# 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**

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

Geography	• Gain knowledge about types and patterns of settlement with practical topic 'Nearest Neighbour Analysis'.
S.Y.B.A	Geography : At S.Y.B.A level 4 papers are included in Sem III
~~~~~	and IV
	• Understand Physiographic divisions of India, rivers, climate, soils ,natural vegetation and mineral resources distribution with map
THE DI . I	
III. Physical	filling of India.
Geography of	• Gain the knowledge about agricultural types, practices, green
India	revolution and recent trends in agriculture.
IV.	• Practical application of agricultural geography through thematic
Agriculture	map interpretation and preparation of graphs and statistical
Geography of	diagrams.
India	• Understand climatology and oceanography as branches of
V.	physical Geography. It includes study of atmosphere, wind
Oceanography VI Climatelegy	circulation, humidity, precipitation, climate weather phenomena, bottom ocean relief, movements of ocean water, marine pollution
VI. Climatology	and man and ocean relationship.
	Practicals of world map filling.
	1 0
F.Y.B.COM	Environmental Studies: At F.Y.B.Com level 2 papers are included in Sem I and II
	Understand basic concepts in environmental studies like eco-
	system, food chain, food web, natural resourses, population,
	problems of urbanisation.
	Create awareness about various environmental problems like
I. Environmental	pollution, global warming, ozone depletion and degradation of
Studies	natural resources.
Studies	Gain the knowledge about waste, tourism, environmental
	movements, use of geo-spatial technology like GIS, GPS and
	remote sensing in environmental management.
	Marking and naming the environmentally significant features on
	outline maps of the World, Kokan and Mumbai.
	Programme: Foundation Course
0 0	It includes topics from various streams of Arts, Science and
<b>Course Outcome</b>	Commerce. It is a complusory subjects for first and second year
	students of Arts, Science & Commerce.
Course	Outcome
	After completion of following courses student should be able to

	Sem I
	• Indian society.
	Problems in India like language, conflict etc.
	Basics of Indian constitution.
	Political areas like Gram panchayat, Municipality, problems
	faced by political parties etc.
	Sem II
Foundation	• Globalization, human rights, environment, ethics, stress etc.
Course	Sem III
	Human rights, NHRC, ecology, science and technology and soft
	skills in communication.
	Sem IV
	• Citizen rights like consumers right, PIL, RTI.
	<ul> <li>Various approaches to ecology like anthropocentrism.</li> </ul>
	Recent technologies like Laser, Biotech, computer, etc.
	• Soft skills in vacation and career, theories of motivation etc.
	Programme: Economics
Programme	Graduate of this degree will be critical thinkers in relation to
outcome	microeconomics and macroeconomics.
	• Students will be able to describe and explain the fundamental
	principal influencing markets.
Programme	• Evaluate the impact of various social, political and environmental
specific outcomes	factors on economic policy.
	• Interpret and evaluate articles in economic research and literature.
	Course Outcome
Course	After completion of following courses student should be able to
Course	understand
	F.Y.B.A./S.Y.B.A
	• Basic principles of Economics to help the students understand the
	different concepts.
	Methods and tools used in economic analysis to help students
	understand the complex economic issues.
	Importance of trade, market, demand and supply in economic
Economics	• The concepts of Cost, revenue market structures, pricing policies
	used in production process in Business decision.
	· · · · · · · · · · · · · · · · · · ·

	T1 4 1 4 1 11 1 4 14 4 1 N 1 14
	•The students should understand the trends in Maharashtra
	economy through understanding economic survey and other older published.
	• The students understand the issues in Indian Economy like fiscal
	framework universal basic incomes, health and fertility etc.
	T.Y.B.A (Economics Hanover)
	This is advanced Economics theory helping the students to
3.51	understand the specific issues of monopoly, oligopoly, game theory
Micro economics	etc.
and	General Equilibrium and Welfare Economics teaches them macro
Macroeconomics	economic impact of policy decisions.
	• The topics on international trade and policy help students
	understand the its importance in the economy.
	This course inculcates diverse concepts related to economic
	growth and development.
	• It creates an awareness on policy options, the pressing problems
<b>Economics of</b>	on the part of development such as inequality, poverty and
Development and	technological aspects.
International	• The modules on international trade helps students understand the
Economics	composition, direct and consequences international trade.
	Students also learn causes and consequences of international
	financial flows.
	• Students should understand the role of agriculture in Economics
	Development.
<b>Economics of</b>	Problems related to agricultural productivity, labour, credit,
Agriculture and	marketing, technology etc.
cooperation	• The paper on Cooperation is designed to provide various aspects
	of cooperation and cooperatives organization in the globalized
	economy.
	Students understand the principals and methods of economic
	research based on qualitative and quantitative data.
n .	
Research	• Students get an insight unto the applications of modern analytical
Methodology	tools and techniques related to economic decision making.
	• This also strengthens the Critical thinking and listening skills in
	conducting economic research.
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Environmental	Students understand the economic course of environmental
<b>Economics and</b>	problems.
Development	• Policies formulation for environment issues are understand.
theory and	The development theory paper helps students learn the
experience	demographic concepts market failures, migration etc.
History	The course provide basic understanding about the celebrated
Economic	economics and their contributions.
thought and	• It helps students to know the contributions of Nobel laureates.
International	The paper on International Trade Policy and Practice exposes
Trade policy and	students to current trends in International development.
practice	students to current trends in international development.
	Programme : Marathi
	Course Outcome
G	Outcome
Course	After completion of following courses student should be able to
	understand
	F.Y.B.A. Compulsory- मराठी
	• मराठी कथा व कवितांचा प्राथमिक परिचय असला पाहिजे.
	• मराठीतून कार्यालयीन पत्रव्यवहार अवगत होणे अभिप्रेत.
	F.Y.B.A Marathi Literature – Paper No. 01
	• नाटक व प्रवासवर्णन या वाड्मय प्रकारांचे भान आवश्यक.
	• मराठी नाटक व प्रवासवर्णनाच्या परंपरेचे भान आवश्यक.
	S.Y.B.A. Marathi Paper No. 02
	• कादंबरी व आत्मकथन या वाड्मयप्रकारांचे भान आवश्यक.
	• मराठी कादंबरी व आत्मकथनाच्या परंपरेचे भान आवश्यक.
मराठी	S.Y.B.A. Marathi Paper No. 03
11101	• भाषाविज्ञान व बोली यांचे किमान ज्ञान आवश्यक.
	• मालवणी बोलीचा परिचय आवश्यक.
	T.Y.B.A. Marathi Paper No. 04
	• प्राचीन मराठी वाड्मयाचा इतिहास, प्राचीन मराठी वाड्मयाची परंपरा व
	त्यातील महत्वाचे प्रवाह व त्यांची स्वरूप वैशिष्टे यांचे भान आवश्यक.
	T.Y.B.A. Marathi Paper No. 05
	• भारतीय व पश्चात्य साहित्यशास्त्राचे भान व त्यामागील सिद्धांत यांचा
	T.Y.B.A. Marathi Paper No. 06
	• साहित्य व समाज यांच्या तांत्रिक संबंधाचे भान आवश्यक.
	•मराठीतील काही प्रमुख वाड्मयीन प्रवाहांचे ज्ञान आवश्यक.

	SCIENCE	
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		
	Programme: Chemistry	
	After successful completition of three years programme in	
	Chemistry a student should be able to	
	• Use modern instruments like spectrophotometer, flame	
	photometer, nephelometer, colorimeter, pH meter and classical	
	techniques such as chromatography, HPTLC to design experiments	
	& to properly record result of their experiments.	
	• Demonstrate solve & understand major concepts in all disciplines of chemistry.	
Programme outcome	• Employ critical thinking and the scientific knowledge to design, carry out, record and analyse the results of Chemical reactions.	
	Create awareness of the impact of the chemistry on the	
	environment, society & development of outside the scientific	
	community.	
	Follow proper procedures & regulations for safe handling when	
	using hazardous chemical as well as regular chemicals.	
	• Find game full environment in industry, pharmaceutical	
	industries, forensic laboratories, in schools, etc.	
	Gain knowledge of chemistry through theory & practicals.	
	• Explain nomenclatures, structures, reactivity, stereochemistry,	
	reaction mechanisms of chemical reaction, spectral analysis of	
Programme	various compounds.	
specific outcomes	• Identify chemical formulae, balance chemical reaction, solve	
•	various numerical problems & derivations.	
	• Use modern chemical tools, models, charts & equipments.	
	• Understand good laboratory practises & safety.	
	• Develop research oriented attitude & skills.	
	B.Sc. course is design in six semesters which includes the study of	
Course Outcome	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.	
	Outcome	
	Outcome	

<ul> <li>understand</li> <li>The terms normality, molarity, molality, formality &amp; thermodynamic terms.</li> <li>Write an expression for rate constant, solve numerical problem same.</li> <li>Kinetic theory of gases, ideal gas law, law of mass action. Law thermodynamics.</li> <li>The effect of temperature on rate of reaction.</li> </ul>	
thermodynamic terms.  •Write an expression for rate constant, solve numerical problem same.  • Kinetic theory of gases, ideal gas law, law of mass action. Law thermodynamics.  • The effect of temperature on rate of reaction.	
<ul> <li>Write an expression for rate constant, solve numerical problem same.</li> <li>Kinetic theory of gases, ideal gas law, law of mass action. Law thermodynamics.</li> <li>The effect of temperature on rate of reaction.</li> </ul>	
<ul> <li>same.</li> <li>Kinetic theory of gases, ideal gas law, law of mass action. Law thermodynamics.</li> <li>The effect of temperature on rate of reaction.</li> </ul>	
<ul> <li>Kinetic theory of gases, ideal gas law, law of mass action. Law thermodynamics.</li> <li>The effect of temperature on rate of reaction.</li> </ul>	v of
thermodynamics.  • The effect of temperature on rate of reaction.	v of
• Arrhenius theory & collision theory.	
Laws of crystallography.	
• Types of catalyst & catalysis and mechanism & kinetics of	
Chemistry Michaelis Menten equation.	
Concepts of Nuclear chemistry, working & construction of	
nuclear power.	
• Principle & detail study of rotational spectra, vibrational spec	ra,
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.	
Classification of cells & applied electrochemistry.	
Standardisation of secondary standard.	
• Chemical kinetics.	
Practicals • pHmetry, colorimetry.	
• Spectrophotometry.	
• 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 reaction	ns
Organic to olefins.	

Chemistry	• 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.
	Chromatography of organic compound-Rf value.
	Recrystallization.
	Organic spotting.
Practicals	Separation of binary compounds & identification of one the
Fracticals	compound.
	• Preparation of derivative of organic compounds.
	Conductometric titration.
	Chemical kinetics.
	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 NH3 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,
	<del></del>

	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,
Inorganic	oxidation state, magnetic behaviour & colour and detection of
Chemistry	elements of first transition series with the help of various semi-
	micro tests.
	• Chemistry of titanium & vanadium, their compounds, properties
	& applications.
	• Bioinorganic chemistry, essential & nonessential elements, role of
	Na, K in biological system.
	• Complete chemistry of lanthanides & periodic positions of
	actinide.
	• MO diagrams of heteronuclear diatomic molecules such as HCl,
	CO, NO & MO diagrams of Beryllium dihydride, water & H3+
	ions & Walsh co-relation diagram.
	• Symmetry elements, point groups for H2, HCl, water, ammonia &
	trans dichloro ethylene.
	Chemistry of group 16 elements.
	Manufacture of sulphuric acid by contact process involving
	physico chemical principles applied to pressure, temperature, effect
	of concentration & types of catalyst.
	• Chemistry of group 17 & 18 elements.
	Chemistry of non aqueous solvents ammonia & dinitrogen
	tetroxide.
	• Various types of solvents.
	Metallurgy.
	• Extraction of Cu.
	Standardisation of commercial samples.
	• Gravimetric analysis-% composition of a mixture.
<b>Practicals</b>	• Determination of % purity of water soluble salt & qualitative
	detection with respect to added cation & anion from impurity.
	• Inorganic preparation.
	• Scope & objectives & role of analytical chemistry.
	• Terms involved in sampling & types and techniques of sampling
	& numericals.
	Classical methods of analysis like titrimetric analysis &
	gravimetric analysis.

	• Terms like primary & secondary standard in titrimetric & calculation involved.
	• Neutralisation titration- concept of pH, endpoint, equivalence
	point, construction of titration curve.
	• Types of gravimetric analysis.
Analytical	• Various steps involved in precipitation gravimetric analysis.
Chemistry	• Applications of gravimetric analysis.
	• 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.  Tatally and a second seco
	• Total hardness.
	• EDTA titrations.
	Gravimetric and semi micro analysis.
	• Colorimetry.
Practicals	• 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.
	• 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.
	tramador, paraectamor, sourum diciorenae, ectifizme, atenoror etc.
	Concepts of dyes involving terms like solubility, linearity,
	coplanarity, substantivity, economic viability.
Danas & Dries	• Types of dyes i.e. natural dyes, synthetic dyes & substrate for
Drugs & Dyes	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.	
	Preparation of different drugs like aspirin, ibuprofen.	
Practicals	Separation of natural pigments by chromatography.	
	• Estimation of acid.	
	PG : Organic Chemistry	
	Programme: Chemistry	
	After successful competition of two years programme in Chemistry	
	a student should be able to	
	• use modern instruments like spectrophotometer, flame	
	photometer, nephelometer, colorimeter, pH meter and classical	
	techniques such as chromatography, HPTLC to design experiments	
	& to properly record result of their experiments.	
	• Demonstrate solve & understand major concepts in all disciplines	
	of chemistry.	
Programme outcome	• Employ critical thinking and the scientific knowledge to design, carry out, record and analyse the results of Chemical reactions.	
	Create awareness of the impact of the chemistry on the	
	environment, society & development of outside the scientific	
	community.	
	• follow proper procedures & regulations for safe handling when	
	using hazardous chemical as well as regular chemicals.	
	• find game full environment in industry, pharmaceutical industries,	
	forensic laboratories, in schools, etc.	
	Gain knowledge of chemistry through theory & practicals.	
	• Explain nomenclatures, structures, reactivity, stereochemistry,	
	reaction mechanisms of chemical reaction, spectral analysis of	
	various compounds.	
	• Identify chemical formulae, balance chemical reaction, solve	
Programme	various numerical problems & derivations.	
specific outcomes	• Use modern chemical tools, models, charts & equipments.	
	• Understand good laboratory practises & safety.	
	onderstand good laboratory practises & safety.	

	Develop research oriented attitude & skills.	
	• develop research oriented deskill.	
	• make aware & handle the sophisticated instruments & equipments.	
Course Outcome	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.	
	Outcome	
Course	After completition of following courses student should be able to understand	
	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.	
Dhya! a al	<ul><li>Bio electrochemistry.</li><li>Numericlas based on theory.</li></ul>	
Physical Chemistry	• Study of chemical thermodynamics, real solution.	
Chemistry	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.	
	Heat of solution of a sparingly soluble acid.	
	• Graph plotting of mathematical functions.	

	Conductometer, pH meter, potentiometer.
Practicals	• 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 preration inorganic solids.
	• various methods of preparation & application of nanomaterial.
	Characterization of co-ordination compounds.
	Various ligand substitution reaction mechanism apply to
	octahedral & square planar complexes.
Inorganic	• learn trans effect, its theory & application.
Chemistry	• 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.
	Inorganic preparation & characterization.
	Determination of equilibrium constant by slope intercept method.
Practicals	Conductivity meter.
	• Ores & alloys analysis.
	• Potentiometric estimation.
	Hammonds postulates.
	• Factors affecting acidity & basicity.
	Aromaticity.
	• Nucleophilic substitution reactions involving SN1, SN2, Sni 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.
Organic	Dissolving metal reductions.
Chemistry	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.
	Brief description and application of UV, IR, NMR, Mass
	spectroscopy.
Duantinala	Preparation of various organic compounds.
Practicals	Separation of binary mixture using microscale technique.
	learn different analytical methods of analysis.
	Processes for safety in laboratory.
	Good laboratory practices with principle, objectives, OECD
	guidelines, Klimisch score.
	• Numericals based on calculations of ppm, ppb, concepts of mmol,
	stoichiometric calculation, calculation of pH, oxidation numbers,
	normality, molarity.
	• introduction to Fourier transform.
	Concepts of molecular UV & visible spectroscopy with
Analytical	application.
Chemistry	• Instrumentation of IR absorption spectroscopy including sample
Chemistry	handling, transducers with application of IR.
	• Learn thermal methods with its application.
	Automation in chemical analysis.
	Recapitulation of basic concepts in chromatography.
	Detailed study of Gas chromatography, HPLC .
	• Principle, instrumentation & application of X-ray spectroscopy,
	mass spectrometry, radio analytical method, atomic spectroscopy.
	Surface analytical techniques .
	Electroanalytical methods including polarography,
	electrogravimetry, coulometry.

	• Determination of % purity of various samples using pH meter,
	potentiometer.
	Determination of amount of different compounds by using
	colorimeter & spectrophotometer.
Practicals	Volhard's method, statistical method.
	Ion exchange capacity & breakthrough capacity of cation resin.
	Titrimetric method for determination of metal in alloys.
	Determination of nitro group.
	• Mechanism & reaction of neighbouring group participation.
	Classification of pericyclic reaction, Woodwards-Hoffimann rules
	explanation.
	• Photochemical reactions, cycloaddition reaction such as ene reaction, cheletropic reaction, Diels-alder reaction.
	Cycloaddition reaction of ketene, allene, carbene, etc.
Theoretical organic chemistry	• 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, Okamato-Brown Equation, Swain-Scott equation etc., Thermodynamic implications.
	• Structure & properties of crown ether, cryptands, cyclophanes.
	Principle of asymmetric synthesis, synthesis of L-DOPA.
	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.
Synthetic organic	Metal/non-metals in organic synthesis with its mechanism,
chemistry	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.
	Introduction to carbohydrates.
	• Synthesis of various natural pigments such as carotenoids,
	quinones, flavones, etc.
NT 4 1 1 4	• Synthesis, general structure and importance of pheromones.
Natural product	Alkaloids- occurrence, physiological importance.
and spectroscopy	Various multistep synthesis of natural products.
	• Classification, structure and importance of prostaglandins, lipids,
	steroids, vitamins, antibiotics, terpenoids.
	• Problems based on spectroscopic techniques.
	• Heterocyclic compounds- classification, nomenclature and
	various reactions.
Medicinal,	• Drug discovery, design & development including introduction,
biogenesis &	terms involved.
green chemistry	• Synthesis of drugs such as cetirizine, labetalol, fluconazole etc.
	Basic pathways of biogenesis & biosynthesis of natural products.
	• Introduction, principle & designing of green chemistry, green
	catalyst.
Research	• Learn how to do data analysis.
methodology	• Library sources, information sources for research.
	Chemical safety and ethical handling of chemicals.
	Writing scientific paper.
	• Separation of ternary mixture and identification including
	derivative preparation using microscale technique.
	• single step organic preparation involving purification by steam
Practicals	distillation/vacuum distillation or column chromatography.
	• two step synthesis.
	• interpretation of spectral data of organic compounds (UV, IR,
	PMR, CMR, Mass spectra).
	• research project.

Course Physics	
Programme : Physics	
Course Outcome	B.Sc. Course in Physics is designed in four semester
	outcome
Course	After completion of the course student should be able to understand
	Semester I & II
	• 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.
	• 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.
Physics	• Structure of nuclei, Radio activity and its applications.
	• Use of PC for plotting graphs and making ppts.
	Semester III & IV
	• The diffraction and polarization process and applications of them
	in physical situations.
	• The application of interference in design and working of
	interferrome.
	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.

	Programme : Zoology	
	After successful completition of two years programme in Zoology a	
	student should be able to	
	• Use modern instruments like sphygmomanometer, colorimeter,	
Programme	pH meter and classical techniques such as chromatography,	
outcome	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.	
Риодиатта	• An insight to the basic nutritional and health aspects of human life	
Programme specific outcomes	• To inculcate good laboratory practices in students and to train	
specific outcomes	them about scientific handling of important instruments.	
	Develop research oriented attitude & skills	
Course Outcome	B.Sc. course is design in four semester wonders of animals ecology	
Course Outcome	& wildlife management sem -I & II	
	Outcome	
Course	After completion of following courses student should be able to	
	understand	
	• Student understand the wealth of marvellous animal world.	
	Impulse to think differently and would be encouraged to their	
Wonders of	• Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.	
Wonders of Animal World.	<ul> <li>Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.</li> <li>Fascinating world of animals which would enhance their interest</li> </ul>	
Animal World,	<ul> <li>Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.</li> <li>Fascinating world of animals which would enhance their interest and love for the subject of Zoology.</li> </ul>	
	<ul> <li>Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.</li> <li>Fascinating world of animals which would enhance their interest and love for the subject of Zoology.</li> <li>Understand innovative and novel work of scientists/</li> </ul>	
Animal World, Biodiversity and	<ul> <li>Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.</li> <li>Fascinating world of animals which would enhance their interest and love for the subject of Zoology.</li> <li>Understand innovative and novel work of scientists/philosopher/entrepreneurs in the field of biological sciences.</li> </ul>	
Animal World, Biodiversity and	<ul> <li>Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.</li> <li>Fascinating world of animals which would enhance their interest and love for the subject of Zoology.</li> <li>Understand innovative and novel work of scientists/philosopher/entrepreneurs in the field of biological sciences.</li> <li>Student appreciate treasure of Biodiversity, its importance and</li> </ul>	
Animal World, Biodiversity and	<ul> <li>Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.</li> <li>Fascinating world of animals which would enhance their interest and love for the subject of Zoology.</li> <li>Understand innovative and novel work of scientists/philosopher/entrepreneurs in the field of biological sciences.</li> <li>Student appreciate treasure of Biodiversity, its importance and hence would contribute their best for its conservation.</li> </ul>	
Animal World, Biodiversity and	<ul> <li>Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.</li> <li>Fascinating world of animals which would enhance their interest and love for the subject of Zoology.</li> <li>Understand innovative and novel work of scientists/philosopher/entrepreneurs in the field of biological sciences.</li> <li>Student appreciate treasure of Biodiversity, its importance and hence would contribute their best for its conservation.</li> <li>Students are able to identify the different types of microscopic</li> </ul>	
Animal World, Biodiversity and its Conservation	<ul> <li>Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.</li> <li>Fascinating world of animals which would enhance their interest and love for the subject of Zoology.</li> <li>Understand innovative and novel work of scientists/philosopher/entrepreneurs in the field of biological sciences.</li> <li>Student appreciate treasure of Biodiversity, its importance and hence would contribute their best for its conservation.</li> <li>Students are able to identify the different types of microscopic shells.</li> </ul>	
Animal World, Biodiversity and	<ul> <li>Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.</li> <li>Fascinating world of animals which would enhance their interest and love for the subject of Zoology.</li> <li>Understand innovative and novel work of scientists/philosopher/entrepreneurs in the field of biological sciences.</li> <li>Student appreciate treasure of Biodiversity, its importance and hence would contribute their best for its conservation.</li> <li>Students are able to identify the different types of microscopic shells.</li> <li>Mounting of scales of fish.</li> </ul>	
Animal World, Biodiversity and its Conservation	<ul> <li>Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.</li> <li>Fascinating world of animals which would enhance their interest and love for the subject of Zoology.</li> <li>Understand innovative and novel work of scientists/philosopher/entrepreneurs in the field of biological sciences.</li> <li>Student appreciate treasure of Biodiversity, its importance and hence would contribute their best for its conservation.</li> <li>Students are able to identify the different types of microscopic shells.</li> <li>Mounting of scales of fish.</li> <li>Concept of adaptive radiations.</li> </ul>	
Animal World, Biodiversity and its Conservation	<ul> <li>Impulse to think differently and would be encouraged to their original crude ideas from the field of biological sciences.</li> <li>Fascinating world of animals which would enhance their interest and love for the subject of Zoology.</li> <li>Understand innovative and novel work of scientists/philosopher/entrepreneurs in the field of biological sciences.</li> <li>Student appreciate treasure of Biodiversity, its importance and hence would contribute their best for its conservation.</li> <li>Students are able to identify the different types of microscopic shells.</li> <li>Mounting of scales of fish.</li> </ul>	

	• 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, Clonning,
Animal	Ethical issues for cloned animals.
Biotechnology	• Students will be skilled to select & operate suitable instruments
and	for the studies of different components of zoology.
Instrumentation	
	• 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.
Practicals	• Study of parts of microscope and their functions. Technique of
	focussing a permanent slide under 10x and 45x.
	Colorimetry .
	Adsorption chromatography using chalk.Seperation of lipids by
	TI C
	TLC.
	sem- II
	sem- II  • Grasp the concept of interdependence and interaction of physical,
	sem- II
	sem- II  • Grasp the concept of interdependence and interaction of physical,
	sem- II  • Grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment
	<ul> <li>sem- II</li> <li>Grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment</li> <li>Concept of Endangered and Critically Endangered species using</li> </ul>
Factors 0	<ul> <li>sem- II</li> <li>Grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment</li> <li>Concept of Endangered and Critically Endangered species using examples of Indian Wildlife with respect to National Parks and</li> </ul>
Ecology &	• Grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment • Concept of Endangered and Critically Endangered species using examples of Indian Wildlife with respect to National Parks and Wildlife sanctuary.
Wildlife	• Grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment • Concept of Endangered and Critically Endangered species using examples of Indian Wildlife with respect to National Parks and Wildlife sanctuary. • understand the nature of animal population, impact on the
•	• Grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment • Concept of Endangered and Critically Endangered species using examples of Indian Wildlife with respect to National Parks and Wildlife sanctuary. • understand the nature of animal population, impact on the population of other life form.
Wildlife	• Grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment • Concept of Endangered and Critically Endangered species using examples of Indian Wildlife with respect to National Parks and Wildlife sanctuary. • understand the nature of animal population, impact on the population of other life form. • Different components of ecosystem and essentials of coexistence
Wildlife	• Grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment • Concept of Endangered and Critically Endangered species using examples of Indian Wildlife with respect to National Parks and Wildlife sanctuary. • understand the nature of animal population, impact on the population of other life form. • Different components of ecosystem and essentials of coexistence of human beings with all other living organisms.
Wildlife	• Grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment • Concept of Endangered and Critically Endangered species using examples of Indian Wildlife with respect to National Parks and Wildlife sanctuary. • understand the nature of animal population, impact on the population of other life form. • Different components of ecosystem and essentials of coexistence of human beings with all other living organisms. • Current status of wildlife conservation in India in the light of guidelines from different relevant governing agencies with
Wildlife	• Grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment • Concept of Endangered and Critically Endangered species using examples of Indian Wildlife with respect to National Parks and Wildlife sanctuary. • understand the nature of animal population, impact on the population of other life form. • Different components of ecosystem and essentials of coexistence of human beings with all other living organisms. • Current status of wildlife conservation in India in the light of

	conservation, research, photography and ecotourism.
Practicals	• Interpretation of different pattern of population nature.
	• Estimation of hardness from given water sample.
	• Study Biodiversity hotspots using world map.
	• Estimation of Free carbon dioxide (Free CO2) from two different samples-
	• Importance of balanced diet and essential nutrients of food at different stages of life.
	• Healthy dietary habits would be inculcated in the life style of learners.
	• Prevent risk of developing health hazards in younger generation due to faulty eating habits.
<b>N</b>	• Need for conservation of fast depleting water resource.
Nutrition, Public	Optimizing use of electronic gadgets.
Health & Hygiene	Recognize stress related problems at initial stages and would be
	able to adopt relevant solutions.
	Acquire knowledge of cause, symptoms and precautions of
	infectious diseases.
	• Avoiding addiction, thus facilitating achievement of the goal of healthy youngsters.
	• Encouragement for maintaining adequate personal hygiene.
	• 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.
D 4 1	• Food adulteration test.
Practicals	• 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 CuSO4 method.
	Sem III
	Understand the mechanisms of sex determination.
	Classical and Modern concept of Gene.
	• Principles of inheritance & heredity. Pedigree Analysis.

Genetics,	Concept of sex determination and its types, sex influenced and
<b>Evolution &amp;</b>	sex-limited genes.
Research	• Understand the concept of multiple alleles, linkage & crossing
Methodology	over.
	Able to correlate the disorders linked to a particular sex
	chromosome.
	• Understand the importance of nucleic acids as genetic material.
	Extraction and detection of DNA & RNA.
	Study of polytene chromosome & bar body.
	• Study of mitosis.
D	Pedigree analysis.
Practicals	Detection of blood groups and Rh factor.
	Problems based on molecular biology.
	Problems in Genetics.
	Chromosome morphology.
	• 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.
Nutrition and	Principle nitrogenous excretory products.
Excretion,	• concepts of physiology of respiration & circulation.
Respiration and	• various respiratory and circulatory organs in different classes of
Circulation,	organisms.
Control and	Concepts of physiology of respiration & circulation.
Coordination of	• locomotory and reproductive structures in different classes of
Life Processes,	organisms.
Locomotion	• Understand the process of control and coordination by nervous
and Reproduction	
	• 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.
	• Urine analysis—Normal and Abnormal constituents.
	Detection of ammonia, uric acid from animals waste products.

	• Study of nutritional apparatus, respiratory structures, locomotory
Practicals	organs.
	Learn different types of heart in animals.
	Study of permanent slides on reproduction.
	Study of striated and non-striated muscle fibre.
	• 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.
Ethology, Parasitology,	General epidemiological aspects of parasites that affect humans.
Economic Zoology	• 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.
	• Learner would pursue entrepreneurship as a career.
	• Extraction of casein from milk and its qualitative estimation.
	Preparation of paneer from given milk sample.
Practicals	Measurement of density of milk using different samples by
1 I decledis	Lactometer.
	• Study of Honey Bee, Ethological aspects, Parasitic adaptations.
	• Identify Ectoparasites, Protozoan parasites, Helminth parasites.
	sem IV
	• Understand the origin of life.
	• Analyse and critically view the different theories of evolution.
	• Understand the forces that cause evolutionary changes in natural
Origin and	populations.
Evolution of Life,	• Learner would comprehend the mechanisms of speciation.
Population	Able to distinguish between microevolution, macroevolution and

Genetics and	mega evolution.
Evolution,	Develop qualities such as critical thinking and analysis.
Scientific	• Theories of organic evolution.
Attitude,	Skills of scientific communication.
Research	• Understand the forces that cause evolutionary changes in natural
Methodology	populations.
	• Distinguish between microevolution, macroevolution and mega
	evolution.
	• scientific knowledge about how life originated on our planet.
	• He/she will understand the ethical aspects of research.
	method
	and calculate different diversity indices
	• Study of prokaryotic cells (bacteria) by Crystal violet staining
	technique.
Practicals	• Study of eukaryotic cells (WBCs) from blood smear by
1 I woulded	Leishman's stain.
	Identification and study of fossils
	• Preparation of Power Point Presentation based on research paper.
	Bibliography/ Abstract writing.
	• Structural and functional organization of cell.
	• cell and its organelles for its maintenance and composition of cell.
	Transport across membrane.
	Ultrastructure of cell organelles and their functions.
Cell biology,	• Endomembrane system.
Endomembrane	• Understand the interlinking of endomembrane system for
System & Biomolecules	functioning of cell.
Diomolecules	• 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.
	Vitamin deficiency
	• Study of permeability of cell through plasma membrane.
	Measurement of cell diameter by coulometer.
	• Qualitative tests for carbohydrates, proteins, lipids.
Practicals	• Study of rancidity of lipids by titrimetric method.

	Ultrastructure of cell organelles.
	• 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
Comparative	Different aspects of human reproduction.
Embryology,	Aware of the causes of infertility, techniques to overcome
Aspects of Human	infertility and the concept of birth control
Reproduction, Pollution and its	Human reproductive physiology
effect on	• Familiar with advances in ART and related ethical issues.
organisms	Impact of human activities leading to pollution and its
or gamsms	Adverse effects of pollution and measures to control it.
	Pollution by radioactive substances.
	Global warming & climate change.
	• 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
Practicals	• Study of chemical properties of soil- pH, organic matter.
	Study of sound pollution monitoring device.
	• Detection of pregnancy from given sample of urine.
	• Study of birth control measures applicable to humans.
	• Study of the following permanent slides, museum specimens and
	materials.
	• Study of natural ecosystem and field report of the visit.
	• Review writing based on programmes telecast by Door darshan,
	Gyan darshan, UGC programmes or other media sources.
	Programme : Botany
	After successful completition of 1st years programme in botany a
	student should be able to
	• To use classical techniques such as chromatography, HPTLC to

Programme outcome	design experiments & to properly record result of their experiments  .  • Dissect specimens of various plants and their parts .
	• Employ critical thinking and the scientific knowledge to design, carry out, record and analyse the results.
	• Create awareness of the impact of the botany on the environment, society & development of outside the scientific community.
	• Follow proper procedures & regulations for safe handling when using hazardous chemical as well as regular chemicals.
	Gain knowledge of Botany through theory & practicals.
Programme	• Explain nomenclatures, classification, identifiaction, dissection of different plant parts .
specific outcomes	• Use modern chemical tools, models, charts & equipments.
	Understand good laboratory practises & safety.
	Develop research oriented attitude & skills.
	Course Outcome
	esign in six semesters which includes the study of four branches of
	l, Organic, Inorganic & Analytical botany and along with this at the
last t	two semesters Drugs & Dyes as an applied component
	Outcome
Course	After completion of following courses student should be able to understand
	Structure, life cycle and systematic position of Nostoc and
	Spirogyra.
	Economic importance of Algae.
	• Structure, life cycle and systematic position of Rhizopus and
	Aspergillus.
	• Economic importance of Fungi.
	Modes of nutrition in Fungi (Saprophytism and Parasitism).
	• BRYOPHYTA.

• General structure of plant cell: cell wall

• General characters of Hepaticae.

• Structure, life cycle and systematic position of Riccia.

Paper II – Form and Function 1
CELL BIOLOGY

• Ultra structure and functions of the following cell organelles:

- 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.
- Identification of plants adapted to different environmental conditions:
- Calculation of mean, median and mode.
- Frequency distribution, graphical representation of datafrequency polygon, histogram, pie chart.
- Study of Karyoptypes: Human: Normal male and female, Allium cepa.

- SEMESTER 2 ramentum, hydathode, T.S. of rachis.
- of Nonhrolonia pagging through
- Cycas: T.S of leaflet, Megasporophyll, microsporophyll, coralloid

#### **Botany**

	root, microspore, L.S. of ovule of Cycas – all specimens to be
	shown.
	• Economic importance of Gymnosperms: Pinus.
	• Leaf morphology, Types of inflorescence: families: Malvaceae,
	Amaryllidaceae.  • Finnary structure of dicot and monocot root.
	Primary structure of dicot and monocot stem.
	• Epidermal outgrowths: with the help of mountings, Unicellular: Gossypium/Radish.
	Multicellular: Lantana/Sunflower
	Stellate: Ervthrina/Sida acuta/Solanum/Helecteris
	chromatography.
	• Change in colour because of change in pH: Anthocyanin: black grapes/Purple cabbage.
	• Test for tannins: tea powder/catechu.
Practical Paper II	Identification of plants or plant parts for grandma's pouch as per
	theory.
	• Photosynthesis: Light reactions, photolysis of water,
	photophosphorylation (cyclic and non cyclic), carbon fixation
	phase (C3, C4 and CAM pathways).
	• Concept of primary and secondary metabolites, difference
	between primary and secondary metabolites.
	• Grandma's pouch: Following plants have to be studies with respect to botanical source.
	• part of the plant used, active constituents present and medicinal
	uses:
	Oscimum sanctum, Adathoda vasica, Zinziber officinale,
	Curcuma longa, Santalum album, Aloe vera.
	Identify chemical formulae, balance chemical reaction, solve
	various numerical problrems & derivations.
Course Outcome	Understand good laboratory practises & safety.
	Develop research oriented attitude & skills.
	Develop research oriented skill .
	COMMERCE

	Programme: Accountancy	
	After successful competition of three years programme in	
	Commerce a student should be able to	
	•Understand direct and indirect taxation.	
	•Assist in audit.	
	•Do accounting with the help of tally.	
TD.	•Handle banking transaction independently.	
Programme	•Apply managerial skills.	
outcome	•Possess analytical skills, ethics, professionalism, oral and written	
	communication skill, critical thinking self motivation, decision	
	making etc.	
	•Be an input for CA,CS ICWA etc.	
	•Fill and file income tax return.	
	•Do GST registration to avail GST number for the clients.	
	•Learn basic accounting skills.	
	•Solve basis cost accounting problem.	
	•Be aware of accounting standards, IND AS, IFRS, GAAP.	
	•Know accounting concepts, conventions and principles	
	•Handle foreign currency transactions.	
Programme	•Handle partnership accounting, corporate accounting etc.	
specific outcomes	•Calculate fire insurance claim.	
	•Know transactions between head office and branches.	
	•Know basis concepts of GST and how GST work throughout the	
	country.	
	•Be aware about various taxation policies introduced by	
	Develop research oriented attitude & skills	
	B.Com. course is design in six semesters which includes the study	
	of Five branches of Accountancy i.e. Financial Accounting,	
<b>Course Outcome</b>	Costing, Management Accounting, Auditing and along with this at	
	the last two semesters Direct Tax & Indirect Tax as an applied	
	component	
	Outcome	
Course	After completion of following courses student should be able to	
	understand	
	•Disclosure of Accounting Policy - Its Purpose and Area of	
	Disclosure.	
	•Valuation of Inventories -Meaning and Methods of Valuation.	

	D D '.' M ' 10
	•Revenue Recognition - Meaning and Scope.
Accounting and	•Differentiation between Capital, Revenue Expenditure and
Financial	Receipts.
Management	•Final Accounts of Manufacturing Concerns.
Paper- I	•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.
	•Single Entry System, Conversion method .
Accounting and	•Preparation of Consignment accounts, Stock valuation.
Financial	•Preparation of Dependent Branch Accounts, a) Debtors system, b)
Management	Stock & Debtors system.
Paper- II	•Calculation of fire Insurance Claim and Average clause under fire
•	Insurance claim.
	• Final accounts of partnership firms. Various Adjustments. Process
	Order of Payment on Dissolution of a Firm.
Accounting and	Concept of Amalgamation. Objects of Amalgamation.
Financial	Accounting for Amalgamation.
Management	
Paper- III	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.
	De le continue de constitue de la constitue de
Accounting and	Redemption. Accounting Procedures of Redemption. Preparation
Financial Management	• Terms of Redemption. Methods of Redemption of Debentures.
Management	Accounting Procedures for Redemption of Debentures.
Paper- IV	Concept of Profit Prior to Incorporation. Its Treatment in
	Accounts. Allocation of Various Expenses. Calculation of Profit
	prior to incorporation and Post incorporation.
	•Concept of Management Accounting, Nature, Scope and
	Functions of Management Accounting.
	•Income Statement, Balance Sheet, Vertical Form of Financial
Accounting and	Statements.
Financial	*Concept of Analysis and interpretation, Types of Analysis,
Management	Comparative Statements, Common Size Statements, Trend
Donor V	Analyzaia

1 apei - v ( Management	•Importance of Ratio Analysis, Calculation of Various Ratios, Interpretation of Financial Statements, Preparation of Financial Statements from the given Ratios.
Account)	•Concept of Working Capital, Management of Working Capital, Projection of Working Capital Requirements.
	•Importance of Capital Budgeting, Different Techniques of Capital
	Budgeting.
Accounting and	•Understand the Basics of Auditing, Errors and Frauds, Principles of Audit, Types of Audit.
Financial	•Understand the Audit Planning, Audit Program, Audit Working Papers and its importance and its contents.
Management Paper- VI (Auditing)	• Understand the Test check, Audit Sampling, Internal Control, Internal Audit techniques of Audit.
(Auditing)	•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 Construction, Legal aspect of Internal Reconstruction, Accounting procedure, Draw Balance Sheet of Company after Reconstruction.
Accounting and Financial Management	•To Learn concept of Buyback of shares, Condition of Buyback, Methods of Buyback, Accounting of Buyback and own Debentures.
Management Paper- VII ( Financial Accounting)	• 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.
	• 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.
	•Importance and uses of Cost Accounting.
	•Decision making and control.
	•Inventory Control.
Accounting and	Procurement Procedures of material.      Procurement Order quantity.
Financial	•Economic Order quantity.

Management	•Material Turnover ratio.
Paper- VIII	•Labour Turnover.
( Costing)	•Remuneration and Incentive schemes.
	•Attendance and Payroll procedures.
	•Functional analysis of overheads.
	•Behavioural analysis of overheads.
Accounting and	<ul> <li>Concept of Amalgamation, Meaning of Purchase Consideration, Methods of computing purchase consideration, accounting of amalgamation with reference to AS - 14.</li> <li>To understand Foreign Currency Transaction, Need for conversion, Recognition of Exchange Difference and Accounting</li> </ul>
Financial	of Foreign Currency Translation.
Management Paper- IX (Financial Accounting)	• To Know the concept of Liquidation, Modes of Liquidation and Procedure of Preparation of Liquidators Final Statement of Account.
recounting	• To learn Concept of Underwriting, determination of Liabilities
	and Underwriting Commission.
	•Concept of Limited Liability Partnership, Formation of LLP,
	Accounts and Audit of LLP and its Final Accounts.
	•Classification of costs.
	•Preparation of Cost sheet.
	•Reconciliation of cost and financial accounts.
Accounting and	•Non-integrated system of cost accounting.
Financial	•Preparation of Contract Account.
Management	•Preparation of Process Account.
Paper- X	•Marginal costing and Decision making.
(Costing)	•Importance of Standard Accounting.
	•Variance Analysis.
	•Life cycle costing.
	•Target Costing.
Applied	•Basic Terminologies in Direct Taxation.
	•Residential Status and Scope of Total Income.
Component	•Incomes that are exempted from Tax.
Direct Tax Paper	•Different Heads of Income and Income head specific deduction.
-I	•Exclusions from Total Income.
	•Deductions that are available from Total Income.
	•Payment of Tax. Computation of Total Income for Individual.

	Basic Terminologies in Goods and Service Tax Act.
Applied	•Levy and Collection of Goods and Service Tax.
Component	•Composition Scheme.
Indirect Tax	•Taxable Event under Goods and Service Tax Act.
Paper -II	•Time, Place and Value of Supply.
	•Payment of Tax.
	Programme: Commerce
	After successful competition of three years programme in
	Commerce a student should be able to
D	The graduate of this faculty has studied a variety of subjects
Programme	related.
outcome	• he/she has substantial knowledge of the working mechanism of
	business, entrepreneurship, legal framework and current economic
	conditions prevailing in the country.
	• 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.
Programme	• In the second year students get a glimpse of commerce Paper III
specific outcomes	& IV wherein Management, Production and finance is dealt with.
	• In the third year Paper V & VI introduces them to Marketing and
	Human Resource management.
	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.
	Course Outcome
	Outcome
Course	After completion of following courses student should be able to
304120	understand
	• Introduction to Business- To familiarize the students with basic
	concepts of business and to develop their knowledge and
	understanding of business.
Commerce Paper	• To make students aware of the different trends in business and the
I	prevailing business environment.
	• To acquaint the students with concepts of project planning,
	10 acquaint and bradents with concepts of project planning,

	feasibility study and entrepreneurship.
<b>Commerce Paper</b>	• To introduce service sector in detail with reference to retail,
II	banking, insurance, ITES, logistics and E-commerce.
Commerce Paper	To make students aware about conceptual knowledge and
III	evolution of management.
111	• To familiarize the students with functions of management.
	• To acquaint the students with the basic concepts of Production
<b>Commerce Paper</b>	management, Inventory Management and Quality Management.
IV	• To provide basic knowledge about Indian Financial Systems.
	• To update the students with the recent trends in Finance.
	Marketing function of business is explained with reference to
<b>Commerce Paper</b>	marketing management considering today's competitive market
V	environment, rising customer expectations and latest trends in
	marketing.
	• Human Resource Management which us an important ingredient
	of today's competitive corporate world is discussed in length.
<b>Commerce Paper</b>	of today's competitive corporate world is discussed in length.
VI	• Variety of topics such as HRM, HRD, Human relations,
	Leadership, Motivation theories, employee morale, challenges and
	latest trends in HRM are covered.
	Second year – Applied components
	• To get the students acquainted with fundamentals of advertising,
	different roles of advertising in marketing, economy and society at
	large.
	• To introduce the students to advertising agency's working and its
Advertising – III	role.
	• To expose the students to the regulatory framework of advertising
Advertising – IV	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.
	• 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.
	Third year applied component.

Export Marketing- V	• 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.
Export Marketing- VI	<ul> <li>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.</li> <li>To encourage the students to pursue the subject at higher level of specialization through advanced degree or diploma courses.</li> </ul>
	Third year applied component
	• To explain the students Marketing research as a subject which is
	an integral part of marketing management.
Marikatina	• To enhance the students understanding of the marketing research
Marketing Research - V	industry.
Research - v	• 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.
ъл 1 4°	• To educate the students in terms of applications of marketing
Marketing Research - VI	research in areas of importance to marketing management.
Kesearch - VI	• To expose the students to the exciting career opportunities in marketing research.
	Business Law
Business Law	B.com course is designed on six semesters which include Business Law at III and IV semesters.
	outcome
Course	After completion of the following course contents the student should be able to understand
Business Law Paper - I	• Contract Act, 1872, Special Contract Act, 1872, Sale of Goods Act, 1930, Negotiable Instrument Act, 1881 in semester III.
Business Law Paper - II	• Indian Companies Act, 2013, Indian Partnership Act, 2013, Limited Liability Partnership (LLP), 2008, Consumer Protection Act, 1986, Competition Act, 2002 and Intellectual Property Rights.

#### **Programme: English**

#### F.Y.B.A. English Literature Semester: I & II

#### Paper I: Introduction to Literature

• To acquaint students with the characteristics of various literary genres.

## F.Y.B.A Communication Skills in English (Paper I & Paper II) Semester: I & II

- To enhance language proficiency by providing adequate exposure to reading and writing skills.
- To orient the learners towards the functional aspects of language.
- To increase the range of lexical resource through a variety of exercises.

### FYBCom Business Communication (Paper I & Paper II) Semester: I & II

- 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

- To introduce students to English Literature of the 16th, 17th and 18thcenturies.
- 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.

Programme specific outcomes

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**

	Outcome				
Course	After completion of following courses student should be able to				
	understand				
	F.Y.B.A. English Literature				
	Semester: I & II				
Paper I:	By the end of the course, a student should develop the ability:				
Introduction to	• To write clearly, coherently and effectively about various genres				
Literature	of literature.				
	• To recognize the culture and context of the work of literature.				
	To develop sensitivity to nature and fellow human being.				
Semester: I & II	F.Y.B.Com				
<b>Objectives of the</b>	After successful completion of the course the learner should be				
Course:	able to enhance his Listening, Speaking, Reading and Writing				
1	Skills to meet the challenges of the world.				
	T.Y.B.A Paper IV				
	After completion of the course students are expected to be able to:				
	After completion of the course, students are expected to be able to:  • To understand the distinctive features of English literature of the				
16th to 18th	16th, 17th and 18th centuries				
Century English	• To comprehend how background influences shaped the writer's				
Literature	thinking.				
	• To recognize and appreciate the literary masters who dominated				
	the scene.				
	• To grasp the different writing styles that each age adopted.				
	TVDAD				
	T.Y.B.A Paper V				
	Outcome of the Course:				
Litonopy	After completion of the course, students are expected to be able to:				
Literary Criticism	<ul> <li>use some important critical terms</li> <li>become aware the nature and function of literature and criticism</li> </ul>				
Crucisiii	• impart the technique of close reading of literary texts				
	• understand the various literary theories and critical approaches				
	• be familiar with the tenets of practical criticism				
	Property of Property Street				
	T.Y.B.A Paper VI				
	1.1.υ.α ταμεί γι				

	After the completion of the course, students are expected to be able	
	to:	
GRAMMAR	• Gain a basic understanding of phonetics, morphology and word	
AND THE ART	transformation	
OF WRITING	Have improved speaking skills	
	• Have developed adequate knowledge of the rules of grammar,	
	grammatical analysis and sentence transformation	
	• Write effectively in various domains.	
	TYBA Paper VII	
19th Century English Literature	After completion of the course, students are expected to be able to:  • To view literary works in their dynamic interface with the background  • To understand the literature of the 19th century as a complex outcome of artistic, intellectual and socio-political cross-currents  • To appreciate poetry as mirroring private personality, protest and subsequently, public concerns  • To view the development of the Victorian Novel as informed by Victorian morality as well as by larger democratic processes  • To contextualize the impulses behind the significant emergence of women writing in the 19th century	
	T.Y.B.A Paper VIII	
20th Century British Literature	After completion of the course, students are expected to be able to:  • 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.  • Students will acquire the discipline to become reflective and imaginative thinkers through a close, critical and analytical reading of the prescribed texts.	
Literature of	T.Y.B.A Paper IX	
Protest	After completion of the course, students are expected to be able to:	
110000		
1100050	Programme : Sociology	

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.

#### Programme outcome

	• Gain knowledge of Society through different sub-disciplines and			
	theory.			
Programme	Devlope research oriented attitude and skills.			
specific outcomes	• Understand and demonstrate how self develops through various			
specific outcomes	process of interaction.			
	• Identify sociological concepts, sociological issues, and different			
	theories related to societal concepts			
C 0 4	BA in Sociology course is design in six semester which includes			
Course Outcome	the study of different sub-disciplines of Sociology.			
	Outcome			
Course	After completion of following courses student should be able to			
	understand			
	FYBA Course -I FOUNDATIONS OF SOCIOLOGY			
	•The emergence of Sociology and its relationship with other			
	sciences			
	•And define the nature and importance of Social Institutions			
	•The influence of Culture on the society			
	•The process of Socialization in the development of individuals in			
	the society			
	SEMESTER II FUNDAMENTALS OF SOCIOLOGY			
	•The context and theoretical approaches that influences Social			
	Interaction			
	•The evolutionary processes and the organizing principles of Social			
	Stratification			
	•The nature and forms of deviant behaviour and the methods of			
	Social Control			
	SYBA Paper II SEMESTER III INDIAN SOCIETY:			
	STRUCTURE AND CHANGE			
	• To Introduce Students to the Indian Sociological Traditions.			
	• To Familiarise Students with the Research traditions in Indian			
	Sociology			
	• To Acquaint Students with the Emerging Issues in Indian society			
SYBA Paper II SEMESTER IV SOCIOLOGY OF				
	DEVELOPMENT			

- 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

• To introduce students to the basic concepts, theories, nature &
dynamics of urbanization in India.

• To understand the trends of India's contemporary urbanization pattern

#### TYBA SOCIOLOGY SEMESTER VI, PAPER VIII (100Marks) Urbanisation in India: Issues and Concerns

- To understand urban development in the neo liberal era
- To understand newly emerging issues and concerns in the changing scenario

## TYBA SOCIOLOGY SEMESTER V, PAPER IX (Elective) (80 + 20 Marks) Quantitative Social Research

- To provide students with an orientation to Quantitative Social Research
- To acquaint students with the important concepts, techniques and methods in the quantitative social research process
- 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.

#### TYBA SOCIOLOGY SEMESTER VI, PAPER IX (Elective) (80 + 20 Marks) Qualitative Social Research

- To provide students with an orientation to Qualitative Social Research
- To acquaint students with the important concepts, techniques and processes in qualitative research
- 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.

Programme: Mathematics				
Course Outcome				
	Outcome			
Course	After completion of following courses student should be able to			
	understand			
	F.Y.B.Com			
	• Improve problem solving skills.			
	• Use Mathematical ideas to solve real world problems.			
	• Students will be able to represent and statically analyse data both			
	numerically and graphically.			

	• Mathematical reasoning improves student's reasoning capabilities.			
Mathematical &	• Improve computational skills.			
Statistical	Stastical analysis is prevalent in all walks of life.			
Techniques	• 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.			
	T.Y.B.Com			
	• 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			
Computer	representations through diagram.			
System & Applications	• 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.			
	F.Y.B.Sc			
	Students are expected to develope logical thinking.			
<b>Mathematics</b>	They are supposed to have analytical approach to handle any			
wiathematics	situation.			
	• To have clarity of thoughts and systematic methology in dealing			
	with day to day affairs.			



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# 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 me	<b>Program Outcome</b>	Program Specific Outcome	Course Outcome
	Get an insight into business & modern management practices	Students attain basic skills required for marketing	Help students to develop competency and skills to make learness employable
BMS	Sensitive Students towards challenges in global market	Develop professional knowledge & skills accountancy	Develop positive attitude towards learning & research
			Generate ethical values
			Pursue higher studies in fields of management
	To prepare students to explore opportunites in field of banking & insurance	Making students skilled in the various aspects of banking sector	To produce innovative solutions to problems & business challenges
BBI	To give adequate exposure to operational environment in banking & Insurance	Students understand & analyse the practical aspects of Insurance sector	To analyse & take decision regarding market fluctuations
	Give exposure to the industry through internship during summer	Students are able to understand the variations in foreign exchange transactions	Pursue higher studies in banking or finance sector

Program me	<b>Program Outcome</b>	Program Specific Outcome	Course Outcome
	Enables the student to understand the fundamentals of accounting concepts taxation & costing	Enhances the communication skills and computer knowledge	Students are acquainted with research based project work
	The students are enabled to enter complex transactions in the books of accounts	Students understand various accounting standards issued by ICAI	Students are able to finalize accounts of different entities
		Students are familiarised with various types of costing methods	Students are able to file returns, conduct audits & assessments
BAF		Students are made aware about the diversified Indian Society, constituition and political process of India	Students can practically deal with underwriting of shares, debentures, amagamation, company liquidation etc
		Students understand the various auditing techniques, planning procedures and documentaion	Students can pursue higher studies in chatered Accountancy, ICWA, MBA(finance), Research in finance etc
		Students analyse and understand ratios, cash flow, professional ethics etc	

Program me	<b>Program Outcome</b>	Program Specific Outcome	Course Outcome
	Students gets a basic idea about the fundamentals & operations of financial market	Students gets an idea about the key market players	Students can do consultancy work
	Students can apply & evaluate the financial investment theories	Market fluctuation is analysed interpreted	Students can venture into merchant banking & conduct underwriting fund raising etc to large corporate sectors
BFM	Gets a focus into market regulation forces	Enables the student to understand about equity market, derivative market, venture capital, capital market etc	Students understand security analysis & get aware about risk & return of investment
		They understand the concepts of taxation & different heads	Students can analyse & decide about the investment decision & portfolio performance
		Students experience online trading activites	
		There is an advanced study about the social problems	

Program me	Program Outcome	Program Specific Outcome	Course Outcome
	Provide basic understanding related to Mass Media	tundamental idea about	Students can enter into various fields like content writing, art direction, editing, search engine optimization etc

ВММ	Develop Professional traits and communication skills	Students also become aware about journalism event management & advertising	Other options like main stream journalism, writing blogs, media company jobs etc. are available
	Understanding about fileds like photography, film making, designing, animation, public relation etc		

Program me	Program Outcome	Program Specific Outcome	Course Outcome
ВММ	The students are trained in accountancy & auditing so that can	different sectors  Students find it easy to	The students can successfully file tax returns as they become well versant in matters of tax  Costing also is a major
	specialise in accounts of different firms efficiently	C.A/C.S/Ph.D	Student can individually handle accounts of a firm upto finalisation

Pr	ogram me	Program outcome	Program Specific Outcome	Courses outcome
		The Program enables the students:	Serve as the Programmers or the Software Engineers with the sound knowledge of practical and theoretical concepts for developing software.	Work as the System Engineers and System integrators.

BSc.CS	To understand basic facts and concepts in computers while retaining the exciting aspects of technologies so as to develop interest in the study as a discipline.	Serve as the Computer Engineers with enhanced knowledge of computers.	Serve as the System Administrators with thorough knowledge of DBMS.
	To develop problem solving skills.	Improve their computer literacy, their basic understanding of operative systems and a working knowledge of software commonly used in academic and professional environments.	To Give Technical Support for the various systems.

Program me	Program outcome	Program Specific Outcome	Courses outcome
	Itechnologies jised in	Students develop expertise and familiarity about the major difference and the applications of software as well as hardware technologies.	Helps students to crack interviews in IT companies.

	2. Grooming of students by enhancing both logical and personal skills.	Exposure towards industry insight with the help of technology related workshops.	Do Academic and Professional Presentations - Designing and delivering an effective presentations and developing the various IT skills to the electronic databases.
B.Sc.IT	To appreciate and to know the role of Information Technology in nature and in society.	Develop the skills to present ideas effectively and efficiently	On successful completion of this subject the students have the programming ability in different programming languages, embedded systems, databases ,networking concepts, microprocessor architecture, operating systems.
			Project work to acquire practical knowledge on the implementation of the programming concepts studied.
			students can also pursue higher education.

	They can get recruited in IT industries in diversified fields like
	software Testing,
	Development, Mobile
	application development,
	IOT, Data science,
	Artificial Intelligence etc.

Program me	Program outcome	Program Specific Outcome	Courses outcome
	This program is established to provide theoretical as well as practical knowledge related to embedded systems, data storage and retrieval and controlling applications and their development	Students will learn how to solve Information Technology issues in workplace, Implementation of algorithms, statistical Analysis, Data storage management using cloud computing and control over IT functions and projects with the use of latest Technologies.	After this course candidate will be able to handle digital commerce, Software development, hardware applications and achieve organizational goals and objectives.
MSc.IT	Strong analytical skills, critical thinking skills and experimental skills is what candidate focuses on in this program.	Software development and network system are very comprehensive area of learning and they can be understood deeply by doing this course.	They can also control the maintenance of software network to handle the technological challenges.

After completion of this course, candidates can get appropriate jobs in IT sector in top recruiting companies and in diversified job positions like Project Manager, cloud computing Engineer IT Manager, System Analysts, Technical Leaders, Software Consultants, Database Designer, Database Administrator, Network planning etc.