Programme Outcomes (PO), Programme Specific Outcomes (PSO) and Course Outcomes (CO) at VESASC

Aided Section		
BA Programme		
PO: Apart from	expertise in respective fi	elds, a BA student is imbibed with realization of human
values, a sense of social service, becomes a responsible and dutiful citizen, develops a critical		
temper and crea		
BA Economics		
	nt understands the basic	concepts in Economics and can apply them in the real
		ent trends in the subject. The student also builds a sound
		Economics and related fields.
Class/ Paper/	Title	Course Outcome
Semester	The second secon	
FYBA		
Paper I		Learning and application of elementary concepts of
Sem I	Microeconomics - I	microeconomics in the real world.
FYBA	Microeconomics - 1	
		Learning basic building blocks of macroeconomics in an
Paper II	Maaraaaanamiaa	open economy framework, so as to be able to analyze
Sem II SYBA	Macroeconomics - I	macroeconomic policies.
		Building on the material covered in Semester 1, the
Paper III		student can better apply microeconomics to the real
Sem III	Microeconomics - II	world.
SYBA		Building awareness and knowledge about the problems
Paper IV		and policies of the Indian economy as also current
Sem III	Indian Economy - I	trends.
		Learning about theories, institutions and instruments of
		investment, the student can apply the techniques of
SYBA		fundamental and technical analysis and elementary
Optional		mathematical and statistical techniques in investment
Sem III	Investment Analysis - I	analysis.
SYBA		In the context of a closed economy, the student can
Paper V		understand how interest rate and income level are
Sem IV	Macroeconomics - II	determined and how policy may affect these outcomes.
SYBA		Building awareness and knowledge about the problems
Paper VI		and policies of Maharashtra State as also current
Sem IV	Indian Economy - II	trends.
SYBA		Building on the material covered in Semester 3, the
Optional		student can better apply investment analysis
Sem IV	Investment Analysis - II	methodology to the real world.
		With sound training in microeconomic theory, the
TYBA		student learns about the real world imperfect
Paper VII	Advanced Economic	competition and general equilibrium and welfare
Sem V	Theory I	economics.
TYBA		
Paper VIII	Growth and	The student learns theories, processes and policies
Sem V	Development	regarding growth and development.
		The student learns the remarkable changes in the
		financial sector after 1991. The operations of both the
TYBA		Central Bank and commercial banks, the opening of the
Paper IX	Indian Financial	financial markets and the evolution of new instruments
Sem V	System	and financial services are discussed.
TYBA	Research Methodology	From an interdisciplinary perspective, the students
Paper X	-1	learns about the concepts, principles and methods of

Sem V		economic research. He can apply quantitative and qualitative methods in the process of formulating research questions. The student's critical thinking and reasoning skills and ability to communicate research results competently is strengthened. He can do fundamental statistical analysis using computers. This student understands about the composition, direction, and consequences of international trade, and the determinants and effects of trade policy. He
		understands national policies as well as international
TYBA		monetary systems. The course covers abstract
Paper XI Sem V	International Economics I	theoretical models, but students are also exposed to
		real-world examples and case studies. The course provides a deep understanding about the
ТҮВА		broad principles and concepts of trade agreements,
Paper XII		tapping foreign markets, export pricing, export
Sem V	Export Management	promotion and documents and procedures.
ТҮВА		
Paper XIII	Advanced Economic	
Sem VI	Theory II	
ТҮВА		
Paper XIV	Growth and	
Sem VI	Development II	
TYBA Paper XV	Indian Financial	The student builds on the lunguided as a consolidate distinction
Sem VI	System II	The student builds on the knowledge consolidated in the
ТҮВА		previous semester.
Paper XVI	Research Methodology	
Sem VI	-	
ТҮВА		
Paper XVII	International	
Sem VI	Economics II	
ТҮВА		
Paper XVIII		
Sem VI	Export Management II	

BA Eco-Commerce PSO:

FYBA	Introduction to	The course provides understanding of Types of
Commerce I	Business	business organisations, business environment,
Sem I, Sem II		banking, insurance, and distribution channels.
SYBA	Financial Management	The course provides understanding of financial
Commerce II		planning, sources of finance, types of capital, mutual
Sem III, IV		funds, Capital market in India and FDI.
SYBA	Introduction to	The course provides understanding of Concepts of
Commerce III	Marketing	Marketing, Marketing segmentation, Consumer
Sem III, IV		Behaviour, Marketing Research, Marketing Mix
		With sound training in microeconomic theory, the
TYBA		student learns about the real world imperfect
Paper VII	Advanced Economic	competition and general equilibrium and welfare
Sem V	Theory I	economics.

TYBA Paper VIII Sem V	Growth and Development	The student learns theories, processes and policies regarding growth and development.
TYBA Paper IX Sem V	Indian Financial System	The student learns the remarkable changes in the financial sector after 1991. The operations of both the Central Bank and commercial banks, the opening of the financial markets and the evolution of new instruments and financial services are discussed.
TYBA Paper X Sem V	Introduction to Management	The course provides understanding of functions and principles of management.
TYBA Paper XI Sem V	Human Resource Management	The course provides understanding of functions of HRM and HRD.
TYBA Paper XII Sem V	Export Management	The course provides understanding of International Trade, Export Procedures, Promotional organisations, Foreign trade policy and incentives.
TYBA Paper XIII Sem VI	Advanced Economic Theory II	
TYBA Paper XIV Sem VI	Growth and Development II	The student builds on the knowledge consolidated in the previous semester.
TYBA Paper XV Sem VI	Indian Financial System II	
TYBA Paper XVI Sem VI	Introduction to Management	The course provides understanding of Communication function, Production management and Materials management.
TYBA Paper XVII Sem VI	Human Resource Management	The course provides understanding of Human Relations, Industrial Relations and Current Issues in HRM.
TYBA Paper XVIII Sem VI	Export Management	The course provides understanding of Export Pricing, Export finance and Export documentation.

BA Psychology PSO:

FYBA	Fundamentals of	1. To impart knowledge of the basic concepts and
Sem I,II	Psychology: Part I & II	modern trends in Psychology 2. To foster interest in the subject of Psychology and to create a foundation for further studies in Psychology 3. To make the students aware of the applications of Psychological concepts in various fields so that they understand the relevance of Psychology in different areas of life.
SYBA II Sem III, IV	Social Psychology	Introduction to behaviour of people in social settings. Social psychology theories and experimental evidences

SYBA III Sem III, IV	Developmental Psychology	Theories of human development. Stages of development. Aspects of development
TYBA IV Sem V, VI	Psychological Testing and Statistics: Parts I and II	Objectives - 1) To impart knowledge and understanding of the nature, uses, technical features, and the process of construction of psychological tests 2) To create awareness about measurement of intelligence and assessment of personality 3) To impart knowledge and understanding of the concepts in Statistics and the various measures of Descriptive Statistics - their characteristics, uses, applications and methods of calculation 4) To create a foundation for advanced learning of Psychological Testing, Assessment, and Statistics
TYBA V Sem V, VI	Abnormal Psychology: Part I and Part II	Objectives 1) To impart knowledge and understanding of the basic concepts in Abnormal Psychology and the theories about Abnormality 2) To impart knowledge and understanding of the different Psychological Disorders – their symptoms, diagnosis, causes and treatment 3) To create awareness about Mental Health problems in society 4) To create a foundation for higher education and a professional career in Clinical Psychology
TYBA VI Sem V, VI	Industrial- Organizational Psychology: Parts I and Part II	Objectives: - 1. To impart knowledge and understanding of the basic concepts in and various facets of Industrial and Organizational Psychology 2. To create awareness about the role and importance of Psychological factors and processes in the world of work 3. To create a foundation for higher education and a professional career in Industrial Psychology and Organizational Behaviour
TYBA VII Sem V, VI	Cognitive Psychology: Parts I and Part II	Objectives 1) To impart knowledge and understanding of the fundamental concepts of Cognitive Psychology and the basic Cognitive processes 2) To create awareness about the various applications of Cognitive processes in everyday life and a foundation to enable understanding of their applications in other fields - Social, Educational, Industrial, Abnormal, Counselling, Sports, Health, Education, and Neuro Psychology 3) To provide the theoretical orientation and background for the courses on Practicum in Cognitive Processes 4) To create a foundation for higher education and a career in the field of Cognitive Psychology
TYBA VIII Sem V, VI	Practicals in Cognitive Processes and Psychological Testing: Part I &II	Objectives 1. To introduce the students to Experimentation through exposure to and experience of experimental designs, methodology and conduct of experiments, statistical analysis, interpretation and discussion of data. 2. To introduce the students to Psychological Testing: administration, scoring and interpretation of test scores as well as a procedural understanding of concepts related to psychological testing 3. To familiarize the students with computer- based experiments (Coglab) and sensitize them to aspects of control, precision of exposure and

		measurement 4. To stimulate interest in the process of
		scientific inquiry with an analytical attitude and To create
		a foundation for advanced Experimentation and
		Research in Psychology and applications of advanced
		Statistical techniques
	Counselling	Objectives: - 1. To impart knowledge and understanding
Sem V, VI	Psychology: Part I and Part II	of the nature, process, goals, techniques, ethical issues
	Fait II	and major theories in Counselling Psychology 2. To generate interest in the various applications and fields
		of counselling 3. To create a foundation for higher
		education in Counselling and a career as a professional
		counsellor
TYBA Sociolog	V	
PSO:	-	
FYBA- paper 1	Foundations of	1. To introduce the students to the basic concepts in
(Sem1)	Sociology	Sociology 2. To familiarize students with the theoretical
		aspect of different concepts
FYBA-paper 1		1. To introduce the students to the emerging issues in
(Sem 2)	Sociology	Sociology 2. To enthuse students and to introduce them
		to the relevance and varied possibilities for future
	Cosislamy of India	studies in Sociology
SYBA -paper II (Sem 3)	Sociology of India	1. To introduce students to the Indian Sociological traditions 2. To familiarize students with the research
(Geni S)		traditions in Indian sociology and key debates within
		Indian sociology.
SYBA- paper II	Sociology of	
(Sem 4)	Development	have shaped the concept of development 2. To help
		students to gain an insight into emerging issues and
		contemporary debates within the development
SYBA- paper III	Contemporary Issues	discourse 1. To bring awareness and sensitivity among the
(Sem 3)	In Indian Society	students towards contemporary issues. 2. To inculcate
(00000)		responsibilities and promote equality.
	Emorging Fields In	1.To introduce students to the relevance and varied
SYBA-paper III (Sem 4)	Emerging Fields In Sociology	possibilities for future studies in sociology. 2. It make's
	Sociology	students aware about the new vibrant fields in
		sociology. 3.To provide students with an in-depth
		understanding of struggle and survival in today's
		competitive scenario.
SYBA	Health Psychology	To be introduced to the history of health psychology, its
Optional Paper		content areas and understand its relevance in current times along with its uses.
TYBA- paper	Theoretical Sociology	a) To provide the students of Sociology with the
IV (sem 5)		understanding of Sociological Theory .b) To train
· · /		students in the application of these theories to social
		situations.
TYBA- paper	Anthropological	a) To provide the student with the understanding of
IV (sem 6)	Thought	Theoretical Anthropology. b) To train students in the
		application of these theories to social situations.

TYBA- paper V	Sociology of Agrarian	1) To introduce students to the dynamics of traditional &
(SEM 5)	Society	contemporary agrarian society.2) To understand the dynamics of agrarian formations and assess the development measures since 1947.
TYBA -paper V (SEM 6)	Development and Changes in Agrarian Society	1. To analyze attempts at social & financial inclusion of agrarian community.2] To evaluate present alternative development initiatives and analyse the role of globalization in agriculture.
TYBA-paper VI (SEM 5)	Sociology of Gender (Elective)	1)To trace the evolution of Gender as a category of social analysis.2)To trace the emergence of women's movement in India and the history of their struggles
TYBA-paper VI (SEM 6)	Gender and Society in India: Contemporary Debates and Emerging Issues	1)To understand new and emerging issues in the Indian feminist landscape2)To understand newer methods of protest and resistance
TYBA-paper VII (SEM 5)	Sociology of Human Resource Development	1) To familiarize the students with role and functions of human resource development at the micro and macro level.2) To create an awareness of the various issues involved in the development of human resources with particular emphasis on social and cultural factors.
TYBA-paper VII (SEM 6)	Sociology of Organizations	1) To familiarize students with dynamics of organizations and diverse strategies useful in developing human resources.2)To create an understanding of human resource planning to social development and comprehend the challenges faced by organizations in a global context.
TYBA-paper VIII (SEM 5)	Urban Sociology	1) To introduce students to the basic concepts, theories, nature & dynamics of urbanization in India 2)To understand the trends of India's contemporary urbanization pattern
TYBA-paper VIII (SEM 6)	Urbanisation in India: Issues and Concerns	1)To understand urban development in the neo liberal era 2) To understand newly emerging issues and concerns in the changing scenario
TYBA-paper IX (SEM 5)	Quantitative Social Research	1)To provide students with an orientation to Quantitative Social Research 2) To acquaint students with the important concepts, techniques and methods in the quantitative social research process3) 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-paper IX (SEM 6)	Qualitative Social Research	1) To provide students with an orientation to Qualitative Social Research 2) To acquaint students with the important concepts, techniques and processes in qualitative research 3) 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.
BA Optional Accountancy Papers		

SYBA	Book-Keeping & Accountancy (Applied Component)	Learning basic theory and practical of Book-keeping and Accountancy and formats of Bank Documents & Financial Statements of Proprietary Concerns
BSc Programme PO:		
BSc Physics PSO:		
FYBSc Paper 1	Classical Physics, Mathematical physics	The objective of this course is to enhance the problem solving skills of students , and to give the basic knowledge of Newton's law , optics thermodynamics and mathematical methods which are required even for those students who will opt for SYBSc in Micro Biology
FYBSc paper 2	Modern Physics, Electricity and Electronics	to make them aware of basics of Quantum mechanics, to learn circuit theories and about electronic circuits since this basic knowledge is required even for students opting for other subjects in SY
SYBSc paper 1	Mechanics and thermodynamics ,Optics and Digital Electronics	After completing this course students should be able to solve problems on mechanics, understand the laws of thermodynamics and their significance, to know about the different optical phenomena and to understand digital circuits
SYBSc paper 2	Vector calculus ,Analog Electronics ,Quantum Mechanics	To learn the fundamental theorems, to know the difference between classical and quantum mechanical approach, to be able to design simple electronic circuits using transistors and op-amps
SYBSc paper 3	Applied Physics -I	This interdisciplinary course aims at teaching students about acoustics , material science , biophysics Geophysics , Communications , Radiations and microprocessors.
TYBSc paper 1	Mathematical Thermal and Statistical Physics Classical mechanics	the students are expected to learn some mathematical techniques required to understand the physical phenomena, to know the difference between classical & quantum statistics, This course will introduce the students to different aspects of classical mechanics
TYBSc paper 2	Solid State Physics Electronics	Understand the basics of crystallography & semiconductor physics to be able to understand the working of multivibrators, oscillators etc.
TYBSc paper 3	Atomic & molecular Physics, Nuclear physics	to be able to explain the atomic and molecular spectra The course is built on exploring the fundamentals of nuclear matter as well as considering some of the important applications of nuclear physics
TYBSc paper 4	Electro dynamics, Special theory of relativity	to be able to understand the laws of electrodynamics To be able to know how different everything appears at high speeds and how everything is relative
Applied components	Analog circuits & digital circuits	Students are exposed to different types of transducers ,medical instruments , power supplies, measuring devices expected to learn programming in microprocessor , microcontrollers, and also C++

BSc Microbiology PSO:		
FYBSc -Paper I	Fundamentals & Basics of Microbiology	Students learn to appreciate the history and fundamental concepts of varied groups of microorganism and properties of bio macromolecules. Concepts of Biosafety and biological hazards are introduced.
FYBSc -Paper II	Basic Techniques and Exploration in Microbiology	Exposed to with cultivation techniques and control of microorganisms, and also to introduction to varied applications.
SYBSc -Paper I	Biomolecules and Microbial taxonomy Metabolism & Bioanalytical Analytical Techniques	Students will be able to classify microorganisms and understand the basics of bioenergetics and learnt about different analytical techniques to estimate biomolecules
SYBSc -Paper II	Environmental & Applied Microbiology	Students learn the impact of microorganisms in all environments and their applications in Food and Dairy Industry.
SYBSc -Paper III	Introduction to Clinical Microbiology Fermented Foods, Food Sanitation and Microbial Ecology	Begin to understand the role of microbes in causing several common diseases, production of fermented foods. Students gain insights into microbial evolution and ecology.
TYBSc -Paper I	Microbial genetics RDNA technology, Bioinformatics & Virology	Learners can understand the basis of biological genetic information and the mechanism of genetic exchange in bacteria, fundamentals and advances in Virology and basic concepts of rDNA technology
TYBSc -Paper II	Medical Microbiology & Immunology	Students conceptualize virulence factors of pathogens and the intricate molecular mechanisms in causing diseases, exposed to methods in Diagnostic microbiology. They are introduced to basic concepts of Immunology.
TYBSc -Paper III	Microbial biochemistry : part- I & II	Students achieve a basic understanding of nutrient transport, metabolics processes and its regulation.
TYBSc -Paper IV	Bioprocess technology & Environmental microbiology applied and industrial microbiology	Students study techniques in different aspects of Industrial microbiology and fermentation processes and are made aware of their commercial and economic aspects.
TYBSc -Paper V	Concepts in biotechnology applications of biotechnology	As an applied component, the students are exposed to the biotechnology applications of microorganism and overview of recombinant DNA technology which aids in the same.

PSO:

FYBSC	Calculus-I	Describe the real line as a complete, ordered field,
MATHS-I		Determine the basic topological properties of subsets of the real numbers, Use the definitions of convergence as they apply to sequences, series, and functions, Determine the continuity, differentiability, and
		integrability of functions defined on subsets of the real line, Apply the Mean Value Theorem and the Fundamental Theorem of Calculus to problems in the context of real analysis, and Produce rigorous proofs of results that arise in the context of real analysis. Write
		solutions to problems and proofs of theorems that meet rigorous standards based on content, organization and coherence, argument and support, and style and mechanics.to
FYBSC MATHS-II	Algebra I and Linear Algebra	1) Students will be able to set up and solve linear systems/linear inequalities graphically/geometrically and algebraically (using matrices).2. Represent vectors analytically and geometrically, and compute dot and cross products for presentations of lines and planes, 3. Solve systems of linear equations, Analyze vectors in R^n geometrically and algebraically, Recognize the
		concepts of the terms span, linear independence, basis, and dimension, and apply these concepts to various vector spaces and subspaces, Use matrix algebra and the related matrices to linear transformations.
SYBSC MATHS-I	Calculus III	Perform operations with vectors in two and three dimensional space and apply to analytic geometry 2. Differentiate and integrate vector-valued functions and apply calculus to motion problems in two and three dimensional space 3. Determine the limits, derivatives, gradients of multivariate functions 4. At the end of the course students will be familiar with the construction of an integral from fundamental principles, including important theorems. They will know when it is possible to integrate or differentiate term-by-term and be able to apply this to, for example, trigonometric series.
SYBSC MATHS-II	Algebra III and Ordinary Differential Equations	Use matrix algebra and the related matrices to linear transformations, Compute and use determinants, Write mathematical proofs and reason abstractly in exploring properties of groups. • Use the division algorithm, Euclidean algorithm, and modular arithmetic in computations and proofs about the integers. • Construct examples of, and explore properties of groups, including symmetry groups, permutation groups and cyclic groups. • Determine subgroups and factor groups of finite groups. • Use and apply homomorphism's between groups .Solve differential equations of first order using graphical, numerical, and analytical methods, Solve and apply linear differential equations of second order (and higher), Analyze basic population models, including both exponential and logistic growth models,

SYBSC MATHS-III	Discrete Mathematics	After completion of this course, the student will be able to: solve the problems on simple and advance counting in combinatorics. Student will learn about permutation cycles and recurrence relation and function and can solve the problems for the same.
TYBSC		
MATHS-I TYBSC MATHS-II	Linear Algebra	After completion of this course, the student will be able to: understand about quotient spaces, orthogonal spaces, diagonalization of matrices, inner product spaces and can solve the respective problems.
TYBSC MATHS-III	Topology of metric spaces	After completing the course the student can:1) determine whether or not a given structure is a metric space;2) state and apply the definitions of open, closed, interior and closure to given cases and prove their basic properties ;3) know what it means for a metric space to be complete, and can characterise compact and connected metric space;4) state the definition of continuity of a function between two metric spaces and study relevant propositions.
TYBSC MATHS-IV	Graph Theory and Combinatorics	After completion of the course, the student will be able to: Explain the basic concepts of graph theory. apply the basic concepts of mathematical logic describe and solve some real time problems using concepts of graph theory
TYBSC Applied Component	Computer Programming and System Analysis	Enhance the knowledge and understanding of Database analysis and design. Enhance the knowledge of the processes of Database Development and Administration using SQL and PL/SQL. Enhance Programming and Software Engineering skills and techniques using SQL and PL/SQ. Understanding a functional hierarchical code organization. • Ability to define and manage data structures based on problem subject domain. Understanding a defensive programming concept. Ability to handle possible errors during program execution. knowledge of the structure and model of the Java programming language, (knowledge) 2. use the Java programming language for various programming technologies (understanding) 3. develop software in the Java programming language, (application)
BSc Chemistry PSO:	The purpose of the undergraduate chemistry program at the University of Mumbai is to provide the basic concepts in chemistry and various laboratory resources to prepare students for careers and as professionals in the field of chemistry, for graduate study in chemistry, biological chemistry and related Industrial, Pharmaceutical fields. Students will be able to explore new areas of research in both chemistry and allied fields of science and technology	
Paper-I	Physical Chemistry	 Students will gain an understanding of: 1. the application of mathematical tools to calculate thermodynamic and kinetic properties 2. the derivation of rate equations from mechanistic data 3. chemical equilibrium and its relationship with

		thermodynamic quantities
		basic quantum chemistry and atomic structures of atoms
		5. chemical kinetics; how reaction rates are measured and represented in rate laws, and applications of chemical kinetics in studying enzyme mechanisms
		 concepts in thermodynamics, different thermodynamic quantities such as heat and work and how they are measured, related or transformed from one to the other
Paper-II	In-organic Chemistry	 Students will gain an understanding of: The periodic table including s,p,d,f-bloock elements the bonding fundamentals for both ionic and covalent compounds, including electro negativities, bond distances and bond energies using MO diagrams and thermodynamic data predicting geometries of simple molecules the fundamentals of the chemistry of the main group elements, and important real world applications of many of these species the use of group theory to recognize and assign symmetry characteristics to molecules and objects, and to predict the appearance of a molecule's vibrational spectra as a function of symmetry the bonding models, structures, reactivity's, and applications of coordination complexes, boron hydrides, metal carbonyls, and organometallics

Paper-III	Organic Chemistry	Students will gain an understanding of:
		1. how to calculate limiting reagent, theoretical
		yield, and percent yield
		2. how to engage in safe laboratory practices by
		handling laboratory glassware, equipment, and
		chemical reagents appropriately
		3. how to dispose of chemicals in a safe and
		responsible manner
		4. how to characterize products by physical and
		spectroscopic means including mp, IR, NMR,
		GC, and MS
		5. how to consult the scientific literature for physical
		data and experimental procedures
		6. how to perform common laboratory techniques
		including reflux, distillation, recrystallization,
		vacuum filtration, and thin-layer chromatography
		7. how to create and carry out work up and
		separation procedures
		8. how to critically evaluate data collected to
		determine the identity, purity, and percent yield of products and to summarize findings in writing in
		a clear and concise manner
		9. how to predict the outcome of organic reactions
		using a basic understanding of the general
		reactivity of functional groups and mechanism
		10. Stereochemistry
		11. Spectroscopic techniques for structure
		elucidation of compounds using UV.IR,NMR and
		Mass spectroscopic techniques.
Paper-IV	Analytical Chemistry	Analytical Students will gain an understanding of:
		1. the use of an analytical balance for mass
		measurement
		2. the use of graduated cylinders, graduated
		pipettes, and volumetric pipettes for volumetric
		measurement
		3. the use of thermometers and temperature probes
		4. Classical and Instrumental methods of analysis.
		5. the calibration and use simple
		spectrophotometers, pH meters, centrifuges, and
		vortexers
		6. the preparation of buffer solutions at a required
		pH, given a choice of solutions of acid/conjugate
		base pairs
		7. the identification of the absence or presence of a
		number of cations or anions in solution, using
		tests based on acid-base, solubility, and

	 complexation equilibria 8. how to set up and use an electrolysis cell to determine the equivalent mass of an unknown metal 9. ligand strengths by the stability of the complexes and precipitates formed by the ligands with a given metal ion 10. The basic principle and working of different instruments such as GC,HPLC ,AAS, Flame photometer etc
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BCom Programme PSO:		
Accountancy papers		
FYBCom	Paper No. I & II Accountancy & Financial Management (Discipline Specific Elective (DSE) Courses	Learning Basic Accounting Standards, Financial Statements of Manufacturing Concerns. Theory and Practical of Departmental Accounts, Branch Accounts, Consignment Accounts Hire Purchase, Fire Insurance and conversion of Single Entry into Double Entry.
FYBCom	Mathematical and Statistical Techniques	Students will understand factorial notation, fundamental principle of counting, meaning of permutations and combinations and difference between them, different types of permutations and combinations Understand factorial notation, fundamental principle of counting, meaning of permutations and combinations and difference between them, different types of permutations and combinations. Organize, present and interpret statistical data, both numerically and graphically, the concept of interest and related term, computation of interest and annuity, present and future value, Use various methods to compute the probabilities of events, the meaning of bivariate data, the concept of correlation between two variables, concept of provide practical solutions to general aggregation problems. Understand the competing merits of different approaches to index number problems and methods for dealing with quality change and new goods, Solve basic problems in probability theory, including problems involving the binomial, Poisson, and normal distributions.

FY.B.Com	Paper No. III & IV. Accountancy & Financial Management Discipline - Specific Elective (DSE) Courses	Learning theory and practical accounting relating to Partnership Firms and Ltd Cos. i.e.Final Accounts, Piecemeal Distribution, Amalgamation and Conversion into Ltd Co,. Issue of Shares, Redemption of Debentures
SYBCom	PaperNo.VIntroductiontoManagementAccounting and PaperNo. VI Auditing	To understand basic concepts, importance and methods of capital budgeting how to calculate working capital, different ratios, analysis and interpretation of financial statements. Students are exposed to basics of Auditing and Audit Process carried out by auditors in Ltd. Companies.
TYBCom Paper No. VI & IX	Cost Accounting [Discipline Specific Elective (DSE) Courses]	Learning Basics of Cost Accounting (theory and practical of Material Cost, Labour Cost, Overheads, Preparation of Cost Sheets, Methods and techniques of Cost Accounting.
TYBCom	Direct & Indirect Taxes [Ability Enhancement Courses (AEC)]	Learning Basic knowledge and practical application of Income Tax, Maharashtra Value Added Tax and Service Tax.
TYBCom Paper V & VIII	Financial Accounting [Discipline Specific Elective (DSE) Courses]	Learning Basics of Company Final Accounts, Amalgamation of Companies, Internal Reconstruction, Profit Prior to Incorporation, Investment Accounting, Foreign Currency, Buy Back of Shares and IFRS.
EVS		
FYBCom	EVS	Students have an understanding of the Environment System, its significance and man- environment relationship. Students are sensitized to the environmental issues faced by the world and students realise the need for sustainable ways for living.
FYBCom	Bs. Economics I	The subject familiarises the students with the fundamentals of micro-economic theory & makes them understand, predict the economic forces shaping real world business decision.
SYBCom	Bs. Economics II	This course is designed to present an overview of macroeconomic issues and introduces preliminary models for the determination of output, employment, interest rates, and inflation. Monetary and fiscal policies are discussed to illustrate policy application of macroeconomics.
SYBCom Applied Component	Indian Financial System	The student learns the remarkable changes in the financial sector after 1991. The operations of both the Central Bank and commercial banks, the opening of the financial markets and the evolution of new instruments and financial services are discussed.
TYBCom	Bs. Economics II	The aim is to acquaint the students with the various aspects of International Trade, Foreign exchange market & recent foreign exchange rate policy, etc.
Commerce	1	1

FYBCom	Introduction to	The course provides understanding of Concept of
Commerce I	Business	Business, objectives, business environment and entrepreneurship.
FYBCom Commerce II	Introduction to Service Sector	The course provides understanding of concepts in Services, Services Mix, retail sector and e-commerce.
SYBCom Commerce III	Management: Functions and Challenges	The course provides understanding of Concepts of Management and Functions.
SYBCom Commerce IV	Management: Production & Finance	The course provides understanding of Production Management, Quality Management, Indian Financial System and Recent Trends in Finance.
SYBCom	Business Law	The course provides understanding of framework of Indian Business Laws, legal aspects of business and case law studies related to Business Laws.
SYBCom	Advertising	The course provides understanding of concept of advertising, IMC, classification, advertising agencies and economic and social aspects of advertising. It also gives knowledge about advertising media, creativity in advertising and careers in advertising.
TYBCom Commerce V & VI	MHRM	The course provides understanding of Concepts of Marketing, Marketing Mix, Consumer Behaviour, Market segmentation and current issues in Marketing in Semester V.
TYBCom Commerce VI	MHRM	The course provides understanding of Functions of HRM, HRP, HRD and current issues in HRM.

SFCs Unaided Section	To develop subject specific technical as well as non-technical skills and enhance the analytical ability of students. To inculcate a positive outlook and ethical attitude and imbibe the values of integrity, hard work, independent opinion and team work.	
Banking and Insurance PSO:		
Banking and	Environment and Management of Financial Services.	Conceptual and basic understanding of the various financial services which are in a nascent and developing stage in our country. It also enables the students to be well equipped with the functional aspects of financial products and services available in our country
Insurance Sem 1	Principles of Management	The student will be able to evaluate and integrate management principles into management practices.in the global context.
	Financial Accounting - I	A revision on the basic concepts of Book keeping

Business Communicat	ion-I The students will gain the skills and knowledge of communication in the business environment with a strong focus on the understanding the theory of communication in the business context and it's application
Foundation Course - I	The students learn and understand topics of social importance which makes them more sensitive towards the society. This subject also provides scope for projects hence improving their cognitive abilities.
Business Economics-I	It helps to demonstrate knowledge of general economy theory and apply those theories in te analysis of problems or issues
Quantitative Methods-I	Students learn how to summarize data and how to make appropriate decisions based on data. It helps to know how statistics is commonly used in the real world.

	Financial Accounting - II	The basics of accountancy and a brief revision on topics taught in FYJC and SYJC, to ensure a strong foundation development
	Business Communication - II	The student will learn effective business writing along with persuasive and appropriate verbal and non verbal communication, and interpersonal skills.
Bonking	Organisational Behaviour	understanding group and individual performance and activity within an organisation
Banking and Insurance	Quantitative Methods – II	Students learn how to summarize data and how to make appropriate decisions based on data. It helps to know how statistics is commonly used in the real world.
SEM II	Business Law	Understanding and application of basics of contract in Commercial transaction, awareness of fundamental rights and duties of a citizen.
	Principles & Practices of Banking & Insurance	To train and equip the students with the dextry of skills with which modern banking and insurance is run.
	Foundation Course - II	The students learn and understand topics of social importance which makes them more sensitive towards the society. This subject also provides scope for projects hence improving their cognitive abilities.

Banking and	Financial Management -I	Helps to understand importance of finance in business world. It also teaches the various sources through which finance can be raised & methods to maintain the finance in business.
Insurance	Management Accounting	Understanding the importance of accounts from mangerial point of view.
SEM III	Mutual Fund Management	Understanding of Basics of Mutual Fund with its legal framework and guiding principles for Financial planning and investment.

Information Technol Banking & Insurance	0,	Understanding E-commerce Framework, anatomy, infrastructure, recent trends in E-commerce and its Challenges, Basics of office automation.
Foundation Course (An Overview of Ba	-	Overall View of banking industry, progress of banking sectors, recent innovations and usage of ICT in banking, micro finance and financial inclusion, etc.
Financial Market Debt, Forex and Deri	(Equity, vatives)	Enhance the skills in understanding the availability of funds and transmission mechanism with the help of which the providers of funds can interact with the borrowers/units and transfer the funds to them as and when required
Taxation of F Services	inancial	Creates and develops the skill to calculate the taxable income and ways and means to save the income

	Financial Management – II	
		Understanding of importance of sound financial
		decision in the business concern.
	Cost Accounting	Helps student to understand the costing aspects of calculating costs of goods and services
Banking and	Corporate & Securities Law	Understanding of repealed sections, legal understanding and interpretation of various basics of corporate and capital Market.
Insurance SEM IV	Foundation Course – IV (An overview of Insurance)	Understanding of basics of insurance, its growth, challenges and regulatory framework for insurance with IRDA as a regulator and application of knowledge for choosing an insurance plan.
	Customer Relationship Management	helps to understand the relationship to be maintained between the customers and the banking and insurance organization for enhancing and expansion of the services to a wider market.
	Information Technology in Banking & Insurance-II	analyse common business functions and identify, design and develop appropriate information technology solutions
	Business Economics-II	

	Financial Reporting & Analysis	It will enable the students to understand the preparation of final accounts by both Banking & insurance Companies
Banking	Auditing	Develops an understanding of work of an auditor in different organisations.
and Insurance SEM V	International Banking & Finance	to understand the concepts and broad activities of International Banking & Finance besides studying developments in India.
	Marketing in Banking & Insurance	To develop concepts in marketing and understand about internet as a strategic medium for marketing & sales efforts for a company.

Security Analysis & Portfolio Management	understand the benefit of diversification of holding a portfolio of assets, and the importance played by the market portfolio and know how to apply different valuation models to evaluate fixed income securities, stocks, and how to use different derivative securities to manage their investment risks
Financial Services Management	Understanding of Basics of financial services, types of financial services and its role in Indian economy.
Project on Banking	Develops Research Skill of Data collection, Data Analysis and Data Interpretation and forming conclusion based on projects.

	Strategic Management	Develops an understanding of general and competitive business environment through strategic decision making
	Central Banking	Develops understanding about central bank , its role and functioning in Indian Financial system
	Business Ethics & Corporate	understanding ethical issues in business and role of
Banking	Governance	corporate governance practices
and	International Business	evaluate the impact of world issues on organisation
Insurance		institutional business decision making
Ũ		highlights the role of human resources in success of enterprise
	Turnaround Management	Enable students to understand the need for revival of sick and stressed business units
		Develops Research Skill of Data collection, Data Analysis and Data Interpretation and forming
	Project on Insurance	conclusion with a special focus on insurance sector

BMS PSO:

I FYBMS(1.1.1)	Introduction to Financial Accounts I	The students understand the core concepts of business finance and its importance in managing business.
II FYBMS(1.1.2)	Business Law	The student will get an understanding of the Legal Environment of Business. and apply basic legal knowledge to business transactions.
III FYBMS(1.1.3)	Business Statistics	The students will learn basic statistical methods, with a focus on the application of these methods to the business world.
IV FYBMS(1.1.4)	Business Communication-	The students will gain the skills and knowledge of communication in the business environment with a strong focus on the understanding the theory of communication in the business context and it's application
V FYBMS(1.1.5)	Foundation Course-I	The students understand the multi-cultural diversity of Indian society, disparity, constitution,

VI FYBMS(1.1.6)	Foundation of Human Skills	The students will get understanding of Human nature, Group Behaviour, Organizational Culture and Motivation at workplace 15
VII FYBMS(1.1.7)	Business Economics-I	The students get an understanding of application of economic concepts in business organisation
VIII FYBMS(1.2.1)	Principles of Marketing	It will help the students to develop basic marketing skills among student in order to cater to the needs of marketing industries
IX FYBMS(1.2.2)	Industrial Law	The students are to be acquainted with the Industrial relations framework in our country
Х	Business Mathematics	The students learn to use basic <i>mathematics</i> in solving problems in <i>business</i> .
XI FYBMS(1.2.4)	Business Communication-	The student will learn effective business writing along with persuasive and appropriate verbal and non- verbal communication, and interpersonal skills.
XII FYBMS(1.2.5)	Foundation Course-I Value Education and Soft Skill=II	The students will understand the impact of globalisation on Indian society, human rights, ecology, stress, conflict and its management
XIII FYBMS(1.2.6)	Business Environment	The students will understand the concept, significance and changing dimensions. Business of Environment by analysing the macro environmental factors
XIV FYBMS(1.2.7)	Principles of Management	The student will be able to evaluate and integrate management principles into management practices.in the global context.
I SYBMS(2.1.1)	Consumer Behaviour	The students develop an understanding about the consumer decision making process and its applications in marketing function of firms
II SYBMS(2.1.2)	Advertising	The students are equipped with the professional tools to connect brands with audiences on all platforms
III SYBMS(2.1.3)	Information Technology in Business Management-I	The students can Interpret how information technology affects business operations, and utilize business technologies to their advantage.
IV SYBMS(2.1.4)	Environmental Management	The students will be able to understand the organisations as systems and their role in environmental management.
V SYBMS(2.1.5)	Business Planning & Entrepreneurial Management	The student will learn the role and importance of entrepreneurs in economic development and make and interpret the business plan.
VI SYBMS(2.1.6)	Accounting for Managerial Decisions	It helps the students in explaining the core concepts of accounts and finance and its importance in managing a business
VII SYBMS(2.1.7)	Strategic Management	The student develops strategic awareness and strategy skills practiced in corporates
VIII SYBMS(2.2.1)	Integrated Marketing Communication	The students will understand how to set IMC objectives and evaluate creative strategies in the light of given marketing objectives and strategies
IX SYBMS(2.2.2)	Rural Marketing	The students will understand the concepts and techniques of marketing management and their application in rural marketing.

X SYBMS(2.2.3)	Information Technology in Business Management=II	The students learn the necessary skills to enable them to design and implement business information systems.
XI SYBMS(2.2.4)	Business Economics-II	The students understand the macro economic environment in global environment
XII SYBMS(22.5)	Business Research Methods	It will inculcate the analytical abilities and research skills among the students and give hands on experience and learning in Business Research
XIII SYBMS(2.2.6)	Ethics & Governance	The student will understand the ethical principles and problems that arise in a business environment and understand the evolution, structures and issues in corporate governance.
XIV SYBMS(2.2.7)	Production & Total Quality Management	The students will learn the production systems -its functions and maintenance of quality at different production stages
I TYBMS(3.1.1)	Services Marketing	
II TYBMS(3.1.2)	E-Commerce & Digital Marketing	The student will understand the new avenues available due to internet and also how the organisations use digital platform for marketing
III TYBMS(3.1.3)	Sales & Distribution Management	The students understand the Sales & Distribution functions as an integral part of marketing functions in a business firm
IV TYBMS(3.1.4)	Customer Relationship Management	The students understand how customer relationship management (CRM) systems can help organizations manage and gain customer insights from marketing information
V TYBMS(3.1.5)	Logistics & Supply Chain Management	The students learn to apply logistics and purchasing concepts to improve supply chain operations
VI TYBMS(3.1.6)	Corporate Communication & Public Relations	The student will learn the role of effective communication strategies and public relations in the corporate environment
VII TYBMS(3.2.1)	Brand Management	The student will understand the value of the organisation which is created by building a brand and generating equity out of that brand
VIII TYBMS(3.2.2)	Retail Management	It enables students develop decision making skills related to retailing including merchandise and expense planning, store layout, product line and resource determination, pricing, promotional strategies.
IX TYBMS(3.2.3)	International Marketing	The student will acquire an in-depth knowledge and understanding of international marketing - the processes, current challenges of all types of firms
X TYBMS(3.2.4)	Media Planning & Management	The students understand consumers' media usage and attitudes towards media
XI TYBMS(3.2.5)	Operation Research	The students are introduced to practical application of operations research in business
XII TYBMS(3.2.6)	Project Work	The students will be carrying out a project work which involves practical understanding of the theoretical aspects.

	Effective Communication Skills 1	To make the students aware of functional and operational use of language in media. To equip or enhance students with structural and analytical reading, writing and thinking skills. To introduce key concepts of communications.
	Fundamentals of Mass Communication	To introduce students to the history, evolution and the development of Mass Communication in the world with special reference to India. To study the evolution of Mass Media as an important social institution. To understand the development of Mass Communication models. To develop a critical understanding of Mass Media. To understand the concept of New Media and Media Convergence and its implications.
	Landmark events in the history of World, India & Maharashtra	To know the background of special events that shaped the world, India & Maharashtra.
BMM SEM I	Introduction to Economics	The aim of this paper is to introduce the basic concepts of Micro & Macro Economics to First Year BMM students. Coupled with this, a basic understanding of the Indian economy is crucial for media students. This will sensitise them on economic issues relevant to India, Considering the augmenting importance of the media in highlighting and debating such concerns, a brief overview is essential.
	Introduction to Computers	To equip the students with a general understanding of computer basics for everyday use. To train them to use this understanding to supplement their presentation skills. To equip the student with basic knowledge of use of technology in Media Industry.
	Introduction to Sociology	To acquaint the students with the basic foundations of Sociology To establish the relationship between Sociology and Mass Media To discuss Mass Media from a sociological perspective To highlight the need and relevance of Sociology in Mass Media.

BMM SEM II	Principles of Management	To make students aware of Management Process.
	Principles of Marketing	To understand marketing Concepts.
	Effective Communication Skills 2	To advance the communication and translation skills acquired in the first semester
	Introduction to Media Psychology	To impart knowledge of the basic concepts and modern trends in psychology. 2. To provide an interdisciplinary study of concepts in the field of media, communication and psychology. 3. To expose students to a multicultural understanding, use, influence and impact of media. 4. To prepare students for a future filled with opportunities in the field of media and communication.
	Introduction to Literature	To give exposure to media students to various forms of Literature To make them understand how literature reflects contemporary period To identify relation between Literature and Media

	Studies	
	Introduction to Creative Writing	(i) To encourage students to read stories, poems, plays (ii) To develop further and build upon the writing and analytical skills acquired in semesters I & II (iii) To acquaint students with basic concepts in literary writing. (iv) To prepare students to write for media
	Advanced Computers	To equip the students with a understanding of industry knowledge required to make a career in the field of print and Advertising, Digital Marketing, Television media, Film etc. To train them with the software knowledge required in the above mentioned Industries.
BMM	Introduction to Public Relations	1 To prepare students for effective & ethical public communication on behalf of organisations. 2. To help students acquire basic skills in the practical aspects of Media Relations & Crisis Management. 3. To equip students with basic skills to write & develop Press Release& other PR communication. 4. To design a PR campaign.
BMM SEM III	Introduction to Cultural Studies	To create awareness on cultural theories and its relevance in media. To discuss the importance of cultural studies and its role in mass media. To understand the cultural concepts and its impact on the media.
	Understanding Cinema	This paper should aim to sensitize the students towards Cinema as a medium of Mass Communication and help them to become critical viewers of movies today. various movie cultures. (Have a contextual understanding) a. From A Personal Point Of View b. From A Social Point Of View c. From A Business Point Of View (in context of Box Office Success)2. The students should get to study the similarities and differences between 3. The students should get to study Indian cinema through its similarities and differences with both Indian & Western traditions of art and culture. 4. Movies cannot be studied apart from the technology used to produce them. Hence, the students should necessarily be given some practical exercises in the paper for internal marks. 5. The students should study cinema by watching through an open- ended list of movies.
	Political Concept & Indian Political System	To acquaint the students with fundamental political concepts essential for understanding political systems and theories. To orient the students to the Indian Constitution and the functioning of the Indian political system. To provide the students with a strong base in the 'Indian Political System' and to expose them to its dynamics and complexities. To establish a link between Politics and Media
	Print Production &	To help students understand the principles and practice of

	Print Production & Photography	To help students understand the principles and practice of photography. To enable students to enjoy photography as an art.
BMM SEM	Introduction to Journalism	To help media students to acquaint themselves with an influential medium of journalism which holds the key to opinion formation & create awareness
IV	Introduction to Advertising	1 To introduce Students to the basic steps in advertising 2. To help students understand the creations of an ad campaign 3. To understand the structure of an Ad Agency
	Radio & Television	To acquaint students with the working of two powerful media ie radio and television. The content is useful for both

	advertising and journalism students in order to further their careers in their respective fields
Organizational Behaviour	To impart knowledge of the basic concepts and facets of organisational behaviour. To highlight the role of psychological factors & process at work. To foster management skills among students
Mass Media Research	To introduce students to debates in Research approaches and equip them with tools to carry on research To understand the scope and techniques of media research, their utility and limitations

	Brand Building	To study the concept of Brands To study the process of building brands. To study its importance to the consumer and advertisers
	Media Planning & Buying	To develop knowledge of various characteristics of media. To understand procedures, requirements, and techniques of media planning and buying. To learn the various media mix and its implementation To understand budget allocation for a Media plan
BMM	Consumer behavior	To understand role of marketing in influencing consumer behaviour. To analyze the role of marketer& the consumer in advertising. To sensitize the students to the changing trends in consumer behaviour.
Sem V Advertising	Copywriting	To familiarize the students with the concept of copywriting as selling through writing. To learn the process of creating original, strategic, compelling copy for various media To train students to generate, develop and express ideas effectively. To learn the rudimentary techniques of advertising - headline and body copywriting.
	Ad Design	To make students understand the process of planning & production of advertisement. To highlight the importance of visual communication. To provide practical training in the field of advertising
	Advertising in Contemporary Society	To understand the environment in Contemporary Society. To understand Liberalisation and its impact on the economy. To study contemporary advertising and society.

	Agency Management	To acquaint the students with concepts, techniques for developing an effective advertising campaign.To familiarize students with the different aspects of running an ad agency. To inculcate competencies to undertake professional work in the field of advertising.
BMM Sem VI	Principles & Practice of Direct Marketing	To understand the concept and importance of Direct Marketing.To understand the various techniques of direct marketing and its advantages
Advertising	Advertising & Marketing Research	To inculcate the analytical abilities and research skills among the students.To understand research methodologies – Qualitative vs Quantitative To discuss the foundations of Research and audience analysis that is imperative to successful advertising.To understand the scope and techniques of Advertising and Marketing research, and their utility.

Digital Media	Understand digital marketing platform. Understand the key goals and stages of digital campaigns. Understand the of use key digital marketing tools.Learn to develop digital marketing plans.
Contemporary Issues	To understand and analyse some of the present day environmental, political, economic and social concerns and issues.
Legal Environment & Advertising Ethics	To acquaint students to the Legal Environment in contemporary India highlighting
Financial Management	To provide a brief overview of the basic concepts, goals functions and types of finance available for new and existing business and marketing units. To enable the understanding of the need for financial planning through Budgets and their benefits. To enable students to evaluate the financial implications of marketing decisions through simple analytical tools.

BMM SEM V Journalism	Reporting	To enable students to become Reporters, which is supposed to be a prerequisite while entering into the field of Journalism. To make them understand basic ethos of the news and news- gathering. To prepare them to write or present the copy in the format of news. To develop nose for newsTo train them to acquire the skills of news-gathering with traditional as well as modern toolsTo inculcate the skills for investigative journalismTo make them understand the basic structure/ essential knowledge for various beatsTo make them responsible reporters and the face of media
	Editing	As an important segment of newspaper production, editing is a vital function. The syllabus lays stress on language skill improvement. It aims at orienting students to gain more practical knowledge in the print media scenario. The syllabus encompasses the current trends of digital media as well as writing for e editions of papers. The syllabus tackles editing from various beats points of view. Editing of editorials, columns, etc is included to acquaint the students about responsible journalism. With global media and changing advertising concepts lay-outs in modern times can be imparted.
	Journalism & Public Opinion	To assess the importance of the media vis a vis the public. To project a fair idea of the role of the media in creating and influencing Public Opinion. To analyze the impact of the media an public opinion on socio political issues.
	Feature & Opinion	Understanding the differences between reporting and feature writing. Understanding the other types of soft stories. Learning the skills for writing features/ opinion/soft stories and of interviewing
	Indian Regional Journalism	Study of the history and role of Indian press other than in English. Understand the contribution and role of certain publications and stalwarts Study of the regional press and television of today.
	Newspaper & Magazine Making	To study the design, elements of the newspaper and magazine. To study space distribution. To get exposure to

	design software such as Quark Express To study the process of planning and production of newspaper and magazine
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	News Media Management	To make students aware about the responsibilities, structure and functioning of responsibilities of an organisation.
	Broadcast Journalism	To understand the development of Broadcast Journalism in India.
	Business & Magazine Journalism	To understand the tools of indian economy.
BMM SEM VI Journalism	Issues in Global Media	To Study the role of media in the 21 st Century and the challenges facing traditional media. Familiarise students about regional versus global media Highlight social media's relevance in information dissemination
	Digital Media	Understand digital marketing platform Understand the key goals and stages of digital Understand the of use key digital marketing tools campaigns Learn to develop digital marketing plans.
	Contemporary Issues	To understand and analyse some of the present day environmental, political, economic and social concerns and issues.
	Press Laws & Ethics	To study media laws

	1 The student wate for	milion to venious core to share in IT industry such as
BSc.		amiliar to various core technologies in IT industry such as
		operating system administration, networking, website
Science	J J,	
	•	vers subjects to develop soft skills of students which enables
	• •	resume, interviews, leadership skills, etc. 3. This enables the
	-	d in the campus placement.
		es the students to prepare for certification courses
	Computer Organization	Objectives: To understand the structure and operation of
	and Design	modern processors and their instruction sets
	Programming with	The objective of this paper is to introduce various concepts
	Python-I	of programming to the students using Python
	Free and Open - source	Open Source has acquired a prominent place in software
	Software	industry. Having knowledge of Open Source and its related
		technologies is an essential for Computer Science student.
		This course introduces Open Source methodologies and
		ecosystem to students.
CS	Database Systems	The objective of this course is to introduce the concept of
SEM I		the DBMS with respect to the relational model, to specify
0		the functional and data requirements for a typical database
		application and to understand creation, manipulation and
		querying of data in databases
	Discrete Mathematics	The purpose of the course is to familiarize the prospective
		learners with mathematical structures that are familiarize
		the prospective learners with mathematical structures that
		are fundamentally discrete. This course introduces sets and
		functions, forming and solving recurrence relations and r
		describe objects or problems in computer algorithms and
		programming languages

Descriptive Statistics and Introduction to Probability	
Soft Skills Development	To help learners develop their soft skills and develop their personality together with their technical skills. Developing professional, social and academic skills to harness hidden strengths, capabilities and knowledge equip them to excel in real work environment and corporate life. Understand various issues in personal and profession communication and learn to overcome them

	Programming with C	The objective of this course is to provide a comprehensive study of the C programming language, stressing upon the strengths of C, which provide the students with the means of writing modular, efficient, maintainable, and portable code
	Programming with Python	The objective of this paper is to explore the style of
	_II	structured programming to give the idea to the students how programming can be used for designing real life applications by reading/writing to files, GUI programming, interfacing database/networks and various other features.
	Linux	This course introduces various tools and techniques
		commonly used by Linux programmers, system administrators and end user s to achieve their day to day work in Linux environment. It is designed for computer students who have limited or no previous exposure to Linux.
	Data Structures	To explore and understand the concepts of Data Structures
		and its significance in programming. Provide and holistic approach to design, use and implement abstract data types.
CS		Understand the commonly used data structures and various
SEM II		forms of its implementation for different applications using Python
	Calculus	The course is designed to have a grasp of important concepts of Calculus in a scientific way. It covers topics from
		as basic as definition of functions to partial derivatives of functions in a gradual and logical way. The learner is
		expected to solve as many examples as possible to a get complete clarity and understanding of the topics covered.
	Statistical Methods and	The purpose of this course is to familiarize students with
	Testing of Hypothesis	basics of Statistics. This will be essential for prospective researchers and professionals to know these basics.
	Green Technologies	To familiarize with the concept of Green Computing and
		Green IT infrastructure for making computing and
		information system environment sustainable. Encouraging optimized software and hardware designs for development
		of Green IT Storage, Communication and Services. To
		highlight useful approaches to embrace green IT initiatives.

	Theory of Computation	To provide the comprehensive insight into theory of
		computation by understanding grammar, languages and
CS		other elements of modern language design. Also to develop
SEM III		capabilities to design and develop formulations for
		computing models and identify its applications in diverse
		areas

Core Java	The objective of this course is to teach the learner how to use Object Oriented paradigm to develop code and understand the concepts of Core Java and to cover- up with the pre-requisites of Core java
Operating System	Learners must understand proper working of operating system. To provide a sound understanding of Computer operating system, its structures, functioning and algorithms
Database Management Systems	To develop understanding of concepts and techniques for data management and learn about widely used systems for implementation and usage.
Combinatorics and Graph Theory	To give the learner a broad exposure of combinatorial Mathematics through applications especially the Computer Science applications.
Physical Computing and IoT Programming	To learn about SoC architectures; Learn how Raspberry Pi. Learn to program Raspberry Pi. Implementation of internet of Things and Protocols.
Web Programming	To provide insight into emerging technologies to design and develop state of - the art web applications using client - side scripting, server - side scripting, and database connectivity.

	European entrels of	4 To support and basis university of showith as doing to the
	Fundamentals of	1 To understand basic principles of algorithm design and why
	Algorithms	algorithm analysis is important 2 To understand how to
		implement algorithms in Python 3 To understand how to
		transform new problems into algorithmic problems with efficient
		solutions 4 To understand algorithm design techniques for
		solving different problems
	Advanced Java	Explore advanced topic of Java programming for solving problems.
	Computer Networks	In this era of Information, its computation and its exchange
		techniques, Learner should be able to conceptualize and
cs		understand the framework and working of communication
SEM		networks. And on completion, will be able to have a firm grip
IV		over this very important segment of Internet.
1.0	Software Engineering	To understand the concept of designing a software.
	Linear Algebra using	To offer the learner the relevant linear algebra concepts through
	Python	computer science applications.
	Net Technologies	To explore .NET technologies for designing and developing
		dynamic, interactive and responsive web applications
	Android Developer	To provide the comprehensive insight into developing
	Fundamentals	applications running on smart mobile devices and demonstrate
		programming skills for managing task on mobile. To provide
		systematic approach for studying definition, methods and its
		applications for Mobile-App development.

	Data Communication and Networking	To understand the concepts of networking and data communication.
CS SEM V	Advanced Java Programming – I	To explore different type of Java technologies
	Mobile Application Development	To learn how mobile apps can be designed using technology called Android

Data Management using PL/SQL-I	To learn the PL-SQL part of DBMS.
.Net Technologies	To provide insight into .NET technologies for web programming and enable them design and develop interactive and responsive web applications. Explain learners the insights into the efficient usage of .NET technologies and their facilities.

	Advanced Networking & Security	To understand the basics of computer security
	Advanced Java Programming -II	To explore Java technologies used on the server side.
CS SEM VI	Software Engineering and Testing	To understand the importance of software Testing and the overall process.
VI	Data Management using PL/SQL -II	To explore features of PL-SQL
	Advanced Web Technology	To enable learners, master the advanced topics in web programming and enable them design and develop interactive and responsive web applications. Explain learners the insights into the efficient usage of various web technology products and their facilities.

Information Technology1. The student gets familiar to various core technologies in IT Industry such as Coding, Testing, Embedded System, Administration of Operating System, Networking, Website Designing, Databases etc. 2. The course not only includes subject that develop technical skills but also includes subjects to develop soft skills of students which enables them to prepare better resume, interviews, leadership skills and Employability skills 3. The course addresses the need of hardware devices and circuits that are importance in the real time scenario. 4. The course prepares the students to the Industry standard material by making them to do certification courses		
	Imperative Programming Digital Electronics	The objective of this paper is to introduce various concepts of programming to the students using 'C'. The objective of this paper is to understand the number formatting system of the Universe and System. Concept of buffer and frames also introduce to the learners so as to visualize the storage locations of the data better.
IT SEM I	Operating System	Learners must understand proper working of operating system. To provide a sound understanding of Computer operating system, its architectures, functioning, processing and algorithms.
	Discrete Mathematics	The purpose of the course is to familiarize the prospective learners with mathematical structures that are fundamentally discrete. This course introduces sets and functions, forming and solving recurrence relations and different counting principles.
	Communication Skills	To help learners in developing their soft skills and develop their personality together with their technical skills. Developing professional, social and academic skills to harness hidden

		strengths, capabilities and knowledge equip them to excel in real work environment and corporate life.
	Object Oriented Programming using CPP	The objective of this course is to provide a comprehensive study of the CPP programming language, stressing upon the strengths of Object Oriented Programming Concepts, which provide the students with the means of writing object oriented, efficient, maintainable, cost-effective and portable code.
	Microprocessor Architecture	The objective of this paper is to understand the structure and operation of modern processors and their instruction sets.
IT	Web Technologies	To provide insight into emerging technologies to design and develop state of - the art web applications using client - side scripting, server - side scripting, and database connectivity.
SEM II	Computer Oriented Numerical and Statistical Methods	To enlighten them with numerical analysis of engineering problems which cannot be done analytically.
	Green Computing	To familiarize with the concept of Green Computing and Green IT infrastructure for making computing and information system environment sustainable. Encouraging optimized software and hardware designs for development of Green IT Storage, Communication and Services. To highlight useful approaches to embrace green IT initiatives.

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	Python Programming	The objective of this paper is learn the new programming style To give the idea to the students how programming can be used for designing real-life applications by reading/writing to files, GUI programming, interfacing with database.
	Data Structure and Algorithms	To understand the concepts of Data Structures and its significance in programming. Provide an holistic approach to design, use and implement abstract data types. Understand the commonly used data structures and various forms of its implementation.
IT SEM III	Applied Mathematics	The course teaches you to use the mathematical concepts in 3D graphics, Data Science and Application in physics astronomy.
	Database Management Systems	The objective of this course is to introduce the concept of the DBMS with respect to the relational model, to understand creation, manipulation and querying of data in databases and to explore the idea behind PL/SQL
	Computer Graphics	To understand the hardware structure and pictures representation in memory so that designing graphics objects become easy. To explore the ways of animation to add the same onto the created object.
ІТ	Core Java	The objective of this course is to teach the learner how to use Object Oriented concepts to develop code and the creation of User Interface using AWT.
SEM IV	Embedded System	To understand the concept and facts behind designing the embedded system using simulation.
	Computer Oriented Statistical Techniques	The purpose of this course is to familiarize students with basics of Statistics and to teach the usage of 'R' tool to potential researchers.

Softwa Engine	ering the	o understand the concept of designing a software, to understand e Software Development Life Cycle Phases and to have vareness about the software metrics and testing
Compu Networ	rks fra	o make the learner to conceptualize and understand the amework and working of communication networks and to have a m grip over this very important segment of Internet.

	Network Security	To understand and to implement the basics of computer security
	Software Testing	To understand the importance of software Testing and the overall process and to implement the quality processes using tools.
П	ASP.NET using C#.NET	To provide insight into .NET technologies for web programming and enable them design and develop interactive and responsive web applications and to understand the coding of remoting Interfaces.
SEM V	Advanced Java	To explore different type of advanced Java technologies, to develop enterprise applications and to work on the java framework such as hibernate and struts.
	Linux Administration	This course introduces various tools and techniques commonly used by Linux programmers, system administrators and naive users to achieve their operational works in Linux environment.
	Internet Technologies	This course introduces the layer approach of network models and gives in depth knowledge of TCP and IP layer protocols. It even introduces the CISCO packet tracer which helps them setup the network virtually
IT SEM	Project Management	The objective is to understand the pattern behind project dissertation and to know the nuances of managing the software projects.
VI	Data Warehousing	To understand and to analyse the data warehousing tools using oracle 11g data builder.
	Geographical Information System	This course introduces the GIS tools to make maps and analyse those information

BCom Financial Markets PSO:		
FYFM(1.1.1)	Financial Accounting I	Students get an detailed knowledge about the accounting of a company and its balance sheet
FYFM(1.1.2)	Economics I	The idea of microeconomics theory and its use in the real world is the objective of this paper
FYFM(1.1.3)	Business Communication I	The students develop the skill of writing and communicating in the business environment with a focus of understanding the theory of business communication
FYFM (1.1.4)	Business Mathematics	The students learn the basic mathematics of computation required in everyday life and its applications

FYFM(1.1.5)	Foundation Course I	The students learn the aspects included in Indian constitution and are also sensitized about the social and political issues of the country
FYFM (1.1.6)	Business Environment	The students understand and learn the business environment of the economy with an overview the role and function of different regulatory framework and other financial institutions of the economy
FYFM(1.1.7)	Introduction to financial systems	The students get an overview of the Financial system of the economy and its role and functions carried out in the system.
FYFM (1.2.1)	Financial Accounting II	The students learn the concepts of corporate accounting and use it with respect to Indian Accounting Standards
FYFM (1.2.2)	Principles of Management	The students understand the concepts of planning and decision making and get an idea of management control
FYFM(1.2.3)	Business Statistics	The understanding of basic statistical methods and its use in data analysis is the focus of this course
FYFM(1.2.4)	Business Communication II	The art of presentation and business correspondence with development of writing skill is the basic objective of this course
FYFM(1.2.5)	Foundation Course II	The students are given an idea of globalization and Indian society. They are also made aware of human rights, ecology and contemporary society.
FYFM(1.2.6)	Environmental Science	An introduction to the economic and environmental activities are conveyed through this course with an idea of environment management
FYFM(1.2.7)	Computer Skills I	The students learn about computer hardware and develops an understanding about the different tools used to work on WINDOWS, WORD and EXCEL
SYFM(2.1.1)	Equity Market I	The students understand the concept of equity markets in details and its importance in the Indian Economy
SYFM (2.1.2)	Commodities Market	The students are introduced to the concept of commodities market and commodity exchange
SYFM (2.1.3)	Portfolio Management	The students develops an understanding of handling a Financial portfolio and learn the concept of diversification of portfolio and risk management.
SYFM(2.1.4)	Management Accounting	The students acquire knowledge about cash flow statement and working capital concept. They also get an idea of interpretation and interpretation of accounts
SYFM(2.1.5)	Computer Skills 2	The students acquire knowledge of Data Based Management System. They are also given an overview of emerging technologies.
SYFM(2.1.6)	Business Law I	They are introduced to Indian Contract Act, Special Contracts and develop an understanding of negotiable instruments.
SYFM(2.1.7)	Foundation Course: Money Market	The students earn knowledge about structure of money market, its instruments, policy framework and regulatory framework.

SYFM (2.2.1)	Equity Market II	The students get a knowledge of the statistical analysis of share price movement and valuation of
(2.2.1)		equities.
SYFM(2.2.2)	Commodities Derivatives	The basics concept of derivatives and its pricing is the main focus of this course with an additional knowledge of regulatory framework.
SYFM(2.2.3)	Merchant Banking	The students develop the concept of IPO, issuing of DRs, ADRs, bonds and debentures.
SYFM(2.2.4)	Business Law II	They are introduced to Indian Company Act, Special Contracts and develop an understanding of negotiable instruments.
SYFM(2.2.5)	Corporate Finance	The students get an overview of corporate financial accounting, capital structure and sources of raising corporate finance
SYFM(2.2.6)	Business Economics	The students are introduced with the concept of macroeconomics theory and develops an understanding of policy implementation according to the economic condition of an economy.
SYFM(2.2.7)	Foundation Course: Foreign Exchange Markets	The students develops an understanding of Indian foreign exchange market and its operational aspects. They are also introduced to foreign exchange arithmetic and risk management.
TYFM(3.1.1)	Technical Analysis	The course focuses on the understanding of technical analysis as it is used in stock market and the major indicators that influences it.
TYFM	Financial Derivatives	The students acquire knowledge of financial derivatives, its use, pricing and settlement of futures and options.
TYFM	Marketing of Financial Services	The students get knowledge about service marketing , market segmentation and customer satisfaction
TYFM	Corporate Accounting	The student get a knowledge of redemption of preference shares and debentures, amalgamation of companies, capital reduction and internal reconstruction.
TYFM	Organizational Behavior	The students get an understanding of interpersonal relationship and also develop a concept of corporate interpersonal relationships. They also get an idea of stress management.
TYFM	Project Work I	The students are initiated to understand the basic concept and methodology of research through collection of primary and secondary data and prepare a data chart on the topic selected by individual students.
TYFM	Venture Capital and Private Equity	The students get a conceptual understanding of venture capital and private equity, strategies used in private equity exit and structure and valuation approaches.
TYFM	Mutual Fund Management	The course focuses on structure of mutual fund organization, accounting and taxation of mutual funds and also the performance measurement of mutual funds

TYFM	Risk Management	The evaluation of risk and its management in foreign exchange market is the basic objective of this course.
TYFM	Strategic Corporate Finance	The course contains conceptual learning of fund raising, company valuation and credit risk management
TYFM	Corporate Restructuring	The understanding of merger, amalgamation, reverse merger and post-merger reorganization is developed through this course
TYFM	Project Work II	The students are expected to analyze the data collected in Semester V and frame a conclusion or recommendation on that topic.

BAF	To be able		
PSO:	1. To do Advanced Accounting of companies, banks, insurance cos, NBFCs etc		
	2. To be able to take financial decisions		
	3. To prepare budgets and determine costs and take decisions.		
	4. To understand internal control mechanisms and apply it in corporat		
	environment 5. Abreast of present laws understand macro and micro economic		
		with confidence and in a correct manner.	
	Financial	will know the basics of financial accounting including the	
	Accounting-I:	accounting standards.	
		will learn the basics of costing including preparation of cost	
	Cost Accounting –I:	sheets	
	Financial		
	Management –I:	will learn basics of financial management	
BAF SEM I	Business Communication-I:	will be able to understand the concepts of communication and cultivate listening capacity and develop both verbal and non-verbal communication.	
U LM I		will be able to understand the multi-cultural diversity of Indian	
	Foundation Course-I:	society and concept of disparity.	
	Commerce		
	(Business	will be able to understand dynamics of business environment	
	Environment-I):	and contemporary issues like CSR.	
	Business Economics-I:	will be able to grasp the micro-economic concepts.	
	Financial Accounting		
	(Special Accounting Areas) –II:	will learn special areas of accounting like consignment accounts, branch accounts and fire insurance claims.	
	Auditing (Introduction and Planning-I):	to understand the meaning of auditing, techniques of auditing, planning, procedure and documentation, internal controls and internal audit.	
BAF	Taxation (Indirect taxes-I):	with the introduction of GST, this course has been replaced.	
SEM II	Business Communication-II:	learn how to make effective presentation, conduct of meetings and GDs, business correspondence and writing skills.	
	Foundation Course- II:	to understand privatisation and globalisation, concept of human rights and impact of ecology on human life.	
	Business Law (Business Regulatory Framework-I):	to learn various acts relating to law of contract, sale of goods, negotiable instrument.	

	Business Mathematics:	to learn mathematics to be applied in finance
	Financial Accounting (Special Accounting Areas)-III:	will learn special areas of accounting like partnership firms, amalgamation of firms, foreign currency translations.
	Cost Accounting (Methods of Costing) –II: Auditing (Techniques of Auditing and Audit Procedures)-II:	S
BAF	Taxation –II (Direct Taxes Paper-I):	to know the basis of charge of income tax, computation of income under various heads of income.
SEM III	Information Technology in Accountancy-I:	to understand the parts of computer, office productivity tools, creating email id, using internet and e-commerce.
	Foundation Course in Commerce (Financial Market Operations) –III:	to help in understanding the Indian financial system, financial markets, financial instruments and services.
	Business Law (Business Regulatory Framework) – II:	to get the insight on Indian Partnership Act, Factories Act.
	Business Economics-II:	to learn macro- economics
	Financial Accounting (Special Accounting Areas)-IV:	to learn preparation of final accounts of companies and redemption of preference shares and debentures.
	Management Accounting (Introduction to Management Accounting):	to learn to analyse and interpret financial statements
BAF SEM IV	Auditing- III: Taxation III (Direct Taxes –II):	to learn reporting requirements, investigation and due diligence, code of ethics and audit under CISE
	Information Technology in Accountancy-II: Foundation Course in Management	to understand IT-related business process, computerised accounting system and IT audit.
	(Introduction to Management) –IV:	management.
	Business Law (Company Law) –III:	to understand provisions related to incorporation of companies, public offer and private placements.
	Research Methodology in Accounting and Finance:	to learn research design, data collection, interpretation and report writing

	Cost Accounting – III:	to learn uniform costing, integrated and non-integrated system of accounts, operating and process costing.
	Financial Management – II:	to learn interface of financial policies and strategic management, techniques pf capital budgeting, capital structure theories, mutual fund valuation and credit management.
	Taxation IV (Indirect Taxes –II):	to learn the genesis of GST in India, conceptual framework, levy and collection of GST, documentation and registration and computation of GST.
BAF SEM V	International Finance:	to learn derivatives. Foreign exchange markets and dealings, foreign exchange exposure and risk management.
	Management –II (Management Applications):	to understand 4 Ps of marketing, distribution channels, production management, human resource management and financial management.
	Financial Accounting V:	to learn to solve the problems of underwriting of shares and debentures, buy-back of shares, amalgamation, internal reconstruction and liquidation of companies.
	Financial Accounting VI:	to learn to prepare final accounts of banking, insurance and nonbanking financial companies, valuation of goodwill
	Cost Accounting:	to learn how to prepare budget, understand cost-volume- profit analysis, managerial decision making and variance analysis.
	Financial Management III:	to learn conceptual framework of business valuation, mergers and acquisitions, take-overs, lease and HP financing, working-capital financing.
	Taxation V (Indirect Taxes-III):	to get an insight on payment of indirect tax and refunds, filing of returns, documentation, audit and Customs Act.
BAF SEM VI	Security Analysis and Portfolio Management:	to understand portfolio management in India, its valuation, fundamental and technical analysis and CAPM
VI	Economics –III (Indian Economy):	to understand agriculture sector in India, industrial policy, service sector and money and banking.
	Financial Accounting VII:	to learn preparation of final accounts for electricity company, cooperative society, investment accounting, mutual fund and IFRS.
		The topics will relate to areas of accounting and finance. The project work in help in understanding theoretical concepts and apply it practically by collecting primary data,
	Project work:	interpreting it and drawing conclusions.

Biotechnology explained PSO: imparted Students industry.	The basics of all subjects are taught in theory and practical applications are explained in practical sessions. Basic skills and concepts of all subjects are imparted to the students. Students are adept to work in any research laboratory or in any biotechnology industry. They also gain basic data management and entrepreneurship skills to start their own work or join a database management industry.	
Cell Biology	Endocrinology	
Immunology	Instrumentation	
Animal/Plant Tissue culture	Industrial Biotechnology	

Genetics	Bioinformatics
Biochemistry	Physiology(Animal and Plant)
Biodiversity	Ecology
Scientific Writing	Entrepreneurship Development
Research Methodology	Biophysics
Chemistry	Green Chemistry
Biostatistics	Microbiology
Environmental Biotechnology	Molecular Biology

Post Graduate Programmes

MCom		
	Strategic Management	The course provides understanding of new forms of Strategic Management concepts and their use in business, Business, Corporate and Global Reforms, recent developments and trends in the business corporate world
Accounts: and Management: (Part	Economics of Global Trade And Finance	The course provides understanding of International Trade, Commercial Policy and Global Finance as well as recent trends and developments in international trade
I - Semester I)	Cost and Management Accounting	The course provides understanding of the concept of Cost and management accounting and its significance in the business, understand, develop and apply the techniques of costing in the decision making in the business corporates, understanding, developing, preparing and presenting the financial report in the business corporates
	Business Ethics and CSR	The course provides understanding of business ethics and CSR regulations in India
	Research Methodology	The course provides understanding of Research and Research Process, identifying problems for research and develop research strategies and techniques of data collection, analysis of data and interpretation.
Accounts: and	Economics of Global Trade And Finance	The course provides understanding of International Trade, Commercial Policy and Global Finance as well as recent trends and developments in international trade
Management: (Part I - Semester II)	Corporate Finance	The course provides understanding of the objectives of Financial Management, understand, develop and apply the techniques of investment in the financial decision making in the business corporates, analyse the financial statements
	E-Commerce	The course provides understanding of the emerging world of ecommerce, current challenges and issues in ecommerce, Web- based Commerce, Legal and Regulatory Environment and Security issues of E-commerce

Accounts:: (Part II - Semester III)	 Advanced Financial Accounting - The course provides understanding of Foreign Currency Conversion, Final Accounts of Banking Companies, Insurance Companies and Cooperative Societies Direct Tax - The course provides understanding of Heads of Income, Deductions under section 80, Computation of Income and Tax of Individual, Firm and Company Advanced Auditing - The course provides understanding of company audit, audit of different organisations, audit under different laws and audit under EDP environment
Management: (Part II - Semester III)	 Human Resource Management - The course provides understanding of HRM, HRD, Latest Development in H.R.M. and Labour Legislation and Emerging Issues In H.R.M Entrepreneurial Management - The course provides understanding of Entrepreneurship Development Perspective, Creating Entrepreneurial Venture, Project Management, Assistance and Incentives for Promotion and Development of Entrepreneurship Marketing Strategies and practices - The course provides understanding of Marketing Strategies, Developing Marketing Strategies & Plans, Market Environmental Trends & Building Customer Value and Recent Trends
Accounts:: (Part II - Semester IV)	 Corporate Financial Accounting - The course provides understanding of Corporate Financial Reporting, (IFRS) & Ind - AS, Valuation of Business for Amalgamation & Merger and Consolidated Financial Statement Indirect Tax- Introduction of Goods and Service Tax - The course provides understanding of Overview of Goods and Service Tax, Registration under GST, Collection of Tax under Integrated Goods and Services Tax Act, 2017, Payment of GST Financial Management - The course provides understanding of Types of Financing, Capital Budgeting, Management of Working Capital, Financial Planning, Financial Policy and Corporate Strategy
Management: (Part II - Semester IV)	 Supply chain management and logistics - The course provides understanding of Supply Chain Management, Perspectives of SCM, Logistics, Design of SCM, Logistics and Use of Internet Advertising and sales Management - The course provides understanding of Advertising Fundamentals and Media, Creativity, Social and Regulatory Framework of Advertising, Sales Management, Sales Planning and Controlling Retail Management - The course provides

MSc Microbiology

PSO: Students undertake to submit Research Proposals and carry out Research Dissertations in the second year of this program.

On each of the papers enlisted alongside, Students have to give presentations or Reviews of Literature related to various current trends in the subject area.

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MSc-Semester I &II Paper I	Cell Biology & Virology	Students are introduced to concepts of Eucaryotic Cell Biology and also to Bacterial,Plant and Animal Virology and the impact of these viruses
MSc-Semester I &II Paper II	Microbial Genetics	Students learn about Gene expression and replication ,mutation regulation and Inheritance methods. They are introduced to Molecular tools for genetics. Advanced concepts like Population, Developmental and Cancer Genetics, Viral Gene transfer.They are also made aware of Applications and Ethics of modern Genetic Technology
MSc-Semester I &II Paper III	Microbial Biochemistry	Introduced to Aqueous Solutions and Acid – Base Chemistry. ,Bioorganic Molecules and their transfer,Metabolism of one & two carbon compounds.Also exposed to Analytical Biochemistry,Enzymology, Microbial degradation
MSc-Semester I &II Paper IV	Medical Microbiology	Students gain deep insights into Advances in Medical Microbiology and Immunology, Challenges in Immune System ,Epidemiology, Immune System and Health. Become well versed with Clinical Research and Modern diagnostics ,
MSc-Semester III & IV Paper I	Tools and Techniques : Research Methodology & Biomolecular Analysis	In the second year of MSc students take up Research dissertation projects and are initially taught about Research Methodologies and are taught the applications and use of various high end analytical instruments
MSc-Semester III & IV Paper II	Food Microbiology &	Students become well versed with the beneficial and harmful role of microbes in foods, detection methods and Aspects of Food safety

	Pharmaceutical Microbiology	& Principles And Applications Of GMP, Quality Management,Regulatory and Analytical Aspects In Pharmaceuticals And Cosmetics Products and learn about Drug Discovery
MSc-Semester III & IV Paper III	Advances In Biotechnology	Students are exposed to advances in Plant,Animal And Agricultural Biotechnology,Nano and Medical Biotecnology & Students learn about newer areas like Pharmaceutical ,Marine and Molecular Biotechnology ,IPR and ethics in Biotechnology
MSc-Semester III & IV Paper IV	Applied and Environmental Microbiology & Applied and Environmental Monitoring & Management	Students are taught to appreciate Microbial Diversity,to learn Techniques In Microbial Ecology, Learn about the recent areas of impact of microorganisms in various environments,Advances made in Food & Water Microbiology & They learn to exploit microorganisms wrt to Bioremediation and Control of environmental Pollution, Waste and Biofilm Management They are also exposed to Monitoring of Environmental & Natural Resources Management

MSc Chemistry PSO:		
M.Sc. Sem I and Sem II Paper-I	Physical chemistry	The learners should be able to understand principles of third law of thermodynamics to phase transition systems. In addition, they should be able to learn basic principles of Quantum chemistry and Chemical Dynamics for composite reactions and polymerization reactions. The learners should be able to apply theories in electrochemistry to analyze electrode kinetics.
M.Sc. Sem I and Sem II Paper-II	Inorganic Chemistry	Identify the basic principles related to structure and bonding of s & p block elements Use various spectroscopic principles to characterize inorganic and organometallic compounds and Predict the synthesis and bonding properties of s and p block elements A study of valence bond and molecular orbital theories.

		Apply the concept of linear combination of atomic orbitals
		to hybridization and directed bonding in polyatomic molecules.
		To identify and apply the concepts involved in the syntheses, structure and physical properties of crystalline inorganic solids. Qualitative and quantitative estimations, synthesis, separation, purification, characterization and property measurements of inorganic compounds
M.Sc.Sem I and Sem II Paper-III	Organic Chemistry	The learners should be able to: Apply principles of separation and isolation techniques in organic reactions. Analyze NMR, IR and Mass spectra of organic compounds .To learn and apply various concepts such as stereochemistry and fundamental principles of stereo selectivity in organic chemistry. To learn the involvement of reactive intermediates and understand their structure and reactivity through various organic reactions.
		To learn various organic reactions and reagents used in them as tools applied in the art of organic synthesis.
M.Sc.Sem I and Sem II Paper-IV	Analytical Chemistry	The learners should be able to apply the conceptual understanding of the principles and implementation modes of several analytical instruments optical and thermal to chemical systems. Basic understanding of good laboratory practices, safety in the laboratory and Quality assurance .One should be able to handle different instruments like spectrophotometer,Turbidimetry ,Nephelometry and Flame photometer.
M.Sc Sem III and IV Organic chemistry	Paper-I Theoretical organic chemistry	To learn and understand the orbital interactions (Woodward Hoffmann rules) ,NGP by lone pair of electrons, Pi electrons ,aromatic rings with reference to norborynyl and bicycle[2.2.2] octyl cation system.
		Understanding of supramolecular chemistry –synthesis of crown ethers, cryptands and calixarenes.
		Learn to apply concerted and stepwise reactions in organic synthesis, Comprehend the structure-reactivity pattern of reactive intermediates involved in organic reactions Comprehend the orbital interactions and orbital symmetry correlations of various pericyclic reactions
	Paper-II Synthetic organic chemistry	Learn to apply stepwise reactions in organic synthesis ,the learners should be able to: Write mechanism of organic reactions involving reactive intermediates. Apply these reactions in organic synthesis
		Learn the fundamental ideas of photochemical excitation/deexcitation events, and the molecular events

		that can intervene at different levels and their applications
	Paper-III Natural products and spectroscopy Heterocyclic chemistry	To learn basic principles of proton NMR, ,C-13 NMR and advanced spectroscopic techniques to use these spectroscopic methods for organic structure elucidation. Detail study of Natural products including Steroids, Vitamins naturally occurring insecticides.
	Paper-IV Medicinal, Biogenesis and green chemistry Bioinorganic chem .and Intellectual property rights	To know Drug designing and development. Green Organic Synthesis: Principles and Applications Course Objectives: Learn the importance of minimizing waste, saving power and doing organic synthesis according to the principles of green chemistry Learning outcomes: At the end of the course, the learners should be able to: Create awareness for reducing waste, minimizing energy consumption in organic synthesis. Implement techniques of green synthesis in organic reactions
M.Sc SEM III and IV Analytical chemistry	Paper-I Quality in Analytical chemistry	i.To provide sound knowledge of Pharmaceutical legislation.ii To impart technical knowledge about chromatographic techniques and their applications for separation of inorganic and organic compounds.
	Paper-II Advanced Instrumental techniques	Learn the basic theory and principles of Mossbauer's spectroscopy, Atomic Emission spectroscopy, NMR Spectroscopy Radiochemical and thermal methods, Hyphenated techniques . To Motivate to pursue research and specialization in a plethora of domains in the field of Analytical chemistry.
	Paper-III Environmental and Industrially important materials	To develop a logical approach, analytical thinking and problem solving capabilities in order to make the learner competent to face and address the challenges with reference to air pollution, water pollution, Soil pollution, Noise pollution. To make them aware of Water quality standards, Industrial materials.
	Paper-IV Pharmaceutical ,Biochemical and organic Analysis	To impart technical knowledge and competency skills to perform in various areas such as Analytical biochemistry, effluent treatment, Solid waste management, Metallurgy, food analysis and Immunological methods

Part 1	Personality Psychology	To understand various theories of human personality and factors shaping it and research studies done.
	Research methodology	To understand philosophy of science, various research methods in psychology, and understanding both qualitative and quantitative research
	Statistics for psychology	To understand fundamentals of probability, descriptive and inferential statistics and R software
	Cognition and emotion	To understand the various theories of human thinking, decision making, memory, and emotions etc and to understand research methods in cognitive psychology and neuropsychological underpinnings.
	Practicals in Experimental Psychology	To make students understand how to design psychological experiments and computerise them.
	Evolutionary psychology	To help students learn about processes of human mind as function of evolution, and understand applications of evolutionary psychology
	Intervention systems in psychology	To acquaint students with various systems and theories used in intervention and give them an understanding of eclectic, multicultural approach to counselling.
	Multiculturalism:The ory and practice	To make students understand issues like identity, stereotyping, conflict, considerations in assessment, and multicultural competencies
	Positive psychology	To help students understand concepts in positive psychology, help them understand positive subjective states and understand importance of human virtues
	Practicals in Psychological testing and psychometrics	To help students understand various stages in scale development and understand various theories in psychometrics and also criteria of a good test
Part 2	Assessment in clinical psychology	To familiarise students to various tools and tests used in clinical psychology and teach them how to select, administer, score and interpret data and create reports
	Psychopathology across lifespan	To inform students about etiology, presentations of clinical disorders
	Psychotherapy	To impart generic skills needed for intervention, to teach them how to plan and execute therapy and to impart skills through role plays, case studies etc.
	Advanced skills and processes of counselling and psychotherapy	To help students in building capacity to understand basic and advanced skills for counselling, help students practise the skills and develop skills required to be a practitioner.
	Personality Disorders	Understand Personality disorders and controversies, help

		students understand assessment and therapy in PD.
	Practicum in Clinical Psychology	To help students understand hands on work as clinical psychologists, and teach them skills in history taking and mental status examination and differential diagnosis.
	Applications of neuropsychology for health management	To help students understand functions of the brain, methods of investigating the brain, primary and higher order processes
	Peace psychology	To understand theories in peace psychology, implications in confict management and resolution, process of peace building and peace making
	Project based course (dissertation)	To enable students plan, propose, and execute a research in a chosen area and report the findings in standardised format in the form of a thesis