian Literature in English**

- To introduce learners to the uniqueness of Indian Literature in English.
- To acquaint learners to the pluralistic dimensions of Indian Literature in English.
- To help them understand the different genres of Indian Literature in English.
- To familiarise learners with different perspectives of approaching this literature.

**Paper III: American Literature**

- To acquaint the learners of literature with the various genres and literary terms of twentieth century American Literature.
- To sensitize them to the themes and styles of American Literature.
- To introduce them to the socio-cultural milieu of twentieth century America through literary texts.
- To enhance their understanding of American, African American and Multicultural sensibilities by introducing them to the literary works representing them.
- To facilitate cross-cultural perspectives and discussions on American Literature.

**T.Y.B.A Paper IV**  
**Course: 16th to 18th Century English Literature**  
**Course Codes: UAENG501& UAENG601**

**Programme  
specific outcomes**

- To introduce students to English Literature of the 16th, 17th and 18th centuries.
- To show them how background influences shaped the writer's thinking.
- To present them to the literary masters who dominated the scene
- To familiarize students with different writing styles that each age adopted.

**T.Y.B.A Paper V**

**Course: Literary Criticism**

**Course Code: UAENG502 & UAENG602**

- To introduce the learners to important critical terms
- To make them aware of the nature and function of literature and criticism
- To impart the technique of close reading of literary texts
- To enable them to understand various literary theories and critical approaches
- To familiarize the learners with the tenets of practical criticism.

**T.Y.B.A Paper VI**

**Course: GRAMMAR AND THE ART OF WRITING**

**Course Codes: UAENG503A & UAENG603A**

- To develop amongst learners an insight into the process of word formation and transformation .
- To develop amongst them an insight into the sounds, stress patterns and intonations in the English language to improve their speaking skills .
- To develop among them an insight into the structure of the English language and to provide knowledge of the rules of grammar .
- To help them learn grammatical analysis and description and the skills of sentence transformation .
- To introduce the mechanics of writing for effective writing for various domains .

**T.Y.B.A Paper VII**

**Course: 19th Century English Literature**

**Course Codes: UAENG504 & UAENG604**



- To introduce to students the major trends and ideas in the literature and culture of the Romantic and Victorian Eras .
- To help students understand the texts in the context of prevailing socio-cultural conditions & their historical, political location .
- To impress upon students the characteristically rebellious/ radical nature of British Romanticism and the stupendous range of changes in the socio-political conditions of Early (1837-1851), Middle (1851-1870) and Late (1870-1901) Victorian Era .
- To familiarize and highlight major representative texts, genres, thematic concerns and select key concepts/terms pertaining to the respective periods .
- To help students apply a variety of critical, historical, and theoretical approaches to prescribed literary texts .
- To sensitize students to diverse sensibilities and humanitarian concerns through literature of the nineteenth century .

**T.Y.B.A Paper VIII**

**Course: 20th Century British Literature**

**Course Codes: UAENG505 &UAENG605**

- To expose students to literary genres, trends, and literary movements of Britain in the 20th Century.
- To enable students to create linkages between social and historical contexts and literary texts .
- To train students to develop skills for a critical and analytical understanding of the text.

**T.Y.B.A Paper IX**

**Course: Literature of Protest**

**Course Codes: UAENG503D& UAENG603D**

- To explore voices of discord, rhetoric and cultural contexts.
- To compare and contrast the artistic manoeuvres.
- To examine the protest spectrum in literature.
- To bring in panoramic understanding of global protest literature and ideologies.
- To learn the historical links between forms of protest and meanings of literature.

**Course Outcome**

<b>Course</b>	<b>Outcome</b>
<b>Paper I: Introduction to Literature</b>	<b>F.Y.B.A. English Literature Semester: I &amp; II</b>
	By the end of the course, a student should develop the ability: <ul style="list-style-type: none"> <li>• To write clearly, coherently and effectively about various genres of literature.</li> <li>• To recognize the culture and context of the work of literature.</li> <li>• To develop sensitivity to nature and fellow human being.</li> </ul>
<b>Semester: I &amp; II Objectives of the Course: 1</b>	<b>F.Y.B.Com</b>
	After successful completion of the course the learner should be able to enhance his Listening, Speaking, Reading and Writing Skills to meet the challenges of the world.
<b>16th to 18th Century English Literature</b>	<b>T.Y.B.A Paper IV</b>
	After completion of the course, students are expected to be able to: <ul style="list-style-type: none"> <li>• To understand the distinctive features of English literature of the 16th, 17th and 18th centuries</li> <li>• To comprehend how background influences shaped the writer's thinking.</li> <li>• To recognize and appreciate the literary masters who dominated the scene.</li> <li>• To grasp the different writing styles that each age adopted.</li> </ul>
<b>Literary Criticism</b>	<b>T.Y.B.A Paper V</b>
	Outcome of the Course: After completion of the course, students are expected to be able to: <ul style="list-style-type: none"> <li>• use some important critical terms</li> <li>• become aware the nature and function of literature and criticism</li> <li>• impart the technique of close reading of literary texts</li> <li>• understand the various literary theories and critical approaches</li> <li>• be familiar with the tenets of practical criticism</li> </ul>
	<b>T.Y.B.A Paper VI</b>

<p><b>GRAMMAR AND THE ART OF WRITING</b></p>	<p>After the completion of the course, students are expected to be able to:</p> <ul style="list-style-type: none"> <li>• Gain a basic understanding of phonetics, morphology and word transformation</li> <li>• Have improved speaking skills</li> <li>• Have developed adequate knowledge of the rules of grammar, grammatical analysis and sentence transformation</li> <li>• Write effectively in various domains.</li> </ul>
<p><b>19th Century English Literature</b></p>	<p style="text-align: center;"><b>TYBA Paper VII</b></p> <p>After completion of the course, students are expected to be able to:</p> <ul style="list-style-type: none"> <li>• To view literary works in their dynamic interface with the background</li> <li>• To understand the literature of the 19th century as a complex outcome of artistic, intellectual and socio-political cross-currents</li> <li>• To appreciate poetry as mirroring private personality, protest and subsequently, public concerns</li> <li>• To view the development of the Victorian Novel as informed by Victorian morality as well as by larger democratic processes</li> <li>• To contextualize the impulses behind the significant emergence of women writing in the 19th century</li> </ul>
<p><b>20th Century British Literature</b></p>	<p style="text-align: center;"><b>T.Y.B.A Paper VIII</b></p> <p>After completion of the course, students are expected to be able to:</p> <ul style="list-style-type: none"> <li>• Students will be equipped with comprehensive understanding of literary genres, trends and movements in 20th Century British Literature; thereby, enabling them to understand the valuable co-relation between the sociocultural, economical and historical contexts; behind the literary production.</li> <li>• Students will acquire the discipline to become reflective and imaginative thinkers through a close, critical and analytical reading of the prescribed texts.</li> </ul>
<p><b>Literature of Protest</b></p>	<p style="text-align: center;"><b>T.Y.B.A Paper IX</b></p> <p>After completion of the course, students are expected to be able to:</p>
<p><b>Programme : Sociology</b></p>	
	<ul style="list-style-type: none"> <li>• After successful completion of three years programme</li> </ul>

**Programme  
outcome**

specialization in Sociology a student should be able to

- Sociological Understanding: The ability to demonstrate sociological understandings of phenomena, for example, how individual biographies are shaped by social structures, social institutions, cultural practices, and multiple axes of difference and inequality.
- Better understanding of real life situation: The ability to apply sociological concepts and theories to the real world and ultimately their everyday lives
- Analytical thinking: Field survey and preparation of dissertation paper is an inseparable part of Sociology Hons Programme. Students have to collect primary data for census as well as his/her research topic and analyse the data to draw conclusions. So, qualitative and quantitative analytical skills are enhanced.
- Critical Thinking: The programme seeks to develop in students the sociological knowledge and skills that will enable them to think critically and imaginatively about society and social issues
- Ethical and Social Responsibility: Students have to learn about institutions, folkways , mores, culture, social control ,social inequality, population composition, population policy, society and culture of India. All these help to instill among the students of Sociology a sense of ethical and social responsibility.
- communication skills and Social interaction power: Students of Sociology stream have to work beyond the class room boundary at the time of field study activities. As a result good communication skill develops while interacting with local people.
- Professional and Career Opportunities: Students will have the opportunity to join professional careers in Sociology and allied fields. Sociology provides an intellectual background for students considering careers in business, social services, public policy, government service, nongovernmental organizations, foundations, or academia. This programme lays foundation for further study in Sociology, Social work, Rural Development, Social Welfare and in other allied subjects.
- Observation power: a sensible observation power is necessary to identify the research problems in field study. So a perception about human society slowly grows up.

<b>Programme specific outcomes</b>	• Gain knowledge of Society through different sub-disciplines and theory.
	• Develop research oriented attitude and skills.
	• Understand and demonstrate how self develops through various process of interaction.
	• Identify sociological concepts , sociological issues, and different theories related to societal concepts. .
<b>Course Outcome</b>	BA in Sociology course is design in six semester which includes the study of different sub-disciplines of Sociology .
<b>Course</b>	<b>Outcome</b>
	After completion of following courses student should be able to understand
	<b>FYBA Course -I FOUNDATIONS OF SOCIOLOGY</b>
	<ul style="list-style-type: none"> <li>•The emergence of Sociology and its relationship with other sciences</li> <li>•And define the nature and importance of Social Institutions</li> <li>•The influence of Culture on the society</li> <li>•The process of Socialization in the development of individuals in the society</li> </ul>
	<b>SEMESTER II FUNDAMENTALS OF SOCIOLOGY</b>
	<ul style="list-style-type: none"> <li>•The context and theoretical approaches that influences Social Interaction</li> <li>•The evolutionary processes and the organizing principles of Social Stratification</li> <li>•The nature and forms of deviant behaviour and the methods of Social Control</li> </ul>
	<b>SYBA Paper II SEMESTER III INDIAN SOCIETY: STRUCTURE AND CHANGE</b>
	<ul style="list-style-type: none"> <li>• To Introduce Students to the Indian Sociological Traditions.</li> <li>• To Familiarise Students with the Research traditions in Indian Sociology</li> <li>• To Acquaint Students with the Emerging Issues in Indian society</li> </ul>
	<b>SYBA Paper II SEMESTER IV SOCIOLOGY OF DEVELOPMENT</b>

- To introduce various theoretical perspectives in Indian society that have shaped the concept of development.
- To help students to gain an insight into emerging issues and contemporary debates within the development discourse.

**SYBA Paper III SEMESTER III CONTEMPORARY ISSUES  
IN INDIAN SOCIETY**

- To bring awareness and sensitivity among the students towards contemporary issues.
- To inculcate responsibilities and promote equality.

**SYBA Paper III SEMESTER IV EMERGING FIELDS IN  
SOCIOLOGY**

- To introduce students to the relevance and varied possibilities for future studies in sociology.
- It make's students aware about the new vibrant fields in sociology.
  - To provide students with an in-depth understanding of struggle and survival in today's competitive scenario.

**TYBA SOCIOLOGY SEMESTER V PAPER IV  
THEORETICAL SOCIOLOGY**

- To provide the students of Sociology with the understanding of Sociological Theory.
- To train students in the application of these theories to social situations.

**TYBA SOCIOLOGY SEMESTER VI PAPER IV  
Anthropological Thought**

- To provide the student with the understanding of Theoretical Anthropology.
- To train students in the application of these theories to social situations.

**TYBA SOCIOLOGY SEMESTER V , PAPER V Sociology of  
Work**

- To introduce students to the area of industrial sociology
- To help students to develop sociological understanding of the changes taking place in the area

**TYBA SOCIOLOGY SEMESTER VI, PAPER V Sociology of  
Informal sector**

- To develop a sociological understanding of the issues related to the informal sector.
- To introduce students to the growing sector of informal workers in the Indian economy
- To introduce students to the understanding of issues related with the informal sector in the context of globalization.
- To engage students with current debates on outsourcing, downsizing, social clause, social security and role of ICT

**TYBA Paper VI Semester V ,Sociology of Gender (Elective) (80 + 20 Marks)**

- To trace the evolution of Gender as a category of social analysis.
- To trace the emergence of women's movement in India and the history of their struggles

**TYBA Paper VI Semester VI , Gender and Society in India: Contemporary Debates and Emerging Issues, (80 + 20 Marks) (Elective)**

- To understand new and emerging issues in the Indian feminist landscape
- To understand newer methods of protest and resistance

**TYBA SOCIOLOGY SEMESTER V, PAPER VII / VIII (100 Marks) Sociology of Human Resource Development**

- To familiarize the students with role and functions of human resource development at the micro and macro level.
- To create an awareness of the various issues involved in the development of human resources with particular emphasis on social and cultural factors.

**TYBA SOCIOLOGY SEMESTER VI, PAPER VII / VIII (100 Marks) Sociology of Organizations**

- To familiarize students with dynamics of organizations and diverse strategies useful in developing human resources.
- To create an understanding of human resource planning to social development and comprehend the challenges faced by organizations in a global context.

**TYBA SOCIOLOGY SEMESTER V, PAPER VIII (100 Marks) URBAN SOCIOLOGY**



	<ul style="list-style-type: none"> <li>• To introduce students to the basic concepts, theories, nature &amp; dynamics of urbanization in India.</li> <li>• To understand the trends of India's contemporary urbanization pattern</li> </ul>
	<b>TYBA SOCIOLOGY SEMESTER VI, PAPER VIII (100Marks) Urbanisation in India: Issues and Concerns</b>
	<ul style="list-style-type: none"> <li>• To understand urban development in the neo liberal era</li> <li>• To understand newly emerging issues and concerns in the changing scenario</li> </ul>
	<b>TYBA SOCIOLOGY SEMESTER V, PAPER IX (Elective) (80 + 20 Marks) Quantitative Social Research</b>
	<ul style="list-style-type: none"> <li>• To provide students with an orientation to Quantitative Social Research</li> <li>• To acquaint students with the important concepts, techniques and methods in the quantitative social research process</li> <li>• To enable students to apply theoretical knowledge of social research to field study. Students are required to submit a project based on original field study.</li> </ul>
	<b>TYBA SOCIOLOGY SEMESTER VI, PAPER IX (Elective) (80 + 20 Marks) Qualitative Social Research</b>
	<ul style="list-style-type: none"> <li>• To provide students with an orientation to Qualitative Social Research</li> <li>• To acquaint students with the important concepts, techniques and processes in qualitative research</li> <li>• To enable students to apply theoretical knowledge of social research to field study. Students are required to submit a project based on original data collection.</li> </ul>
<b>Programme : Mathematics</b>	
<b>Course Outcome</b>	
<b>Course</b>	<b>Outcome</b>
	After completion of following courses student should be able to understand
	<b>F.Y.B.Com</b>
	<ul style="list-style-type: none"> <li>• Improve problem solving skills.</li> </ul>
	<ul style="list-style-type: none"> <li>• Use Mathematical ideas to solve real world problems.</li> </ul>
	<ul style="list-style-type: none"> <li>• Students will be able to represent and statically analyse data both numerically and graphically.</li> </ul>

<b>Mathematical &amp; Statistical Techniques</b>	• Mathematical reasoning improves student's reasoning capabilities.
	• Improve computational skills.
	• Stastical analysis is prevalent in all walks of life.
	• Learn to use the data they know and learn to use it to maintain and improve their business.
	• An understanding of basic statistics helps students to make decisions about how to use their time and money.
	• How to evaluate the economical information around them through understanding interest,annuity,mutual fund and shares also helps them to understand mathematical concepts used in economics.
<b>Computer System &amp; Applications</b>	<b>T.Y.B.Com</b>
	• Structures of data communications and facilities of internet are understood.
	• Improve Ecommerce activities and security uses in Ecommerce and various payment modes are understood.
	• Analysing data becomes easier with pivot table and filtering and representations through diagram.
	• Practicals in CSA improves students skills in handling computers.
	• How to use formulas and fuctions in exel.
	• To compile data from different workshhets.
	• SQL is useful for creating and querring relational databases.
	• VB can create executable EXE files.
<b>Mathematics</b>	<b>F.Y.B.Sc</b>
	• Students are expected to develop logical thinking.
	• They are supposed to have analytical approach to handle any situation.
	• To have clarity of thoughts and systematic methology in dealing with day to day affairs.





















































v

**2.6.1 Programme outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution**

Program	Program Outcome	Program Specific	Course Outcome
BMS	Get an insight into	Students attain basic	Help students to develop
	Sensitive Students	Develop professional	Develop positive attitude
			Generate ethical values Pursue higher studies in
BBI	To prepare students	Making students skilled	To produce innovative
	To give adequate	Students understand &	To analyse & take
	Give exposure to the	Students are able to	Pursue higher studies in

Program	Program Outcome	Program Specific	Course Outcome
BAF	Enables the student	Enhances the	Students are acquainted
	The students are	Students understand	Students are able to
		Students are familiarised	Students are able to file
		Students are made aware	Students can practically
		Students understand the	Students can pursue
		Students analyse and	

Program	Program Outcome	Program Specific	Course Outcome
BFM	Students gets a	Students gets an idea	Students can do
	Students can apply	Market fluctuation is	Students can venture
	Gets a focus into	Enables the student to	Students understand
		They understand the	Students can analyse &
		Students experience	
	There is an advanced		

Program	Program Outcome	Program Specific	Course Outcome
BMM	Provide basic	Students gets	Students can enter into
	Develop	Students also become	Other options like main
	Understanding		

Program	Program Outcome	Program Specific	Course Outcome
---------	-----------------	------------------	----------------

<b>BMM</b>	The students are trained in accountancy & auditing so that can specialise in accounts of different firms efficiently	Students are made able to finalise the accounts of any organisation from different sectors	The students can successfully file tax returns as they become well versant in matters of tax
		Students find it easy to	Costing also is a major
			Student can individually

<b>Program</b>	<b>Program outcome</b>	<b>Program Specific</b>	<b>Courses outcome</b>
<b>BSc.CS</b>	The Program	Serve as the	Work as the System
	To understand basic	Serve as the Computer	Serve as the System
	To develop problem	Improve their computer	To Give Technical

<b>Program</b>	<b>Program outcome</b>	<b>Program Specific</b>	<b>Courses outcome</b>
<b>B.Sc.IT</b>	To obtain	Students develop	Helps students to crack
	2. Grooming of	Exposure towards	Do Academic and
	To appreciate and to	Develop the skills to	On successful
			Project work to acquire
			students can also pursue
		They can get recruited in	

<b>Program</b>	<b>Program outcome</b>	<b>Program Specific</b>	<b>Courses outcome</b>
<b>MSc.IT</b>	This program is	Students will learn how	After this course
	Strong analytical	Software development	They can also control the
			After completion of this





