PROGRAM OUTCOME 2019-2020

Bachelors in Commerce (B.Com)

PROGRAMME OUTCOME

1: After completing three years for Bachelors in Commerce (B.Com) program, students would gain a thorough grounding inthe fundamentals of Commerce and Finance.

2: The commerce and finance curriculum offers a number of specializations and practical exposures which would equip thestudent to face the modern-day challenges in commerce and business.

3: The all-inclusive outlook of the course offer a number of value based and job oriented courses & ensures that students are trained into up-to-date. In advanced accounting courses beyond the introductory level, affective development will alsoprogress to the valuing and organization levels.

PROGRAMME SPECIFIC OUTCOME

1. Students will be able to demonstrate progressive learning of various tax issues and tax forms related to individuals.Students will be able to demonstrate knowledge in setting up a computerized set of accounting books.

2. Students will demonstrate progressive affective domain development of values, the role of accounting in society andbusiness.

3. Students will learn relevant financial accounting career skills, applying both quantitative and qualitative knowledge totheir future careers in business.

F.Y.B.Com Course Outcome

Subject	Outcome
Financial Accounting I & II	1.To understand the various accounting concepts like Branch accounts, DepartmentalAccounts, Hire purchase Accounts etc. 2.To impart the knowledge of various accounting concepts. 3.To instill the knowledge about accounting procedures, methods and techniques
Business Economics I & II	1.To understand the basic elements of economics & to understand certain commonfeatures of economic applications in real world 2. To expose Students of Commerce to basic micro economic concepts and inculcate ananalytical approach to the subject matter. 3. To stimulate the student interest by showing the relevance and use of various economictheories. 3. To apply economic reasoning to problems of business.

Business Mathematics andStatistics I & II	1. To understand basic concepts of mathematical & statistical techniques & its applicationin commerce & management 2. To understand the concept of Simple interest, compound interest and the concept ofEMI. 3. To understand the concept of shares and to calculate Dividend. 4. To understand the concept of population and sample.
Commerce I & II	1. To enable the students to get the know- how of commerce & to create an interest ininvestment its wide scope. 2. To make the students aware about the Business Environment. 3. To motivate students lo make their mind set for taking up entrepreneurship as career.
Business Communication I &II	1. Learner learns basic communication skills in business & day to day life. 2To develop awareness regarding new trends in business communication. 3. To provide knowledge of various media of communication.
Foundation Course I & II	1. It helps the students to upgrade their knowledge on current challenges and issues ofIndian society. 2. To develop awareness regarding Indian Constitution & Political processes. 3. To impart the knowledge of Ethical & Cultural values in Indian Society.
Environmental Studies I & II	1. To expose the students to the emerging environmental issues at global, national &regional level. 2. To aware students about environmental degradation & their effects to overcome it. 3. To impart students focus on environment-& human relations.

S.Y.B.Com Course Outcome

Subject	**Outcome**
Financial accounting III &IV	1. Learners get the knowledge of various accounting concepts related with Partnership. 2. Learners get acquainted with methods used in Conversion of firms into joint stockcompany. 3.Learners get knowledge of various provisions of Companies Act 2013

Management accountingI & II	1. Learners understand various management accounting concepts & their applications. 2. Learners understand the various accounting analysis in management point of view. 3. Learners impart the knowledge of various types of budgeting and statements created inmanagement accounting.
Business Economics III &IV	1. To understand the underlying concepts & practical tradeoffs entailed in public finance &policy alternatives. 2. Learners get acquainted with economic policy alternatives apply in business
	3. To apply economic reasoning to problems of business.
Advertising I & II	1. Learners will understand the impulse of consumers to create demand by developingadvertising & marketing Strategies. 2. To establish link between Business and marketing.
Commerce III & IV	1.Learners get acquainted with different concepts of management & related theories&Principles 2. To establish relevance of commerce & marketing in modern competitive world.
Business Law I & II	1. Learner learns about various laws, Contract and Agreements applicable in Business world. 2. Learners get acquainted about various Partnership Contract used in Commerce world.
Foundation Course III &IV	1. To make aware of various Rights their role in development of Indian Society. 2. To impart the knowledge of environment & science & their correspondence with presentworld.

T.Y.B.Com Course Outcome

Subject	**Outcome**
Financial accounting V &VI	1. Learner will be able to handle corporate accounts in actual world. 2. Learners get acquainted with the different types of Amalgamation & their Procedures. 3. Learners understand the accounting Concept apply in corporate world.
Cost accountingI & II	1. Learners will analyze techniques and methods of costing. 2. To Impart The Knowledge Of Basic Cost concepts, Elements of cost, Ascertainment ofMaterial and Labour Cost.

Business Economics V & VI	1. To expose the students to emerging economic issues at global & national level tounderstand policy measures. 2. To help the students in analyzing the present status of the Indian Economy. 3.. To acquaint students with the emerging issues in policies of India's foreign trade.
Export MarketingI & II	1. Learners get acquainted with Foreign trade policy 2015-2020. 2. Learners understand the procedure for export & import & strong potentials of Export indevelopment of nation.
Commerce V & VI	1. Learners are capable to understand different facts of marketing & Human ResourceManagement to attainting organizational goal. 2. Learners get acquainted with marketing mix & recent development in Marketing & HumanResource management.
Computer application & programming I & II	1. Learners get knowledge of computer application & Programming languages & its practical 1.Usage in day to day activities. 2. To make the students familiar with the basics of Operating System and business communication tools. 3. To make the students familiar with basics of Network, Internet andrelated concepts.
Direct & Indirect TaxationI & II	1. Learners understand taxation system, concepts & Acts applicable in India. 2. To understand the basic concepts and to acquire knowledge about Indirect Taxesespecially Goods & Service Tax applicable in India.

M.Com (Advanced Accountancy)

Program Outcomes

Skill of Business Management

Learners understands the Economic policies and theories

Learners will be skilled in Corporate, Banks and Insurance Company accounts

Specific Outcomes

Learners will be proficient in Strategic Management policies and practices

Learners will be able understand research principles, methods and

techniques.

Learners will be able to have theoretical and practical knowledge and professional skills of Financial, Cost Accounting, Banking, Cooperative and Insurance Company accounts

Course Outcomes

Semester I

Subjects	Outcomes
Strategic Management	Learner will be proficient in the principles and practice of corporate management and strategies and policies
Economics for Business Decisions	Learners are skilled to take business decisions of economic activities
Cost and Management Accounting	Learner will be skilled in different methods of costing and explain the reports for managerial decisions
Business Ethics and Corporate SocialResponsibility	Learner will be competent in the corporate ethics, corporate social responsibility and Corporate Governance

Semester II

Research Methodology for Business	Learner gets the knowledge of research process, techniques and tools to be applied for research in commerce and management
Macro Economics concepts and Applications	Learner will understand and interpret economic policies

Corporate Finance	Learner will be competent in techniques of investment, financial decision making.
E-Commerce	Learner will be able to understand emerging world of e-commerce.

Semester III

Advanced Financial Accounting	Learner will be competent in the accounts of Banking, Insurance and company.
Advanced Cost Accounting	Learner will be proficient to evaluate the cost of product and able to allocation of cost as per the technique of costing.
Direct Taxation	Learner will be able to understand the taxation rules and regulations to compute taxable incomes.

Semester IV

Corporate Financial Accounting	Learner will be able to draft Annual Reports and compute Goodwill and Valuation of shares.
Indirect Tax- Introduction of GST	Learner will be competent in ascertainment of Goods and Service Tax
Financial Management	Learners will be skilled in capital budgeting, working capital and financial management.
Project	The learner will be able to prepare the project on the Management, Accounting, Costing and Taxation.

BSc Chemistry: Programme outcome:

- Demonstrate, solve and an understanding of major concepts in all disciplines of chemistry.
- Solve the problem and also think methodically, independently and draw a logical conclusion.
- Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of chemical reactions.
- Create an awareness of the impact of chemistry on the environment, society, and development outside the scientific community.
- Find out the green route for chemical reaction for sustainable development.
- To inculcate the scientific temperament in the students and outside the scientific community.

BSc Physics: Programme outcome:

- The systematic and planned curricula from these courses shall motivate and encourage learners to understand basic concepts of Physics.
- Developing Curriculum that is progressive and purposeful to create positive improvement in the education system is the logic behind this revision.
- Out of the three courses in each Semester, two courses are devoted to core Physics, catering to Mechanics, Thermodynamics, Optics , Electrodynamics, Quantum Mechanics, Mathematical Physics and Digital and Analog Electronics.
- To develop analytical abilities towards real world problems.
- To familiarize with current and recent scientific and technological developments.
- To enrich knowledge through problem solving, hands on activities, study visits, projects etc.
- The science of Physics has diversified immensely in recent times and numerous new fields in Physics, such as Crystal physics, Geo-Physics, Radio.

B.Sc. Zoology : Programme Outcome

- To nurture interest in the students for the subject of Zoology
- To create awareness of the basic and modern concepts of Zoology.
- To orient students about the importance of abiotic and biotic factors of environment and their conservation.
- To provide an insight to the basic nutritional and health aspects of human life.
- To inculcate good laboratory practices in students and to train them about scientific handling of important instruments.

Course Outcome:

F.Y.B.Sc.	Course Outcome
Chemistry Paper-I	• Facilitate the learner to make solutions of various molar concentrations. This may include: The concept of the mole; Converting moles to grams; Converting grams to moles; • Defining concentration; Dilution of Solutions; Making different molar concentrations. State and apply the laws of thermodynamics and kinetics. • In addition to that atomic structure , stereo chemical concept, and fundamentals of reaction mechanism must be known by students.
Chemistry Paper-II	• Students can apply the fundamental principles of measurement, matter, atomic theory, chemical periodicity, chemical bonding, general chemical reactivity and solution chemistry to subsequent courses in science. • Stereochemistry basic concepts. Understanding and Writing mechanism of organic reactions to predict the outcome of reactions. • Determine the aromaticity of different compounds.

Physics Paper-I	• Understand Newton's laws and apply them in calculations of the motion of simple systems. • Use the free body diagrams to analyze the forces on the object. • Understand the concepts of friction and the concepts of elasticity, fluid mechanics and be able to perform calculations using them • Understand the concepts of lens system and interference. • Apply the laws of thermodynamics to formulate the relations necessary to analyze a thermodynamic process. • Demonstrate quantitative problem solving skills in all the topics covered.
Physics Paper-II	• Understand the basic mathematical concepts and applications of them in physical situations. • Understand nuclear properties and nuclear behaviour. • Understand the type isotopes and their applications. • Demonstrate and understand the quantum mechanical concepts. • Demonstrate quantitative problem solving skills in all the topics covered.
Zoology Paper-I	• Curiosity will be ignited in the mind of learners, to know more about the fascinating world of animals which would enhance their interest and love for the subject of Zoology. • Learners would appreciate treasure of Biodiversity, its importance and hence would contribute their best for its conservation. • Minds of learners would be impulse to think differently and would be encouraged ipso facto to their original crude ideas from the field of biological sciences. • This paper would allow learners to study about nature of animal population, specific factors affecting its growth and its impact on the population of other life form. Erupting spur of desire for conservation of all flora and fauna. • Learners would be inspired to choose career options in the field of wild life conservation, research, photography and ecotourism.
Zoology Paper-II	• Learners would work safely in the laboratory and avoid occurrence of accidents (mishaps) which will boost their scholastic performance and economy in use of materials/chemicals during practical sessions. • Learners would understand recent advances in the subject and their applications. • Students will be skilled to select and operate suitable instruments for the studies of different components of Zoology of this course and also of higher classes including research. • Healthy dietary habits would be inculcated in the life style of learners in order to prevent risk of developing health hazards in younger generation due to faulty eating habits, • Promoting optimum conservation of water, encouragement for maintaining adequate personal hygiene. • Learners will be able to promptly recognize stress related problems at initial stages and would be able to adopt relevant solutions.
Mathematics Calculus-I & II Paper-I	• System of real numbers with their properties with respect to (+),(.) density property, Archimedean property. • Method of induction, definition of sequence, limit of sequence, monotonic sequence.

	• Epsilon delta definition of limit, algebra of limit, continuity at point and in domain, sequential continuity. • Series, sum of series, test for convergence of series . • Algebra of continues function, higher order derivatives, implicit function. • Definition of local maxima and local minima, monotonic function, Taylor polynomials.
Mathematics Algebra-I & Linear Algebra-II Paper-II	• Integers and their properties with respect to (+),(.), division algorithm, gcd , lcm , Euler's function, congruence. • Function and their types, equivalence classes, residue class modulo n. • Polynomials and their properties in R[x], solving cubic equations. • System of linear equations and their solutions, matrices & their properties, rank of matrix. • Definition of vector space over R, linearly independent ,linearly dependent , subspace of vector spaces and their properties. • Basis of vector space, dimension of vector space, linear transformation, kernel of L.T., image of L.T., Rank-Nullity theorem.
SYBSc	**Course Outcome**
Chemistry-I	• Students are expected to understand and derive equations for Free energy functions, Gibb's- Helmholtz equation, Van't Hoff reaction Isochore and Gibb's Duhem equation. Understand the Concept of fugacity and activity. • Students should be able to define conductance , specific conductance, equivalent and molar conductance. State Kohlrausch's law if independent migration of ions and its applications. What is transference number and how it is determined using Moving Boundary Method. • Students are expected to understand the concept of electrochemical conventions , reversible and irreversible cells. Nernst equation and its importance. • Calculation of thermodynamic properties likeΔG, ΔH and ΔS, Concentration cell with and without transferene, Liquid junction potential and salt bridge. Use of Quinhydrone electrode for pH determination. • Gibb's phase rule, Clausius- Clapeyron equation, one component systems:- water and sulphur system, two component system :- lead silver system. • Discuss kinetics, mechanism and stereochemistry of SN1 and SN2 reactions. Compare between SNAr and SNCB reactions. • Understand the evidences, reactivity and mechanism of various reactions. Synthesis using Organometallics. • In addition to that students should aware about application of molecular orbital theory with its fundamentals to various diatomic molecules of homo and hetero atoms type.
Chemistry-II	• Students are expected to know the diferent types of Complex reactions. Thermal chain reactions, Arrhenius equation, Concept of energy of activation. Collision theory and activated complex theory. • Ideal solutions and Raoults law, Gibbs phase rule,Vapour composition diagram, Critical solution temperature, phenol water sytem, trimethylamine water system and Nicotine water system. Steam distillation method, Nernst distribution law. • Students are expected to understand the characteristics of simple, face centered and body centered cubic systems, interplanar distances, Bragg's equation, Xray diffraction method for crystal structure determination. Determination of Avogadros number.

	• Students are expected to know types of catalysis, catalytic activity, mechanisms and kinetics of acid base catalysed and enzyme catalysed reactions, effect of particle size and efficiency of nanoparticles as catalyst. Chemistry of silicon, germanium , chemistry of nitrogen family ,chemistry of boron , acid-base chemistry and chemistry of environment must be aware by student. • Students are expected to apply their knowledge to problem-solving, deduce structures, and synthesize simple organic molecules using the studied reactions. • The students familiar about the inorganic halogen compounds, coordination compounds and transition elements. • Synthesis reactions &conversions using Carbonyl compounds.
Chemistry-III	• The learner is expected to be familiar with the question of what analysis, why it is required and the methods, techniques, procedures and protocols that may be used in the course of given problem of analysis. • The learner is also expected to appreciate the role of analytical chemist and chemical analyst, correctness or acceptability of the results of a given analysis and how to deal with wrong or erroneous results, when to reject them and when and how to retain them to be meaningful are some other attributes expected as outcomes of learner.
Physics Paper-I	• Understand the concepts of mechanics & properties of matter & to apply them to problems. • Comprehend the basic concepts of thermodynamics & its applications in physical situation. • Learn about situations in low temperature. • Demonstrate tentative problem solving skills in all above areas. • Understand the diffraction and polarization processes and applications of them in physical situations. • Understand the applications of interference in design and working of interferometers. • Understand the resolving power of different optical instruments. • Understand the working of digital circuits • Use IC 555 time for various timing applications. • Demonstrate quantitative problem solving skills in all the topics covered.
Physics Paper-II	• Understand the basic concepts of mathematical physics and their applications in physical situations. • Understand the basic laws of electrodynamics and be able to perform calculations using them. • Understand the basics of transistor biasing, operational amplifiers, their applications • Understand the basic concepts of oscillators and be able to perform calculations using them. • Demonstrate quantitative problem solving skill in all the topics covered. • Understand the postulates of quantum mechanics and to understand its importance in explaining significant phenomena in Physics.
Physics Paper-III	• Students will be exposed to contextual real life situations. • Students will appreciate the role of Physics in 'interdisciplinary areas related to materials, Bio Physics, Acoustics etc. • The learner will understand the scope of the subject in Industry &

	Research. • Experimental learning opportunities will faster creative thinking & a spirit of inquiry. • Understand the concepts of mechanics & properties of matter & to apply them to problems. • Comprehend the basic concepts of thermodynamics & its applications in physical situation. • Learn about situations in low temperature. • Demonstrate tentative problem solving skills in all above areas.
Zoology Paper-I	• Learner would comprehend and apply the principles of inheritance to study heredity. • Learner will comprehend the structure of chromosomes and its types and also the mechanisms of sex determination. • Learner will understand the importance of nucleic acids as genetic material. • Learner will analyse and critically view the different theories of evolution. • Learner would understand the forces that cause evolutionary changes in natural populations. • The learner will imbibe the skills of scientific communication and he/she will understand the ethical aspects of research.
Zoology Paper-II	• Learner would understand the increasing complexity of nutritional, excretory and osmoregulatory physiology in evolutionary hierarchy. • Learner would understand the increasing complexity of respiratory and circulatory physiology in evolutionary hierarchy. • Learner would understand the process of control and coordination by nervous and endocrine regulation. • Learner would acquire insight into the composition of the transport mechanisms adopted by the cell and its organelles for its maintenance and composition of cell. • Learner would appreciate the intricacy of endomembrane system. The learner will realize the importance of biomolecules and their clinical significance.
Zoology Paper-III	• Learner would gain insight into different types of animal behaviour and their role in biological adaptations. • Learner would understand the general epidemiological aspects of parasites that affect humans and take simple preventive measures for the same. • Learner would learn the modern techniques in animal husbandry. • Learner would gain knowledge on the functioning of various aspects of dairy industry, indigenous, exotic cattle and buffalo breeds in India. • To comprehend the functioning of sericulture industry and its scope in India. • To comprehend various kinds of aquaculture practices and its scope as fishery resource in India.
Mathematics Calculus Paper-I	• Inner product in n –dimension, open ball, closed ball, directional derivates. • Differentiability in n-dimension, gradients, chain rule, partial derivatives. • Jacobin matrix. Hessian matrix, local extrema in two variables. • Riemann integration, lower sum, upper sum, properties of Reimann integration.

	• Continuity of indefinite and improper integrals, mean value theorem, Abel's test. • Alpha, beta functions, area between curves, length of curves.
Mathematics Algebra Paper-II	• ker(T),image(T) ,row space ,solution of homogeneous and non homogenous system of linear equations . • Determinants and their properties, cramer's rule, area of triangle. • Dot product and their properties, norm of vectors, pythagorus theorem, orthogonal vectors and orthogonal compliments ,Gram Schmidt's process of orthoganility. • Groups, subgroups definition and their properties, Sn, U(n),K4,types of groups. • Cyclic groups and subgroups of cyclic groups and their properties. • Lagrange's theorem, group homomorphism, cosets, kernel & image of homomorphism.
Discrete Mathematics & Differential equations Paper-III	• Permutation and their properties, product and transpositions, sign of permutations, solving recurrence relation. • Countability of number system. • Pascal's identity, s(n,k), principal of inclusion and exclusion , Euler's function. • Solving differential equations by variable separable method, by substitution method, exact differential equation, non exact differential equations and their solutions techniques. • Homogeneous and non homogeneous second order differential equation, wronskian, auxillary equations. • Linear system of ODE'S.
T.Y.B.Sc.	**Course Outcome**
Physical Chemistry-Paper-1	• Students understands the concept of dipole moment and its applications, derive the equations for energy of the molecules performing rotational motion and vibrational motion in terms of wave number, explain the Raman spectroscopy theory and should be able to solve numericals based on it. • Students should be able to explain the colligative properties in chemical thermodynamics and various methods to determine the colligative properties. • Students should be able to explain the collision theory of Chemical reaction rates. Classification of reaction rates. • Concepts of Nuclear Chemistry. Detection and measurement of radioactivity, application of use of radioisotopes as tracers, nuclear reactions, fission process, fusion process. • Students should be able to explain and derive Langmuir adsorption isotherm, types of adsorption isotherm, colloidal state, its electrical properties, micelle formation, classification of surfactants and its applications. • Students are expected to know concepts of activity and activity coefficient, classification of cells, polarisation, decomposition potential and overvoltage. • Basic terms in polymers, classification of polymers, molar mass of polymers, method of determining molar masses of polymers, light

	emitting polymers, antioxidants and stabilisers. • Basics of Quantum Chemistry, classical mechanics, quantum mechanics, progressive and standing waves, renewable energy resources. • Basics of NMR and ESR.
Inorganic Chemistry-Paper-II	• Students are expected to understand basic concept of symmetry and point group symbols, they must be able to know the importance of symmetry, point group in theoretical chemistry. • Its expected that students must be aware about application of molecular orbital theory for polyatomic species like BeH2 , CO2, H2O etc. • Information of inner transition elements and their properties and extraction, information of metal carbonyls , 16^{th} and 17^{th} group elements must be known to students • Knowledge about coordination chemistry and its bonding by various theories, organometallic chemistry, fundamentals of Bioinorganic chemistry of must be known to students.
Organic Chemistry-Paper-III	• Students will gain an understanding of the use of nuclear magnetic resonance spectroscopy, mass spectrometry and infrared spectroscopy for organic structure elucidation. • Understanding of organic reaction mechanisms to predict the outcome of reactions and to design syntheses of organic molecules. knowledge in Organic photochemistry. • Students should be able to understand the stereochemistry of molecules and their effect on chemical reactions. • The fundamental structure, properties and reactivity of biologically important molecules (e.g. carbohydrates, proteins, nucleic acid , Alkaloids and Terpenoids). • Student will gain an understanding of Green chemistry and application of the same in organic synthesis with selectivity. • Differentiate between natural and man-made polymers. Explain polymerization methods.
Analytical Chemistry-Paper-IV	• Students should be able to explain the theoretical principles of various separation techniques in chromatography, and typical applications of chromatographic techniques. • Assess and suggest a suitable analytical method for a specific purpose, and evaluate sensitivity, important sources of interferences and errors, and also suggest alternative analytical methods for quality assurance.
Applied component-Drugs & Dyes-Paper V	• To know the classification based on pharmacodynamic and chemotherapeutic drugs, their application and synthesis. • To understand the concept of routes of drugs administration and dosages. • To understand the concept drug discovery, design and development. • Student are able to have the knowledge of use of nano particles in medicinal chemistry and effect of drugs on the environment. • To study the waste management in the field of dye industry. • To understand the function of natural and synthetic dyes, paints and pigments. • To understand different unit process involved in the synthesis of intermediates and dye molecules. • Students are able to understand the concept of classification of dyes based on chemical constitution and application and their synthesis. • They are able to understand the application of dyes in the various non-textile fields.

M.Sc. (Organic Chemistry) Programme outcome

- Determine molecular structure by using UV, IR and NMR.
- Study of medicinal chemistry for lead compound.
- Improve the Skill of student in organic research area.
- Synthesis of Natural products and drugs by using proper mechanisms.
- Study of Asymmetric synthesis.
- Determine the aromaticity of different compounds.
- Study retrosynthesis and design synthesis of different compounds in the field of pharma, dyes industry, natural products etc.
- Solve the reaction mechanisms and assign the final product.

MSc-I **Semester I & II**	**Course Outcome**
Physical Chemistry Paper I	• Students are expected to:- understand and explain the Maxwell's relations, state functions, Joule Thomson's effect, third law thermodynamic, standard molar entropies. • Quantum chemistry, postulates, Schrodinger's equation and its solution for particle in one, three dimensional box, free particle, harmonic oscillator, Hermitian operators. • Chemical Dynamics:- rate laws and kinetics of thermal chain reaction, decomposition reaction, polymerisation reactions, reactions in gas phase. • Electrochemsitry:- Debye Huckel theory, Electrolytic conductance, batteries, bio-electrochemsitry, elementary reactions in solutions, enzyme catalysed reactions, inhibition of enzyme action, kinetics of solid state reactions • Solid state chemistry:- types of defects and stoichiometry, phase equilibria, two component system, three component system.
Inorganic Chemistry- Paper-II	• Students are expected to know chemical bonding in specific polyatomic molecules like SF_6, B_2H_6, I_3, CO_2 , they should have an idea about weak intermolecular forces of attraction. • Students are expected to know group multification table , group theoretical treatment, for molecules by use of group theoretical concept. • Some environmental chemistry aspects should be known by students as well as some bio-inorganic concept of bio-molecules. • They should know inorganic spectroscopic concept and coordination reaction mechanism .
Organic Chemistry Paper- III	• Students should understand the various type of aliphatic, aromatic, nucleophilic substitution reaction. • Understand and apply principles of Organic Chemistry for understanding the scientific phenomenon in reaction mechanisms. • Understanding of stereochemistry applied to different types of organic molecules. • Learn the familiar name reactions, reagents and their reaction mechanisms. • Determine molecular structure by using UV, IR , NMR and Mass spectroscopy.
Analytical Chemistry	• The student is expected to know about language of analytical

Paper-IV	chemistry, quality management system, audit, safety in laboratories, Accreditations, GLP. • Calculations based on chemical principals. • Optical methods (F.T.I.R, X-Ray), Thermal methods such as T.G.A, D.T.A and D. S.C . (instrumentation and applications) • Automation in chemical analysis. • Separation methods (G.C, H.P.L.C) • Mass Spectrometry also the radio analytical methods and surface analytical techniques. • They should know new sources for atomic spectroscopy. Electroanalytical methods such as electrogravimetry, couolometry etc.
MSc-II **Semester III & IV**	**Course Outcome**
Theoretical Organic Chemistry- Paper-I	• Students are able to understand the structure effects and reactivity by determination of reaction mechanism involving different intermediates for synthesis. • Understanding of different types of pericyclic reaction and their mechanism under thermal and photochemical condition. • Stereochemistry of different molecules of medium ring size and their reactivity towards different reagents. • Understanding the concept of racemisation and resolution method. Determination of enantiomers and diastereomers by chromatographic, chiral derivatisation agent and lanthanide shift reagents. • Concepts of supramolecular chemistry and their application with synthesis. • Understanding of the concept of asymmetric synthesis with use of chiral auxillary in different types of reactions like aldol, sharpless epoxidation, aminohydroxylation, Diels-Alder reaction. • Photochemical reactions of different functional groups and their application.
Synthetic Organic Chemistry- Paper-II	• Understanding of various name reactions, their mechanism & applications. • Understanding the concept of radical mechanism and its use in the organic synthesis. • Study of various reaction intermediates, ylides, enamines and their reactions along with applications. • Concept of metals and non-metals use in organic synthesis. • Designing organic synthesis using protecting groups. Introduction of retro synthetic analysis. • Students are able to understand the electro-organic chemistry and selected methods of organic synthesis. • Application of transition and rate earth metals in organic synthesis.
Natural Product, Heterocyclic chemistry and Spectroscopy - Paper III	• Student should be able to understand the classification, properties , structure elucidation and few synthesis of carbohydrates, natural pigments and insect pheromones. • Understand the multi-step synthesis of natural products and study of prostaglandins, lipids and insect growth regulators.

	• Detail study of 1D-Proton NMR spectroscopy. Understand the factors affecting chemical shift, spin notations of various spin systems. • Interpret NMR spectra on basic values of PMR & C-13 NMR Delta values & IR -frequencies. • Discuss the problem of UV, IR and NMR & Mass. • Discuss the 2D-NMR spectroscopy with different techniques: COSY, HETCOR, DEPT, NOESY. Discuss the problems of the same technique. • Concepts of classification, structure, occurrence, biological role and synthesis of natural products like steroids, vitamins, antibiotics and terpenoids. • Classification of heterocyclic compounds of monocyclic and fused heterocycles with their structure, reactivity, synthesis and reactions.
Medicinal Chemistry, Biogenesis, Green chemistry and Research Methodology-Paper-IV	• Student are able to understand the concept of drug discovery, design and development and synthesis. • Understanding basic concept of medicinal chemistry related to drug action. • Knowledge of the connection between the structural features of the drugs & their physicochemical characteristics, mechanism of action & uses. • Understanding of biogenesis and biosynthesis of natural products. • Concepts of Green chemistry and technologies like microwave synthesis, ultrasound assisted reaction. • Understanding basic concepts of research & its methodologies. • Identify appropriate research topics. • Select & define appropriate research problem and parameters. • Prepare a project proposal, organise and conduct research. • Write a research proposal, report and thesis. • Understanding of Data analysis, Chemical safety and Ethical handling of chemicals.

M.Sc. (Information Technology)

M.Sc. Programme Outcome

- Ability to apply the knowledge of Information Technology with recent trends aligned with research and industry.
- Ability to provide socially acceptable technical solutions in the domains of Information technology arena.
- Abiity to work in multidisciplinary environment in the context of changing technologies.

Programme Specific outcome

- Ability to apply IT in the field of Computational Research, Soft Computing, Big Data Analytics, DataScience, Image Processing, Artificial Intelligence, Networking and Cloud Computing.

- Ability to provide socially acceptable technical solutions in the domains of Information Security, Machine Learning, Internet of Things and Embedded System, Infrastructure Services as specializations.

- Ability to apply the knowledge of Intellectual Property Rights, Cyber Laws and Cyber Forensics and various standards in interest of National Security and Integrity along with IT Industry.

- Ability to write effective project reports, research publications and content development

Course outcome SEMESTER 1

Course Name	**Outcome**
Research in Computing	A learner should be able to: • solve real world problems with scientific approach. • develop analytical skills by applying scientific methods. • recognize, understand and apply the language, theory and models ofthe field of business analytics • foster an ability to critically analyze, synthesize and solve complexunstructured business problems • understand and critically apply the concepts and methods of businessanalytics • identify, model and solve decision problems in different settings • interpret results/solutions and identify appropriate courses of action for a given managerial situation whether a problem or an opportunity • create viable solutions to decision making problems
Data Science	• Apply quantitative modelling and data analysis techniques to the solution of realworld business problems, communicate findings, and effectively present results using data visualization techniques.

	• Recognize and analyze ethical issues in business related to intellectual property,data security, integrity, and privacy • Apply ethical practices in everyday business activities and make well-reasonedethical business and data management decisions. • Demonstrate knowledge of statistical data analysis techniques utilized in businessdecision making. • Apply principles of Data Science to the analysis of business problems. Use datamining software to solve real-world problems. • Employ cutting edge tools and technologies to analyze Big Data. • Apply algorithms to build machine intelligence. Demonstrate use of team work,leadership skills, decision making and organization theory.
Cloud Computing	• Analyze the Cloud computing setup with its vulnerabilities and applications usingdifferent architectures. • Design different workflows according to requirements and apply map reduceprogramming model. • Apply and design suitable Virtualization concept, Cloud Resource Managementand design scheduling algorithms. • Create combinatorial auctions for cloud resources and design scheduling algorithms for computing clouds • Assess cloud Storage systems and Cloud security, the risks involved, its impact anddevelop cloud application • Broadly educate to know the impact of engineering on legal and societal issuesinvolved in addressing the security issues of cloud computing
Soft Computing Techniques	Identify and describe soft computing techniques and their roles in building intelligentmachines • Recognize the feasibility of applying a soft computing methodology for a particularproblem • Apply fuzzy logic and reasoning to handle uncertainty and solve engineering problems • Apply genetic algorithms to combinatorial optimization problems • Apply neural networks for classification and regression problems • Effectively use existing software tools to solve real problems using a soft computingapproach • Evaluate and compare solutions by various soft computing approaches for a givenproblem.

COURSE OUTCOME SEMESTER-II

Course Name	Outcome
Big Data Analytics	• Understand the key issues in big data management and its associated applications in intelligent business and scientific computing. • Acquire fundamental enabling techniques and scalable algorithms like Hadoop,
	Map Reduce and NO SQL in big data analytics. • Interpret business models and scientific computing paradigms, and apply software tools for big data analytics. • Achieve adequate perspectives of big data analytics in various applications like recommender systems, social media applications etc.
Modern Networking	• Demonstrate in-depth knowledge in the area of Computer Networking. • To demonstrate scholarship of knowledge through performing in a group to identify, formulate and solve a problem related to Computer Networks • Prepare a technical document for the identified Networking System Conducting experiments to analyze the identified research work in building Computer Networks
	• Develop web applications using Model View Control. • Create MVC Models and write code that implements business logic within Model methods, properties, and events. • Create Views in an MVC application that display and edit data and interact with Models and Controllers. Boost your hire ability through innovative and independent learning. • Gaining a thorough understanding of the philosophy and architecture of .NET Core • Understanding packages, metapackages and framework • Acquiring a working knowledge of the .NET programming model • Implementing multi-threading effectively in .NET applications
Image Processing	• Understand the relevant aspects of digital image representation and their practical implications. • Have the ability to design pointwise intensity transformations to meet stated specifications. • Understand 2-D convolution, the 2-D DFT, and have the abitilty to designsystems using these concepts. • Have a command of basic image restoration techniques. • Understand the role of alternative color spaces, and the design requirements leading to choices of color space. • Appreciate the utility of wavelet decompositions and their role in image processing systems. • Have an understanding of the underlying mechanisms of image compression, and the ability to design systems using standard algorithms to meet design specifications.

COURSE OUTCOME SEMESTER-III

Infrastructure Management	• To become able to explain various Information security threat and controls for it. • To become able to analyze a security incidents and design countermeasures. • To become able to explain information security incident response.
	• To become able to explain the usage of Common Key cryptography and Public Key cryptography. • To become able to explain the mechanism to protect confidentiality and completeness of data.
Embedded Systems	• An ability to design and conduct experiments, as well as to analyze and interpret data • An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
Virtualization	To describe aims of virtualization - in the context of similar aims in other software components. To distinguish System and Process Virtualization. To place System and Process Virtualization in the context of other Virtualization Technologies. To understand how System, Process and other Virtualization Technologies are likely to develop
Ethical Hacking	• Assess an environment using footprinting. • Collect information using network scanning. • Identify methods to gain access to systems. • Analyze social engineering methods. • Explain common physical security weaknesses.

COURSE OUTCOME SEMESTER-IV

Course Name	Outcome
Computer Forensics	• Understand the definition of computer forensics fundamentals. • Describe the types of computer forensics technology. • Analyze various computer forensics systems. • Illustrate the methods for data recovery, evidence collection and data seizure. • Summarize duplication and preservation of digital evidence.

Artificial Intelligence	Demonstrate fundamental understanding of the history of artificial intelligence (AI) and its foundations. Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning.
Cloud Management	• Design different workflows according to requirements and apply map reduce programming model. • Apply and design suitable Virtualization concept, Cloud ResourceManagement and design scheduling algorithms. • Create combinatorial auctions for cloud resources and design
	scheduling algorithms for computing clouds • .Assess cloud Storage systems and Cloud security, the risks involved, its impact and develop cloud application
Information Technology Management	• Design different workflows according to requirements and apply map reduce programming model. • Apply and design suitable Virtualization concept, Cloud ResourceManagement and design scheduling algorithms. • Create combinatorial auctions for cloud resources and design scheduling algorithms for computing clouds • cloud Storage systems and Cloud security, the risks involved, its impact and develop cloud application

B.Com (Banking & Insurance)

Program Outcome

- The course clears concepts of Banking & Insurance.
- Provides knowledge on modern trends in banking & insurance industry
- Helps in train students in the field of finance, banking, accounting, insurance law, insuranceregulations, etc
- Guides the students with theoretical knowledge as well as practical application and providesexposure to students in market reforms, new banking policies and regulations.
- Creates an additional avenue of self-employment and also benefits banks, insurance companies byproviding suitable trained persons in the field of banking and insurance.
- Prepares students to make the best of opportunities being newly created in this field due toGlobalization, Privatisation and Liberalization.

Program Specific Outcome:

• The programme is structured in such a way that it provides training in the field of finance, banking, accounting, insurance law, and insurance regulations, among others.

• It covers the subjects from the banking field but also covers various subjects of commerce, and communication skills. It also helps train candidates how to efficiently handle technologies used in the field of banking and insurance.

• The main aim of BBI course is to provide students with a deep insight into the real world of banking and insurance through theory and practical sessions.

• It is structured to give a great career choice for those who wish to pursue their career in the banking field.

• It not only provides you with theoretical knowledge but also helps in its practical application and

to provide ample exposure to students with market reforms, new banking policies and regulations

F.Y.B.Com (Banking & Insurance) Semester –I

Sr. No.	Subject Name	Course Outcome
1	Environment and Management of Financial Services.	To improve basic knowledge on environment and management and its financial services.
2	Principles of Management	To make the management concepts clear among the students
3	Financial Accounting - I	To developed the knowledge of various accounting standard and its accounting transactions.
4	Business Communication-I	To enhance communication skills of the students. It aids in personality development of the students.
5	Foundation Course - I	To make the better understanding about Indian society and constitution
6	Business Economics-I	It help to focus on effective use of economic resources to achieve defined objective
7	Quantitative Methods-I	To learn various quantitative method using statistical techniques.

F.Y.B.Com (Banking & Insurance) Semester –II

Sr. No.	Subject Name	Course Outcome
1	Principles and Practices of Banking & Insurance	To learn about the concepts, functions and types of banks and insurances.
2	Business Law	To learn basic concept of the constitution of India and its various types of law and Acts
3	Financial Accounting - II	To gain the knowledge of various accounting concept of companies related to long term sources of funds.
4	Business Communication-II	To enhance communication skills of the students. It aids in personality development of the students.

5	Foundation Course - II	To learn concepts of human rights, understanding of stress and conflicts & how to manage it
6	Organisational Behavior	To understand management theory and its practices and frame and how organization behavior is conducted in various field
7	Quantitative Methods-II	To improve the knowledge of students in mathematical technique

S.Y.B.Com (Banking & Insurance) Semester –III

Sr. No.	Subject Name	Course Outcome
1	Financial management -I	To understand the financing evaluation technique
2	Management accounting	To get the knowledge about financial statement analysis and dividend policy
3	Organizational behavior	To understand the skill to developed knowledge related to behavior in organization
4	Information Technology in	Students will get the knowledge and understanding of E-Commerce and Cyber Security. They will learn MS-Excel
	Banking & Insurance-I	and MS-Word.
5	Foundation Course – III (An Overview of Banking Sector)	To gain the knowledge of banking concepts, terms, about NABARD and micro finance
6	Financial markets	To develop knowledge of various financial market of India
7	Direct taxation	To learn the basic concept of direct tax

S.Y.B.Com (Banking & Insurance) Semester –IV

Sr. No.	Subject Name	Course Outcome
1	Financial management –II	To get the knowledge of financial management with reference to budgeting
2	Cost accounting	To get the knowledge about various cost accounting techniques

3	Entrepreneurship management	To understand various concepts, skills of entrepreneurship and its various theory
4	Information technology in banking & insurance-II	
5	Foundation course - IV (an overview of insurance sector)	To learn concepts, advantages of insurance and its various types
6	Corporate & securities law	To learn about new corporate rules and regulations
7	Business economics-II	To get the knowledge about economic relations of India with foreign countries

T.Y.B.Com (Banking & Insurance) Semester –V

Sr. No.	Subject Name	Course Outcome
1	Financial Reporting & Analysis(Corporate Banking & Insurance)	To get practical accounting treatment in corporate banking and insurance
2	Auditing - I	To learn basic of auditing and understand vouching & verification
3	Strategic Management	To develop the understanding and decision making skills among the students related to business strategy
4	Business Ethics and Corporate Governance	Students learn the concepts of ethic, values, corporate governance in business.
5	International Banking and Finance	Making students capable to actively participate in the changing trends of foreign currency and international financial markets.
6	Research Methodology	To obtain the knowledge about research technique and tools in banking and insurance

T.Y.B.Com (Banking & Insurance) Semester –VI

Sr. No.	Subject Name	Course Outcome
1	Security Analysis and Portfolio Management	To understand introduction and process of portfolio management
2	Auditing - II	To enhance skill of auditing in banking companies
3	Human Resource Management	To understand human resources management in large and small businesses
4	Marketing in Banking & Insurance	To learn about the marketing concepts in relation to banking and insurance
5	Central Banking	Helps learners to understand the various policy measures of Central Bank in different economic scenario. It helps learners to appear for competitive exam
6	Project Work In Banking & Insurance	To develop the basic skills of research in banking & insurance

B.Com (Accounting & Finance)

Program Outcome

- The course provides aspirants ample expertise and efficiency in the field of accounting, taxation, auditing, risk management, financial accounting, managerial economics, business law and business communication.
- Improves self-employment as well as benefits the organization by providing them suitably trained persons in the field of accounting and finance.
- Provides exposures to learners on new developments recent trends in accounting and finance
- Guides the students with theoretical knowledge as well as practical application and trains them adequately in market reforms, new finance policies and regulation.
- Prepares students to make the best of opportunities being newly created in accounting and finance field due to Globalization, Privatisation and Liberalization

Program Specific Outcome:

• Have fundamental knowledge of finance, accountancy, audit, taxation, law, technology and innovative practices.
• Communicate effectively with all stake holders.
• Work at both individual and team level.

F.Y.B.Com (Accounting & Finance) Semester –I

Sr. No.	Subject Name	Course Outcome
1	Financial Accounting (Elementsof Financial Accounting) - I	To learn various accounting methods of manufacturing firms.
2	Cost Accounting (Introductionand Element of cost) - I	To understand basics of cost accounting & preparation of cost sheet.
3	Financial Management (Introduction to FinancialManagement) - I	Helps to know how to manage the finance and how to invest in the business. It also provides the knowledge of Interest calculation on bank deposits.
4	Business Communication- I	It enhances communication skills for the students and aids in their personality development.
5	Foundation Course - I	It enhances learner's knowledge on Indian society, culture and Indian Constitution.

6	Business Economics - I	Help to understand the working of an economy.
7	Commerce (Business Environment) - I	To make students understand the environmental implication affecting business.

F.Y.B.Com (Accounting & Finance) Semester –II

Sr. No.	Subject Name	Course Outcome
1	Financial Accounting (SpecialAccounting Areas) - II	To learn special accounting areas like consignment, branch, fire insurance claims and account for incomplete records.
2	Auditing (Introduction andPlanning) - I	Helps to know how to examine various financial statements in appropriate manner.
3	Innovation Financial Service	Develops the knowledge on various types of financial services and facilities.
4	Business mathematics	Develops logical and mathematical techniques of learners.
5	Foundation Course II	To make learner understand the LPG concept of Indian economy, Human rights, ecology & stress management skills.
6	Business Communication II	It enhances communication skills for the students and aids in their personality development.
7	Business Law (Business Regulatory Framework) - I	To understand the basic concept of law and various types of Act.

S.Y.B.Com (Accounting & Finance) Semester –III

Sr. No.	Subject Name	Course Outcome
1	Foundation Course in Commerce (Financial Market Operations) - III	To gain knowledge about financial terms, market, operation.
2	Business Law (Business Regulatory Framework) - II	To learn about legal framework.

3	Taxation - II (Direct TaxesPaper- I)	To impart to the students various source of income tax and its procedure to calculate Income Tax.
4	Auditing (Techniques ofAuditing and Audit Procedures) - II	To get knowledge on techniques and procedures of auditing.
5	Business Economics - II	To teach the students major concepts of economy.
6	Financial Accounting (Special Accounting Areas) - III	To gain the knowledge about final A/c, Merger, piecemeal distribution & Foreign exchange.
7	Information Technology inAccountancy - I	Students will be able to understand E-business, techno management and application of Information Technology in banking. They will get the knowledge of MS-Office packages for institutional automation.

S.Y.B.Com (Accounting & Finance)) Semester –IV

Sr. No.	Subject Name	Course Outcome
1	Financial Accounting (Special AccountingAreas) - IV	To acquire knowledge on companies related accounting treatment.
2	Research Methodology in Accounting andFinance	To understand basic research, Data collection, data processing, Sample and research report.
3	Taxation - III (Direct Taxes- II)	To understand tax saving and tax calculation of different person.
4	Foundation Course in Management(Introduction to Management) - IV	To obtain knowledge about management & its various skills.
5	Auditing – III	To understand the innovative tools and techniques of auditing.
6	Business Law (Company Law) - III	To understand concept of incorporation of company and its prospectus.
7	Information Technology in Accountancy -II	

T.Y.B.Com (Accounting & Finance) Semester –V

Sr. No.	Subject Name	Course Outcome
1	Financial Accounting V	To learn about accounting standard and underwriting of shares and debentures.
2	Financial Accounting VI	To gain the knowledge about banking companies final a/c and valuation of goodwill and share.
3	Cost Accounting - III	To inculcate cost accounting system with special references to service costing and processing costing.
4	Financial Maagement -II	To provide adequate understanding about financial management and capital structure, cost of capital and credit policy etc.
5	Management - II(Management Applications)	To learn about different areas of management like finance, marketing, HR.
6	Taxation - IV (IndirectTaxes - II)	To learn the basic concepts of GST.

T.Y.B.Com (Accounting & Finance) Semester –VI

Sr. No.	Subject Name	Course Outcome
1	Financial Accounting VII	To obtain the knowledge about co-operating and electricity companies accounting treatment.
2	Cost Accounting - IV	To get the knowledge related to effective cost structure and managerial decision.
3	Financial Management - III	To develop the understanding about business valuation and decision making related to finance.
4	Taxation - V (IndirectTaxes- III)	To understand the various concept of tax and IT refund.
5	Economics Paper – III(Indian Economy)	To understand the concept of our Indian economy.
6	Project Work	To develop basic research skills in relation to accounting finance & management.

Computer Science

Programme Outcome

Three year Computer Science course prepares the students for a career in Software industry. It also motivates them towards further studies and research opportunities. It forms a strong foundation of Computer science in students. It Introduces the students toemerging trends in gradual way. It grooms the students for the challenges of ICT industry.

Specific Outcome

In the first year basic foundation of important skills required for software developmentis laid. Second year of this course is about studying core computer science subjects.
The third year is the further advancement which covers

Outcomes of Subjects of Computer ScienceFYBSc

(Computer Science)

Outcome of SubjectsSemester I

1. Computer Organization and Design

Outcome:-To learn about how computer systems work, underlying principles and the basics of digital electronics needed for computers. Also to understand the basics of instruction set architecture for reduced and complex instruction sets, the basics of processor structure and operation and how data is transferred between the processor and I/O devices.

2. Programming with Python- I

Outcome:-Students will be able to develop logic for Problem Solving. Students will become familiar about the basic constructs of programming such as data, operations,conditions, loops, functions etc.Students will be able to apply the problem solving skills using syntactically simple language i.e.Python (version: 3.X or higher)

3. Free and Open-source Software

Outcome:-Upon completion of this course, students will have a good working knowledge of Open Source
ecosystem, its use, impact and importance.2) This course shall help student to learn Open Source methodologies, case studies with real life examples.

4. Database Systems

Outcome:-Students will be able to evaluate business information problem and find the requirements of a

problem in terms of data. Also Students will be able to design the database schema with the use of appropriate data types for storage of data in database. Students will also be able to create, manipulate, query and back up the databases..

5. Discrete Mathematics

Outcome:-To provide overview of theory of discrete objects, starting with relations and partially ordered sets. To study about recurrence relations, generating function and operations on them. To understand graphs and trees, which are widely used in software. Also to provide basic knowledge about models of automata theory and the corresponding formal languages.

6. Descriptive Statistics and Introduction to Probability

Outcome:- To enable learners to know descriptive statistical concepts and also to study probability concept required for Computer learners

7. Soft Skills Development

Outcome:-To know about various aspects of soft skills and learn ways to develop personality and also to understand the importance and type of communication in personal and professional environment.To provide insight into much needed technical and non-technical qualities in career planningand to learn about Leadership, team building, decision making and stress management

Semester II

1. **Programming with C**

Outcome:-Students will be able to write, compile and debug programs in C language and to use different data types in a computer program. Students will be able to design programs involving decision structures, loops and functions and to explain the difference between call by value and call by reference. Students will be able to understand the dynamics of memory by the use of pointers and will be able to use different data structures and create/update basic data files.

2. Programming with Python – II

Outcome:-Students will be able to understand how to read/write to files using python and to catch their own errors that happen during execution of programs. Students will get an introduction to the concept of pattern matching and the concepts of GUI controls and designing GUI applications. Students will be able to connect to the database to move the data to/from the application and know how to connect to computers, read from URL and send email.

3. Linux

Outcome:-Upon completion of this course, students will have a good working knowledge of Linux, from botha graphical and command line perspective, allowing them to easily use any Linux distribution.This course shall help student to learn advanced subjects in computer science practically and will be able to progress as a Developer or Linux System Administrator using the acquiredskill set.

4. Data Structures

Outcome:- To learn about Data structures, its types and significance in computing, to explore about Abstract Data types and its implementation and to program various applications using different data structure in Python

5. Calculus

Outcome:-Understanding of Mathematical concepts like limit, continuity, derivative, integration of functions and to appreciate real world applications which uses these concepts. Also to formulate a problem through Mathematical modeling and simulation.

6. Statistical Methods and Testing of Hypothesis

Outcome:-Enable learners to know descriptive statistical concepts and to study probability concept required for Computer learners

7. Green Technologies

Outcome:- To learn about green IT can be achieved in and by hardware, software, network communication and data center operations and also to understand the strategies, frameworks, processes and management of green IT

SYBSc (Computer Science)Outcome

of Subjects Semester III

1. **Theory of Computation**
   Outcome: Understand Grammar and Languages, Learn about Automata theory and its application in Language Design, Learn about Turing Machines and Pushdown Automata, Understand Linear Bound Automata and its applications

2. **Core Java**
   Outcome: Object oriented programming concepts using Java. Knowledge of input, its processing and getting suitable output. Understand, design, implement and evaluate classes and applets. Knowledge and implementation of AWT package.

3. **Operating System**
   Outcome: To provide a understanding of operating system, its structures and functioning, Develop and master understanding of algorithms used by operating systems for various purposes.

4. **Database Management Systems**
   Outcome : Master concepts of stored procedure and triggers and its use, Learn about using PL/SQL for data management, Understand concepts and implementations of transaction management and crash recovery

5. **Combinatorics and Graph Theory**
   Outcome: Appreciate beauty of combinatorics and how combinatorial problems naturally arise in many settings. Understand the combinatorial features in real world situations and Computer Science applications. Apply combinatorial and graph theoretical concepts to understand Computer Science concepts and apply them to solve problems

6. **Physical Computing and IoT Programming**
   Outcome: Enable learners to understand System On Chip Architectures, Introduction and preparing Raspberry Pi with hardware and installation, Learn physical interfaces and

electronics of Raspberry Pi and program them using practical's , Learn how to make consumer grade IoT safe and secure with proper use of protocols

7. **Web Programming**
Outcome: To design valid, well-formed, scalable, and meaningful pages using emerging technologies, Understand the various platforms, devices, display resolutions, viewports, and browsers that render websites To develop and implement client-side and server-side scripting language programs. To develop and implement Database Driven Websites. Design and apply XML to create a markup language for data and document centric applications.

Semester IV

1. **Fundamentals of Algorithms**
Outcome: Understand the concepts of algorithms for designing good program, Implement algorithms using Python

2. **Advanced Java**
Outcome: Understand the concepts related to Java Technology Explore and understand useof Java Server Programming

3. **Computer Networks**
Outcome: Learner will be able to understand the concepts of networking, which areimportant for them to be known as a '*networking professionals*',
Useful to proceed with industrial requirements and International vendor certifications

4. **Software Engineering**
Outcome: Learner will be able to understand the concepts of software engineering, whichare important for them to be known as a 'software engineers',Useful to proceed with industrial requirements and International vendor certifications

5. **Linear Algebra using Python**
Outcome: Appreciate the relevance of linear algebra in the field of computer science. Understand the concepts through program implementation , Instill a computational thinking while learning linear algebra.

6. **.Net Technologies**
Outcome: Understand the .NET framework ,Develop a proficiency in the C# programming language , Proficiently develop ASP.NET web applications using C#, Use ADO.NET for datapersistence in a web application

7. **Android Developer Fundamentals**
1) Understand the requirements of Mobile programming environment.
2) Learn about basic methods, tools and techniques for developing Apps
3) Explore and practice App development on Android Platform
4) Develop working prototypes of working systems for various uses in daily lives.

TYBSc (Computer Science)Outcome

of Subjects Semester V

1. **Artificial Intelligence**

   Outcome:-Student will understand concept of AI and different search algorithms used for solving problems

2. **Software Testing and Quality Assurance**

   Outcome:-Student will Understand a variety of software metrics, and identify defects and managing those defects for improvement in quality for given software. Design SQA activities, SQA strategy, formal technical review report for software quality control and assurance.

3. **Information and Network Security**

   Outcome:-In this course student will able to Understand a variety of generic security threats and vulnerabilities, and identify & analyze particular security problems for a given application. Understand various protocols for network security to protect against the threats in a network

4. **Web Services**

   Outcome:-Student will understand the details of web services technologies like SOAP, WSDL, and UDDI. To learn how to design,implement and deploy web service client and server.

5. **Game Programming**

   Outcome:-Student will study Graphics and gamming concepts with present working style of developers where everything remains on internet and they need to review it, understand it, be a part of community.

Semester VI

1. **CloudComputing**

   Outcome:-Student will study the comprehensive and in-depth knowledge of Cloud Computing concepts, technologies, architecture, implantations and applications.

2. **Cyber Forensics**

   Outcome:-Student will Understand the procedures for identification, preservation, and extraction of electronic evidence, auditing and investigation of network and host system intrusions, analysis and documentation of information gathered

3. **Information Retrieval**

   Outcome:-In this course student will be able to Understand the field of information retrieval and its relationship to search engines. It will give the learner an understanding to apply information retrievalmodels.

4. **Data Science**

   Outcome:- The students should be able to understand & comprehend the problem and should be ableto define suitable statistical method to be adopted.

5. **Ethical Hacking**

Outcome:-Student will be able to identify security vulnerabilities and weaknesses in the target applications. They will also know to test and exploit systems using various tools and understand the impact of hacking in real time machines.

Department of Management Studies (BMS)

Programme outcome:-

The main aim of BMS course is to impart management skills and knowledge among students. Toimpart this knowledge, the academic program utilizes both classroom lectures and practical training. Businesses and Organizations across the world need skilled managers to take care of their dailyoperations. Managers are the ones who coordinate and manage the following things – humanresources, finance, operations, decision-making, material resources, marketing etc.

Program specific outcome

1. Acquire knowledge about management practices which facilitate them to become effective professionals.
2. Be capable to pursue higher studies in diverse fields of Management such as Business Administration, Human Resource Management, Marketing and Finance.
3. Be adequately trained to be entrepreneurs and communicate effectively.
4. Develop a positive attitude towards lifelong learning and research.
5. Acquire the required skills to develop business models and be responsible global citizens with cross-cultural competent behavior and ethical values.

BMS department of our college offers all three specializations offered by University of Mumbai fromsecond year. They are as follows:
Other Information (if any)

- **HUMAN RESOURSE SPECIALIZATION**

Students learn to develop, implement, and evaluate employee orientation, training, and development programs. Facilitate and support effective employee and labour relations in both non-union and union environments. Research and support the development and communication of the organization's total compensation plan.

- **FINANCE SPECIALIZATION**

The ***finance specialization*** in a business administration degree program introduces students to ***financial*** literacy, money management, and accounting principles. Students acquire knowledge regarding finance, various models and techniques and trading, clearing and settlement mechanism in market.

- **MARKETING SPECIALIZATION**

Students understand distinctive features of various marketing activities, New trends and ways for marketing, International marketing trends and working.

FYBMS		
SR. NO.	**COURSE**	**OUTCOME**

1	**Introduction to Financial Accounts**	• To introduce the basic theory, concepts and practice of financial accounting and to enable students to understand information contained in the published financial statements of companies and other organizations.
2	**Business Law**	• Demonstrate an understanding of the Legal Environment of Business. • Apply basic legal knowledge to business transactions. • Communicate effectively using standard business and legal terminology.
3	**Foundation of Human Skills**	To get knowledge about: • Human beings, their personalities, environment, organizational power, politics, change and how to deal with them. • Generating the team and team building as well as team work • Leadership qualities and motivating factors
4	**Business Statistics**	To get knowledge about: • The ability to interpret statistical analysis tools commonly used in the workplace; • The ability to critically evaluate a standard business report including the graphics, probability statements and resultant commentary; and, • Use of Excel for basic data manipulation and simple statistical and graphical analysis
5	**Foundation Course –I**	To get knowledge about: • Nature of Indian Society • The gender inequality in society • Diversity As difference and disparity as inequality. • Philosophy of the constitution of India.
6	**Business Economics – I**	• Apply the concept of opportunity cost • Employ marginal analysis for decision making • Analyze operations of markets under varying competitive conditions • Analyze causes and consequences of unemployment, inflation and economic growth.
7	**Business Communication- I**	Students are expected to be able to demonstrate a good understanding of: • effective business writing • effective business communications • research approaches and information collection • developing and delivering effective presentations • effective interpersonal communications

SYBMS		
SR. NO.	**COURSE**	**OUTCOME**
1	**Business Planning & Entrepreneurial Management**	• Students will be able to define, identify and/or apply the principles of entrepreneurial and family business. • Students will be able to define, identify and/or apply the principles of viability of businesses, new business proposals, and opportunities within existing businesses.
		• Students will be able to define, identify and/or apply the principles of entrepreneurial management and growth through strategic plans, consulting projects and/or implementing their own businesses.
2	**Information Technology in Business Management-I**	• Design, document and develop robust, extensible and highly maintainable data-intensive applications using cutting edge technologies tailored to the specific needs of any business scenario. • Explain and apply the core aspects of information technology principles and tools, and manage their implementation in a business context
3	**Accounting for Managerial Decisions**	• Understand the utility of Ratio Analysis, Financial Statements and Cash Flow Analysis in any organization. • Comprehend different contemporary issues in Management Accounting and Reports & Reporting needs & Reporting Levels in an organization.
4	**Strategic Management**	• Identify the forces impacting on corporate and business strategies. • Critically aware of factors involved in strategy making. • Assess the resources and constraints for strategy making in a business context.
5	**Foundation Course-IV**	• Students should be able to identify, analyze, interpret and describe the critical ideas, values, and themes that appear in literary and cultural texts and understand the way these ideas, values, and themes inform and impact culture and society, both now and in the past. • Students should be able to write analytically in a variety of formats, including essays, research papers, reflective writing, and critical reviews of secondary sources.
• **HR SPECIALIZATION**		
1	**Organizational Behavior & HRM**	• Demonstrate the applicability of the concept of organizational behavior to understand the behavior of people in the organization. • Demonstrate the applicability of analyzing the complexities associated with management of individual behavior in the organization.

2	**Recruitment & Selection**	• Helps to create a talent pool of potential candidates for the benefits of the organization. • To increases the pool of job seeking candidates at minimum cost. • It helps to increase the success rate of selection process by decreasing the no of visits qualified or over qualified job applicants.
• **FINANCE SPECIALIZATION**		
1	**Corporate Finance**	• Identify the key themes in corporate finance. • Explain the role of finance in an organization. • Analyze the relationship between strategic decision making and corporate financing decisions.
2	**Introduction to Cost Accounting**	• Be able to identify the dynamics of human behavior and the basic factors that influence the consumers' decision process. • Be able to demonstrate how concepts may be applied to marketing strategy
• **MARKETING SPECIALIZATION**		
1	**Advertising**	• After completion of the requirements for this course, students will be able to: appreciate the ways that communication through advertising influences and persuades consumers; • Discuss the role of the advertising agency and its client relationships. • Discuss the decisions which need to be made in budgeting and planning for promotion;
2	**Consumer Behavior**	• Be able to identify the dynamics of human behavior and the basic factors that influence the consumers' decision process. • Be able to demonstrate how concepts may be applied to marketing strategy

TYBMS		
COURSE		**OUTCOME**
• **CORE COURSE**		
1	**Logistics and Supply Chain Management**	• Students are able to describe major logistics functions and activities. Differentiate logistics and supply chain management. • Describe alternative ways to organize for supply chain management. • Describe methods of inventory planning. • Technological changes and its impact on logistics and supply chain management. • Compare modes of transportation and related policies. Outline computer and supply chain security measures.

2	**Corporate Communication & PR**	• Understand of the concepts of corporate communication and public relations. • Introduce the various elements of corporate communication and consider their roles in managing organizations. • Examine how various elements of corporate communication must be coordinated to communicate effectively. • Develop critical understanding of the different practices associated with corporate communication.
	• **FINANCE SPECIALIZATION**	
1	**Investment Analysis and Portfolio Management**	• The learners are well acquainted with various concepts of finance. • Students understood the terms which are often confronted while reading newspaper, magazines etc for better correlation with the practical world. • Learners understood various models and techniques of security and portfolio analysis.
2	**Risk Management**	• Familiarize the student with the fundamental aspects of risk management and control. • Give a comprehensive overview of risk governance and assurance with special reference to insurance sector. • Introduce the basic concepts, functions, process, techniques of risk management.
3	**Financial Accounting**	□ Learners understood various transactions of Foreign currency, Accounting in relation to Purchase and sale, Computation and treatment of exchange difference. ● Learners familiarised with relevant provisions of Companies Act related preparation of Final Accounts of the companies As per AS 1 ● Learners acquainted with liability of underwriter in respect of underwriting contracts ● Learners familiarised with relevant provisions of Companies Act relating to Investment Accounting as per AS 13 Learners familiarised with ethical behaviour in the accounting profession.
4	**Direct Tax**	• Students gained the knowledge of Income Tax act 1961. • Students understood the definitions under income tax act 1961. • Students able to calculate income from Salary, House property, Capital Gain, Business and Profession, Other Sources. • Students know the various exemptions available under section 10. • Students learn and apply deductions under section 80 while calculating net taxable income. • Students able to compute total income of assess.
• **MARKETING SPECIALIZATION**		

	Service Marketing	• Understand distinctive features of services and key elements in services marketing. • Provide insight into ways to improve service quality and productivity. • Understand marketing of different services in Indian context**.** • E-Commerce and Digital Marketing.
	Sales and Distribution Management	• Develop understanding of the sales & distribution processes in organizations. • Get familiarized with concepts, approaches and the practical aspects of the key decision. • Making variables in sales management and distribution channel management.
	Customer Relationship Management	• Learner understood concept of Customer Relationship Management (CRM) and implementation of Customer Relationship Management. • Students get insight into CRM marketing initiatives, customer service and designing CRM strategy. • Learner understood new trends in CRM, challenges and opportunities for organizations.
	E – Commerce	Understand the E-Commerce, Myths and Impact of E-Commerce and Trends of E-commerce in various sectors. ● Get familiarised with concepts, Models and the applications of E-Business. ● Provide insight about Issues relating to Privacy and security in E-Business,Different Payment Systems and E-Commerce law. ● Understand the Digital Marketing on various social media platforms,Promoting Web traffic and latest development and strategies in digital Marketing
• **HR SPECIALIZATION**		
	Industrial Relation	• Demonstrate descriptive knowledge of the field of industrial relations. • Apply the essential concepts of industrial relations and their interrelationship at the personal, organisational and national levels. • Recognise and consider the social, historical and equity issues within industrial relatins. • Investigate solutions to industrial relations problems based on research and assessment of current practices. • Communicate your knowledge of industrial relations in both written and verbal formats reactive to both audience and purpose.

	Performance Management	• The rating distribution – this will help the management to reward goodperformers and recognize their efforts, whereas it serves as a warning to poor performers to improve their performance. • The final rating for employees is an outcome of the performanceappraisal. This can help to detail out the compensation of the employees. • An employee's competency gaps can be identified and areas of improvement in the performance can be suggested. Managers can takethe necessary steps to help the employees improve on those areas. Thiswill lead to growth of employees as well as organizational growth. • Identification of high potential employees. This can help in successionplanning of an organization. High potential employees can be nurtured and can turn out future leaders. • The necessary training requirements of employees can be an outcome of the performance appraisals. This can be a very valuable input to thetraining department, who can plan their training calendar based on that.
	Strategic HRM	• Contribute to the development, implementation, and evaluation of employee recruitment, selection, and retention plans and processes.. • Develop, implement, and evaluate employee orientation, training, and development programs. • Collaborate with others, in the development, implementation, and evaluation of organizational and health and safety policies and practices. • Research and analyze information needs and apply current and emerging information technologies to support the human resources function. • Develop, implement, and evaluate organizational development strategies aimed at promoting organizational effectiveness.

BAMMC (BA in Multimedia and Mass Communication)

BAMMC Programme Outcome

1. The program considers media industries and relationship to culture and society, and the understanding of hoe communication works.

2. Students would demonstrate the ability to apply rhetorical principles in a variety of creative,cinematic, organizational, professional and journalistic venues.

3. Learners will understand mass media as a system of interrelated forces, including historical foundations, technological advances, economic dynamics, regulatory constraints, and ethical

concerns.

Programme Specific Outcome

1. The program prepares students for a wide variety of careers in business and industry,advertising, public relations and journalism or advanced study.
2. The program will equip the learners with professional skills essential for making career inEntertainment industry, Cinema, Television, OTT Platform, social media platform, etc.
3. This program also give them an improved sense of self confidence and self - efficacy andan awareness of their responsibilities as professional in their field.
4. Learners will be able to create and design emerging media products, including blogs, digitalaudio, digital video, social media, digital photography and multimedia.

Course outcome SEM I

Course Name	Outcome
Effective Communication I	• 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.
Foundation Course	• To introduce students to the overview of the Indian Society. To help them understand the constitutionof India. • To acquaint them with the socio-political problems of India.
Visual Communication	• To provide students with tools that would help them visualize and communicate. • Understanding Visual communication as part of Mass Communication • To acquire basic knowledge to be able to carry out a project in the field of visual communication • To acquire basic knowledge in theories and languages of Visual Communication • The ability to understand and analyze visual communication from a critical perspective.

Fundamental 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.
Current Affairs	• To provide learners with overview on current developments in various fields. • To generate interest among the learners about burning issues covered in the media • To equip them with basic understanding of politics, economics, environment and technology so that students can grasp the relevance of related news. • Twenty minutes of newspaper reading and discussion is mandatory in every lecture.
History of Media	• Learner will be able to understand Media history through key events in the cultural history • To enable the learner to understand the major developments in media history. • To understand the history and role of professionals in shaping communications. • To understand the values that shaped and continues to influence Indian mass media. • Learner will develop the ability to think and analyze about media. • To sharpen the reading, writing, speaking and listening skills that will help the students to understand the development of Media.

Course outcome SEM II

Course Name	Outcome

Effective Communication II	• To make the students aware of use of language in media and organization. • To equip or enhance students with structural and analytical reading, writing and thinking skills. • To introduce key concepts of communications.
Foundation Course	• To introduce students to the overview of the Indian Society. • To help them understand the constitution of India. • To acquaint them with the socio-political problems of India.
Content Writing	• To provide students with tools that would help them communicate effectively. • Understanding crisp writing as part of Mass Communication • The ability to draw the essence of situations and develop clarity of thought.
Introduction to Advertising	• To provide the students with basicunderstanding of advertising, growth, importance and types. • To understand an effective advertisement campaigns, tools, models etc. • To comprehend the role of advertising , various departments, careers and creativity • To provide students with various advertising trends, and future.
Media, Gender & Culture	• To discuss the significance of culture and the media industry. • To understand the association between the media, gender and culture in the society. • To stress on the changing perspectives of media, gender and culture in the globalized era.

Course outcome SEM III

Course Name	Outcome

Introduction to Creative Writing	• To encourage students to read stories, poems, plays • To develop further and build upon the writing and analytical skills acquired in Semesters I and II • To acquaint students with basic concepts in literary writing • To familiarize students with the creative process
Introduction to Cultural Studies	To introduce students to a set ofapproaches in the study of culture To examine the construction of culture To understand how the media represents culture.
Introduction to Public Relations	The objective of this paper is to introduce the subject of publicrelations to the student and helpunderstand its role and function it plays in society. It will equip the student with the basic tools of public relations and give theman overall understanding of the subject.
Introduction to Media Studies	To expose students to the well- developed body of media theory and analysis. To foster analytical skills that will allow them to view the media critically.
Understanding Cinema	To acquaint the students with thevarious styles and schools of cinema throughout the world.
Advanced Computer	To work on Macromedia Flash to create banner ads for websites. Introduction to High-end animation softwares like 3d Studio Max, Maya, etc.

Course outcome SEM IV

Course Name	Outcome
Introduction to Advertising	To give a brief insight about advertising & its differentaspects to the students of Media.
Introduction to Journalism	To give students an understanding of the history and development of journalism in the global and the Indian context Introduce students to concepts related to news and journalistic practice.
Print, Production, Photography	To help students understand the principles and practice of photography To enable students to enjoy photography as an art.
Radio and Television	To introduce the basic terms and concepts of broadcasting

	To give an overview of the structure and function of thebroadcast industry To create an awareness of thedevelopment of broadcast media and current trends
Mass Media Research	To introduce students to debates in Research approaches and equip them with tools to carryon research To understand the scope and techniques of media research, their utility and limitations.
Organizational Behavior	Orienting students to issues inorganizational functioning. To introduce students to the concepts given below at apreliminary level.

Course outcome SEM V (Advertising)

Course Name	Outcome
Advertising in Contemporary Society	To recognize the roles of advertising in modern society To understand the current developments and problemsconcerning advertising as aneconomic and social force. Appreciate the increasingly international nature of advertising. To analyze the interdependent nature of advertising and popular culture.
Copywriting	To familiarize the students with theconcept of copywriting as selling through writing To develop their inherent writingskills To train students to generate, develop and express ideas effectively To familiarize students with contemporary advertising techniques and Practices
Advertising Design	To expose students to the creative and technical aspects of art direction
Consumer Behavior	To introduce the students to the complexities of consumer behavior.
Media Planning and Buying	To develop knowledge of major media characteristics and buying advertising space in them to develop an understanding of procedures, requirements, andtechniques of media planning.

Brand Building	To provide an introduction to the concepts and practices of contemporary brand management. To understand the appropriatestrategies and tactics to build,measure and manage Brand Equity. To learn to plan an effective advertising campaign

Course outcome SEM VI (Advertising)

Course Name	Outcome
Advertising and Marketing Research	To discuss the foundations of research and audience analysis that is imperative to successfuladvertising.
Legal Environment and Advertising Ethics	To provide a perspective on the Legal Environment in India. To guide students of media through the various ethics connected to Advertising. Maharashtra state centric cases to be discussed in class as thesituation demands.
Financial Management for Marketing and Advertising	Introduction to Marketing and Advertising Finance
Agency Management	To expose students to the businessof advertising To familiarize students with the different aspects of running an adagency
The Principles and Practice of Direct Marketing	To learn and understand what Direct marketing is, including direct marketingterminology How direct marketing differs from "traditional marketing" Direct marketing techniques.
Contemporary Issues	To sensitize students to the environment around them Developing a perspective towards issues related to the marginalizedsections of the society.
Digital Media	To acquaint and prepare student for Digital Global Environment. Develop skills for digital marketing and reach. To engage students in world of Digital media and impart newmodes of learning andcreating digital communities.

B.SC (Information Technology)

Program Outcome: The program aims to produce graduates who have been exposed to experiences that will prepare them to address the information processing requirements of

organizations.

Program Specific Outcome: Identify information technology related problems, analyze them and design the system or provide the solution for the problem. Communicate effectively in written and oral context with specialized and non-specialized audiences. Apply current technical concepts and practices in the core information technologies of human comp uter interaction, information management, programming, networking, and web systems and technologies.

Course Outcome

Imperative Programming	Students will be able to choose appropriate data structures to represent data items in real world problems. They can analyze the time and space complexities of algorithms.
Digital electronics	Students will be able to understand number representation and conversion between different representation in digital electronic circuits and they will be able to analyze logic processes and implement logical operations using combinational logic circuits.
Operating System	Students can Identify use and evaluate the storage management policies with respect to different storage management technologies. They can also describe the important computer system resources and the role of operating system in their management policies and algorithms.
Discrete Mathematics	Students will be able to apply basic counting techniques to solve combinatorial problems. They will gain experience in using various techniques of mathematical induction (weak, strong and structural induction) to prove simple mathematical properties of a variety of discrete structures.
Communication Skills	Students will be able to understand and apply knowledge of human communication and language processes as they occur across various contexts, e.g., interpersonal, intrapersonal, small group, organizational, media, gender, family, intercultural communication, technologically mediated communication, etc. from multiple perspectives.

Semester-II

Course Name	Outcomes
Object Oriented Programming	The students will gain knowledge about Object Oriented Programming through C++. They can make their own Applications/Projects using C++ and can be deputed as a C++ programmer in IT companies.

Microprocessor Architecture	Students will be able to describe basic organization of computer and the architecture of 8085 microprocessor and can implement assembly language program for given task for 8085 microprocessor.
Web Programming	Students are able to develop a dynamic webpage by the use of java script and HTML. Students will be able to write a well formed / valid XML document
Numerical and Statistical Methods	Students can use a range of standard numerical and statistical methods to solve problems. They can solve system of linear equations.
Green Computing	Students can use Green IT Strategies and metrics for ICT development and they can Illustrate various green IT services and its roles.

Course Name	Outcomes
Python Programming	Students can describe the Numbers, Math functions; Strings,
Semester-III	on.
Data Structures	Students will be able to Implement Linear and Non-Lineardata structures. They can Determine and analyze the complexity of given Algorithms. They can also implement appropriate sorting/searching technique for given problem.
Computer Networks	Students will be able to Explain the types of transmission media with real time applications. They can classify the routing protocols and analyze how to assign the IP addresses for the given network. They can also describe the functionsof each layer in OSI and TCP/IP model.
Database Management System	Students will be able to Retrieve any type of information from a data base by formulating complex queries in SQL. They can Analyze the existing design of a database schemaand apply concepts of normalization to design an optimal database.
Applied Mathematics	Student will be able to identify the permutation and combinations. They can Define variable and also identify the mapping and also apply the Set theory and Relation

	Concepts

Semester-IV

Course Name	Outcomes
Core Java	Students will be able to write, compile and execute Java programs using object oriented class structures with parameters, constructors, and utility and calculations methods, including inheritance, test classes and exception handling.
Introduction to Embedded System	Students will be able to understand the internal architecture and interfacing of different peripheral devices with Microcontrollers. They will be able to write the programs for microcontroller.
Computer Oriented Statistical Techniques	Students will be able to learn statistical and optimization methods, in particular, with reference to frequency distribution and measures of central tendency, measures of dispersion and they will be able to learn theory of probability, linear programming problems, transportation, assignment and game problems.
Software Engineering	Students can explain needs for software specifications also they can classify different types of software requirements and their gathering techniques and they will be able to convert the requirements model into the design model and demonstrate use of software and user interface design principles.
Computer Graphics and Animations	Students can implement various algorithms to scan, convert the basic geometrical primitives, transformations, Area filling, clipping. They can describe the importance of viewing and projections.

Semester-V

Course Name	Outcomes
Software Project Management	Students can compare and contrast the several existing solutions for research challenge 4. Demonstrate an ability towork in teams and manage the conduct of the research study.
Internet of Things	Students can apply the concepts of IOT and they can design and develop smart city in IOT. They can also analyze andevaluate the data received through sensors in IOT.
Advanced Web Programming	Students can apply three-tier architecture concepts and advanced database techniques in web applications. Studentsbuild sites that use session management.
Enterprise Java	Students will be able to identify classes, objects, members of a class and the relationships among them needed for a finding the solution to specific problem an can demonstrate how to achieve reusability using inheritance, interfaces andpackages and describes faster application development can be achieved.
Linux System Administration	Students will be able to identify the basic Linux general purpose commands; can implement shell scripts and sed.They can also apply and change the ownership and file permissions using advance Unix commands.

Semester-VI

Course Name	Outcomes
Software Quality Assurance	Students will be able to investigate the reason for bugs andanalyze the principles in software testing to prevent and remove bugs and can implement various test processes forquality improvement
Security in Computing	Students develop a secure computer network plan. Studentsevaluate and recognize a problem as being a possible network security threat. Students collect information fromComputer network logs.
Business Intelligence	Students can apply BI to solve practical problems - Analyze the problem domain, use the data collected in enterprise apply the appropriate data mining technique, interpret andvisualize the results and provide decision support.

Principal of Geographic Information system	Students can apply basic graphic and data visualization concepts such as color theory, symbolization, and use of white space. They can demonstrate organizational skills infile and database management.
IT Service Management	Students will be able to recognize enterprise IT architecture for Information technology and can Describe the importanceof IT enabled services and challenges and can also Identify strategic IT planning for software development.