

G R Patil College of Arts, Science and Commerce, Dombivli(E)

Program Outcomes (PO), Program Specific Outcomes (PSO) and Course Outcomes (CO) -

B.Sc. Program Outcomes:-

1. Job opportunities by Maharashtra Public Service Commission and UPSC exams, Railway recruitments and technical persons in Government research labs etc.
2. After completing B.Sc. (Physics / Chemistry / Botany / Zoology / Math) students can get job in MNC.
3. After completing B.Ed. students can get job as a teacher in various schools and junior colleges.
4. B.Sc. (Physics / Chemistry / Botany / Zoology / Math) can do their masters degree in related fields.
5. After masters degree they can pursue their Ph.D. in Indian Universities or Foreign Universities.
6. After completing GATE they can join IIT colleges for M.Sc. + Ph.D. integrated programs.
7. They can also opt for professional courses like MBA

B.Sc. (Botany) Course Outcomes:

Specific Outcomes:-

Student can join botany related or life science related government / private firms.

Can join agriculture seed companies, tissue culture labs, pharma companies etc.

Can work as an environmental consultant in various agencies.

Develop inclination towards environmental consultants.

Student can start their venture in nursery for development of various plant variety plantlets like citrus, mango, pomegranate, etc.

Can do production of bio – fertilizers and bio – pesticides.

Can work as a consultant for garden development and landscape designing.

Can start their food processing unit.

Can do cultivation of medicinal plants for conservation and harvesting.

Raw material provider for medicinal industry.

Botany Program Specific Outcomes:

- 1) Collaborate effectively on team – oriented projects in the field of life sciences.
- 2) Communicate scientific information in a clear and concise manner both orally and in writing.
- 3) Explain biodiversity, climate change and plant pathology.
- 4) Apply biotechnology, ecology, genetics and plan breeding techniques in plant sciences.
- 5) Apply knowledge of medicinal and economic botany in day to day life.
- 6) Apply the knowledge to develop the sustainable and eco – friendly technology in industrial botany.

B.Sc. Physics Program Specific Outcomes:

FY B.Sc. Paper I	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
FY B.Sc. Paper II	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
SY B.Sc. Paper I	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

SY B.Sc. Paper II	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
SY B.Sc. Paper III	Applied Physics -I	This interdisciplinary course aims at teaching students about acoustics , material science , biophysics Geophysics , Communications , Radiations and microprocessors.
TY B.Sc. Paper I	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
TY B.Sc. Paper II	Solid State Physics Electronics	Understand the basics of crystallography & semiconductor physics to be able to understand the working of multivibrators, oscillators etc.
TY B.Sc. Paper III	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
TY B.Sc. Paper IV	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++

B.Sc. Math Program Specific Outcomes:

FYBSC MATHS-I	Calculus-I	Describe the real line as a complete, ordered field, 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.
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 combinatory. 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 characterize compact and connected metric spaces;4) state the definition of continuity of a function between two metric spaces and study relevant propositions.
TYBSC MATHS-IV	Graph Theory and Combinatory	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)
Chemistry	The purpose of the undergraduate chemistry program at the University of Mumbai BSc 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 PSO : 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: The application of mathematical tools to calculate thermodynamic and kinetic properties The derivation of rate equations from mechanistic data Chemical equilibrium and its relationship with thermodynamic quantities
		Basic quantum chemistry and atomic structures of atoms 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	<p>Students will gain an understanding of:</p> <p>The periodic table including s, p, d, f-block elements</p> <p>The bonding fundamentals for both ionic and covalent compounds, including electro negativities, bond distances and bond energies using MO diagrams and thermodynamic data</p> <p>Predicting geometries of simple molecules</p> <p>The fundamentals of the chemistry of the main group elements, and important real world applications of many of these species</p> <p>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</p> <p>The bonding models, structures, reactivity's, and applications of coordination complexes, boron hydrides, metal carbonyls, and organometallics</p>
Paper-III	Organic Chemistry	<p>Students will gain an understanding of:</p> <p>How to calculate limiting reagent, theoretical yield, and percent yield?</p> <p>How to engage in safe laboratory practices by handling laboratory glassware, equipment, and chemical reagents appropriately?</p> <p>How to dispose of chemicals in a safe and responsible manner?</p> <p>How to characterize products by physical and spectroscopic means including mp, IR, NMR, GC, and MS?</p> <p>How to consult the scientific literature for physical data and experimental procedures?</p> <p>How to perform common laboratory techniques including reflux, distillation, re crystallization, vacuum filtration, and thin-layer chromatography?</p> <p>How to create and carry out work up and separation procedures?</p> <p>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?</p> <p>How to predict the outcome of organic reactions using a basic understanding of the general reactivity of functional groups and mechanism?</p> <ol style="list-style-type: none"> 1. Stereochemistry 2. Spectroscopic techniques for structure elucidation of compounds using UV,IR,NMR and Mass spectroscopic techniques.

Paper-IV	Analytical Chemistry	<p>Analytical</p> <p>Students will gain an understanding of:</p> <p>The use of an analytical balance for mass measurement</p> <p>The use of graduated cylinders, graduated pipettes, and volumetric pipettes for volumetric measurement</p> <p>The use of thermometers and temperature probes</p> <p>Classical and Instrumental methods of analysis.</p> <p>The calibration and use simple spectrophotometers, pH meters, centrifuges, and vortexes</p> <p>The preparation of buffer solutions at a required pH, given a choice of solutions of acid/conjugate base pairs</p> <p>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 equilibrium</p> <p>How to set up and use an electrolysis cell to determine the equivalent mass of an unknown metal?</p> <p>Legend strengths by the stability of the complexes and precipitates formed by the ligands with a given metal ion</p> <p>The basic principle and working of different instruments such as GC,HPLC ,AAS, Flame photometer etc</p>
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B.Sc. (Zoology) Course Outcomes:

After successfully completing this course, students will be able to -

1. The student will be able to understand, classify and identify the diversity of animals.
2. The student will understand the importance of classification of animals and classify them effectively using the six levels of classification.
3. The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding of life.
4. Recognize the live forms of vertebrates and invertebrates.
5. Analyze and describe zoological concepts, including morphology and anatomy.
6. Explain conservation and sustainable use of animals.
7. Explain and demonstrate the impact that animals have on human society.
8. Understand process of fisheries, sericulture, along with crop pest management techniques.
9. Students gain knowledge about various disease related factors and their impact on human.
10. Understand concept of apiculture, poultry, dairy along with tissue and cell culture techniques.
11. Define the basic terms in histology.
12. List the various types of tissues.
13. Identify the histological peculiarities in various organs.
14. Explain the location, structure and function of various organs.
15. Knowledge of classification of protochordates and chordates along with studies on various physiological functions and interactions of chordate organisms with examples.
16. Imparts conceptual knowledge of vertebrate adaptations in relation to their environment.
17. Knowledge of classification of non – chordates along with studies on various physiological functions and interactions of non – chordate organisms with examples.
18. Outline the branches of entomology.
19. Define medical entomology.
20. Explain the social organization of insects with examples.
21. Illustrate the role of household insects in relation to human health.
22. Classify major medically important insects.
23. Identification of zooplanktons and phytoplanktons.
24. Students gain skill about determination of pH and quantitative analysis of blood cells.
25. Students are able to identify parasites from rectal and fecal contents of animal.
26. Students are able to collect parasite and pest specimen.

B.Sc. (Zoology) Program Specific Outcomes:

Students will –

- 1) Demonstrate knowledge and understanding of zoology and management principles and apply these to one's own work, as a member and leader in a team.
- 2) Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.
- 3) Function effectively as an individual and as a member of leader in diverse teams, and in multidisciplinary settings.
- 4) To foster curiosity in the student for zoology.
- 5) To create awareness amongst students for the basic and applied areas of zoology.
- 6) To orient students about the importance of abiotic and biotic factors of environment and their conservation.
- 7) To provide an insight to the aspects of animal diversity.
- 8) To inculcate good laboratory practices in students and to train them about proper handling of lab instruments.

B.Com Program Outcomes:

After completing B.Com –

- 1) Student should have conceptual knowledge and application skills in domain of commerce field.
- 2) Student should cope with latest developments in business world at national and global level.
- 3) Student should acquire employability skills and prepare themselves to take leadership positions in corporate world.
- 4) Student should develop entrepreneurship skills and contribute to economic development of country.
- 5) Student should possess social moral and civic values so as to become good citizen of country.

B.Com Course outcomes:

- 1) Student should understand basic concepts in accounting.
- 2) Students should be aware about advance trends and skills in accounting.
- 3) Students should be familiar with the basic economics problems and role of government and market.
- 4) Students should get familiar with the concepts of demand, supply, cost, revenue and laws associated with them.
- 5) Students should get familiar with different factors, their price determination and theories with them.
- 6) Students should understand concept and calculation of simple interest, compound interest and equi monthly installment.
- 7) Concepts of shares, share holder, stock exchange, share broker, face value of a share, market value of a share, calculation of dividend and returns on investment, identification of profitable investment.
- 8) Meaning and functions of statistics, concepts of population, simple methods of data collections, census, sampling, methods of sampling.
- 9) Students should understand the role of and function of office manager.
- 10) Classification of data, presentation of data, calculation of average and variations.
- 11) Students should understand the terminologies and concepts related to modern office, organizational structure, office organizations and services.
- 12) Students should learn about how to choose ideal office location, how to design and maintain pleasant office ambience.
- 13) Students should understand the concepts, process and importance of communication.
- 14) Students should develop awareness regarding new trends and technologies in business communication.
- 15) Students should have knowledge of various media of communication and develop soft skills and business communication skills through the application and exercises.
- 16) Students should be familiar with the area of macro economics issues, policies and its limitations.
- 17) Students should be aware of basic fundamentals of company law.
- 18) Students should understand the terminologies in company law.
- 19) Students should understand structure of Indian banking system.

- 20) Students should be aware about changing scenario of banking system.
- 21) Students should understand role of different categories of banks.
- 22) Students should have knowledge of basic concepts of cost accounting.
- 23) Students should know elements of cost.
- 24) Students should be able to prepare of cost statement and have knowledge of material control and labor
- 25) Students should develop entrepreneurial competencies.
- 26) Students should have conceptual background of types of entrepreneurship.
- 27) Students should get acquainted of steps in marketing, planning and marketing management.
- 28) Students should be aware of marketing environment, its elements and its impact on the bus organization.
- 29) Students should get idea of different business laws in the country.
- 30) Students should know provisions of various laws affecting business.
- 31) Students should know implementation process of various laws.
- 32) Students should develop skills of computerized accounting.
- 33) Students should learn banking company accounts and accounts of non profit making organizations.
- 34) Students should have knowledge of accounting standards.
- 35) Students should get familiarize with the concept of auditing like meaning and evolution of auditing auditing process.
- 36) Students should be well versed with aspects while conducting audit like vouchers and vouching of case items, verification and valuation of balance sheet items.
- 37) Students should have knowledge of audit report its type and contents.
- 38) Students should learn legal provisions regarding company auditor including provisions rega qualification, disqualification, rights, duties and liabilities.

B.Com Program Specific Outcome

Accountancy papers

FY B.Com	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.
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FY B.Com	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 regression Be familiar with index numbers methods and have a detailed knowledge of the algebra. Be able to 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
SY B.Com	Paper No. V Introduction to Management Accounting and Paper No. 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.
TY B.Com 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.
TY B.Com	Direct & Indirect Taxes [Ability Enhancement Courses (AEC)]	Learning Basic knowledge and practical application of Income Tax, Maharashtra Value Added Tax and Service Tax.
TY B.Com 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		
FY B.Com	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 realize the need for sustainable ways for living.

FY B.Com	Bs. Economics I	The subject familiarizes the students with the fundamentals of micro-economic theory & makes them understand, predict the economic forces shaping real world business decision.
SY B.Com	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.
SY B.Com 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.
TY B.Com	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		
FY B.Com Commerce I	Introduction to Business	The course provides understanding of Concept of Business, objectives, business environment and entrepreneurship.
FY B.Com Commerce II	Introduction to Service Sector	The course provides understanding of concepts in Services, Services Mix, retail sector and e-commerce.
SY B.Com Commerce III	Management: Functions and Challenges	The course provides understanding of Concepts of Management and Functions.
SY B.Com Commerce IV	Management: Production & Finance	The course provides understanding of Production Management, Quality Management, Indian Financial System and Recent Trends in Finance.
SY B.Com	Business Law	The course provides understanding of framework of Indian Business Laws, legal aspects of business and case law studies related to Business Laws.
SY B.Com	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.
TY B.Com Commerce V & VI	MHRM	The course provides understanding of Concepts of Marketing, Marketing Mix, Consumer Behavior, Market segmentation and current issues in Marketing in Semester V.
TY B.Com Commerce VI	MHRM	The course provides understanding of Functions of HRM, HRP, HRD and current issues in HRM.

Banking and Insurance Program Outcomes:

- 1) Scientific temper will be developed in students.
- 2) Students will acquire basic skills and technical knowledge along with domain knowledge of different subjects in the Banking and Insurance stream.
- 3) Students will become employable, they will be eligible for career opportunities in industry or will be able to opt for entrepreneurship.
- 4) Students will possess basic subject knowledge required for higher studies, professional and applied courses.
- 5) Students will be aware of and able to develop solution oriented approach towards various social and environmental issues.

Banking and Insurance Course Outcomes:

- 1) Students should understand the terminology and concepts related to banking and insurance.
- 2) Students should learn about how to choose ideal office location, how to design and maintain layout ambience.
- 3) Students should acquaint with the fundamentals of banking.
- 4) Students should develop the capability of knowing banking concepts and operations.
- 5) Students should be aware of banking business and practices.
- 6) Students should understand structure of Indian banking and Insurance system.
- 7) Students should be aware about changing scenario of Banking system.
- 8) Students should understand role of different categories of banks in insurance field.

Banking and Insurance Program Specific Outcomes:

Banking and Insurance Semester – I	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
	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 Communication-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 its 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 the 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.
Banking and Insurance SEM II	Organizational Behavior	understanding group and individual performance and activity within an organization
	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.
	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 dexterity 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 Insurance SEM III	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.
	Management Accounting	Understanding the importance of accounts from managerial point of view.
	Mutual Fund Management	Understanding of Basics of Mutual Fund with its legal framework and guiding principles for Financial planning and investment.
	Information Technology	Understanding E-commerce Framework, anatomy, infrastructure, recent trends in E-commerce and its Challenges, Basics of office automation.
	Foundation Course – III (An Overview of Banking)	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 (Equity, Debt, Forex and Derivatives)	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 Financial Services	Creates and develops the skill to calculate the taxable income and ways and means to save the income
Banking and Insurance SEM IV	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
	Corporate & Securities Law	Understanding of repealed sections, legal understanding and interpretation of various basics of corporate and capital Market.

	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	analyze common business functions and identify, design and develop appropriate information technology solutions
	Business Economics-II	
Banking and Insurance SEM V	Financial Reporting & Analysis	It will enable the students to understand the preparation of final accounts by both Banking & insurance Companies
	Auditing	Develops an understanding of work of an auditor in different organizations.
	International Banking &	to understand the concepts and broad activities of International Banking & Finance besides studying developments in India.
	Marketing in Banking &	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.
Banking and Insurance SEM VI	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 Governance	understanding ethical issues in business and role of corporate governance practices
	International Business	evaluate the impact of world issues on organization institutional business decision making
	HRM in Banking & Insurance	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
	Project on Insurance	Develops Research Skill of Data collection, Data Analysis and Data Interpretation and forming conclusion with a special focus on insurance sector

BMS Program Outcomes:

- 1) Student should have conceptual knowledge and application skills in domain of commerce field.
 - 2) Student should cope with latest developments in business world at national and global level.
 - 3) Student should acquire employability skills and prepare themselves to take leadership positions in corporate world.
 - 4) Student should develop entrepreneurship skills and contribute to economic development of country.
- Student should possess social moral and civic values so as to become good citizen of country.

BMS Course Outcomes:

- 1) Students should develop entrepreneurial competencies and make his mind to choose entrepreneurship as a career.
- 2) Students should be able to describe theoretical aspects of management like evolution and meaning of management, functions and process of management, nature and scope of management.
- 3) Students should understand in depth planning function of management like meaning, process, importance and limitations types of planning, parts of planning, decision making and forecasting.
- 4) Students should be able to describe functions like organizing, directing, staffing and communication.
- 5) Students should be aware of marketing environment, its elements and its impact on the business organizations.

BMS Program Specific Outcome:

FY BMS	Introduction to Financial Accounts I	The students understand the core concepts of business finance and its importance in managing business.
FY BMS	Business Law	The student will get an understanding of the Legal Environment of Business. and apply basic legal knowledge to business transactions.
FY BMS	Business Statistics	The students will learn basic statistical methods, with a focus on the application of these methods to the business world.
FY BMS	Business Communication- 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 its application
FY BMS	Foundation Course-I	The students understand the multi-cultural diversity of Indian society, disparity, constitution,
FY BMS	Foundation of Human Skills	The students will get understanding of Human nature, Group Behavior, Organizational Culture and Motivation at workplace 15
FY BMS	Business Economics-I	The students get an understanding of application of economic concepts in business organization
FY BMS	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
FY BMS	Industrial Law	The students are to be acquainted with the Industrial relations framework in our country

FY BMS	Business Mathematics	The students learn to use basic <i>mathematics</i> in solving problems in <i>business</i> .
FY BMS	Business Communication- II	The student will learn effective business writing along with persuasive and appropriate verbal and non- verbal communication, and interpersonal skills.
FY BMS	Foundation Course-I Value Education and Soft Skill=II	The students will understand the impact of globalization on Indian society, human rights, ecology, stress, conflict and its management
FY BMS	Business Environment	The students will understand the concept, significance and changing dimensions. Business of Environment by analyzing the macro environmental factors
FY BMS	Principles of Management	The student will be able to evaluate and integrate management principles into management practices in the global context.
SY BMS	Consumer Behavior	The students develop an understanding about the consumer decision making process and its applications in marketing function of firms
SY BMS	Advertising	The students are equipped with the professional tools to connect brands with audiences on all platforms
SY BMS	Information Technology in Business Management-I	The students can Interpret how information technology affects business operations, and utilize business technologies to their advantage.
SY BMS	Environmental Management	The students will be able to understand the organizations as systems and their role in environmental management.
SY BMS	Business Planning & Entrepreneurial Management	The student will learn the role and importance of entrepreneurs in economic development and make and interpret the business plan.
SY BMS	Accounting for Managerial Decisions	It helps the students in explaining the core concepts of accounts and finance and its importance in managing a business
SY BMS	Strategic Management	The student develops strategic awareness and strategy skills practiced in corporate
SY BMS	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
SY BMS	Rural Marketing	The students will understand the concepts and techniques of marketing management and their application in rural marketing.
SY BMS	Information Technology in Business Management=II	The students learn the necessary skills to enable them to design and implement business information systems.
SY BMS	Business Economics-II	The students understand the macro economic environment in global environment
SY BMS	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
SY BMS	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.

SY BMS	Production & Total Quality Management	The students will learn the production systems -its functions and maintenance of quality at different production stages
TY BMS	Services Marketing	
TY BMS	E-Commerce & Digital Marketing	The student will understand the new avenues available due to internet and also how the organizations use digital platform for marketing
TY BMS	Sales & Distribution Management	The students understand the Sales & Distribution functions as an integral part of marketing functions in a business firm
TY BMS	Customer Relationship Management	The students understand how customer relationship management (CRM) systems can help organizations manage and gain customer insights from marketing information
TY BMS	Logistics & Supply Chain Management	The students learn to apply logistics and purchasing concepts to improve supply chain operations
TY BMS	Corporate Communication & Public Relations	The student will learn the role of effective communication strategies and public relations in the corporate environment
TY BMS	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
TY BMS	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.
TY BMS	International Marketing	The student will acquire an in-depth knowledge and understanding of international marketing - the processes, current challenges of all types of firms
TY BMS	Media Planning & Management	The students understand consumers' media usage and attitudes towards media
TY BMS	Operation Research	The students are introduced to practical application of operations research in business
TY BMS	Project Work	The students will be carrying out a project work which involves practical understanding of the theoretical aspects.

BMM Program Outcomes:

A student University of Mumbai introduced from the academic year 2000-2001, It has been designed to provide students with knowledge in communication skills, critical thinking and creativity, writing skills, oral presentation skills and a mastery of various mass communications media in our global information age. To cater to the growing demand of the job market related to advertising, journalism, T.V, radio, film, newspaper, magazine, Industry etc.

BMM Course Outcomes:

BMM is a career-oriented course that throws up umpteen options at the end of three years. Be it moviemaking, theatre, radio, journalism, copywriting, scriptwriting, branding, or PR, all these career options can be explored after getting a degree in BMM.

Acquiring knowledge across fields (arts/science/commerce) is made possible thanks to BMM. For example, economics, an inherently commerce subject is taught in BMM to ensure students are well versed with the world of numbers and money. Similarly, a subject like political science which is taught in the arts stream is a

part of the BMM syllabus too. Technicalities of radio and television are taught so that students know the workings of both these forms of media.

In the Third year, selecting advertisement if student wants to opt for art direction. Logo design, brand building and selecting journalism if students have love for writing, editing, reporting, copywriting. At the end both are creative fields.

Your computer software skills are sure to be sharpened in BMM. Thanks to BMM I am now comfortable with softwares like Microsoft Word, Microsoft PowerPoint, Adobe Photoshop, Corel Draw as well as video editing softwares like Pinnacle and Premier Pro.

BMM Program Specific Outcomes:

BMM SEM I	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.
	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.
	Principles of Management	To make students aware of Management Process.
	Principles of Marketing	To understand marketing Concepts.

BMM SEM II	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
BMM SEM III	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.
	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.
	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
BMM SEM IV	Print Production & Photography	To help students understand the principles and practice of photography. To enable students to enjoy photography as an art.
	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
	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 Behavior	To impart knowledge of the basic concepts and facets of organizational behavior. 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

BMM Sem V Advertising	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
	Consumer behavior	To understand role of marketing in influencing consumer behavior. To analyze the role of marketer& the consumer in advertising. To sensitize the students to the changing trends in consumer behavior.
	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 Liberalization and its impact on the economy. To study contemporary advertising and society.
BMM Sem VI Advertising	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.
	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 & 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 analyze 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 news. -To train them to acquire the skills of news-gathering with traditional as well as modern tools. -To inculcate the skills for investigative journalism. -To make them understand the basic structure/ essential knowledge for various beats. -To 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 on 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
BMM SEM VI Journalism	News Media Management	To make students aware about the responsibilities, structure and functioning of responsibilities of an organization.
	Broadcast Journalism	To understand the development of Broadcast Journalism in India.
	Business & Magazine Journalism	To understand the tools of Indian economy.
	Issues in Global Media	To Study the role of media in the 21 st Century and the challenges facing traditional media. Familiarize 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 analyze some of the present day environmental, political, economic and social concerns and issues.
	Press Laws & Ethics	To study media laws

B.Sc. (Computer Science) Program Outcomes:

The student gets familiar to various core technologies in IT industry such as programming, testing, operating system administration, networking, website designing, databases etc

The syllabus also covers subjects to develop soft skills of students which enables them to prepare better resume, interviews, leadership skills, etc.

This enables the student to get absorbed in the campus placement.

The syllabus prepares the students to prepare for certification courses

B.Sc. (Computer Science) Course Outcomes:

- 1) Students will understand algorithms and flow chart for solving problems using computers.
- 2) Students will understand and can choose the loops and decision making statements to solve the problem.
- 3) Students will implement different operations on arrays and will use functions to solve the given problem.
- 4) Understand basic relational database definitions.
- 5) Read / write on extended relational algebra queries.
- 6) Read / write simple Structured Query Language queries.
- 7) Read / write embedded SQL queries.
- 8) Read / write SQL queries with group by – write and read SQL queries using the group by clause.
- 9) Identify the basic UNIX general purpose commands.
- 10) Apply and change file and directories using UNIX commands.
- 11) Understand basic structure of C program and uses of variable operators, looping statements.
- 12) Design a responsive website using HTML and CSS.
- 13) Demonstrate rich internet applications.
- 14) Demonstrate important HTML tags for designing static pages and separate design from content using CSS.
- 15) Master the basics of SQL and construct queries using SQL.
- 16) Students will understand system related programming such as operating system functioning.
- 17) Students will capable to develop program solving abilities using a computer.
- 18) To prepare necessary knowledge which is related to operating system and base for research and development in Computer Science.

- 19) Students will understand the concepts of transaction and transaction processing.
- 20) To apply knowledge of programming in PL/SQL including stored function, cursor, trigger.
- 21) Students will get to know how to apply DML / DDL commands on database.
- 22) Understanding the concepts of client – server technology.
- 23) Students will understand the design and implementation of system programs.
- 24) Students will understand the design structure of a simple editor, assembler and macro processor for hypothetical simulated computer.
- 25) Students will get acquainted with fundamentals of networking like PAN, LAN, MAN, WAN, topology and Home and business applications of network.
- 26) Students will understand very basic networking hardware like transmission media types and tools description.
- 27) Students will be able to apply a structured approach to identify needs, interests and functionality of a website.
- 28) Students will learn about the basic concepts of object – oriented programming language like objects, classes, inheritance, polymorphism etc.
- 29) They will implement those concepts in programming using JAVA language.
- 30) They will understand the concepts of designing graphical user interface and client side program execution on browser.
- 31) To inculcate the analytical and thinking ability.
- 32) To develop structured sets of simple user – define classes using objects – oriented principles to achieve overall programming goals.
- 33) To understand the components of unified modeling language (UML) by learning the all symbolic notations.
- 34) To develop error identification and testing strategies for code development by understanding techniques of object oriented analysis, object – oriented design and object oriented testing.

B.Sc. (Computer Science) Program Specific Outcomes:

CS SEM I	Computer Organization and Design	Objectives: To understand the structure and operation of modern processors and their instruction sets
	Programming with Python-I	The objective of this paper is to introduce various concepts of programming to the students using Python
	Free and Open - source Software	Open Source has acquired a prominent place in 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.
	Database Systems	The objective of this course is to introduce the concept of the DBMS with respect to the relational model, to specify 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	The purpose of this course is to familiarize students with basics of Statistics. This will be essential for prospective researchers and professionals to know these basics.

	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
CS SEM II	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 –II	The objective of this paper is to explore the style of 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. Understand the commonly used data structures and various 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 Testing of Hypothesis	The purpose of this course is to familiarize students with 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.
CS SEM III	Theory of Computation	To provide the comprehensive insight into theory of computation by understanding grammar, languages and other elements of modern language design. Also to develop 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.
	Combinatory 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.
CS SEM IV	Fundamentals of Algorithms	To understand basic principles of algorithm design and why algorithm analysis is important To understand how to implement algorithms in Python To understand how to transform new problems into algorithmic problems with efficient solutions 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 understand the framework and working of communication networks. And on completion, will be able to have a firm grip over this very important segment of Internet.
	Software Engineering	To understand the concept of designing a software.
	Linear Algebra using Python	To offer the learner the relevant linear algebra concepts through computer science applications.
	Net Technologies	To explore .NET technologies for designing and developing dynamic, interactive and responsive web applications
	Android Developer Fundamentals	To provide the comprehensive insight into developing 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.
CS SEM V	Data Communication and Networking	To understand the concepts of networking and data communication.
	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.
CS SEM VI	Advanced Networking & Security	To understand the basics of computer security
	Advanced Java Programming -II	To explore Java technologies used on the server side.
	Software Engineering and Testing	To understand the importance of software Testing and the overall process.
	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.

B.Sc. (Information Technology) program Outcomes:

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.

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.

The course addresses the need of hardware devices and circuits that are importance in the real time scenario.

The course prepares the students to the Industry standard material by making them to do certification courses.

B.Sc. (Information Technology) Course Outcomes:

- 1) Students will prepare themselves to think about programming languages analytically.
- 2) They will be able to separate syntax from semantics.
- 3) Students will be able to understand how language features work like data types, control flow, subroutines, data abstraction etc.
- 4) Students will learn functional and logic languages.
- 5) Students will understand the basic components of networking.
- 6) Students will understand how these components are used in different projects.
- 7) Students will understand how to store, manipulate and maintain the data if it is distributed over multiple sites at time.
- 8) Students will understand the basic components of networking programming.
- 9) Students will understand how to recover from the failure if any occurs.
- 10) Students will learn software verification.
- 11) Acquire skills to develop the software project.
- 12) Students understand the software development life cycle.

B.Sc. (Information Technology) program Specific Outcomes:

	Imperative Programming	The objective of this paper is to introduce various concepts of programming to the students using 'C'.
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IT SEM I	Digital Electronics	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.
	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.
IT SEM II	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.
	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.
	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.
IT SEM III	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.
	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.
IT SEM IV	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.
	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.
	Software Engineering	To understand the concept of designing a software, to understand the Software Development Life Cycle Phases and to have awareness about the software metrics and testing
	Computer Networks	To make the learner to conceptualize and understand the framework and working of communication networks and to have a firm grip over this very important segment of Internet.
IT SEM V	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.
	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.
	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.
IT SEM VI	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
	Project Management	The objective is to understand the pattern behind project dissertation and to know the nuances of managing the software projects.
	Data Warehousing	To understand and to analyze the data warehousing tools using oracle 11g data builder.
	Geographical Information System	This course introduces the GIS tools to make maps and analyze those information

BAF Program Outcomes:

To be able to do Advanced Accounting of companies, banks, insurance cos, NBFCs etc

To be able to take financial decisions

To prepare budgets and determine costs and take decisions.

To understand internal control mechanisms and apply it in corporate environment 5. Abreast of present laws understand macro and micro economics

To communicate with confidence and in a correct manner.

BAF Course Outcomes:

- 1) Students should understand basic concepts in accounting.
- 2) Students should be aware about advanced trends and skills in accounting.
- 3) Students should have knowledge of basic concept of cost accounting.
- 4) Students should know elements of cost.
- 5) Students should be able to prepare of cost statement and have knowledge of material control and labor cost.
- 6) Students should be able to understand the macro economic problems of the economy.
- 7) Students should be able to understand the public economy.

BAF Program Specific Outcomes:

BAF SEM I	Financial Accounting-I:	will know the basics of financial accounting including the accounting standards.
	Cost Accounting –I:	will learn the basics of costing including preparation of cost sheets
	Financial Management –I:	will learn basics of financial management
	Business Communication-I:	will be able to understand the concepts of communication and cultivate listening capacity and develop both verbal and non-verbal communication.
	Foundation Course-I:	will be able to understand the multi-cultural diversity of Indian society and concept of disparity.
	Commerce (Business Environment-I):	will be able to understand dynamics of business environment and contemporary issues like CSR.
	Business Economics-I:	will be able to grasp the micro-economic concepts.
BAF SEM II	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.
	Taxation (Indirect taxes-I):	with the introduction of GST, this course has been replaced.
	Business Communication-II:	learn how to make effective presentation, conduct of meetings and GDs, business correspondence and writing skills.
	Foundation Course-II:	to understand privatization and globalization, 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:	to learn classification of costs, reconciliation of costs & financial accounts, understand preparation of contract and process costing.
	Auditing (Techniques of Auditing and Audit	to learn vouching of income and expenditure, verification of assets and liabilities, scope of auditing standards, and audit of companies.

BAF SEM III	Procedures)-II:	
	Taxation –II (Direct Taxes Paper-I):	to know the basis of charge of income tax, computation of income under various heads of income.
	Information Technology in Accountancy-I:	to understand the parts of computer, office productivity tools, creating email id, using internet and e-commerce.
	Foundation Course 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
BAF SEM IV	Financial Accounting (Special Accounting Areas)-IV:	to learn preparation of final accounts of companies and redemption of preference shares and debentures.
	Management Accounting (Introduction Accounting):	to learn to analyze and interpret financial statements
	Auditing- III:	to learn reporting requirements, investigation and due diligence, code of ethics and audit under CISE
	Taxation III (Direct Taxes –II):	to learn and understand income clubbing provisions, TDS, set-offs, computation of income of individual and HUF.
	Information Technology in Accountancy-II:	to understand IT-related business process, computerized accounting system and IT audit.
	Foundation Course Management) –IV:	to learn basic management concepts and principles of 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 (Management –II 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
BAF SEM VI	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.
	Security Analysis	to understand portfolio management in India, its valuation, fundamental and technical analysis and CAPM
	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.
	Project work:	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, interpreting it and drawing conclusions.

Post Graduate Programs

M. Com Program Outcomes:

Knowledge Outcomes:

After completing post graduation in Commerce students will able to :

- 1) Acquire deep knowledge in the field of management and commerce.
- 2) Acquire more exposure of the practical knowledge.
- 3) Develops the insight of research.
- 4) Become aware of global business challenges.
- 5) Students get more exposure of career opportunities in India and abroad.

Skill Outcomes:

After completing post – graduation in Commerce students will able to –

- 1) Demonstrate various research and analytical skills.
- 2) Become more professional and employable in competitive dynamic environment.
- 3) Motivate towards being socially accountable.
- 4) Develop logical thinking.

M.Com Course outcomes:

The students will able to -

- 1) Acquire sound knowledge of concepts, methods and techniques of management accounting.
- 2) Make the students develop competence with their usage in managerial decision making and control.
- 3) Learn to analyze and read the financial situation through financial ratios and fund flow statement.
- 4) Students get the knowledge of importance of SWOT analysis in business survival and growth.
- 5) Students thinks on the various strategies in the problems of any business organization.
- 6) Students become aware of new business strategies like TQM and Six Sigma.
- 7) Students understand the theoretical foundation of accounting standards.
- 8) Students gain ability to solve problems relating to company accounts, valuations and special types of situations.
- 9) Students understand the application of IFRS and IND – AS.
- 10) Students understand the various trends in Indian financial system and the changing role of finance manager.
- 11) Students learn the techniques of capital budgeting.
- 12) Students understand the inventory management.
- 13) Students learns the basic concepts of industrial economics.
- 14) Students understand the significance and problems of industrialization and the majors taken by government to overcome the problems.
- 15) Students get the knowledge of the impact of industrialization on Indian economy.
- 16) Students develop their competency to solve problems relating special areas in accounting including accounting for services sector.
- 17) Students understand the financial reporting practices.
- 18) Students become familiar with the procedure of accounting for taxation.
- 19) Students understand the importance of human values in business ethics.
- 20) Students understands the new values in Indian industries after economic reforms.
- 21) Students understand the ethical Indian ethical practices in the various areas like marketing and advertising, copy rights and patents, employment, gender discrimination, accounting disclosures.
- 22) Students get acquainted with the areas of business research activities.
- 23) Students develops their capability to conduct the research in the field of business and social sciences.
- 24) Students impart knowledge and develop understanding of methods of auditing and their application.
- 25) Students understand the standards of auditing issues by ICAI.
- 26) Students learns the compliance of corporate governance.
- 27) Students understand the steps taken by auditor.
- 28) Students learn the system of government audit.
- 29) Students updated with latest developments in the subjects.
- 30) Students develop their habit of referring to various periodicals and publications in the given subjects, apart from text books and reference books.
- 31) Students study the detail provisions of various acts like direct tax, indirect tax i.e. GST, company act.
- 32) Students learn the various challenging areas in domain where the research work is required.
- 33) Students understand the different techniques of research.
- 34) Students identify certain solutions to the problems.
- 35) Students with the recent advancements in business administration.
- 36) Students develop and understanding about tools and their application in the business.

37) Students understand the role of government and private entities in promotion of innovation.

M.Com Program Specific Outcomes:

Accounts and Management: (Part I - Semester I)	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
	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
	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 corporate, understanding, developing, preparing and presenting the financial report in the business corporate
	Business Ethics and CSR	The course provides understanding of business ethics and CSR regulations in India
Accounts: and Management: (Part I - Semester II)	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.
	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
	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 corporate, analyze 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)		<p>Advanced Financial Accounting - The course provides understanding of Foreign Currency Conversion, Final Accounts of Banking Companies, Insurance Companies and Cooperative Societies</p> <p>Direct Tax - The course provides understanding of Heads of Income, Deductions under section 80, Computation of Income and Tax of Individual, Firm and Company</p> <p>Advanced Auditing - The course provides understanding of company audit, audit of different organizations, audit under different laws and audit under EDP environment</p>

Management: (Part II - Semester III)	<p>Human Resource Management - The course provides understanding of HRM, HRD, Latest Development in H.R.M. and Labor Legislation and Emerging Issues In H.R.M</p> <p>Entrepreneurial Management - The course provides understanding of Entrepreneurship Development Perspective, Creating Entrepreneurial Venture, Project Management, Assistance and Incentives for Promotion and Development of Entrepreneurship</p> <p>Marketing Strategies and practices - The course provides understanding of Marketing Strategies, Developing Marketing Strategies & Plans, Market Environmental Trends & Building Customer Value and Recent Trends</p>
Accounts:: (Part II - Semester IV)	<p>Corporate Financial Accounting - The course provides understanding of Corporate Financial Reporting, (IFRS) & Ind - AS, Valuation of Business for Amalgamation & Merger and Consolidated Financial Statement</p> <p>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</p> <p>Financial Management - The course provides understanding of Types of Financing, Capital Budgeting, Management of Working Capital, Financial Planning, Financial Policy and Corporate Strategy</p>
Management: (Part II - Semester IV)	<p>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</p> <p>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</p> <p>Retail Management - The course provides understanding of Retail Management, Retail Management Strategy, Retail Location, Layout and Merchandising, Use of Technology and Career options</p>

M.Sc. (Computer Science) Program Outcomes:-

The master of science in computer science program provides the students with knowledge, general competence and analytical skills on an advanced level, needed in academics, industry, research.

Knowledge outcomes:-

Students will –

- 1) Be technology – oriented with the knowledge and ability to develop creative solutions, and better understand the effects of future developments of computer systems and technology on people and society.
- 2) Get some development experience within a specific field of computer science through project work.
- 3) Get ability to apply knowledge of computer science to the real – world issues.
- 4) Be familiar with current research within various fields of computer science.

- 5) Use creativity, critical thinking, analysis and research skills.

Skill outcomes:-

Students will –

- 6) Learn new technology, grasping the concepts and issues behind its use and the use of computers.
- 7) Get prepared for placement by developing personality and soft skills.
- 8) Communicate scientific information in a clear and concise manner.
- 9) Build up programming, analytical and logical thinking abilities.

General competence:-

Students will –

- 10) Be able to understand the role of computer science in solving real time problems in society.
- 11) Know the recent developments IT developments, future possibilities and limitations and understand the value of life long learning.
- 12) Get an ability to participate in debates, discussions in the society constructively.

M.Sc. (Computer Science) Program Specific Outcomes:-

After completing M.Sc. Computer science program students will be able to –

- 1) Enrich the knowledge in the areas like artificial intelligence, web services, cloud computing, paradigm of programming language, design and analysis of algorithms, database technologies advanced operating system, mobile technologies, software project management and core computing subjects.
- 2) Choose to study anyone subject among recent trends in IT provided in the optional subjects.
- 3) Students understand all dimensions of the concepts of software application and projects.
- 4) Students understand the computer subjects with demonstration of all programming and theoretical concepts with the use of ICT.
- 5) Developed in-house applications in terms of projects.
- 6) Interact with IT experts and knowledge by IT visits.
- 7) Get industrial exposure through the six months industrial internship in IT industry.
- 8) To make them employable according to current demand of IT industry and responsible citizen.
- 9) Aware them to publish their work in reputed journals.

M.Sc. (Computer Science) Course Outcomes:-

After successfully completing this course, students will be able to –

- 1) Students will prepare themselves to think about programming language analytically. They will be able to separate syntax from semantic.
- 2) Students will be able to understand how language features work like data types, control flow, subroutines, data abstraction etc. students will learn new languages more quickly and use standard vocabulary when discussing languages.
- 3) Students will learn functional, logic languages like pro log, lisp.
- 4) Students will understand the basic components of networking.
- 5) Students will understand how these components are used in different project.
- 6) Students will understand how to write research papers for innovative idea.
- 7) Internet security protocol used for e- business and e – banking security.
- 8) Students will understand the basic concepts of distributed database.
- 9) Students will understand how to store, manipulate and maintain the data if it is distributed over multiple sites at a time.
- 10) Students will understand which is the best as well feasible technique to store data into database.

- 11) Students will learn fundamental concepts of asymptotic notations of an algorithm, space and time complexity, searching and sorting algorithms, divide and conquer techniques.
- 12) Students will know various design and analysis techniques such as greedy algorithms, dynamic programming.
- 13) Students will learn how to apply back tracking, branch and bound techniques for real time problems.
- 14) Students will know concepts of P, NP and NP – complete problems.
- 15) Students will understand how to transmit data over network.
- 16) Students will understand which is the best protocol for the transmission of data which cause less failure on network.
- 17) Students will understand how to recover from the failure if any occurs on network.
- 18) Students will understand software engineering and basic testing concepts.
- 19) Students will know skills that are required to ensure successful medium and large scale projects.
- 20) Students will learn software verification.
- 21) Understand design and execution of system test cases.
- 22) Students will explain the basic concepts of wireless network and wireless generations.
- 23) Students will demonstrate the different wireless technologies such as CDMA, GSM, GPRS, etc.
- 24) Students will describe and judge the emerging wireless technologies standards such as WLAN, WAN.
- 25) Students will explain the design considerations for deploying the wireless network infrastructure.
- 26) Students will differentiate and support the security majors standards.
- 27) Students will analyze and integrate various soft computing techniques in order to solve problems effectively and efficiently.
- 28) They apply fuzzy logic and reasoning to handle uncertainty and solve engineering problems.
- 29) They apply genetic algorithms to combinatorial optimization.
- 30) Students will understand the fundamental theory and concepts of neural networks, neuro – n – modeling, several neural network paradigms and its applications.
- 31) Understand the software development life cycle.
- 32) They define cloud computing and memorize the different cloud service and deployment models.
- 33) Students describe importance of virtualization along with their technologies.
- 34) Describe the key components of amazon web service.
- 35) Design and develop back up strategies for cloud data base on features.

M.Sc. (Information Technology) Program Outcomes:-

- 1) To provide through understanding of nature, scope and application of computer and computer languages.
- 2) To develop academically competent and professionally motivated personnel, equipped with objective, critical thinking, right moral and ethical values that compassionately foster the scientific temper with a sense of social responsibility to develop inter disciplinary approach among the students.
- 3) To develop students to become globally competent.
- 4) To develop problem solving abilities using a computer.
- 5) Produce knowledgeable and skilled human resources which are employable in IT and ITES.
- 6) Function competently as an individual and as a leader in multidisciplinary projects.
- 7) Apply the inherent skills with absolute focus to function as an successful entrepreneur.
- 8) Understand and commit to professional ethics and cyber regulations for professional computing practices.

- 9) Identify the need and have the ability, to engage in independent learning as a computing professionals.
- 10) Understand and apply computing management principles to manage multidisciplinary projects.

M.Sc. (Information Technology) Program Specific Outcomes:-

Students will –

- 1) Understand, analyze and develop computer programs in the areas related to algorithms, process and solutions for specific application development using appropriate data modeling concepts.
- 2) Be acquainted with the contemporary issues, latest trends in technological development and their by innovate new ideas and solutions to existing problems.
- 3) Apply the knowledge of computer application to find solution for real life application.
- 4) Ability to analyze, design, develop and maintain the software application with latest technologies.
- 5) Utilize skills and knowledge for computing practice with commitment on social, ethical, cyber and legal values.
- 6) Inculcate employability and entrepreneur skills among students who can develop customize solutions for small to large enterprises, IT sector and software testing, database administration, system administrator, system analyst, etc.
- 7) Enrich the knowledge in the areas like artificial intelligence, web services, cloud computing, paradigm of programming language, design and analysis of algorithms, database technologies advanced operating system, mobile technologies, software project management and core computing subjects.
- 8) Choose to study anyone subject among recent trends in IT provided in the optional subjects.
- 9) Students understand all dimensions of the concepts of software application and projects.
- 10) Students understand the computer subjects with demonstration of all programming and theoretical concepts with the use of ICT.
- 11) Developed in-house applications in terms of projects.
- 12) Interact with IT experts and knowledge by IT visits.
- 13) Get industrial exposure through the six months industrial internship in IT industry.
- 14) To make them employable according to current demand of IT industry and responsible citizen.

M.Sc. (Information Technology) Course Outcomes:-

After successfully completing this course, students will be able to –

- 1) Students will prepare themselves to think about programming language analytically. They will be able to separate syntax from semantic.
- 2) Students will be able to understand how language features work like data types, control flow, subroutines, data abstraction etc. students will learn new languages more quickly and use standard vocabulary when discussing languages.
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- 4) Students will understand the basic components of networking.
- 5) Students will understand how these components are used in different project.
- 6) Students will understand how to write research papers for innovative idea.
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- 26) Students will differentiate and support the security majors standards.
- 27) Students will analyze and integrate various soft computing techniques in order to solve problems effectively and efficiently.
- 28) They apply fuzzy logic and reasoning to handle uncertainty and solve engineering problems.
- 29) They apply genetic algorithms to combinatorial optimization.
- 30) Students will understand the fundamental theory and concepts of neural networks, neuro – n – modeling, several neural network paradigms and its applications.
- 31) Understand the software development life cycle.
- 32) They define cloud computing and memorize the different cloud service and deployment models.
- 33) Students describe importance of virtualization along with their technologies.
- 34) Describe the key components of amazon web service.

B.Sc. Hospitality Studies Program Outcomes:-

A graduate of Hospitality studies will emerge on completion of the course fully prepared for the future professional world. The graduate is nurtured and groomed as a full – fledged hospitality professional who is value driven with a great work ethos, a sense of discipline and focus, committed and goal oriented yet completely grounded personality.

There are excellent job opportunities after passing this course.

B.Sc. Hospitality Studies Program Specific Outcomes:-

The students will –

- 1) The course will help the students **to obtained the knowledge and skills** needed to emerge as a full – fledged hospitality professional in different organizations and helps students to understand how organizations work and managed.
- 2) The course improve their general knowledge, core subject knowledge, practical skills, guest services and communication skills and builds their confidence.
- 3) The course imparts on field industrial training and compulsory internship along with hands on practical during the **course to instill industry readiness**.
- 4) **The degree instills in students a sense of high professionalism** giving exposure to undergraduate students to every aspect of hospitality industry (like food production, food safety, nutrition, house

keeping, rooms management, front office, food and beverages service).

- 5) **It builds of their soft skills (communication skills, knowledge of information technology)** needed to undertake self – employment in a service industry.
- 6) The students become capable of taking on the challenges and rigors of the global market place.

B.Sc. Hospitality Studies Course Outcomes:-

Students will –

- 1) Students will have a right attitude to work in the kitchen and the required basic knowledge and technical skills in the art of culinary and the food production department.
- 2) Will be able to identify and classify the various equipments and utensils used in the kitchen.
- 3) Will be able to identify various methods of cooking and commodities used in the kitchen.
- 4) To know the role of the food and beverage service department and explain its organization structure and importance.
- 5) To know the importance of F & B service department to impart value to the guests and staff members in a food service operation.
- 6) To learn the various duties and responsibilities of the service staff members and learn the techniques and procedures for responsibilities for selling and service.
- 7) To understand the importance of the various operational and auxiliary departments as well as the various service methods and procedures followed in the department.
- 8) The program aims to introduce the concept of hospitality to the students and show cases the origins and the current setup of the modern hotels.
- 9) The students are also introduced to soft skills such as grooming, punctuality and communication in order to be able to enhance guest experiences.
- 10) It is about introduction of different types of rooms, cleaning services carried by the house keeping department by the use of cleaning equipments and chemicals.
- 11) Introduction of interdepartmental communication like how and when house keeping co ordinate with other department of hotels.
- 12) Students will be able to understand and apply knowledge of human communication and language they occur across various contexts like inter personnel, inter personnel small group, organizational, media, gender, family, inter cultural communication, technologically mediated communication etc.
- 13) Students will develop – knowledge, skills and judgment around human communication that facilitate their ability to work collaboratively with others. Such skills could include communication competencies such as managing conflict, understanding small group processes, active listening.
- 14) Students will be able to communicate effectively orally and in writing keeping in mind their right grammar and sentence structure needed while communicating.
- 15) The course aims to train the students on basic computer functionality.
- 16) They should be able to create word documents, power points and excel sheets.
- 17) Will have a right attitude to work in the kitchen and the required basic knowledge and technical skills in the art of culinary and the food production department.
- 18) Will be able to identify various methods of cooking and commodities used in the kitchen.
- 19) Will have developed keen interest in food production and will be able to produce a variety of dishes.
- 20) Will have a through knowledge of different meats, fish, commodities and pastry along with their method of preparation cooking and finishing.
- 21) Will have gained knowledge of different layouts and basic knowledge of Indian culinary.
- 22) To have a through understanding of the various types of menu and be able to plan menus on their own.

- 23) To have a through knowledge of the 17 course like French classical menu and also know the traditional accompaniments.
- 24) To have a through knowledge of various types of tobacco and non – alcoholic beverage.
- 25) This program aims to build up the technical basics of the front office departments.
- 26) At the end of the semester the students will be able to carry out basic bake and front – end task in the department, in preparation for their up coming internship.
- 27) Introduction of various operational areas, procedures and formats of the house keeping departments.
- 28) Implementation of standards operating procedures for routine cleaning procedures for various hotel areas.
- 29) Students will be able to communicate business and discuss the importance of effective communication.
- 30) They will differentiate between different methods of communication and discuss different processes and consideration involved in the writing in business.
- 31) Evaluate the global context for taking managerial actions of planning, organizing and controlling.
- 32) Students will be able to determine the most effective action to take in specific situations.
- 33) Students will be able to differentiate between the various aspects of regional Indian cuisine – identify volume cooking.
- 34) To know the duties and responsibilities of beverage service staff members along with the techniques and procedures used for responsibility failing and servicing cocktails, beer and wine.
- 35) To have a through knowledge of the production process of beer, wine and sprits. To learn the art of making various kinds of cocktails and mocktails.
- 36) Students are able to understand actual process of linen and laundry section, use of linen in room and uniform room.
- 37) Students are able to understand actual process of linen and laundry section, introduction of exotic flowers and foliages used as per various hotel areas and occasions.
- 38) To have a knowledge of food and beverage cost controlling methods and standard costing and variances analysis.
- 39) To understand and realize the importance of the functioning of the various computer systems used in the hotel operations.
- 40) It is a very important part of the hospitality industry – it gets the students ready for the career that they are going to pursue after the duration of the course. It helps them to overcome their fears, face real life situations, come out of their comfort zone to be more focused and work towards achieving their individual goals in the hospitality industry.
- 41) Student will have gained basic to advanced culinary skills.
- 42) He will have an overview of culinary specialties from across the globe.
- 43) Will have gained knowledge on latest food trends.
- 44) Will have the knowledge of HACCP and importance of food safety.