

PROGRAMMES OUTCOMES, PROGRAMME SPECIFIC OUTCOMES, COURSE OUTCOMES



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Department of Biotechnology

Programme Outcomes: B. Sc (Hons.) Biotechnology

Department of Biotechnology	After successful completion of three year degree program in B.Sc. Biotechnology a student should be able to;
Programme Outcomes	<p>PO-1. Demonstrate, solve and an understanding of major concepts in all disciplines of Biotechnology.</p> <p>PO-2. Solve the problem and also think methodically, independently and draw a logical conclusion.</p> <p>PO-3. Create an awareness of the applications of Biotechnology on the environment, society, and development outside the scientific community.</p> <p>PO-4. Find out the green route for chemical reaction for sustainable development.</p> <p>PO-5. To inculcate the scientific temperament in the students and outside the scientific community.</p> <p>PO-6. To inculcate the scientific temperament in the students and outside the scientific community</p> <p>PO-7. Use modern techniques, decent equipments and soft wares.</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1. Understand Microbial techniques and culturing of cells for R&D</p> <p>PSO-2. Preparation SOP for various techniques and protocols.</p> <p>PSO-3. Make students competitive for jobs in clinical labs and hospitals</p> <p>PSO-4. Work as quality controller in pharmaceutical, brewing, agriculture and diary industries.</p> <p>PSO-5. Understand good laboratory practices and safety</p>
Course Outcomes	
Semester-I	
Course Outcomes	After completion of these courses students should be able to;
Paper: BIOT-Sem-I-I-T English	<p>CO-1. Know the word formation and vocabulary.</p> <p>CO-2. Will develop the sense of humanity with the study of Drama.</p> <p>CO-3. Communicate in general, business and in particular, organizations, types of communication, and significance of positive attitude in improving communication.</p> <p>CO-4. Write letters of all kinds, tender notices, auction notices,</p>

	public notices, and memos.
Paper: BIOT - Sem-I--II-T Punjabi/HCP	CO-1. Will improve write skill, pronunciations and vocabulary of the language. CO-2. Develop the sense of humanity from poem and stories.
Paper: BIOT - Sem-I--III-TA Mathematics / A	CO-1. To study the different concepts of limits, differentiation, integration and calculus so as to apply these concepts in biotechnology. CO-2. To handle problems of quadratic, cubic equations, differential equation, linear equation and thus study the applications in biotechnology
Paper: BIOT - Sem-I--III-TB Life Sciences -B	CO-1. know scientific vocabulary and understanding of a variety of life science concepts. Student will be understood ecology and ecosystems. CO-2. Gain knowledge about the anatomy and physiology of animals and animal systems
Paper: BIOT-Sem-I-IV-T Chemistry	CO-1. Apply the concepts of chemical thermodynamics, chemical equilibrium and their applications. CO-2. Apply knowledge compounds of carbon , their sources, mechanism of reactions and utility in daily life CO-3. Study concepts of stereochemistry and spectra of organic molecules.
Paper: BIOT-Sem-I-V-T Physics	CO-1. Apply laws of physics in biological sciences. CO-2. Introduction to basic course of Physics will enhance the grasping of subject.
Paper: BIOT-Sem-I-VI-T Introduction to Biotechnology	CO-1. This course will introduce the basic concepts of biotechnology to the students. CO-2. apply knowledge from the history of biotechnology to the foundations of modern biotechnology CO-3. Apply concepts of biotechnology in fermentation industry, environment and modern medicine and the ethical implications of biotechnology.
Semester-II	
Paper: BIOT-Sem-II-I-T English	CO-1. Know the word formation and vocabulary. CO-2. Develop the sense of humanity with the study of Drama. CO-3. Communicate in general, business and in particular, organizations, types of communication, and significance of positive attitude in improving communication. CO-4. Write letters of all kinds, tender notices, auction notices, public notices, and memos.
Paper: BIOT - Sem-II--II-T Punjabi/HCP	CO-1. Will improve write skill, pronunciations and vocabulary of the language. CO-2. Develop the sense of humanity from poem and stories.

Paper: BIOT-Sem-II-III-T Statistics & Computer Fundamentals	CO-1. To learn applications of statistics in the field of biology. CO-2. To understand concepts of probability, averages, distributions, tests of deviations, correlation and linear regression. CO-3. To learn to design experiments and analysis of results by tests of significance or analysis of variance.
Paper: BIOT-Sem-II-IV-T Basic Biochemistry	CO-1. To make student conversant with the biochemical aspect of cell, chemical structure & function of various biomolecules.
Paper: BIOT-Sem-II-V-T Cell Biology	CO-1. To understand the detailed overview of eukaryotic cell and its inner components. CO-2. To understand the processes of cell transport and cell locomotion. CO-3. Apply knowledge of stem cells and their applications for human welfare.
Paper: BIOT-Sem-II-VI-T General Microbiology	CO-1. Apply the significant role of microbes in understanding medical science and industrial problems.
Semester-III	
Paper: BIOT-Sem-III-I-T Biochemistry	CO-1. Familiarize the students with the biochemical activities taking place at cellular level, highlighting the enzymatic reactions, metabolic pathways and biochemical aspects.
Paper: BIOT-Sem-III-II-T Genetics	CO-1. The focus of this course is on the science of heredity with emphasis on the basics of Mendelian and molecular genetics. CO-2. Familiar students with chromosome organization, linkage, chromosome mapping, chromosome aberrations, mutations and microbial genetics
Paper: BIOT-Sem-III-III-T Immunology-I	CO-1. To understand general aspects of immune system like different components of the immune system, Generation and functions of these components, CO-2. Knowledge of basic immunological techniques.
Paper: BIOT-Sem-III-IV-T Plant Tissue Culture	CO-1. To introduces the students with fundamentals and applications of plant tissue culture. CO-2. This course will expose students to the methods of culturing, maintaining and regenerating plants species
Paper: BIOT -Sem-III-V-T Animal Cell Culture	CO-1. The major emphasis of this course is to introduce the students to the field of Animal cell-culturing and its importance to mankind. CO-2. The students will also learn the techniques involved in animal cell culture.
Semester-IV	
Paper: BIOT-Sem-IV-I-T Immunology-II	CO-1. This course will introduce students to the principles of advanced Immunology, both at the molecular and cellular levels.

Paper: BIOT-Sem-IV-II-T Biophysical and Biochemical Techniques	CO-1. To enable the students learn important tools and techniques based on biophysical and biochemical principles so that they can understand application of these techniques in biotechnology.
Paper: BIOT-Sem-IV-III-T Plant Biotechnology	CO-1. The objective of this course is to familiarize the students with different aspects of plant molecular biotechnology and techniques for plant genetic manipulations
Paper: BIOT-Sem-IV-IV-T Animal Biotechnology	CO-1. The major emphasis of this course is to introduce the students to the advances in the field of Animal and their importance to mankind.
Paper: BIOT-Sem-IV-V-T Agro & Industrial Biotechnology	CO-1. This course will introduce students to the concepts of agriculture as industry. CO-2. This course will help students to understand the application of fundamental concepts like transgenic approaches to improve crop plants, microbial culture maintenance, and metabolite purification at industrial level.
Semester-V	
Paper: BIOT-Sem-V-I-T Molecular Biology	CO-1. To make the students understand the fundamental concepts this includes DNA structure, replication, transcription, translation, mutation, gene regulation.
Paper: BIOT-Sem-V-II-T Environmental Biotechnology	CO-1. The course focuses on an introduction to environment, major threats to environment by various polluting agents and the remedies for the same, incorporating design and monitoring of waste treatment processes. CO-2. As well as learning environmental technology fundamentals, with special focus on biological treatment processes, environmental management. CO-3. The course is use of biotechnology to design cleaner manufacturing processes and to solve pollution problems. CO-4. It is ideal for under graduates just embarking on their career, or scientists and engineers who have been working for a few years and wish to develop their career in this direction.
Paper: BIOT-Sem-V-III-T Bioinformatics	CO-1. Learn introduction to Bioinformatics, Biological Databases and Sequence analysis CO-2. The course will give introduction to sequence alignment and its application
Paper: BIOT-Sem-V-IV-T Enzymology	CO-1. History of enzyme technology. CO-2. Study various factors affecting enzyme activity. CO-3. Gain information in enzyme applications in industry.
Summer Training	CO-1. Exposure of real time work in labs and industries.
Semester-VI	

<p>Paper: BIOT-Sem-VI-I-T Genetic Engineering</p>	<p>CO-1. Genetic engineering refers to the process of manipulating the characteristics and functions of the original genes of an organism. CO-2. The objective of this process is to introduce new physiological and physical features or characteristics CO-3. The students will learn how the genes can be cut and paste from one organism to another and what is its implications.</p>
<p>Paper: BIOT-Sem-VI-II-T Bioprocess Engineering and Technology</p>	<p>CO-1. Learn fundamental principles of biochemical engineering. CO-2. Sterilize air and media. CO-3. Handle downstream processing.</p>
<p>Paper: BIOT-Sem-VI-III-T Food Biotechnology</p>	<p>CO-1. History and scope of Food biotechnology CO-2. History and scope of Food biotechnology CO-3. Know and analyze food adulterants and food additives CO-4. Food and water borne diseases</p>
<p>Paper: BIOT-Sem-VI-IV-T Genomics and proteomics</p>	<p>CO-1. Study computer tools for sequencing projects: Genome sequence assembly software CO-2. Managing and Distributing Genome Data: Web based servers and softwares for genome analysis CO-3. Introduction to protein structure, Chemical properties of proteins. Physical interactions that determine the property of proteins</p>
<p>Paper: BIOT-Sem-VI-V-T Intellectual property rights and Ethical Issues in Biotechnology and Entrepreneurship</p>	<p>CO-1. Use the current intellectual property system to protect and commercialize their biotechnological invention. CO-2. This course also covers the ethical issues, controversies and social-ethical impact of biotechnology on society.</p>

Department of Basic Sciences

Programme Outcomes: B.Sc (Medical)

Department of Basic Sciences	After successful completion of three year degree program in B.Sc (Medical) a student should be able to;
Programme Outcomes	<p>PO-1. Students will get knowledge about life of animals diversity & development</p> <p>PO-2. Students will have knowledge about evolution of non chordates & chordates on earth& will learn the technique of Aquaculture practices</p> <p>PO-3. To inculcate the hands on experience among students through field surveys and practical demonstrations.</p> <p>PO-4. To inculcates the scientific temperament in the students and outside the scientific community.</p> <p>PO-5. The student will understand the periodic properties, elements & their properties, synthesis & chemical reactions of organic compounds, thermodynamics, electrochemistry, photochemistry, basics of quantum mechanics, spectroscopic techniques-UV-Vis, IR, ¹H-NMR, carbohydrates, proteins, organometallic compounds, bio-inorganic chemistry</p>

Programme Specific Outcomes

Programme Outcomes	Specific	
		<p>PSO-1. Students know about different types of lower & higher plants their evolution in from algae to angiosperm &also their economic and ecological importance.</p> <p>PSO-2. Genetics provides knowledge about laws of inheritance, various genetic interactions, chromosomal aberrations & multiple alleles.</p> <p>PSO-3. Student can describe morphological & reproductive characters of plant and also identified different plant families and classification.</p> <p>PSO-4.To create awareness about cultivation, conservation and sustainable utilization of biodiversity.</p> <p>PSO-5.To know advance techniques in plant sciences like tissue culture, Phytoremediation, plant disease management, formulation of new herbal drugs etc.</p> <p>PSO-6. Students able to start nursery, mushroom cultivation, bio fertilizer production, fruit preservation and horticultural practices.</p> <p>PSO-7. Learned the organic reactions, their mechanisms, periodic table & details of different elements, concepts of thermodynamics laws, electrochemistry, photochemistry, basics of quantum</p>

	<p>mechanics, spectroscopic techniques-UV-Vis, IR, ¹H-NMR, carbohydrates, proteins, organometallic compounds, bio-inorganic chemistry Learned the organic reactions, their mechanisms, periodic table & details of different elements, concepts of thermodynamics laws, electrochemistry, photochemistry, basics of quantum mechanics, spectroscopic techniques-UV-Vis, IR, ¹H-NMR, carbohydrates, proteins, organometallic compounds, bio-inorganic chemistry</p> <p>PSO-8 students learned the animal diversity of major phyla of invertebrates and vertebrates, basic concepts of cell biology, evolution, ecology, genetics and development biology.</p>
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Course Outcomes B.Sc. (Medical)

Semester-I	
Course	Outcomes
	After completion of these courses students should be able to;
(Biodiversity& Cell biology-1 ZOO101) Paper-I	CO-1. Know about the life of lower invertebrates CO-2. Have an idea about the transmission of diseases by vectors and their life cycle CO-3. Students will get idea of principles and working of various type of microscopes CO-4. Structure and function of various cell organelles CO-5. Economic importance of various organisms.
(Biodiversity & Cell biology-11 Zoo-102) Paper-II	CO-1. Will study the distinguishing features of helminthes. CO-2. Will study the life history of Fasciola and Taenia. CO-3. Detail study of earthworm anatomy and physiology. CO-4. Types of cancer and its causes. CO-5. Study of hummoral immunity and organs of immune system.
Zoology Lab	CO-1. Knowledge of classification and identification of invertebrates through specimens. CO-2. Knowledge of microscopic animals through slides. CO-3. Basic knowledge of SEM, TEM and gel electrophoresis through charts.
Plant Diversity-I	CO-1. To make students aware about the diversity in various life forms of plant kingdom. CO-2. A systematic study of algae and fungi included in this group provide students an insight about the heterotrophic and autotrophic modes of nutrition in the plant kingdom

	CO-3. To form the basis of any advance study in Botany
Cell Biology	CO-1. To provide students an insight into structural and cytological basis of functional differentiation in plants CO-2. To provide an idea about cellular, molecular and biochemical basis of prokaryotic and eukaryotic diversity of life forms

Paper A Inorganic Chemistry (30 Hrs)	CO-1 To understand the atomic structure i.e. shapes of different orbitals, different principles for filling electrons, Schrodinger wave equation CO-2. To understand the Periodic Properties CO3. To understand the Chemistry of Noble Gases CO-4. To understand the chemistry of s-Block Elements CO-5. To understand the Valence bond theory
Paper B Organic Chemistry (30 Hrs)	CO-1. Learned the core concepts of organic chemistry i.e. resonance, hyperconjugation, inductive effect etc. and their application. CO-2. Learned the Mechanism of Organic Reactions, intermediates formed during reactions CO-3 Learned the nomenclature, synthesis and chemical reactions of Alkanes and Cycloalkanes CO-4 Learned the Stereochemistry of Organic Compounds including optical isomerism, geometric isomerism and conformational isomerism
Paper C Physical Chemistry (30 Hrs)	CO-1. Learned the Mathematical Concepts and Evaluation of Analytical Data: CO-2. Understand the behaviour of real & ideal gas & how to apply Maxwell distribution on molecular velocities & find out collision diameter, mean free path. CO-3. Learned to determine rate constants and half-life for 0, 1st and 2nd order reactions from experimental datasets CO-4. Learned to determine the order of reactions with respect to given species by applying the initial rate method and isolation method, express the rate law from the orders with respect to the species involved CO-5. Learned the theories of Chemical Kinetics, Catalysis and general characteristics, Michaelis Menten equation for enzyme catalysis
Chemistry Lab	CO-1. Learned the Volumetric titrations involving acid-base, KMnO_4 and $\text{K}_2\text{Cr}_2\text{O}_7$ CO2. Learned the QUALITATIVE ANALYSIS of Semimicro Analysis, cation analysis, separation and identification of ions from groups I, II, III, IV, V and VI.
PBC Gen Punjabi	CO1: By reading modern poetry student is able to understand issues of modernism

	CO2: Students get literary sense and comprehension of the subject CO3: Students know one act play as a form of literature
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Semester-II	
Course	Outcomes After completion of these courses students should be able to;
Biodiversity & Ecology-I ZOO 201	CO-1. Know about the life of higher invertebrates CO-2. Have an idea about the basics of ecology. CO-3. Students will get idea of biogeochemical cycles, adaptations in animals.
(Biodiversity & Ecology-II Zoo-202)	CO-1. will study the detailed study of molluscs and echinodermites. Will have an idea about natural resources and their conservation. CO-3. will study basic concepts of wild life conservation and environment degradation. CO-4. Students will also get knowledge of classification and economic importance of various specimens of mollusks and echinodermites.
Zoology Lab	CO-1. To give knowledge of identification and classification of various invertebrates through specimens and slides.

Paper A Inorganic Chemistry (30 Hrs)	CO-1. Learned the Ionic Solids – Concept of close packing., Ionic structures, radius ratio rule and coordination number, lattice defects and semiconductors CO-2. Learned the Lattice energy and Born-Haber cycle, solvation energy and solubility of ionic solids, polarizing power and polarisability of ions, Fajan's rule, CO-3 Learned the valence bond and band theories CO-4 Learned the chemistry of p-Block Elements
Paper B Organic Chemistry (30 Hrs)	CO-1. Able to understand nomenclature, synthesis and mechanisms of chemical reactions of Alkenes, Cycloalkenes CO-2 Able to understand nomenclature, synthesis and mechanisms of chemical reactions of Dienes and Alkynes CO-3 Able to understand nomenclature, synthesis and mechanisms of chemical reactions of Benzene, Huckel's rule etc. CO-4 Able to understand nomenclature, synthesis and mechanisms of chemical reactions of Alkyl and Aryl Halides and SN ¹ & SN ² mechanisms
Paper C Physical Chemistry (30 Hrs)	CO-1 Students understand the concept of system and surroundings, heat, work, path functions & enthalpy, Heat capacity & inversion temperature CO-2 Learned to determine the kirchoff's equation, standard state, Hess's law of constant heat summation & it's application.

	CO-3 Understand the concept of sols, gels & emulsions CO-4 Learned the determine the colligative properties of ideal & non ideal solutions.
Chemistry Lab	CO-1.Learned the the Crystallization of different copounds CO2.Learned to determine the viscosity of different solutions CO3. Learned to determine the surface tensionof different solutions CO4: Learned to determine of melting points of compounds.
PBC Gen Punjabi	CO1: The students know story as a form of literature CO2: The students get the basic knowledge of linguistics CO3: Understanding of the nature of subject in comparison to secondary level

Plant Diversity-II	CO-1. To provide an idea about how different plant life forms have evolved from simpler to complex ones CO-2. A sequential study ranging from Bryophytes (the amphibians of plant kingdom) and then to Pteridophytes -the first vascular land plants, would enable students to have a broad prospective of evolutionary trends in plant kingdom.
Genetics	CO-1. To provide an insight into genetic basis of such evolutionary trends in plants CO-2. To describe important role of genetics in structural and functional differentiation of plants.

SEMESTER-III

Course	Outcomes
	After completion of these courses students should be able to;
Biodiversity(chordates) & Evolution-1 ZOO301)	CO-1. Students will gain knowledge about the evidences of organic evolution CO-2. Various theories of evolution as lamarkism,Darwinism, modern theory of evolution CO-3. Anatomy and physiology of Labeo CO-4. Origin of life concept CO-5. Physiology and anatomy of frog as representative of amphibians

Biochemistry and Physiology-1 ZOO302)	CO-1. Will be able to grasp classification of enzymes CO-2. Will have knowledge of Carbohydrate metabolism CO-3.Regulation and processes of absorption&enzymatic digestion CO-4.Transport of oxygen and carbon dioxide in human body CO-5.Origin and regulation of heartbeat.
Zoology Lab	CO-1. Students have practical knowledge of identification classification of museum specimens. CO-2. Learned histology through slides. CO-3. In hand training of practicals of blood parameters and physiology.
Diversity of Seed Plants and their Systematics-I	CO-1. To provide students a fair idea about the general features, economic importance and study of fossil as well as living gymnosperms.
Structure, Development and Reproduction in Flowering Plants-I	CO-1. To provide idea about basic body plan and diversity in flowering plant forms. CO-2. To provide knowledge about vegetative and reproductive morphology of flowering plants and to familiarize the students with plants bearing the enclosed seeds.

Inorganic Chemistry (30 Hrs)	CO-1 Learned the chemistry of elements of First Transition Series CO-2 Learned the chemistry of elements of Second and Third Transition Series CO-3 The students will be able to explain the fundamental concepts in coordination chemistry of transition metals, Werner's coordination theory, effective atomic number concept, chelates, nomenclature & isomerism in coordination compounds CO-4 Valence bond theory of transition metal complexes
Organic Chemistry (30 Hrs)	CO-1. Able to describe different classes of alcohols, their synthesis and chemical reactions. CO-2. Able to write down structure of phenol and phenoxide ion and their synthesis & chemical reactions. CO-3. Able to write down structure, synthesis and chemical reactions of aldehydes & ketones CO-4. Able to understand different reactivities of aldehydes & ketones
Physical Chemistry (30 Hrs)	CO-1.Students understand structure of liquids in qualitative description & differentiate between solid, liquid & gas & also understand thermography & seven segment cell of liquid crystals CO-2.Students will derive law of mass of action & reaction isotherm CO-3. Student will understand the carnot cycle & their efficiency & thermodynamic scale of temperature, Gibbs function, Helmholtz function

	CO-4. Understand the Concept of Entropy
Chemistry Lab	CO-1. Volumetric Analysis CO-2. Gravimetric Analysis CO-3. To determine the solubility of benzoic acid at different temperatures and to determine ΔH of the dissolution process CO-4. To determine the enthalpy of neutralization, enthalpy of ionization and ionization constant of acid/base.
English (Compulsory)	CO1: Understanding of poetry and essay type questions CO2: Understanding of Letter Writing CO3: Understanding of Grammar: Narration, Preposition, Conjunctions, Synonyms CO4: Students will be able to translate Hindi to English.

SEMESTER-IV

Course	Outcomes
	After completion of these courses students should be able to;
(Biodiversity(chordates)& Evolution-II ZOO301)	CO-1. Gain knowledge of anatomy & physiology of Uromastrix CO-2. Poisonous & Non Poisonous snakes difference CO-3. Flight adaptations in birds and detailed study of pigeon CO-4. Detailed study of rats CO-5. Knowledge about dentition in mammals
(Biochemistry and Physiology-II ZOO302) Paper-II	CO-1. Study of lipid metabolism and lipogenesis CO-2. Will know how protein is metabolized in body CO-3. Process of urine formation in humans CO-4. Structure of neuron and resting potential CO-5. Detailed study of endocrine system.
Zoology lab	CO-1. students get knowledge of histology, museum specimens and physiology experiments. CO-2. Learned osteology through identification of bones of various animals.

Paper A Inorganic Chemistry (30 Hrs)	CO-1 Understand the Chemistry of Lanthanide Elements including electronic structure, oxidation state, ionic radii and lanthanide contraction, complex formation, occurrence and isolation of lanthanide compounds. CO-2: Understand the Chemistry of Actinides including general features, chemistry of separation of Np, Pu and Am from U, and similarities between the later actinides and the later lanthanides. CO-3: Arrhenius, Bronsted-Lowry, the Lux-Flood, solvent system and Lewis concepts of acids and bases CO-4: Use of redox potential data – analysis of redox cycle, redox stability in water – Frost, Latimer and Pourbaix diagrams and Principles involved in the extraction of the elements. CO-5 Physical properties of a solvent, types of solvents and their general characteristics, reactions in non-aqueous solvents
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Organic Chemistry	<p>CO-1. Able to recognize structures of acid halides, esters, amides, acidanhydrides and order of reactivity of different carboxylic acidderivatves.</p> <p>CO-2 Able to write the nomenclature, synthesis and chemical reactions of Ethers , Epoxides</p> <p>CO-3 Understand the concepts of Fats, Oils, Saponification value, iodine value, acid value and Soaps&synthetic detergents</p> <p>CO-4:Able to write the nomenclature, synthesis and chemical reactions ofnitroalkanes, nitroarenes, aliphatic & aromatic amines</p> <p>CO-5 The students will be able to introduce about basic chemistry of theheterocyclic and particular properties and reactions for the most important heterocyclic</p>
Physical Chemistry (30 Hrs)	<p>CO-1 Students will derive the Gibbs phase rule,phase equilibria of one component system & two component system, partially miscible liquids</p> <p>CO-2 Students understand electrical transport means condution in metals & electrolytic solutions, migration of ions, kohlrausch law, weak & strong electrolytes, Debye huckle onsager equation</p> <p>CO-3 Determine the electro motive force of cell, S.H.E, electrode potential</p> <p>CO-4 Understand about electrolytic cell & galvanic cell</p>
Chemistry Lab	<p>CO-1. Learned the Extraction of caffeine from tea leaves.</p> <p>CO-2. Learned the Detection of elements (N, S and halogens) and functional groups in simple organic compounds.</p> <p>CO-3. Learned the Determination of Rfvalues and identification of organic compounds.</p> <p>CO-4Learned theSeparation of isometric mixture of Ortho and paranitroaniline using hexane and ethyl acetate (8.5 : 1.5) by thin layer chromatography</p>
English (Compulsory)	<p>CO1: Understanding of poetry and prose</p> <p>CO2: Understanding of paragraph writing</p> <p>CO3: Understanding of Grammar - Voice, Determiners, Modals, Antonyms</p>

Semester-V

Course	Outcomes
	After completion of these courses students should be able to;
Developmental biology Paper-I(ZOO-501)	<p>CO-1. Study about the process of gametogenesis & egg maturation</p> <p>CO-2. Parthenogenesis & fertilization</p> <p>CO-3. Cell cell interactions</p> <p>CO-4. Idea about the foetal membranes & their formation</p> <p>CO-5.Mammalian placenta types</p>

<p>(Applied zoology-1 Inland fisheries &Aquaculture ZOO-502C) Paper-II</p>	<p>CO-1.Study about components of aquaculture CO-2. Will have knowledge about features of saltwater fishes, air breathing and major carps CO-3.Exotic fishery and their impact CO-4.Process of Induced breeding & its impact on Indian fauna CO-5. Pond culture management</p>
<p>Zoology Lab</p>	<p>CO -1. Students learned practical knowledge of developmental stages of frog and chick through slides. CO-2. Learned features of fishes through specimens. CO-3. Knowledge of identification of fishes, aquatic weeds.</p>
<p>Paper-I Plant Physiology-I</p>	<p>CO-1. To familiarize the students with various concepts of functions and metabolism of plants. CO-2. To enable the students to correlate structural diversity of various plant forms with functional differentiation and its biological aspects including biological nitrogen fixation and mineral nutrition.</p>
<p>Plant Ecology</p>	<p>CO-1. To make students aware about the role of environment in causing structural and functional variation in plants. CO-2. To provide the students with knowledge of basic concepts of ecology to solve the present day problems of varied nature like pollution, Global Warming etc. which are directly or indirectly related to ecology.</p>
<p>Inorganic Chmistry (30 Hrs)</p>	<p>CO-1. Learned the crystal – field theory, crystal field splitting in octahedral, tetrahedral and square planar complexes, factors affecting the crystal – field parameters, Spectro chemical Series CO-2. Learned the thermodynamic and Kinetic stability of metal complexes and factors affecting the stability, substitution reactions of square planar complexes CO-3.Understand the nomenclature, classification, preparation, properties, bonding of different organometallic compounds CO-4. Understand the metalloporphyrins of haemoglobin and myoglobin, biological role of alkali and alkaline earth metal ions. Nitrogen fixation.</p>
<p>Organic Chemistry (30 Hrs)</p>	<p>CO-1. Learned the Ultraviolet (UV) absorption spectroscopy CO-2 Learned the Infrared (IR) absorption spectroscopy CO-3. Learned the Proton Nuclear magnetic resonance (NMR) spectroscopy. CO-4.Learned the synthesis and chemicl reactions of Carbohydrates such as Glucose, Fructose. Structures of some disaccharides, polysaccharides,concept of mutarotation, ring struture of monosaccharides, Haworth projection formulae etc.</p>
<p>Physical Chemistry</p>	<p>CO-1 Learned to derive plancks radiation law, Compton effect, photoelectric effect, uncertainty principle, schrodinger wave equation for H atom, physical interpretation of wave function, particle in one dimensional box, quantum number, radial & angular wave function CO-2Learned the MOT, criteria for forming MO from AO, valence bond</p>

	<p>model</p> <p>CO-3 Learned the laws of photochemistry, Jablonski diagram for various processes</p> <p>CO-4 Learned the qualitative description of fluorescence, phosphorescence, non radiative processes, quantum yield, energy transfer processes</p>
Chemistry Lab	<p>CO-1. Learned the Preparation of sodium trioxalatoferrate (III), $\text{Na}_3[\text{Fe}(\text{C}_2\text{O}_4)_3]$ and determination of its composition by permanganometry.</p> <p>CO-2 Learned the Preparation of copper tetraammine complex $[\text{Cu}(\text{NH}_3)_4]\text{SO}_4$.</p> <p>CO-3 Learned the Preparation of cis- and trans-bisoxalato-diaqua chromate (III) ion.</p> <p>CO-4 Learned the Separation and estimation of Mg(II) and Fe(II)</p> <p>CO-5 Learned to determine the strength of the given acid, solubility and solubility product of a sparingly soluble electrolyte, ionization constant etc. Conductometrically</p> <p>CO-6 Learned to find out distribution constant of iodine and benzoic acid.</p>

Semester-VI

Course	Outcomes
	After completion of these courses students should be able to;
Genetics Paper-I(ZOO-501)	<p>CO-1. Mendelian laws and multiple alleles</p> <p>CO-2. Will study Inheritance in Drosophila</p> <p>CO-3. About the process of linkage and crossing over</p> <p>CO-4. Mutations and crossing over</p> <p>CO-5. Recombination DNA and genetic coding</p>
(Applied zoology-1 Inland fisheries & Aquaculture –II ZOO-502C) Paper-II	<p>CO-1.. Knowledge about Fishing gears types</p> <p>CO-2. Mono and polyculture</p> <p>CO-3. Integrated fish farming</p> <p>CO-4. Pearl culture knowledge</p> <p>CO-5. Prawn culture technique & marketing of fish</p>
Zoology lab	<p>CO-1 Training to test quality of water.</p> <p>CO-2 Practical demonstration of crosses of genetics</p> <p>CO-3 Knowledge of dermatoglyphics.</p>

Paper-I Plant Physiology-II	CO-1. To familiarize the students with growth and metabolic processes of the plants. CO-2. To provide an idea about plant development, differentiation and their regulatory mechanism along with basic concepts in tissue culture.
Paper-II Economic Botany	CO-1. To give an insight into plant wealth such as medicinal plants; crop plants; beverages; spices; condiments; sugar; fiber; pulp & oil yielding plants of commercial & economic importance.

Paper A Inorganic Chemistry (30 Hrs)	CO-1. Learned the Silicones and phosphazenes as examples of inorganic polymers, nature of bonding in triphosphazenes CO-2. Learned the hard and soft Pearson's HSAB concept, acid-base strength and hardness and softness. Symbiosis, theoretical basis of hardness and softness, electronegativity and hardness and softness CO-3. Learned the Electronic Spectra of Transition Metal Complexes, types of electronic transitions, L – S coupling, selection rules for d-d transitions, spectroscopic ground states, Orgel – energy level diagram CO-4. Learned the types of magnetic behaviour, methods of determining magnetic susceptibility, spin-only formula. Correlation of μ_s and μ_{eff} values, orbital contribution to magnetic moments, application of magnetic moment data for 3d-metal complexes.
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Paper B Organic Chemistry (30 Hrs)	CO-1. Learned the Amino Acids, Peptides, Proteins and Nucleic Acids CO-2. Learned the Addition or chain-growth polymerization, Ziegler – Natta polymerization, Condensation or step growth polymerization, Natural and synthetic rubbers. CO-3. Learned the acidity of α -hydrogens, alkylation of diethyl malonate and ethyl acetoacetate, Claisen condensation, keto-enol tautomerism of ethyl acetoacetate. Alkylation and acylation of enamines. CO-4. Learned the formation, structure and chemical reactions of The Grignard reagents, Organozinc & Organolithium Compounds
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Paper C Physical Chemistry (30 Hrs)	CO-1 Learned the space lattice, unit cell, Miller indices, laws of crystallography & symmetry elements CO-2 Learned to determination of crystal structure, derive Bragg equation,
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	<p>thermal & photochemical reactions in solid state</p> <p>CO-3 Learned the electromagnetic radiation, degrees of freedom, energy levels of a rigid rotor, apply selection rules to predict observed spectroscopic transitions</p> <p>CO-4 Learned the harmonic & anharmonic oscillator, Raman spectrum, IR spectrum, concept of polarizability & selection rules</p>
Chemistry Lab	<p>CO-1. Hands on training Column Chromatography and Separation of fluorescein and methylene blue & Separation of leaf pigments from spinach leaves</p> <p>CO-2. Hands on experience of Aliphatic & Aromatic electrophilic substitution, oxidation, reduction etc.</p> <p>CO-3 Learned the Stereochemical study of Organic Compounds via Models: R and S configuration of optical isomers & E, Z configuration of geometrical isomers</p> <p>CO-4 Learned the Conformational analysis of cyclohexanes and substituted cyclohexanes via ball and stick models.</p>

Programme Outcomes: B.Sc (Non-Medical)

Department of Basic Sciences	After successful completion of three year degree program in Physics a student should be able to:
Programme Outcomes	<p>PO-1. Do problem analysis in Physics: Identify formulate and analyze</p> <p>PO-2. Understand conceptually problems in nature</p> <p>PO-3. Have hands on experience of Physics concepts through respective practicals</p> <p>PO-4. The student will understand the periodic properties, elements & their properties, synthesis & chemical reactions of organic compounds, thermodynamics, electrochemistry, photochemistry, basics of quantum mechanics, spectroscopic techniques-UV-Vis, IR, $^1\text{H-NMR}$, carbohydrates, proteins, organometallic compounds, bio-inorganic chemistry</p> <p>PO-5. Students gain knowledge in foundational areas of mathematics. It develop mathematical thinking. Students will be able to apply mathematical knowledge and be able to solve mathematical problems using technology.</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1 Have proficiency in mechanics of problems</p> <p>PSO-2. Understand Vibrations and waves in nature</p> <p>PSO-3. Have an understanding of concepts involving electricity and magnetism, optics, quantum mechanics, statistical physics, condensed matter physics, electronics and nuclear physics</p> <p>PSO-4. Learned the organic reactions, their mechanisms, periodic table & details of different elements, concepts of thermodynamics laws, electrochemistry, photochemistry, basics of quantum mechanics, spectroscopic techniques-UV-Vis, IR, $^1\text{H-NMR}$, carbohydrates, proteins, organometallic compounds, bio-inorganic chemistry</p> <p>PSO-5. A student should get a relational understanding of mathematical concepts and should be able to follow the concepts of mathematical reasoning. Aware the student of history of mathematics and hence of its past, present and future role as part of our culture.</p>

Course Outcomes B. Sc (N.M.)

Semester-I

Course	Outcomes After completion of these courses students should be able to;
Paper A Mechanics I (30 Hrs)	CO-1. Have an understanding of coordinate systems CO-2. Understanding of forces in nature in particular central forces CO-3. Understanding of collisions in lab and centre of mass CO-4. Understanding of a system of particles
Paper B Vibrations, waves & E.M. theory-I (30Hrs)	CO-1. Understanding of different types of pendulum CO-2. Understand SHM, damped and forced mechanical oscillations CO-3. Understand the phenomenon related to mechanical vibrations and waves, sound waves, EM waves, optics and gravitational waves CO-4. Overall an understanding that phenomenon arising from different physical systems can be described with mathematics
Paper C Electricity and Magnetism-I (30 Hrs)	CO-1. Understanding of Vector Calculus CO-2. Have an understanding of Stoke's theorem, Gauss Divergence theorem etc. CO-3. Learn concepts about work and potential difference CO-4. Have an understanding of polarization of matter
Physics Practicals	CO-1. Have hands on experience about concepts related to mechanics CO2. Training in measuring instruments like Vernier Calliper, Screw Gauge, Spherometer etc., CO3. Experience in Pendulums like torsional, bar, Kater's pendulum etc. CO4: Experimental understanding of Melde's experiment, Young's modulus determination, Stoke's method etc.
Paper A Inorganic Chemistry(30 Hrs)	CO-1 To understand the atomic structure i.e. shapes of different orbitals, different principles for filling electrons, Schrodinger wave equation CO-2. To understand the Periodic Properties CO3. To understand the Chemistry of Noble Gases CO-4. To understand the chemistry of s-Block Elements CO-5. To understand the Valence bond theory
Paper B Organic Chemistry (30 Hrs)	CO-1. Learned the core concepts of organic chemistry i.e. resonance, hyperconjugation, inductive effect etc. and their application. CO-2. Learned the Mechanism of Organic Reactions, intermediates

	<p>formed during reactions</p> <p>CO-3 Learned the nomenclature, synthesis and chemical reactions of Alkanes and Cycloalkanes</p> <p>CO-4 Learned the Stereochemistry of Organic Compounds including optical isomerism, geometric isomerism and conformational isomerism</p>
Paper C Physical Chemistry (30 Hrs)	<p>CO-1 Learned the Mathematical Concepts and Evaluation of Analytical Data:</p> <p>CO-2 Understand the behaviour of real & ideal gas & how to apply Maxwell distribution on molecular velocities & find out collision diameter, mean free path.</p> <p>CO-3 Learned to determine rate constants and half-life for 0, 1st and 2nd order reactions from experimental datasets</p> <p>CO-4 Learned to determine the order of reactions with respect to given species by applying the initial rate method and isolation method, express the rate law from the orders with respect to the species involved</p> <p>CO-5 Learned the theories of Chemical Kinetics, Catalysis and general characteristics, Michaelis Menten equation for enzyme catalysis</p>
Chemistry Lab	<p>CO-1. Learned the Volumetric titrations involving acid-base, KMnO_4 and $\text{K}_2\text{Cr}_2\text{O}_7$</p> <p>CO2. Learned the qualitative analysis of Semimicro Analysis, cation analysis, separation and identification of ions from groups I, II, III, IV, V and VI.</p>
Paper-I Trigonometry and matrices	<p>CO-1. Determine if a given matrix is diagonalizable.</p> <p>CO-2. Solve the matrix equation $Ax = b$ using row operations and matrix operations</p> <p>CO-3. Find the determinant of a product of square matrices, of the transpose of a square matrix, and of the inverse of an invertible matrix</p> <p>CO-4. Find the characteristic equation, eigenvalues and corresponding eigenvectors of a given matrix.</p>
Paper II Calculus	<p>CO-1. Students will be able to interpret a function from an algebraic, numerical, graphical perspective and extract information relevant to the phenomenon modeled by the function.</p> <p>CO-2. Students will be able to verify the value of the limit of a function at a point using the definition of the limit.</p> <p>CO-3. Students will be able to understand the consequences of intermediate value theorem for continuous function.</p>

	<p>CO-4. Students will be able to show whether function is differentiable at a point.</p> <p>CO-5. Students will differentiate exponential, logarithmic, trigonometric and inverse trigonometric functions.</p>
Paper III Plane geometry	<p>CO-1. understand geometrical terminology for angles, triangles, quadrilaterals and circles.</p> <p>CO-2.. measure angles using a protractor.</p> <p>CO-3. use geometrical results to determine unknown angles.</p> <p>CO-4. recognise line and rotational symmetries.</p> <p>CO-5. find the areas of triangles, quadrilaterals and circles and shapes based on these</p>
PBC Gen Punjabi	<p>CO1: By reading modern poetry student is able to understand issues of modernism</p> <p>CO2: Students get literary sense and comprehension of the subject</p> <p>CO3: Students know one act play as a form of literature</p>
English (Compulsory)	<p>CO1: Understanding of poetry and prose</p> <p>CO2: Understanding of paragraph writing</p> <p>CO3: Understanding of Grammar - Voice, Determiners, Modals, Antonyms</p>
Semester-II	
Paper A Mechanics II (30 Hrs)	<p>CO-1. Understand concept of rigid body motion and its applications like motion of gyroscope</p> <p>CO-2. Student's come to know about Galilean transformation and Foucault's pendulum</p> <p>CO-3. To understand concepts of special theory of relativity</p> <p>CO-4. Understanding of concepts of mass energy equivalence, twin paradox etc.</p>
Paper B Vibrations, waves & E.M. theory-II (30 Hrs)	<p>CO-1. To understand waves in physical media</p> <p>CO-2. Understand reflection and transmission of waves in a string</p> <p>CO-3. Understand Maxwell's equations</p> <p>CO-4. Understand reflection and transmission of EM waves</p>
Paper C Electricity and Magnetism-II (30 Hrs)	<p>CO-1. To solve the problems for current and current density and to know the Physics following magnetic properties of materials.</p> <p>CO-2. To determine the magnetic field due to various conducting distribution carrying current.</p> <p>CO-3. To understand the relation between varying electric and magnetic field following laws of induction further leading to Maxwell's equations.</p> <p>CO-4. Understanding of electromagnetic induction</p>

Physics Practicals	<p>CO-1. Hands on training for measurement of resistance, voltage, current and electric energy</p> <p>CO2. Measurement of magnetism, electromagnetic induction, low resistance measurement etc.</p> <p>CO3. Understanding of LCR circuits, resonant circuits etc.</p> <p>CO4: Measurement of capacitance, self inductance etc.</p>
Paper A Inorganic Chemistry(30 Hrs)	<p>CO-1. Learned the Ionic Solids – Concept of close packing., Ionic structures, radius ratio rule and coordination number, lattice defects and semiconductors</p> <p>CO-2. Learned the Lattice energy and Born-Haber cycle, solvation energy and solubility of ionic solids, polarizing power and polarisability of ions, Fajan’s rule,</p> <p>CO-3 Learned the valence bond and band theories</p> <p>CO-4 Learned the chemistry of p-Block Elements</p>
Paper B Organic Chemistry (30 Hrs)	<p>CO-1. Able to understand nomenclature, synthesis and mechanisms of chemical reactions of Alkenes, Cycloalkenes</p> <p>CO-2 Able to understand nomenclature, synthesis and mechanisms of chemical reactions of Dienes and Alkynes</p> <p>CO-3 Able to understand nomenclature, synthesis and mechanisms of chemical reactions of Benzene, Huckel’s rule etc.</p> <p>CO-4 Able to understand nomenclature, synthesis and mechanisms of chemical reactions of Alkyl and Aryl Halides and SN^1 & SN^2 mechanisms</p>
Paper C Physical Chemistry (30 Hrs)	<p>CO-1 Students understand the concept of system and surroundings, heat, work, path functions & enthalpy, Heat capacity & inversion temperature</p> <p>CO-2 Learned to determine the kirchoff’s equation, standard state, Hess’s law of constant heat summation & its application.</p> <p>CO-3 Understand the concept of sols, gels & emulsions</p> <p>CO-4 Learned to determine the colligative properties of ideal & non ideal solutions.</p>
Chemistry Lab	<p>CO-1. Learned the the Crystallization of different compounds</p> <p>CO2. Learned to determine the viscosity of different solutions</p> <p>CO3. Learned to determine the surface tension of different solutions</p> <p>CO4: Learned to determine of melting points of compounds.</p>
Paper I Theory of	<p>CO-1. learned how to use fundamental theorem of algebra in real life.</p> <p>CO-2. learned basic concept of descarte’s rule of sign.</p>

education	CO-3. Learned how to solve cubic and biquadratic equations using cardon's , descarte's and ferrari's method.
Paper II Calculus -II	CO-1. The student is expected to learn about the basic principles of multi-variable calculus with proofs. CO-2. To have full knowledge of calculus involving the fundamental tools such as continuity and differentiability.
Paper III Solid geometry	CO-1. understand geometrical terminology for angles, triangles, quadrilaterals and Sphere CO-2. measure angles using a protractor. CO-3. use geometrical results to determine unknown angles. CO-4. recognise line and rotational symmetries. CO-5. find the areas of triangles, quadrilaterals and sphere and cone.
PBC Gen Punjabi	CO1: The students know story as a form of literature CO2: The students get the basic knowledge of linguistics CO3: Understanding of the nature of subject in comparison to secondary level
English (Compulsory)	CO1: Understanding of poetry and essay type questions CO2: Understanding of Letter Writing CO3: Understanding of Grammar: Narration, Preposition, Conjunctions, Synonyms CO4: Students will be able to translate Hindi to English.
Semester-III	
Paper A Statistical Physics and Thermodynamics (30hrs)	CO-1 Understanding of fundamentals of Statistical Physics CO-2. To understand Maxwell Boltzmann statistics CO-3. Understand Bose Einstein Statistics and Fermi Dirac statistics CO-4. To explain statistical physics and thermodynamics as logical consequences of the postulates of statistical mechanics
Paper B Optics and Lasers (30hrs)	CO-1. To understand the concept of interference and its application CO-2. Understand the concept of fringes and constructive and destructive interference CO-3. Understand the concept of diffraction and its application CO-4. Understand the polarization of light and its applications
Paper C Quantum Physics- I (30hrs)	CO-1. To understand wave particle duality CO-2: To understand and apply Schrodinger wave equation CO-3: To understand quantum mechanical problems like particle in a box, potential well etc. CO-4: To understand quantum theory of hydrogen atom
Physics Lab	CO-1. Training on Statistical Mechanics experiments

	<p>CO-2: Training on Lee Disc appts., Newton's ring appts</p> <p>CO-3: Hands on experience on spectrometer</p> <p>CO-4: Training on Determination of Planck's constant and Ionisation potential of mercury</p>
<p>Paper A Inorganic Chemistry(30 Hrs)</p>	<p>CO-1 Learned the chemistry of elements of First Transition Series</p> <p>CO-2 Learned the chemistry of elements of Second and Third Transition Series</p> <p>CO-3 The students will be able to explain the fundamental concepts in coordination chemistry of transition metals, Werner's coordination theory, effective atomic number concept, chelates, nomenclature & isomerism in coordination compounds</p> <p>CO-4 Valence bond theory of transition metal complexes</p>
<p>Paper B Organic Chemistry (30 Hrs)</p>	<p>CO-1. Able to describe different classes of alcohols, their synthesis and chemical reactions.</p> <p>CO-2 Able to write down structure of phenol and phenoxide ion and their synthesis & chemical reactions.</p> <p>CO-3 Able to write down structure, synthesis and chemical reactions of aldehydes & ketones</p> <p>CO_4 Able to understand different reactivities of aldehydes & ketones</p>
<p>Paper C Physical Chemistry (30 Hrs)</p>	<p>CO-1 Students understand structure of liquids in qualitative description & differentiate between solid, liquid & gas & also understand thermography & seven segment cell of liquid crystals</p> <p>CO-2 Students will derive law of mass of action & reaction isotherm</p> <p>CO-3 Student will understand the Carnot cycle & their efficiency & thermodynamic scale of temperature, Gibbs function, Helmholtz function</p> <p>CO-4 Understand the Concept of Entropy</p>
<p>Chemistry Lab</p>	<p>CO-1. Volumetric Analysis</p> <p>CO-2: Gravimetric Analysis</p> <p>CO-3: To determine the solubility of benzoic acid at different temperatures and to determine ΔH of the dissolution process</p> <p>CO-4: To determine the enthalpy of neutralization, enthalpy of ionization and ionization constant of acid/base.</p>
<p>Paper I Advance calculus-</p>	<p>CO-1. The student is expected to learn about the basic principles of multi-</p>

I	<p>variable calculus with proofs.</p> <p>CO-2. To have full knowledge of calculus involving the fundamental tools such as continuity and differentiability.</p> <p>CO-3. Students are able to reason rigorously in mathematical arguments. They can follow abstract mathematical arguments and write their own proofs.</p> <p>CO-4. Students are able to effectively communicate mathematics: reading, writing, listening, and speaking. Students make effective use of the library, conduct research and make oral and written presentations of their findings.</p> <p>CO-5. To know Relationship between the increasing and decreasing behavior of f and the sign of functions.</p>
Paper II Differential Equations-II	<p>CO-1. Determine the solution of Orthogonal trajectories of differential equation.</p> <p>CO-2. Acquire the idea of Clairaut equation for solving differential equation.</p> <p>CO-3. Understand the order, degree and various standard forms of differential equations.</p>
Paper III Statics	<p>CO-1. An ability to construct free-body diagrams and to calculate the reactions necessary to ensure static equilibrium.</p> <p>CO-2. An understanding of the analysis of distributed loads.</p> <p>CO-3. A knowledge of internal forces and moments in members</p>
Semester IV	
Paper A Statistical Physics and Thermodynamics – II (30hrs)	<p>CO-1. To understand concepts of entropy</p> <p>CO-2: To be able to thoroughly understand Laws of Thermodynamics, Carnot's Cycle</p> <p>CO-3: Understand Maxwell thermodynamic relationships</p> <p>CO-4: To be able to do Thermodynamical treatment of Joule-Thomson effect</p>
Paper B Optics and Lasers –II (30hrs)	<p>CO-1. Understand the concepts of laser fundamentals and interaction of light with matter</p> <p>CO-2: Understand different types of broadening and lasing action</p> <p>CO-3: Understand different types of lasers Eg. Ruby, He Ne laser</p> <p>CO-4: Understand use of optical fibre and its use in communication</p>
Paper C	CO-1. To understand radiative transitions

Quantum Physics-II (30hrs)	CO-2: To understand anomalous Zeeman effect, Stark effect etc. CO-3: To differentiate LS coupling, JJ coupling etc. CO-4: To understand molecular bonding
Physics Practicals	CO-1. Hands on training on Sextant, diffraction grating etc. CO-2. Hands on training on gas discharge spectrum of hydrogen CO-3. Training on lens system CO-4. Hands on training on divergence and wave length of a given laser source.
Paper A Inorganic Chemistry(30 Hrs)	CO-1 Understand the Chemistry of Lanthanide Elements including electronic structure, oxidation state, ionic radii and lanthanide contraction, complex formation, occurrence and isolation of lanthanide compounds. CO-2: Understand the Chemistry of Actinides including general features, chemistry of separation of Np, Pu and Am from U, and similarities between the later actinides and the later lanthanides. CO-3: Arrhenius, Bronsted-Lowry, the Lux-Flood, solvent system and Lewis concepts of acids and bases CO-4: Use of redox potential data – analysis of redox cycle, redox stability in water – Frost, Latimer and Pourbaix diagrams and Principles involved in the extraction of the elements. CO-5 Physical properties of a solvent, types of solvents and their general characteristics, reactions in non-aqueous solvents
Paper B Organic Chemistry (30 Hrs)	CO-1. Able to recognize structures of acid halides, esters, amides, acid anhydrides and order of reactivity of different carboxylic acid derivatives. CO-2 Able to write the nomenclature, synthesis and chemical reactions of Ethers, Epoxides CO-3 Understand the concepts of Fats, Oils, Saponification value, iodine value, acid value and Soaps & synthetic detergents CO-4: Able to write the nomenclature, synthesis and chemical reactions of nitroalkanes, nitroarenes, aliphatic & aromatic amines CO-5 The students will be able to introduce about basic chemistry of the heterocyclic and particular properties and reactions for the most important heterocyclic
Paper C	CO-1 Students will derive the Gibbs phase rule, phase equilibria of one

Physical Chemistry (30 Hrs)	<p>component system & two component system, partially miscible liquids</p> <p>CO-2 Students understand electrical transport means conduction in metals & electrolytic solutions, migration of ions, Kohlrausch law, weak & strong electrolytes, Debye-Hückel-Onsager equation</p> <p>CO-3 Determine the electromotive force of cell, S.H.E, electrode potential</p> <p>CO-4 Understand about electrolytic cell & galvanic cell</p>
Chemistry Lab	<p>CO-1. Learned the Extraction of caffeine from tea leaves.</p> <p>CO-2. Learned the Detection of elements (N, S and halogens) and functional groups in simple organic compounds.</p> <p>CO-3. Learned the Determination of R_f values and identification of organic compounds.</p> <p>CO-4 Learned the Separation of isometric mixture of Ortho and para nitroaniline using hexane and ethyl acetate (8.5 : 1.5) by thin layer chromatography</p>
Paper I Advance calculus II	<p>CO-1. Determine if a geometric series is convergent or divergent.</p> <p>CO-2. Find the sum of a convergent geometric series.</p> <p>CO-3. Determine if an infinite series is convergent or divergent by selecting the appropriate test from the following: (a) test for divergence; (b) integral test; (c) p-series test; (d) the comparison tests; (e) alternating series test; (f) absolute convergence test; (g) ratio test; and (h) root test.</p> <p>CO-4. Determine if an infinite series converges absolutely or conditionally</p>
Paper II Differential Equation II	<p>CO-1. Determine the solution of power series of differential equation.</p> <p>CO-2. Acquire the idea of Lagrange's method for solving the first order linear partial differential equation.</p> <p>CO-3. Understand the order, degree and various standard forms of differential equations.</p> <p>CO-4. To know about the Laplace transform.</p>
Paper III Dynamics	<p>CO-1. Learned how to study simple harmonic motion.</p> <p>CO-2. Learned how to trace curvilinear motion of particles in a plane.</p> <p>CO-3. Learn concept of work, power and energy.</p>

Semester V	
Paper A Condensed Matter Physics – I (30hrs)	CO-1. To understand crystal structure CO-2. Understand crystal diffraction and concept of reciprocal lattice CO-3. To understand band theory of solids CO-4. Understand free electron theory of metals
Paper B Electronics and Solid State Devices - I (30hrs)	CO-1. Students will understand about semiconductor basics and operation of different semiconductor devices CO-2. Acquire knowledge about how a semiconductor diode rectifies an input ac signal CO-3. Students will come to know about transistor and how a transistor amplifies input signal CO-4. Learn about Hybrid parameters
Paper C Nuclear & Particle Physics – I (30hrs)	CO1. Constituents of nucleus and their intrinsic properties. CO2. radioactivity, Q value, modes of decay CO3. energy loss of electron, cyclotron, betatron CO4. Gm counter, conservation laws
Physics Practicals	CO-1. Hands on training on clipper circuits, Quincke's method, pn junction diode etc. CO-2. Rectifiers, filters, Zener diode training CO-3. Training of CRO, DSO etc CO-4. Training of Thermistor
Paper A Inorganic Chemistry(30 Hrs)	CO-1. Learned the crystal – field theory, crystal field splitting in octahedral, tetrahedral and square planar complexes, factors affecting the crystal – field parameters, Spectro chemical Series CO-2. Learned the thermodynamic and Kinetic stability of metal complexes and factors affecting the stability, substitution reactions of square planar complexes CO-3. Understand the nomenclature, classification, preparation, properties, bonding of different organometallic compounds CO-4. Understand the metalloporphyrins of haemoglobin and myoglobin, biological role of alkali and alkaline earth metal ions. Nitrogen fixation.
Paper B Organic Chemistry (30 Hrs)	CO-1. Learned the Ultraviolet (UV) absorption spectroscopy CO-2 Learned the Infrared (IR) absorption spectroscopy

	<p>CO-3. Learned the Proton Nuclear magnetic resonance (NMR) spectroscopy.</p> <p>CO-4. Learned the synthesis and chemical reactions of Carbohydrates such as Glucose, Fructose. Structures of some disaccharides, polysaccharides, concept of mutarotation, ring structure of monosaccharides, Haworth projection formulae etc.</p>
Paper C Physical Chemistry (30 Hrs)	<p>CO-1 Learned to derive Planck's radiation law, Compton effect, photoelectric effect, uncertainty principle, Schrödinger wave equation for H atom, physical interpretation of wave function, particle in one dimensional box, quantum number, radial & angular wave function</p> <p>CO-2 Learned the MOT, criteria for forming MO from AO, valence bond model</p> <p>CO-3 Learned the laws of photochemistry, Jablonski diagram for various processes</p> <p>CO-4 Learned the qualitative description of fluorescence, phosphorescence, non radiative processes, quantum yield, energy transfer processes</p>
Chemistry Lab	<p>CO-1. Learned the Preparation of sodium trioxalatoferrate (III), $\text{Na}_3[\text{Fe}(\text{C}_2\text{O}_4)_3]$ and determination of its composition by permanganometry.</p> <p>CO-2 Learned the Preparation of copper tetraammine complex $[\text{Cu}(\text{NH}_3)_4]\text{SO}_4$.</p> <p>CO-3 Learned the Preparation of cis- and trans-bisoxalato diaqua chromate (III) ion.</p> <p>CO-4 Learned the Separation and estimation of Mg(II) and Fe(II)</p> <p>CO-5 Learned to determine the strength of the given acid, solubility and solubility product of a sparingly soluble electrolyte, ionization constant etc. Conductometrically</p> <p>CO-6 Learned to find out distribution constant of iodine and benzoic acid.</p>
(Paper Code+ Paper Name) Paper-A Analysis-I	<p>CO-1. Knowledge of continuity and uniform continuity.</p> <p>CO-2. Concept, application and calculation of Riemann Integrals</p> <p>CO-3. Understanding of Beta and Gamma functions</p> <p>CO-4. Determination of Improper integrals and its applications</p>
Paper-II	<p>CO-1. Recognise technical terms and appreciate some of the uses</p>

(Algebra)	<p>of algebra</p> <p>CO-2. To classify numbers into number sets</p> <p>CO-3. To combine polynomial by addition and subtraction</p> <p>CO-4. To solve problems of simple Inequalities</p> <p>CO-5. Interpret basic absolute value expression</p>
Paper-III Probability Theory	<p>CO-1. A good understanding of elementary probability theory and its real life applications.</p> <p>CO-2. Concept of random events, their expected values and its application in lottery market.</p> <p>CO-3. Introduction of fundamental discrete distribution, their pmf, cmf, moments, etc.</p> <p>CO-4. Introduction of fundamental continuous distribution, pdf, cdf, moments, probability curve, area under probability curves etc.</p> <p>CO-5. Identify the application of selected probability distribution to different real life situations.</p>
Semester VI	
Paper A Condensed Matter Physics – II (30hrs)	<p>CO-1. To understand lattice dynamics</p> <p>CO-2. To differentiate between different magnetic materials</p> <p>CO-3. To understand different dielectrics and Liquid crystals</p> <p>CO-4. To have an understanding of materials at nanoscale and superconductivity</p>
Paper B Electronics and Solid State Devices - II (30hrs)	<p>CO-1. Students will understand about FET ,amplifiers feedback and sinusoidal oscillations</p> <p>CO-2. It will enable students to understand operational amplifiers, its applications and timer IC555</p> <p>CO-3. It provides background for applications of electronics in mathematical operations</p> <p>CO-4. They will acquire knowledge in communication system</p>
Paper C Nuclear & Particle Physics – II (30hrs)	<p>CO-1. Understand Interaction of nuclear radiation with matter</p> <p>CO-2. Able to analyze Gamma-ray interaction with matter</p> <p>CO-3. Able to understand fundamentals of Particle Physics</p> <p>CO-4. Able to understand quark model and Particle accelerators</p>
Physics Practicals	<p>CO-1. Hands on training on BH curves, four probe, Hall coefficient setup</p> <p>CO-2. Hands on training on transistor characteristics</p> <p>CO-3. Training on FET and amplifier</p> <p>CO-4 Training of GM counter</p>
Paper A Inorganic	<p>CO-1. Learned the Silicones and phosphazenes as examples of inorganic polymers, nature of bonding in triphosphazenes</p>

Chemistry(30 Hrs)	<p>CO-2.Learned the hard and soft Pearson's HSAB concept, acid-base strength and hardness and softness. Symbiosis, theoretical basis of hardness and softness, electronegativity and hardness and softness</p> <p>CO-3.Learned the Electronic Spectra of Transition Metal Complexes, types of electronic transitions, L – S coupling, selection rules for d-d transitions, spectroscopic ground states, Orgel – energy level diagram</p> <p>CO-4. Learned the types of magnetic behaviour, methods of determining magnetic susceptibility, spin-only formula. Correlation of μ_s and μ_{eff} values, orbital contribution to magnetic moments, application of magnetic moment data for 3d-metal complexes.</p>
Paper B Organic Chemistry (30 Hrs)	<p>CO-1. Learned the Amino Acids, Peptides, Proteins and Nucleic Acids</p> <p>CO-2. Learned the Addition or chain-growth polymerization, Ziegler – Natta polymerization, Condensation or step growth polymerization, Natural and synthetic rubbers.</p> <p>CO-3. Learned the acidity of α-hydrogens, alkylation of diethyl malonate and ethyl acetoacetate, Claisen condensation, keto-enol tautomerism of ethyl acetoacetate. Alkylation and acylation of enamines.</p> <p>CO-4. Learned the formation, structure and chemical reactions of The Grignard reagents, Organozinc & Organolithium Compounds</p>
Paper C Physical Chemistry (30 Hrs)	<p>CO-1 Learned the space lattice, unit cell, Miller indices, laws of crystallography & symmetry elements</p> <p>CO-2 Learned to determination of crystal structure, derive Bragg equation, thermal & photochemical reactions in solid state</p> <p>CO-3 Learned the electromagnetic radiation, degrees of freedom, energy levels of a rigid rotor, apply selection rules to predict observed spectroscopic transitions</p> <p>CO-4 Learned the harmonic & anharmonic oscillator, Raman spectrum, IR spectrum, concept of polarizability & selection rules</p>
Chemistry Lab	<p>CO-1. Hands on training Column Chromatography and Separation of fluorescein and methylene blue & Separation of leaf pigments from spinach leaves</p>

	<p>CO-2. Hands on experience of Aliphatic & Aromatic electrophilic substitution, oxidation, reduction etc.</p> <p>CO-3 Learned the Stereochemical study of Organic Compounds via Models: R and S configuration of optical isomers & E, Z configuration of geometrical isomers</p> <p>CO-4 Learned the Conformational analysis of cyclohexanes and substituted cyclohexanes via ball and stick models.</p>
Paper-A Analysis-II	<p>CO-1. Students will have the knowledge of convergence of sequence and series of functions.</p> <p>CO-2. Solve the problems related to Double and Triple Integrals and its application.</p> <p>CO-3. Solve various problems related to Area and Volume</p> <p>CO-4. Understanding of basic notions vector analysis, gradient of scalar field, paths and line integrals.</p> <p>CO-5. Concept of convergence of power series</p>
Paper-II	<p>CO-1. Recognise technical terms and appreciate some of the uses of algebra</p> <p>CO-2. To classify numbers into number sets</p> <p>CO-3. To combine polynomial by addition and subtraction</p> <p>CO-4. To solve problems of simple Inequalities</p> <p>CO-5. Interpret basic absolute value expression</p>
Paper-III	<p>CO-1. A good understanding of elementary probability theory and its real life applications.</p> <p>CO-2. Concept of random events, their expected values and its application in lottery market.</p> <p>CO-3. Introduction of fundamental discrete distribution, their pmf, cmf, moments, etc.</p> <p>CO-4. Introduction of fundamental continuous distribution, pdf, cdf, moments, probability curve, area under probability curves etc.</p> <p>CO-5. Identify the application of selected probability distribution to different real life situations.</p>

Programme Outcomes: M.Sc. (Physics)

Department of Basic Sciences	After successful completion of two year degree program in Physics a student should be able to;
Programme Outcomes	<p>PO-1. Apply theoretical knowledge on practical problems</p> <p>PO-2. Develop research oriented skills</p> <p>PO-3. Solve complex problems</p> <p>PO-4.: Relate microscopic level problem with macroscopic level</p> <p>PO-5. Demonstrate an understanding in different disciplines of Physics</p>

Programme Specific Outcomes

Programme Specific Outcomes	<p>PSO-1 Have proficiency in mathematics that is needed for better understanding of physics concepts.</p> <p>PSO-2. Analyze different Physical phenomena with knowledge in different disciplines</p> <p>PSO-3. Use basic computational techniques for physical systems</p> <p>PSO-4. co-relate the theoretical concepts with the experimental ones</p>
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Course Outcomes M. Sc (Physics)

Semester-I

Course	Outcomes After completion of these courses students should be able to;
PHY6001 Mathematical Physics (3 Credits)	<p>CO-1. equip the mathematical technique for understanding theoretical treatment i.e. to solve various definite integrals</p> <p>CO-2. understand concept of delta and gamma Functions</p> <p>CO-3. solve equations used in electronic circuits</p> <p>CO-4. learn about special functions</p>
PHY6002 Classical Mechanics	<p>CO-1. have knowledge of Lagrangian and Hamiltonian formalism</p> <p>CO-2. conservation theorems, rigid body motion</p> <p>CO-3. Hamilton's equations</p>

(3 credits)	CO-4. Use canonical Transformations in the modern branches like Quantum Mechanics, Quantum field theory, Condensed Matter Physics, Astrophysics etc.
PHY6003 Quantum Mechanics-I (3 credits)	CO-1. To Introduce the students of M.Sc to the formal structure of the subject and to equip them with techniques of linear vector space and matrix mechanics, hydrogen atom etc. CO-2. Stationary state approximate methods, angular momentum , perturbation theory, Variational method with the application to ground states of harmonic oscillator. CO-3. Fermi's Golden rule so that they can use these in various branches of Physics as per requirement.
PHY6004 Classical Electrodynamics-I (3 credits)	CO-1. To Know about properties of charges at rest CO-2. To understand the concept about electrostatics of dielectrics and boundary value problems like uniqueness theorem and green function CO-3. Students come to know about nature of electromagnetic wave and its behaviour in unbounded media CO-4. to study the behavior of electromagnetic wave in bounded media and its applications like waveguide
PHY6005 Electronics-I (3 Credits)	CO-1. learn physics of various semiconductor devices CO-2. know basic circuit analysis and various passive Filters CO-3. understand about operational amplifiers and its basics in analogue computation,comparartor circuits and IC555 CO-4. learn basics of communication,active filters and power devices
PHY6051 Physics Lab-I (5 Credits)	CO-1. have understanding of experimental techniques in general Physics, electronics, nuclear Physics and condensed matter Physics so that they can co-relate the theoretical concepts with the experimental ones and develop confidence to handle sophisticated equipments wherever necessary.
Semester-II	
PHY6011 Mathematical Physics II (3 Credits)	CO-1. learn about group theory used in particle physics Course CO-2. have knowledge of fourier series and integral transforms that helps them to solve problems in higher Physics CO-3. have knowledge of integral equations and tensors that helps them to solve problems in higher physics CO-4. have knowledge of numerical analysis that helps

	to solve problems of computational physics
PHY6012 Quantum Mechanics II (3 Credits)	CO-1. To introduce the students of M.Sc to the formal structure of the subject and to equip them with scattering theory, Born approximation CO-2. Relativistic quantum mechanics: Klein Gordan equation, Dirac equation, fine structure of hydrogen atom, Lamb shift, Field Quantization, Relativistic Quantum Field Theory CO-3. The concept of Feynman diagrams helps to study various phenomena like Compton scattering etc.
PHY6013 Particle Physics I (3 Credits)	CO-1. to familiarize with the concepts of Fermions, bosons and other particles their interactions with fields in particle physics, Yukawa picture, Invariance principles CO-2. conservation laws: parity, Charge conjugation, CPT theorem, Hadron- Hadron Interactions: Strangeness, G-Parity, Relativistic Kinematics and Phase Space: Dalitz plots CO-3. Static Quark Model of Hadrons : Baryon decuplet, Baryon octet, spin, colour, quark- anti quark combination CO-4. Weak Interaction: Classification, Fermi theory, Cabotbo theory, CP violation In K-decay and its experimental determinations and develop a strong background if the student pursue research in particle physics.
PHY6014 Nuclear Physics I (3 Credits)	CO-1. learn about basic aspects of Nuclear Physics like wave mechanical properties of nuclei CO-2. familiarize about nuclear reactions of radioactive Decays CO-3. familiarize about nuclear shapes CO-4. learn about basic properties of neutrons so that they can understand the techniques used in studying them.
PHY6015 Electronics-II (3 Credits)	CO-1. deal with digital circuitss and digital logic Families CO-2. learn about sequential circuits i.e. registers, Counters CO-3. Deal with A/D and D/A converters and semiconductor devices CO-4. learn about fundamental and concepts of microprocessor and IC fabrication
PHY 6052 Physics Lab II	CO-1 have understanding of experimental techniques in general Physics, electronics, nuclear Physics and condensed matter Physics so that they can co-relate the

(5 Credits)	theoretical concepts with the experimental ones and develop confidence to handle sophisticated equipments wherever necessary.
Semester-III	
PHYS7001 Classical Electrodynamics II (3 Credits)	<p>CO-1. includes the postulates of special theory of relativity, Lorentz transformations, motion of particle in various aspects of electric and magnetic fields like constant and varying fields including non-relativistic and relativistic motions of charge particle and magnetic mirroring.</p> <p>CO-2. The Covariant Formulation of Electrodynamics in Vacuum gives information of Four vectors in Electrodynamics, covariant continuity equation, wave equation, covariance of Maxwell equations.</p> <p>CO-3. Electromagnetic field tensor, Energy momentum tensor of the EM fields and the conservation laws. Lagrangian and Hamiltonian of a charged particle in an EM field.</p> <p>CO-4. take a glimpse of radiation from accelerated charges, Thomsons scattering, Rayleigh scattering, absorption of radiation by bound electron.</p>
PHYS7002 Statistical Mechanics (3 Credits)	<p>CO-1. Develop techniques of ensemble theory and to relate statistics and thermodynamics</p> <p>CO-2. Develop statistics of Grand canonical ensemble and elements of quantum statistics</p> <p>CO-3. Study thermodynamic behaviour of ideal bose and fermi systems</p> <p>CO-4. learn about phase transistions and fluctuations</p>
PHYS7003 Nuclear Physics (3 Credits)	<p>CO-1. explore shell model in detail, understanding the magic numbers and various nuclear properties based on it and limitations.</p> <p>CO-2: understand the collective modes of motion and their contribution in exploring nuclear structure, to develop nuclear collective model.</p> <p>CO-3: Understand Nuclear reactions through various approaches particularly Compound Nucleus formation, Optical model, and Striping and pick up reactions</p> <p>CO-4: develop nuclear structure using unified Nilsson model and cranking shell model. Also to get some flavour of nuclear physics at extremes of stability, halos, radioactive ion beams.</p>
PHYS7004 Condensed Matter Physics I (3 Credits)	<p>CO-1. Understand structure of solids and dynamics of a chain of atoms</p> <p>CO-2. Students will be able to understand different theories of band formation in solids</p>

	CO-3. Understand theory of transport in solids CO-4. Students will be able to understand different properties of dielectrics
PHYS7021 Physics lab III (6 Credits)	CO-1. familiarize about advanced experimental techniques in general physics,electronics,nuclear physics,particle physics and condensed matter physics so that they can investigate various relevant aspects and can confidently handle various equipments and can easily handle different data.
PHYS7022 Computational Physics-I (2 Credits)	CO-1.learn about different numerical methods CO-2. Basics of C++ Programming language CO-3.Solve different mathematical problems.
Semester IV	
PHYS 7051 Particle Physics-II (3 Credits)	CO-1. expose the students of M.Sc. class to the relatively advanced topics like internal symmetries CO-2. learn about details of different types of fundamental interactions CO-3. quark model. CO-4. unification schemes so that they understand these aspects properly and are well equipped to pursue a career in high energy physics.
PHYS 7052 Condensed Matter Physics-II (3 credits)	CO-1. Students will be able to understand optical properties of solids CO-2. Understand magnetic properties of solids. CO-3. Understand phenomenon of superconductivity CO-4.Students will be able to distinguish defects and disorders
PHYS 7053 Experimental Techniques in Nuclear and Particle Physics (3 Credits)	CO-1. Learn about data interpretation and how different radiations interact with matter CO-2. Know theory behind working of different detectors and spectroscopy of particles CO-3. Know about electronics associated with different kind of detectors CO-4. Familiarize current high energy experiments and heavy-ion reactions
PHYS 7054 Fibre Optics and Non- Linear Optics (3 credits)	CO-1. Students understand about the fibre structure and modes of propagation of wave in optical fibre CO-2. To understand the isotropic media and wave propagation inside it and uniaxial and biaxial crystals CO-3. Student come to know about electro-optic effect and different types od modulations

	CO-4. To understand the concepts about nonlinear optics
PHYS 7071 Physics lab IV (6 Credits)	CO-1. familiarize advanced experimental techniques in general physics,electronics,nuclear physics,particle physics and condensed matter physics so that they can investigate various relevant aspects and can confidently handle various equipments and can easily handle different data.
PHYS7073 Computational Physics-II (2 Credits)	CO-1. learn about advanced C++ Programming language CO-2.Solve Physics problems using C++

Department of Mathematics

Programme Outcomes: B.A. (Mathematics)

Department of Mathematics	After successful completion of three year degree program in Bachelor of Arts a student should be able to;
Programme Outcomes	PO-1. Students gain knowledge in foundational areas of mathematics. It develop mathematical thinking. Students will be able to apply mathematical knowledge and be able to solve mathematical problems using technology.
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1. Aware the student about basic facts about mathematics.</p> <p>PSO-2. Provide knowledge of conventions such as notations, terminology and recognize basic, geometrical figures and graphical displays.</p> <p>PSO-3. Aware the student of history of mathematics and hence of its past, present and future role as part of our culture.</p> <p>PSO-4. A student should get a relational understanding of mathematical concepts and should be able to follow the concepts of mathematical reasoning.</p> <p>PSO-5. Enable the student to select and use appropriate mathematical formulae or techniques for application area of mathematics</p>
Course Outcomes- B.A. (Mathematics)	
Semester-I	
Course	Outcomes After completion of these courses students should be able to;
Paper- Calculus I	<p>CO-1. Students will be able to interpret a function from an algebraic , numerical , graphical perspective and extract information relevant to the phenomenon modeled by the function .</p> <p>CO-2. Students will be able to verify the value of the limit of a function at a point using the definition of the limit.</p> <p>CO-3. Students will be able to understand the consequences of intermediate value theorem for continuous function.</p> <p>CO-4. Students will be able to show whether function is differentiable at a point.</p>

	CO-5. Students will differentiate exponential , logarithmic ,trigonometric and inverse trigonometric functions.
Paper-II Trigonometry and matrices	CO-1. Determine if a given matrix is diagonalizable. CO-2. Solve the matrix equation $Ax = b$ using row operations and matrix Operations CO-3. Find the determinant of a product of square matrices, of the transpose of a square matrix, and of the inverse of an invertible matrix CO-4. Find the characteristic equation, eigenvalues and corresponding eigenvectors of a given matrix.
Paper III Plane geometry	CO-1. understand geometrical terminology for angles, triangles, quadrilaterals and circles. CO-2. measure angles using a protractor. CO-3. use geometrical results to determine unknown angles. CO-4. recognise line and rotational symmetries. CO-5. find the areas of triangles, quadrilaterals and circles and shapes based on these

Semester-II

Paper-I Theorey of euation	CO-1.learned how to use fundamental theorem of algebra in real life. CO-2.learned basic concept of descarte's rule of sign. CO-3. Learned how to solve cubic and biquadratic equations using cardon's , descarte's and ferrari's method
paper II CALCULUS II	CO-1Evaluate an indefinite integral using integration by parts . CO-2Calculate an improper integral where atleast one of the bounds is not a real Number CO-3Student learn how to set up definite integral to calculate the length of curve..
Paper III Solid geometry	CO-1.understand geometrical terminology for angles, triangles, quadrilaterals and Sphere CO-2. measure angles using a protractor. CO-3. use geometrical results to determine unknown angles. CO-4. recognise line and rotational symmetries. CO-5. find the areas of triangles, quadrilaterals and sphere and cone.

Semester-III

Course	Outcomes
Paper-I Advance calculus I	After completion of these courses students should be able to; CO-1. The student is expected to learn about the basic principles of multi-variable calculus with proofs. CO-2. To have full knowledge of calculus involving the fundamental tools such as continuity and differentiability. CO-3. Students are able to reason rigorously in mathematical arguments. They can follow abstract mathematical arguments and write their own proofs. CO-4. Students are able to effectively communicate mathematics: reading, writing, listening, and speaking. Students make effective use of the library, conduct research and make oral and written presentations of their findings. CO-5. To know Relationship between the increasing and decreasing behavior of f and the sign of functions
DIFFERENTIAL EQUATION I	CO-1. Determine the solution of Orthogonal trajectories of differential equation. CO-2. Acquire the idea of Clairaut equation for solving differential equation. CO-3. Understand the order, degree and various standard forms of differential equations.
STATISTICS	CO-1. An ability to construct free-body diagrams and to calculate the reactions necessary to ensure static equilibrium. CO-2. An understanding of the analysis of distributed loads. CO-3. A knowledge of internal forces and moments in members

Course Outcomes B.A. Semester IV

Paper-A Advance calculus II	CO-1. Determine if a geometric series is convergent or divergent. CO-2. Find the sum of a convergent geometric series. CO-3. Determine if an infinite series is convergent or divergent by selecting the appropriate test from the following: (a) test for divergence; (b) integral test; (c) p-series test; (d) the comparison tests; (e) alternating series test; (f) absolute convergence test; (g) ratio test; and (h) root test. CO-4. Determine if an infinite series converges absolutely or conditionally
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Differential equation	CO-1.Determine the solution of power series of differential equation. CO-2.Acquire the idea of lagrange’s method for solving the first order linear partial differential equation. CO-3.Understand the order ,degree and various standard forms of differential equations. CO-4.To know about the laplace transform.
Dynamics	CO-1. Learned how to study simple harmonic motion. CO-2. Learned how to trace curvilinear motion of particles in a plane. CO-3. Learn concept of work,power and energy.

Semester-V	
Course	Outcomes After completion of these courses students should be able to;
Paper-A Analysis-I	CO-1. Knowledge of continuity and uniform continuity. CO-2. Concept ,application and calculation of Riemann Integrals CO-3.Understanding of Beta and Gamma functions CO-4. Determination of Improper integrals and its applications
Paper- II(Algebra)	CO-1.Recognise technical terms and appreciate some of the uses of algebra CO-2. To classify numbers into number sets CO-3.To combine polynomial by addition and subtraction CO-4. To solve problems of simple Inequalities CO-5. Interpret basic absolute value expression
Paper III Probability	CO-1.A good understanding of elementary probability theory and its real life applications. CO-2. Concept of random events, their expected values and its application in lottery market. CO-3. Introduction of fundamental discrete distribution, their pmf, cmf, moments, etc. CO-4. Introduction of fundamental continuous distribution, pdf, cdf, moments, probability curve, area under probability curves etc. CO-5.Identify the application of selected probability distribution to different real life situations.

Semester-VI

Paper-A Analysis-II	CO-1. Students will have the knowledge of convergence of sequence and series of functions. CO-2. Solve the problems related to Double and Triple Integrals and its application. CO-3. Solve various problems related to Area and Volume CO-4. Understanding of basic notions vector analysis, gradient of scalar field, paths and line integrals. CO-5. Concept of convergence of power series
Numerical Analysis	CO-1 Apply numerical methods to find out solution of algebraic equations using different methods under various condition and solutions of system of algebraic equations. CO-2. Apply various interpolation methods and finite difference methods. CO-3. Work out numerical differentiation and integration when routine methods are not applicable. CO-4. Work numerically on ordinary differential equations using different methods through theory of finite differences CO-5. Work numerically on partial differential equations using different methods through theory of finite differences. CO-6. Analyse and evaluate the accuracy of common numerical methods.

Programme Outcomes: M.Sc. (Mathematics)

Department of Mathematics	After successful completion of two year degree program in chemistry a student should be able to;
Programme Outcomes	<p>PO-1 Inculcate critical thinking to carry out scientific investigation objectively without being biased with preconceived notions.</p> <p>PO-2. Equip the student with skills to analyze problems, formulate an hypothesis, evaluate and validate results, and draw reasonable conclusions thereof.</p> <p>PO-3. •Prepare students for pursuing research or careers in industry in mathematical sciences and allied fields</p> <p>PO-4. Imbibe effective scientific and/or technical communication in both oral and writing.</p> <p>PO-5. Continue to acquire relevant knowledge and skills appropriate to professional activities and demonstrate highest standards of ethical issues in mathematical sciences.</p> <p>PO-6. Create awareness to become an enlightened citizen with commitment to deliver one's responsibilities within the scope of bestowed rights and privileges</p>

Programme Specific Outcomes

Programme Specific Outcomes	<p>PSO-1 • Understanding of the fundamental axioms in mathematics and capability of developing ideas based on them.</p> <p>PSO-2• Inculcate mathematical reasoning.</p> <p>PSO-3• Prepare and motivate students for research studies in mathematics and related fields.</p> <p>PSO-4 • Provide knowledge of a wide range of mathematical techniques and application of mathematical methods/tools in other scientific and engineering domains.</p> <p>PSO-5• Provide advanced knowledge on topics in pure mathematics, empowering the students to pursue higher degrees at reputed academic institutions.</p> <p>PSO-6• Strong foundation on algebraic topology and representation theory which have strong links and application in theoretical physics, in particular string theory.</p> <p>PSO-7 • Good understanding of number theory which can be used in modern online cryptographic technologies.</p> <p>PSO-8• Nurture problem solving skills, thinking, creativity through assignments, project work.</p> <p>PSO-9• Assist students in preparing (personal guidance, books) for competitive</p>
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	exams e.g. NET, GATE, etc.
Course Outcomes M. Sc (Mathematics)	
Semester-I	
Course	Outcomes After completion of these courses students should be able to;
Paper-Real analysis	CO-1. Students will be able to describe fundamental properties of the real numbers that lead to the formal development of real analysis. CO-2. Effectively write mathematical solutions in a clear and concise manner. CO-3. Effectively locate and use the information needed to prove theorems and establish mathematical result. CO-4. Demonstrate the ability to manipulate and use power series. CO-5. Demonstrate the ability to use and operate series of numbers and series of functions.
Paper-II(602) Paper-Algebra-I	CO-1. Solving problems using the powerful concept of group action. CO-2. Facility in understanding the structure of a problem where the problem involves a permutation group - e.g. nature of the roots of a polynomial equation. CO-3. Ability to understand a large class of commutative rings by regarding them as quotients of polynomial rings by suitable ideals. CO-4. Facility in solving real life problems by thinking logically and outside of box. CO-5. Facility in working with situations involving commutative rings, in particular monogenic algebras of matrices. Implies facility in working with matrices, a concept that finds a large number of applications in real life including the graphs and networks
Paper-III(603) Differential Equations	CO-1. Classify partial differential equation and transform into canonical form CO-2. Recognize and solve a homogeneous differential equations. CO-3. Obtain an approximate solution function value to initial value problem . CO-4. Obtain an approximate set of solution function values to second order boundary value problem using a finite difference equation. CO-5. Solve the problem choosing the most suitable method.
Paper-IV Complex Analysis-I	CO-1. Solve problems on basic concepts of modulus, argument of a complex number, de Moivre's theorem and use them to find roots of an algebraic equation. CO-2. Check continuity and differentiability for complex functions CO-3. Prove the Cauchy-Riemann equations and apply them to complex functions in order to determine whether a given continuous function is complex differentiable, CO-4. Evaluate integrals along a path - directly from the definition and also via the Fundamental Theorem of Contour Integration and Cauchy's Theorem. CO-5. Analyze sequence and series of analytic functions and types of convergence CO-6. Represent complex numbers pictorially and geometrically CO-7. Apply concept and consequences of analyticity and C-R- equations CO-8. Compute complex contour integrals and applying the Cauchy's integral in

	<p>various versions.</p> <p>CO-9. Understand geometric interpretations of complex numbers.</p>
<p>Paper-V(605) Number Theory I</p>	<p>CO-1. Find remainders using Division Algorithm and existence of integral quotient and remainders in any interval.</p> <p>CO-2. Introduction to congruence classes and relationship with remainder classes, to identify last digits in difficult calculations which has direct implications in competitive exams.</p> <p>CO-3. Checking solvability of various forms of diophantine equation and finding their solutions.</p> <p>CO-4. Fermat little theorem and its generalizations to understand basic of cryptography.</p> <p>CO-5. Understanding and finding solution of linear, quadratic and polynomial congruences.</p> <p>CO-6. Role of primitive roots in algebra</p>

Semester-II	
Course	Outcomes After completion of these courses students should be able to;
<p>Paper-Real analysis II</p>	<p>CO-1. Knowledge and understanding :Learn the theory of Riemann – stieltjes integral to be acquainted with the ideas of the total variation and to be able to deal with functions of bounded variation.</p> <p>CO-2. Intellectual skills: Develop a reasoned argument in handling problems about functions .</p> <p>CO-3. General and transferable skills: Develop the ability to reflect on problems that are quite significant in the field of real analysis.</p> <p>CO-4. student will write clear and precise proofs.</p> <p>CO-5. Students will communicate effectively in both written and oral form.</p>
<p>Algebra-II</p>	<p>CO-1. Demonstrate insight into abstract algebra with focus on axiomatic theories.</p> <p>CO-2. Apply algebraic way of thinking.</p> <p>CO-3. Demonstrate knowledge and understanding of fundamental concept including group, Subgroup, normal subgroup, homomorphism and isomorphism.</p> <p>CO-4. Demonstrate knowledge and understanding of rings, fields and their properties.</p> <p>CO-5. Understand and prove fundamental results and solve algebraic problems using appropriate techniques.</p>
<p>Paper –III Vector analysis and mechanics</p>	<p>CO-1. Integrate functions of several variable over curves and surfaces.</p> <p>CO-2. Use green, gauss and divergence theorem to compute integrals.</p>

	CO-3. Recognise differential equation of the orbit under central force.
Paper-IV Complex Analysis-II	CO-1 Compute the Taylor and Laurent expansions of simple functions, determining the nature of the singularities and calculating residues. CO-2. Prove the Cauchy Residue Theorem and use it to evaluate integrals. CO-3. Learn the methods to calculate zeros, poles and residues at a pole. CO-4. Evaluation of integration round unit circle. CO-5. Knowledge of bilinear transformation. CO-6 Solution of problems related to analytic continuation
Paper -V Number Theory-II	CO-1 Learning outcomes of analytic number theory 1 to understand better the distribution of primes on real number line. CO-2. Arithmetic function and their utility in analytic theory of numbers. CO-3. prove elementary results on sums over primes and use these to calculate averages of additive arithmetic functions CO-4. utilise the correspondence between the product of Dirichlet series and convolution of arithmetic functions to factor multiplicative functions and then calculate their averages. CO-5. Understand some analytic properties of the Riemann zeta function, including an analytic continuation, a zero-free region, and estimates on the growth of the zeta function, CO-6 Concept of Prime Number Theorem with an error term.

Semester-III	
Course Outcomes	After completion of these courses students should be able to;
Paper- Field Theory	CO-1. Explain fundamental concept of field extension and galois theory and their role in modern mathematics and applied contexts. CO-2. Demonstrate accurate and efficient use of field extension and galois theory. CO-3. Demonstrate capacity for mathematical reasoning through analyzing, proving and explaining concept of field extension and galois theory. CO-4. Apply problem solving using field extension and galois theory applied to diverse situations in physics, engineering and other mathematical contexts.
Paper- Topology	CO-1. Students will know the definition of standard terms in topology. CO-2. Students will know how to read and write proofs in topology. CO-3. Students will know a variety of examples and counterexamples in topology. CO-4. Students will know about the fundamental group and covering spaces. CO-5. Students will understand the machinery needed to define homology

<p>Paper-IV (661) Probability and Statistics I</p>	<p>CO-1. Students will learn how to calculate and apply measure of location and measure of dispersion-grouped and ungrouped data cases. CO-2. Compute and interpret the results of multivariate regression and correlation analysis. CO-3. Introduction of fundamental continuous distribution, pdf, cdf, moments, probability curve, area Under probability curves etc. CO-4. Concept of random events, their expected values and its application in lottery market. CO-5. Students will be able to deal with real life situations with the help of probability.</p>
<p>Paper-IV Differential Geometry -I</p>	<p>CO-1. Application of Christoffel Symbols. CO-2 . Solve examples on curvatures, arc lengths and line integrals, curvature of surfaces. CO-3. Learn the methods and properties related to curvilinear co-ordinates CO-4. Knowledge of Tensor Algebra, Riemannian Metric. CO-5. Understand basic notions related to n-dimentional spaces.</p>
<p>Paper-Special Function</p>	<p>CO-1. understand integral calculus and special functions of various problem and to known the application of some basic mathematical methods via all these special functions. CO-2. explain the applications and the usefulness of these special functions. CO-3. classify and explain the functions of different types of differential equations</p>

Semester-IV	
Course	Outcomes After completion of these courses students should be able to;
<p>Paper-Liner Algebra</p>	<p>CO-1 use computational and algebraic skills essential for the study of system of linear equation, matrix algebra, vector spaces, eigen values and eigen vectors. CO-2. Use visualization, spatial reasoning as well as geometric properties and strategies to model, solve problems and view solutions in multi dimensional spaces. CO-3. Critically analyze and construct mathematical argument that relate to study of Introductory linear algebra.</p>

Fuctional Analysis	<p>CO-1 Student will be able to apply fundamental properties of bounded operator.</p> <p>CO-2 Student will learn the condition for existence of extention of function and their nature in banach spaces and Hilbert spaces.</p> <p>CO-3 Define a compact operator and report on fundamental property of the latter.</p> <p>CO-4 Report on fundamental properties of banach space.</p> <p>CO-5 Apply Hahn banach theorem ,open mapping theorem ,closed graph thorem and uniform boundedness principle.</p>
Paper-IV (681) Probability and Statistics II	<p>CO-1. Students will be able to understand the techniques used for data collection.</p> <p>CO-2Students will be able to understand the sampling distributions of a sample's mean and proportions.</p> <p>CO-3. Student will be able to apply knowledge of mathematics to solve engineering problems.</p> <p>CO-4. By using hypothesis testing student will be able to check whether the given statement is significant or not.</p>
Paper-IV Differential Geometry -II	<p>CO-1. Application of DifferentialGeometry</p> <p>CO-2 . Understand core ideas of orientation and application of Geodesics</p> <p>CO-3. Learn the methods and properties related to curvilinear co-ordinates</p> <p>CO-4. Knowledge of parallel transport, Weingarten map and Curvatures.</p>
Paper Integral Transforms	<p>CO-1. understand purpose and functions of the gamma and beta functions, Fourier series and Transformation.</p> <p>CO-2. use the gamma function, beta function and special functions to: evaluate different types of integral calculus problems and Fourier series to solve differential equations.</p> <p>CO-3. Understand purpose and functions of laplace transform.</p>

Department of Computer Sciences

Programme Outcomes: BCA

Department of Computer Sciences	After successful completion of three year degree program in BCA a student should be able to;
Program me Outcomes	PO-1. Engineering Knowledge: PO-2. Apply the knowledge of mathematics, science, engineering fundamentals to the solution of complex engineering problems. PO-3 Software Development, Website development

Programme Specific Outcomes

Programme Specific Outcomes	PSO-1. To improve the Problem Analysis, i.e identify, formulate, review and analyze complex problems using various techniques. PSO-2. To know functions of various hardware components and their building block PSO-3. To understand the different stages of an instruction execution
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Course Outcomes -BCA

Semester-I

Course	Outcomes
	After completion of these courses students should be able to;
Paper Code- BCA-16-102 Paper Name- Fundamentals of Mathematical Statistics	CO-1. Students will learn how to calculate and apply measure of location and measure of dispersion –grouped and ungrouped data cases. CO-2. Students will be able to compute and interpret the result of bivariate and multivariate regression and correlation analysis. CO-3. Students will recognize and appreciate the connection between theory and applications. CO-4. Students will be able to communicate key statistical concept to non statisticians CO-5. Students will be familiar with a variety of examples where mathematics or statistics helps accurately explain abstract or physical phenomena.

<p>Paper Code- BCA-16-103 Paper Name- Computer Fundamentals and Computing Software</p>	<p>CO-1. Understand the fundamental hardware components that make up a computer's hardware and the role of each of these components CO-2. Understand the difference between an operating system and an application program, and what each is used for in a computer CO-3. Describe the organization and operation of a computer processor, primary and secondary memory and peripheral devices and to give computer specifications. CO-4. Understanding the concept of input and output devices of Computers and how it works. CO-5. Provide hands-on use of Microsoft Office 2010 applications Word, Excel and PowerPoint. Completion of the assignments will result in MS Office applications knowledge and skills.</p>
<p>Paper Code- BCA-16-104 Paper Name- Problem Solving Through C</p>	<p>CO-1. Students learn how build an algorithm for problems CO-2. Students learn basics of logic development using C-language CO-3. Enable students to create pictorial representations of the program CO-4. Enhance students programming concepts CO-5. students learn basics of file handling.</p>
<p>Paper Code- BCA-16-101 Paper Name- English (Compulsory)-A</p>	<p>CO-1 Students will know the soft and communication skills CO-2 prepare the students for the interview by practicing them for the group discussion CO-3 Improve the grammatical skills of the students</p>
<p>Paper Code- BCA-16-105 Paper Name- Lab Based on Computer Fundamentals and Computing Software</p>	<p>CO-1.To introduce Basic Unix general purpose Commands CO-2.To creates documents using MS Word Word Processing Package. CO-3.To creates attractive presentations using MS Power Point. CO-4.Completion of the assignments will result in MS Office applications knowledge and skills. CO-5. Student will be able to compose, format and edit a word document.</p>
<p>Paper Code- BCA-16-106 Paper Name- Lab Based on Problem Solving Through C</p>	<p>CO-1.Develops basic understanding of computers, the concept of algorithm and algorithmic thinking. CO-2. Develops the ability to analyze a problem, develop an algorithm to solve it. CO-3.Develops the use of the C programming language to implement various algorithms CO-4. Develops the basic concepts and terminology of programming in general. CO-5. Introduces the more advanced features of the C language .</p>

Semester-II	
Paper Code- BCA-16-202 Paper Name- Computer Organization	CO-1. TO inculcate the skills of computer components and their connectivity CO-2. Presenting the students the skill of buses and architectures
Paper Code-BCA- 16-203 Paper Name- Fundamental of Web Programming	CO-1 To enhance the students with the skills of website designing CO-2 To prepare the students with the connection of front end and back end.
Paper Code-BCA- 16-204 Paper Name- Object Oriented Programming using C++	CO-1. Software Development capability in c++ CO-2. GO handy with object oriented concepts and File handling

Semester-III	
Paper Code- BCA-16-301 Paper Name- Punjabi-A	CO-1. By Reading Modren Poetry students is able to understand issues of modernism. CO-2. The students know the Story as a form of literature. CO-3.The students get the literary sense of comprehension of the subject. CO-4. The students know the skills of communication in Punjabi. CO-5. The students also know about the word formation and vocabulary.
Paper Code- BCA-16-303 Paper Name- Information System Design	CO-1.The key modeling concepts applicable to both structured approaches to systems development are examined. CO-2. An understanding suited to the needs of a business analyst, information systems selector or managerial consultant. CO-3. Understand and apply key principles of good user interface design. CO-4. Explain needs for software specifications also they can classify

and implementation	different types of software requirements and their gathering techniques. CO-5. Justify role of SDLC in Software Project Development and they can evaluate importance of Software Engineering
Paper Code- BCA-16-305 Paper Name- Data Structures	CO-1 To know the strategies for data storage, fetching, manipulation and analysis capability CO-2 Students can further explore the ideas for data storage and retrieval
pPaper Code- BCA-16-306 Paper Name- Lab Based on Computer Oriented Numerical Methods	CO-1. Apply numerical methods to find our solution of algebraic equations using different methods under different conditions, and numerical solution of system of algebraic equations. CO-2. Apply various interpolation methods and finite difference concepts CO-3. Work numerically on the ordinary differential equations using different methods through the theory of finite differences. CO-4. To learn important theorems, different formulae and practical applications of these statistical and optimization methods in the field of Computer Sciences and Applications. CO-5. Apply Mathematical Modeling and Solving Mathematical Problems with help of C language.
Paper Code- BCA-16-307 Paper Name- Data Structures	CO-1 To impart the technical and practical skills for implementation of data.
Semester-IV	
Paper Code- BCA-16-403 Paper Name- Software Project Management	CO-1. Students can manage the project by using techniques available CO-2. Go for Managers and team leaders CO-3. Project builders can be developed
Paper Code- BCA-16-404 Paper Name- Operating System	CO-1. Students can work with the core processors CO_2 To go for the operating system development CO-3 Work in the scheduling techniques and deadlock handling mechanisms

Paper Code- BCA-16-406 Paper Name- Database Management System	CO-1 Students can handle the database very easily CO-2 understanding the power of database when connected with the front end
Semester-V	
Paper Code- BCA-16-301 Paper Name- Punjabi-A	CO-1. By Reading Modern Poetry students is able to understand issues of modernism. CO-2. The students know the Story as a form of literature. CO-3. The students get the literary sense of comprehension of the subject. CO-4. The students know the skills of communication in Punjabi. CO-5. The students also know about the word formation and vocabulary.
Paper Code- BCA-16-303 Paper Name- Information System Design and implementation	CO-1. The key modeling concepts applicable to both structured approaches to systems development are examined. CO-2. An understanding suited to the needs of a business analyst, information systems selector or managerial consultant. CO-3. Understand and apply key principles of good user interface design. CO-4. Explain needs for software specifications also they can classify different types of software requirements and their gathering techniques. CO-5. Justify role of SDLC in Software Project Development and they can evaluate importance of Software Engineering
Paper Code- BCA-16-305 Paper Name- Data Structures	CO-1 To know the strategies for data storage, fetching, manipulation and analysis capability
Paper Code- BCA-16-306 Paper Name- Lab Based on Computer Oriented Numerical Methods	CO-1. Apply numerical methods to find our solution of algebraic equations using different methods under different conditions, and numerical solution of system of algebraic equations. CO-2. Apply various interpolation methods and finite difference concepts CO-3. Work numerically on the ordinary differential equations using different methods through the theory of finite differences. CO-4. To learn important theorems, different formulae and practical applications of these statistical and optimization methods in the field of Computer Sciences and Applications. CO-5. Apply Mathematical Modeling and Solving Mathematical Problems with help of C language.

Paper Code- BCA-16-307 Paper Name- Data Structures	CO-1 To impart the technical and practical skills for implementation of data.
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Semester-VI	
Paper Code- BCA-16-601 Paper Name-E Commerce	CO-1.to inculcate employment skills by teaching e commerce as a subject CO-2To facilitate the students regarding development for the with Online business, shopping applications.
Paper Code- BCA-16-603 Paper Name- Computer Graphics and Multimedia	CO-1. To help the students in their career opportunities in graphics, multimedia, games development CO-2 Help the students for cartooning presentations 2D or 3D.
Paper Code- BCA-16-602 Paper Name- Application Development using VB.Net	CO-1 To present the students with the application or software development in .Net and database linking advantages CO-2 To present testing and designing future ahead
Paper Code- BCA-16-605 Paper Name- Major Project and Seminar	CO-1 To prepare the students for the project development and the seminar presentations for building up their career opportunities CO-2 Job opportunities in project development.

Programme Outcomes: M.Sc. (Information Technology)

Department of Chemistry	After successful completion of two year degree program in chemistry a student should be able to;
Programme Outcomes	<p>PO-1 Enable students to Identify and use Linux utilities to create and manage simple file processing operations, organize directory structures with appropriate security</p> <p>PO-2. Enable students to Monitor system performance and network activities</p> <p>PO-3. Student.Effectively use software development tools including libraries, preprocessors, compilers, linkers, and make files.</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1 Demonstrate a familiarity with major algorithms and data structures.</p> <p>PSO-2. Apply important algorithmic design paradigms and methods of analysis</p> <p>PSO-3. Grasping approach, divide and overcome, dynamic programming, backtracking and department and certain</p>
Course Outcomes M. Sc (IT)	
Semester-I	
Course	Outcomes After completion of these courses students should be able to;
Paper Code- MS-66 Paper Name- Linux Administration and Programming	<p>CO-1.Enable students to Identify and use Linux utilities to create and manage simple file processing operations, organize directory structures with appropriate security</p> <p>CO-2.Students will be able to develop shell scripts to perform more complex tasks.</p> <p>CO-3.Students can effectively use the UNIX/Linux system to accomplish typical personal, office, technical, and software development tasks.</p> <p>CO-4. Enable students to Monitor system performance and network activities.</p> <p>CO-5.Student.Effectively use software development tools including libraries, preprocessors, compilers, linkers, and make files.</p>
Paper Code- MS-61 Paper Name- Software Engineering	<p>CO-1 To present in detail the steps for the software development</p> <p>CO-2To present the students various testing strategies for the software</p> <p>CO-3 TO inculcate the designing process with various models</p>

<p>Paper Code- MS-62 Paper Name- Computer Algorithms</p>	<p>CO-1.Analyse the asymptotic performance of algorithms. CO-2.Write rigorous correctness proofs for algorithms. CO-3.Demonstrate a familiarity with major algorithms and data structures. CO-4.Apply important algorithmic design paradigms and methods of analysis. CO-5.Synthesize efficient algorithms in common engineering design situations.</p>
<p>Paper Code- MS-42 Paper Name- Operating System Concepts</p>	<p>CO-1.To understand the general architecture of computers. CO-2.To understand the contrast and compare differing structures for operating systems. CO-3.Understand and analyze theory and implementation of processes resources control physical and virtual memory scheduling I/O and files. CO-4.General understanding of structure of modern computers CO-5.Purpose,structure and functions of operating systems</p>
<p>Paper Code- MS-63 Paper Name- Minor Project Based On Linux Administration and Programming</p>	<p>CO-1.To familiarize the students with the Operating System. CO-2.To demonstrate the process, memory, file and directory management issues under the UNIX/ LINUX operating system CO-3.To introduce LINUX basic commands CO-4.To make students how to make simple programs in LINUX and administrative task of LINUX</p>
<p>Paper Code- MS-64 Paper Name- Minor Project Based On Computer Algorithms</p>	<p>CO-1.Ability to choose appropriate algorithm design techniques for solving problems. CO-2. Ability to understand how the choice of data structures and the algorithm design CO-3. Methods impact the performance of programs. To clear up troubles the usage of set of rules design methods including the CO-4. Grasping approach, divide and overcome, dynamic programming, backtracking and department and certain. CO-5.To understand the variations among tractable and intractable problems.</p>

Semester-II	
Course	Outcomes After completion of these courses students should be able to;
Paper Code- 65 E-Commerce MS- Paper Name-	CO-1. Students can explore the electronic based applications for the self employment purpose CO-2 can go with advertisement developments, shopping sites.
Paper Code- 45 Advance Java and Network Programming	CO-1 Students can go for the networking programming and java programming based applications. CO-2 fruitful opportunities for the networking based apps.
Paper Code-60 MS-Paper Name-Advance DBMS	CO-1.TO have a fruitful career in database connectivity CO-2 .To facilitate with the students for the management capability in database
Paper Code-67 MS- Paper Name- Artificial Intelligence	CO-1 Job opportunities in machine learning, sensors, robotics, expert system CO-2 Image Processing, Pattern Recognitions are the key topics to choose.

Semester-III	
Course	Outcomes After completion of these courses students should be able to;
Paper Code- MS-32 Paper Name- .NET Framework and C#	CO-1. To inculcate the students for the software development using .NET CO-2. To improve the website designing skills with >NET and C#

<p>Paper Code- MS-69 Paper Name- Theory of Computation</p>	<p>CO-1.Demonstrate advanced knowledge of formal computation and its relationship to languages CO-2.Distinguish different computing languages and classify their respective types CO-3.Recognise and comprehend formal reasoning about languages CO-4.Show a competent understanding of the basic concepts of complexity theory</p>
<p>Paper Code- MS-39 Paper Name- Computer Graphics</p>	<p>CO-1.Critical understanding of the theory of 2D and 3D transformations, projection and viewing CO-2. Ability to find & combine relevant sources and synthesise designs CO-3. Detailed knowledge of the graphics pipeline CO-4. Detailed knowledge of shading and texture mapping algorithms CO-5. Broad knowledge of 3D modelling and rendering techniques</p>
<p>Paper Code- MS-14 Paper Name- System Approach to Management and Optimization Techniques</p>	<p>CO-1 To prepare the students for the Optimized solutions CO-2 Improving the students for Managerial Approaches</p>
<p>Paper Code- MS-33 Paper Name- Minor Project Based on .NET Framework and C#</p>	<p>CO-1 To inculcate the website designing concepts using .NET and C# CO_2 To prepare the students for connectivity CO-3 To prepare the students with the software development</p>
<p>Paper Code- MS-59 Paper Name- Minor Project Based on Computer Graphics</p>	<p>CO-1.Ability to understand, design and implement scene graphs CO-2. Practical skills in graphics programming including sc CO-3.General critical analysis, evaluation and synthesis of ideas for the design of their project CO-4. Representation of, planning for, and solution of problems</p>

M.SC.- IT IVth Sem Paper- Major Project

Outcome: Internship for the software Carrier. The best outcome is student can place in a software company as software engineer, website developer, and System analyst.

Course Outcomes PGDCA	
Course Outcomes	PO -1 Provide hands-on use of Microsoft Office 2010 applications Word PO-2 Students can go for the logic development using C-language
Paper Code- PGD-1101 Paper Name- Computer Fundamentals	CO-1. Understand the fundamental hardware components that make up a computer's hardware and the role of each of these components CO-2. Describe the organization and operation of a computer processor, primary and secondary memory, peripheral devices and to give computer specifications. CO-3. Understanding the concept of input and output devices of Computers and how it works. CO-4. Provide hands-on use of Microsoft Office 2010 applications Word, Excel, Access and PowerPoint. Completion of the assignments will result in MS Office applications knowledge and skills. CO-5. Understand the difference between an operating system and an application program, and what each is used for in a computer
Paper Code-PGD- 1102 Paper Name- Computer Programming Using C	CO-1. Students learn how build an algorithm for problems CO-2. Students learn basics of logic development using C-language CO-3. Enable students to create pictorial representations of the program CO-4. Enhance students programming concepts CO-5. students learn basics of file handling.
Paper Code-PGD- 1103 Paper Name-Data Base Management System	CO-1. The key goal is to prepare students for a professional career in the field of data administration and database design. CO-2. To get acquaint students with good knowledge of DBMS. During the course, students will learn about database design and database handling activities. CO-3. Learn how to identify an organization's information processing requirements. CO-4. Learn how to develop a detailed specification for an information system that can fulfill these requirements.

	CO-4. Understand that the successful systems analyst needs to have a broad understanding of organizations, organizational culture, organizational change, organizational operations, and business processes.
Paper Code-PGD-1104 Paper Name-Data Communication and Networks	CO-1. Study the basic taxonomy and terminology of the computer networking and enumerate the layers of OSI model and TCP/IP model. CO-2. Acquire knowledge of Application layer and Presentation layer paradigms and protocols. CO-3. Study Session layer design issues, Transport layer services, and protocols. CO-4. Gain core knowledge of Network layer routing protocols and IP addressing. CO-5. Study data link layer concepts, design issues, and protocols.
Paper Code-PGD-PR-1105 Paper Name-LabI Based on PGD-1102 AND PGD-1101	CO-1. Develops the ability to analyze a problem, develop an algorithm to solve it. CO-2. Develops the use of the C programming language to implement various algorithms CO-3. Develops the basic concepts and terminology of programming in general. CO-4. To introduce Basic Unix general purpose Commands CO-5. Completion of the assignments will result in MS Office applications knowledge and skills.
Paper Code-PGD-PR-1106 Paper Name-Lab Based on PGD-1103	CO-1. Knowledge & Understanding : Databases and their design & development CO-2. Intellectual Cognitive/ analytical skills: Normalization of Databases. CO-3. Practical Skills :Using SQL and PL/SQL. CO-4. Transferable skills: Usage of DBMS design and administration. CO-5. Gather data to analyse and specify the requirements of a system.

Department of Fashion Designing

Programme Outcomes: B.Sc (Fashion Designing)

Department of Fashion designing	After successful completion of three year degree program in B.Sc (FD) a student should be able to;
Programme Outcomes	<p>PO-1. Students understand textile science, garment details, skill development in the field of fashion design.</p> <p>PO2-Students have deep knowledge of design, arts and Elements of design.</p> <p>PO3-Students develop skills of sketching, pattern making and garment construction.</p> <p>PO4- Students understand the various department of apparel manufacturing technology.</p> <p>PO5- Students learned about different aspects of traditional embroideries.</p> <p>PO6- Students understand the knowledge about computer aided designing.</p> <p>PO7- students can be able to manage events like fashion shows, workshops and exhibitions.</p>

Programme Specific Outcomes

Programme Specific Outcomes	<p>PSO-1. PSO1-Students can be designer in fashion industries.</p> <p>PSO2-students can be placed as a merchandiser in garment industries.</p> <p>PSO3- students can be served as a instructor of computer aided designing.</p> <p>PSO4-Students can choose teaching profession</p> <p>PSO5-self employment as an entrepreneur is possible.</p>
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Course Outcomes B.Sc. (Fashion Designing)

Semester-I

Course	Outcomes
	After completion of these courses students should be able to;
BOD- BASICS OF DESIGN	<p>CO-1. students understand various drawing tools and colouring mediums</p> <p>CO-2. They understand types of lines and shapes</p> <p>CO-3. students understand colour and its dimensions</p>
NCR- NEEDLE CRAFT	<p>CO-1. Students gain knowledge of basic embroidery stitches.</p> <p>CO-2. They acquire knowledge of various techniques of patchwork, appliqué and open work</p> <p>CO-3. Students can apply these techniques to develop various products</p>

GARMENT CONSTRUCTION- GRC	CO-1. Students learn machines and tools used for sewing. CO-2. Students learn knowledge of different garment components. CO-3. They learn various basic hand stitches, seams and seam finishes, different fullness treatments
TEXTILE SCIENCE- TSC	CO-1. They can gain knowledge of fibers, sources of fibers and their properties CO-2. Students can able to identify various classes of textiles fibers. CO-3. To help the students to identify various classes of textiles fibers.
GARMENT DESIGN	CO-1. students can able to understand various fashion details CO-2. Students can able to understand various fashion sketching
BASICS OF COMPUTER	CO-1. They can gain basic computer knowledge to students. CO-2. Students are able to understand concept of fundamentals and its applications in computer.
ENGLISH	English to the Fashion Designing students is to create general awareness among them about literature and its impact on their lives. At the same time, it is expected that the students, on reading this course, shall develop proficiency in reading and writing skills.

Semester-II	
BASICS OF DESIGN-II	CO-1. students can understand various types of motifs CO-2. Students can understand various types of motifs placements
NEEDLE CRAFT-II	CO-1. They can gain knowledge of various techniques of smoking, quilting and ribbon work. CO-2. Students can able to apply these techniques to develop various products.
GARMENT CONSTRUCTION-II	CO-1. They acquire knowledge of handling of different fabrics and their suitability. CO-2. They acquire knowledge of different garment components. CO-3. They learn various construction techniques.
TEXTILES SCIENCE-II	CO-1. Students gain knowledge of types of yarns CO-2. Types of spinning CO-3. Laundry reagents CO-4 students can be able to identify and remove various stains. CO-5. Prepare various stiffening agents wash and finish various garments.
GARMENT DESIGN-II	CO-1. students can able to design children garments. CO-2. Interpret style and estimate material for different garments

Semester-III	
FASHION ILLUSTRATION ON COMPUTER	CO-1. To acquaint students with knowledge of CAD based application in fashion designing.
GARMENT DESIGN-III	CO-1. students can be able to understand Designing of garments CO-3. Style interpretation and material estimation of different garments

TRADITIONAL TEXTILES	CO-1. They can learn knowledge of traditional textiles. CO-2. They can learn knowledge of different fabrics, stitches, motifs and colours used in traditional embroideries. CO-3. students can understand traditional /regional Crafts and Textiles CO-4. Care & storage techniques of Traditional Textiles and Costumes exhibited in various museums.
GARMENT CONSTRUCTION-III	CO-1. They can acquire construction skills for children's garments.
PATTERN MAKING-I	CO-1. They can gain knowledge of different aspects of Pattern Making such as sleeve and collars.
FABRIC CONSTRUCTION I	CO-1. They can learn knowledge of fabric manufacture and fabric properties. CO-2. Students can be able to understand fabric structures and to analyze them. CO-3. They can understand different weaves.
FASHION CONCEPT -I	CO-1. They can be aware about clothing culture. CO-2. They can acquire knowledge of clothing communication and fashion expression.

Semester-IV	
FASHION ILLUSTRATION	CO-1. Students can be to understand knowledge of figure sketching and fleshing CO-2. Rendering of textures CO-3. Sketching and illustration of Hand bags and Foot wears.
HISTORY OF INDIAN COSTUMES	CO-1. To acquaint the students with different types of Ancient Indian costumes.

TRADITIONAL EMBROIDERIES	<p>CO-1. They can learn knowledge of various motifs, colours and designs used in Traditional embroideries of India.</p> <p>CO-2. They can learn knowledge of stitches and techniques used in traditional embroideries of India.</p> <p>CO-3. students can learn about with the different fabrics, stitches, motifs and colours used in traditional embroideries.</p>
FABRIC CONSTRUCTION-II	<p>CO-1. They can acquire knowledge of fabric manufacture and fabric properties.</p> <p>CO-2. Students can be able to understand fabric structures and to analysis them.</p> <p>CO-3. They acquire skills for various fabric construction techniques.</p>
GARMENT CONSTRUCTION-IV	<p>CO-1. Students acquire construction skills for basic garments for children.</p>
PATTERN MAKING-II	<p>CO-1. They can learn different aspects of Pattern making such as basic bodice block, style line and darts.</p>
FASHION CONCEPTS-II	<p>CO-1. They can aware about clothing culture.</p> <p>CO-2. They can gain knowledge of clothing communication and fashion expression.</p>
KNITTING	<p>CO-1. students can be able to develop practical skills of knitting</p>

Semester-V

PATTERN AND MARKER MAKING ON COMPUTER-I	CO-1. They can gain knowledge of pattern making software for making patterns and grading. CO-2. students acquire skill in computer aided pattern making.
PATTERN MAKING-III	CO-1. They can gain knowledge pattern and development skills to the students
LINE DEVELOPMENT & PORTFOLIO-I	CO-1. students can be to apply the principles and knowledge of garment design development to create a collection CO-2. They can understand the meaning and importance of making a good portfolio CO-3. Identify, organize, and gather documentation to build portfolios
HISTORY OF WORLD COSTUMES	CO-1. the students can gain knowledge with different types of World Costumes.
GARMENT CONSTRUCTION-V	CO-1. They acquire construction skills for basic garments.
APPAREL MANUFACTURING TECHNOLOGY	CO-1. They learn about quality consciousness and awareness of quality parameters required for apparel quality products.
TEXTILE DYEING	CO-1. students can learn with different types of dyeing and methods of dyeing . CO-2. students can be able to develop practical skills of dyeing evaluation of fabric through colour fastness
INDUSTRIAL TRAINING	CO-1. students can be able to understand the textile industry setup and management.

Semester-VI

PATTERN AND MARKER MAKING ON COMPUTER-II	CO-1. They can gain knowledge of pattern making software for making patterns and grading.
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MARKETING AND MERCHANDISING	<p>CO-1. students can gain knowledge of marketing and its environment</p> <p>CO-2. They can be able to understand the importance of fashion forecasting.</p> <p>CO-3. They can acquire knowledge about various brands of apparel and accessories</p> <p>CO-4 student can gain knowledge about various display materials and installations and different kind of storage displays</p>
PATTERN MAKING-IV	<p>CO-1. student can gain knowledge about draping and grading skills.</p>
LINE DEVELOPMENT & PORTFOLIO-II	<p>CO-1. students can be able to show case the collection.</p> <p>CO-2. They understand the meaning and importance of making a good portfolio.</p> <p>CO-3. Identify and reflect on areas of their own learning from both formal and informal settings</p> <p>CO-4 Identify, organize, and gather documentation to build portfolios</p>
GARMENT CONSTRUCTION-VI	<p>CO-1. They acquire construction skills for basic garments.</p>
TEXTILE PRINTING AND FINISHING	<p>CO-1. students can acquire knowledge about different types of printing and finishes applied on different fabrics</p> <p>CO-2. students can be able to develop practical skills of printing and dyeing</p>
ENTREPRENEURSHIP DEVELOPMENT	<p>CO-1. To prepare the platform where the students view entrepreneurship and self employment as a desirable career option.</p> <p>CO-2. Stimulating the potential to develop entrepreneurial orientation to innovation and creativity.</p> <p>CO-3. students can orient with basic principles involved in starting and managing a new enterprise.</p>

Programme Outcomes: M.Sc. Fashion Designing

Department of Fashion Designing	After successful completion of two year degree program in chemistry a student should be able to;
Programme Outcomes	<p>PO-1. Students understand industrial operation, machines and equipments in apparel industries through training and visits</p> <p>PO2-Students have deep knowledge of design, arts and Elements of design.</p> <p>PO3-Students develop skills of sketching, pattern making and garment construction.</p> <p>PO4-students can learn about fashion communication.</p> <p>PO5- Students understand the various department of apparel manufacturing technology.</p> <p>PO5- Students learned about different aspects of traditional embroideries.</p> <p>PO6- Students understand the knowledge about computer aided designing.</p> <p>PO7- students can be able to manage events like fashion shows, workshops and exhibition.</p>

Programme Specific Outcomes

Programme Specific Outcomes	<p>PSO-1. PSO1-Students can be designer in fashion industries.</p> <p>PSO2-students can be placed as a merchandiser in garment industries.</p> <p>PSO3- students can be served as a instructor of computer aided designing.</p> <p>PSO4-Students can choose teaching profession</p> <p>PSO5-self employment as an entrepreneur is possible.</p> <p>PSO6- they can do work in textile or garment industries.</p>
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Course Outcomes M.Sc. (Fashion Designing)

Semester-I

Course	Outcomes After completion of these courses students should be able to;
APPAREL MANUFACTURING TECHNOLOGY	<p>CO-1. Students gain knowledge of Industrial operations.</p> <p>CO-2. They can aware about machines and equipments used in apparel industry</p>
FASHION COMMUNICATION	CO-1. students can be to understand the intricacies of fashion industry
ADVANCED PATTERN MAKING – I	<p>CO-1. students can be able to develop the patterns through dart manipulation</p> <p>CO-2. students can be able to understand & realize the importance of fitting.</p>

CONSTRUCTION OF WOMEN'S WEAR	CO-1. students can be able to develop skills in construction of fitted and stylized dresses.
DESIGN ILLUSTRATION-I	CO-1. They have to learn design theme based collection. CO-2. They can develop a personal style of illustration and presentation technique. CO-3. They have to be skills for portfolio presentations
COMPUTER DESIGNING – I	CO-1. Students can be able to understand the application of Adobe Photoshop and used the same to create various design compositions.

Semester-II

Course Outcomes	After completion of these courses students should be able to;
RETAIL MARKETING & MERCHANDISING	CO-1. Students gain knowledge about concept of Retailing & Marketing To impart knowledge regarding the marketing environment and consumer behaviour.
KNITWEAR DESIGN TECHNOLOGY	CO-1. They can understand the characteristics of knitted fabrics CO-2. They can be able to understand the versatility of knit fabrics for end uses. CO-3. They can gain knowledge of Knitting CO-4 They can develop an understanding of the various knitted structures
ADVANCED PATTERN MAKING –	CO-1. Students can be able to develop patterns for men's wear garments.
CONSTRUCTION OF MEN'S WEAR	CO-1. Students can acquire knowledge male croqui and various postures. CO-2. They can gain skill for development of inspirational designing ability.
COMPUTER DESIGNING-II	CO-1. students acquire skill in computer aided designing. CO-2. Students can get knowledge about fashion design software such as- tuka cad, reichpiece, corel draw, photoshop etc.

Semester-III	
Course	Outcomes After completion of these courses students should be able to;
RESEARCH METHODS	CO-1. They can understand the frameworks for scientific inquiry, research terms, concepts and techniques. CO-2. Students understand the various methods for conducting research CO-3. They can gain knowledge about appreciate the benefits of applied research
STATISTICS	CO-1. Students can understand the role of statistic in research CO-2 They can apply the knowledge of statistics in the analysis of data CO-3. They can learn the presentation and inter interpretation of statistical data.
DESIGN ILLUSTRATION (KID'S WEAR)	CO-1. Students can understand croqui drawing of boys and girls 5 to 10 years of age. CO-2. They can learn to drape these figures in various ensembles.
PATTERN MAKING (KID'S WEAR)	CO-1. Students can be able to develop skills in pattern making of kids garments of 5 to 10 years old boys and girls.
GARMENT CONSTRUCTION (KID'S WEAR)	CO-1. The students can be able to develop skills in construction of kids garments of 5 to 10 years old.
COMPUTER-AIDED DESIGNING	CO-1. Students can acquire skill in computer aided pattern making.
Semester-IV	
ENTREPRENEURSHIP DEVELOPMENT	CO-1 They can get theoretical information about the role of entrepreneur in economic development. CO-2 students can understand the process of setting up of a private enterprise and develop required entrepreneurial skills. CO-3 students can be motivate to opt for entrepreneurship and self-employment as alternate career options.
QUALITY CONTROL AND STANDARDIZATION	CO-1 students can be educated about the need and importance of quality control and standardization in Apparel industry. CO-2 They can get theoretical information to students about the various quality standards of the Apparel Industry.

	CO-3 students can familiarize about the various National and International standards and organizations that formulate them.
TEXTILE DESIGN DEVELOPMENT	CO-1 students can understand and apply the knowledge of textile design development.
PATTERN MAKING THROUGH DRAPING	CO-1 the students can understand draping methods of designer dresses.

Programme Outcomes: Post Graduate Diploma in Fashion Designing (PGDFD)

Department of Fashion designing	After successful completion of one year diploma program in FD a student should be able to;
Programme Outcomes	PO-1. Students understand garment details, skill development in the field of fashion design. PO2-Students have deep knowledge of design, arts and Elements of design. PO3-Students develop skills of sketching, pattern making and garment construction. PO4- Students understand the various department of apparel manufacturing technology.

Programme Specific Outcomes

Programme Specific Outcomes	PO-1. Students can be designer in fashion industries. PO2-students can work in garment industries. PO3- Students can choose teaching profession PO5-self employment as an entrepreneur is possible.
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Course Outcomes- PGDFD

Semester-I

Course Outcomes	After completion of these courses students should be able to;
PATTERN MAKING-I (PRACTICAL)	CO-1 Students can get knowledge about different aspects of Pattern Making CO-2 Students can get knowledge about drafting and adaptation of skirts CO-3 Students are able to do Dart manipulation

GARMENT CONSTRUCTION (PRACTICAL)	CO-1 Students can get learn about various construction techniques. CO-2 Applying these techniques in garment construction.
FASHION ILLUSTRATION (PRACTICAL)	CO-1 Students are able to understand figure sketching, illustration techniques for various garment details.
CAD-I (PRACTICAL)	CO-1 Students can acquaint with knowledge of tools of Corel draw and Photoshop.
GARMENT DESIGN (PRACTICAL)	CO-1 Students can get knowledge of various fashion details, designing various outfits, and specification Sheet.
FASHION DESIGN AND PRODUCTION (THEORY)	CO-1 Students can understand design fundamentals, elements and principles of design. CO-2 Students can get knowledge of different garment components. CO-3 Students can be aware of quality parameter required for apparel products.
FASHION FUNDAMENTALS (THEORY)	CO-1 Students can be aware regarding fashion, Style and Trends. CO-2 Fashion adoption, fashion movement, fashion prediction.
Semester-II	
PATTERN MAKING-II (PRACTICAL)	CO-1 Students can acquire knowledge about commercial paper patterns , grading and draping
GARMENT CONSTRUCTION (PRACTICAL)	CO-1 Students can get knowledge about application of various construction techniques in garment construction.
LINE DEVELOPMENT (PRACTICAL)	CO-1 To enable the students to apply the principles and knowledge of garment design development to create a collection
CAD-II (PRACTICAL)	CO-1 Students acquire skill in computer aided pattern making and grading.
FASHION MARKETING AND MERCHANDISING (THEORY)	CO-1 Students can get necessary knowledge, skills, values and attitudes of Fashion Marketing and Merchandising.
HISTORIC COSTUMES (THEORY)	CO-1 Students can acquire different types of Indian and world costumes of different periods.

PG Department of Punjabi

Programme Outcomes: B.A(Punjabi)

Department Of Punjabi	After successful completion of three years degree programmed in B.A(Punjabi) a student should be able to;
Programme Outcomes (Gen Pbi)	PO-1. The students know about vocabulary and basic grammar. PO-2.The students know how to study language and literature. PO-3.The Students know the difference between Prose And Poetry as a form of literature. PO-4.To develops the skills of students in Punjabi literature. PO-5.To enriches vocabulary through learning literature. PO-6.To enriches Mother Language among the students.
Programme Specific Outcomes	
Programme Specific Outcomes(Ele.Pbi)	PSO-1.The Students know the forms of literature. PSO-2. The Students get the knowledge of literary values. PSO-3.The students can analyze/criticize literature. PSO-4.The students know well how to study Language and literature. PSO-5.After the completion of the course the students are ready to take up the special studies in language and literature. PSO-6. The students acquaint with Punjabi Language for further studies in Punjabi language and Literature.

Course Outcomes B.A (Punjabi)

Semester-1	
Course Outcomes	After completion of these courses students should be able to ;
Paper Code-PBC Gen Punjabi	CO-1.By reading Modern poetry students are able to understand issues of Modernism. CO-2.The students get the literary sense and comprehension of the subject. CO-3.The students get the basics knowledge of phonology.
Paper Code-PBI Ele Pbi	CO-1.The students know the One Act Play as a form of literature. CO-2.The students enrich their aesthetic sense by reading Modern poetry. CO-3.The students get strong on vocabulary and basic grammar.
Semester-II	
Course Outcomes	After completion of these courses students should be able to ;
Paper Code-PBC Gen Punjabi	CO-1. The students know the Story as a form of literature. CO-2. The students get the basics knowledge of linguistics. CO-3.The students know the nature of the subject in comparison to the secondary level.

Paper Code-PBI Ele Pbi	CO-1. The students enrich their aesthetic sense by reading Modern poetry. CO-2.The students can analyze poetry as a form of literature. CO-3. The students get more knowledge of structure and semantics.
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Semester-III

Course	Outcomes After completion of these courses students should be able to ;
Paper Code-PBC Gen Punjabi	CO-1. The students know the Prose as a form of literature. CO-2.The students know the difference aspects of grammar. CO-3.The students also know about word formation and vocabulary.
Paper Code-PBI Ele Pbi	CO-1.The Students can analyze the advanced stage of Mediaeval Poetry. CO-2.The students can analyze the literary forms. CO-3.The students know prose as form of literature.

Semester-IV

Course	Outcomes After completion of these courses students should be able to ;
Paper Code-PBC Gen Punjabi	CO-1. The students know the Play as a form of literature. CO-2.The students know Human life at the Universal Level. CO-3.The students also know about word formation and vocabulary
Paper Code-PBI Ele Pbi	CO-1.The students can understand the basic of criticisms of Mediaeval poetry. CO-2.The students know prose as form of literature. CO-3. The students develop their basic skills in language.

Semester-V

Course	Outcomes After completion of these courses students should be able to ;
Paper Code-PBC Gen Punjabi	CO-1.The students know the Poetry as a form of literature. CO-2.The students develop the sense of humanity with the study of Poetry. CO-3.The students also know well how to study language and literature.
Paper Code-PBI Ele Pbi	CO-1.The students also know about the different streaks of human life. CO-2.The students can analyze the literary forms. CO-3. The students get know the literary values.

Semester-VI

Paper Code-PBC Gen Punjabi	CO-1.The students can analyze Fiction as a form of literature. CO-2. The Students increase their sense of humanity with the study of Fiction. CO-3.The students also know about the word formation and vocabulary.
Paper Code-PBI Ele Pbi	CO-1.The students with Punjabi Language for further studies in Punjabi language and Literature. CO-2.The students are also able to do other certificate courses with the knowledge of Punjabi.

	CO-3.The students know the Drama as a form of literature. CO-4. The students develop their basic skills in language.
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Course Outcomes M.A.(Punjabi)

Semester-I	
Course	Outcomes
	After completion of these courses students should be able to ;
Paper Code-MPS	CO-1.The students know the scope of literary theory and the entire picture about literature. CO-2.The students are ready for further competitive exam. CO-3.The students can join educational field for teaching or research. CO-4.The students know the esthetics and innovative use of language.
Paper Code-SSP	CO-1. The students know the major movements and figures of Punjabi literature through study of comparative literature. CO-2. The students can think about human life with universal attitude. CO-3. The students can join educational fields for research.
Paper Code-MPK	CO-1.To instills values and develops human concern in student through exposure to literary text. CO-2.To creates literary sensibility and emotional response to the literary text and implant sense of appreciation of literary texts.
Paper Code-PNA	CO-1.The students know the social issues with critical attitude. CO-2.The Students know the Dramatic form of literature. CO-3.The students can think about the human psychology.

Semester-II	
Course	Outcomes
	After completion of these courses students should be able to ;
Paper Code-APS	CO-1.To introduces students to major movements of Modern Punjabi Literature. CO-2.The students know the literary movements of Punjab and its history. CO-3.The students know about the different streaks of Human life.
Paper Code-APV	CO-1.The students know complex nature. CO-2.The student's attitude is humane. CO-3.The students know to various sub-disciplines of linguistic.
Paper Code-MPK	CO-1.To instills values and develops human concern in student through exposure to literary text. CO-2.To creates literary sensibility and emotional response to the literary text and implant sense of appreciation of literary texts.
Paper Code-PNA	CO-1.The students know the social issues with critical attitude. CO-2.The Students know the Dramatic form of literature.

	CO-3.The students can think about the human psychology.
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Semester-III

Course	Outcomes After completion of these courses students should be able to ;
Paper Code-BVP	CO-1.The students know the Punjabi language phonological,morphological and syntactical perspectives. CO-2.The students acquaints with the method of teaching. CO-3.The students acquaints with language.
Paper Code-SLS	CO-1.The students know the cultural aspect of Punjab through literary works. CO-2.the students know about the different cultural values. CO-3.To instills values and develop human concern in student through expose to culture and folklore.
Paper Code-APK	CO-1.The students know literary sensibility and innovative use of language by writers. CO-2. The students can analyze the literary forms. CO-3.The students know prose as form of literature.
Paper Code-PNR	CO-1.The students know the social issues with critical attitude. CO-2.The Students know the Dramatic form of literature. CO-3.The students can think about the human psychology.

Semester-IV

Course	Outcomes After completion of these courses students should be able to ;
Paper Code-BPG	CO-1.To introduces students to major movements of Modern Punjabi Literature. CO-2.The students know the literary movements of Punjab and its history. CO-3.The students know about the different streaks of Human life.
Paper Code-PLL	CO-1.To instills values and develops human concern in student through exposure to literary text. CO-2.To creates literary sensibility and emotional response to the literary text and implant sense of appreciation of literary texts.
Paper Code-APK	CO-1.The students know literary sensibility and innovative use of language by writers. CO-2. The students can analyze the literary forms. CO-3.The students know prose as form of literature.
Paper Code-PNR	CO-1.The students know the social issues with critical attitude. CO-2.The Students know the Dramatic form of literature. CO-3.The students can think about the human psychology.

PG Department of Hindi

Programme Outcomes: B.A. Hindi

Department of Hindi- After successful completion of three year degree program in Hindi student should be able to

- PO-1. छात्रों को हिंदी भाषा के उद्भव, विकास तथा विभिन्न रूपों एवं बोलियों का ज्ञान प्राप्त हुआ।
- PO-2. छात्रों को काव्यशास्त्र का सैद्धांतिक एवं अनुप्रयोगात्मक ज्ञान प्राप्त हुआ।
- PO-3. छात्रों में हिंदी साहित्य के इतिहास के विकासक्रम और लेखन परंपरा के संबंध में यथोचित दृष्टिकोण विकसित हुआ।
- PO-4. छात्रों को भाषा विज्ञान के माध्यम से हिंदी भाषा के व्यवस्थित और यथोचित प्रयोग का ज्ञान प्राप्त हुआ।
- PO-5. छात्रों हिंदी गद्य और पद्य को विभिन्न साहित्य विधाओं से परिचित हुए।
- PO-6. छात्रों में हिंदी भाषा और साहित्य को समझने, अध्ययन, आस्वादन और मूल्यांकन की क्षमता निर्माण हुई।
- PO-7. साहित्य की विभिन्न विधाओं के माध्यम से छात्रों का भावनात्मक विकास हुआ।
- PO-8. छात्रों में हिंदी साहित्य के माध्यम से नैतिक मूल्य, राष्ट्रीय मूल्य तथा सामाजिक मूल्यों के प्रति आस्था निर्माण हुई।
- PO-9. छात्रों को सरकारी कार्यालयों में प्रयुक्त कार्यालयीन हिंदी भाषा का परिचय प्राप्त हुआ।

Programme Specific Outcomes

- PSO-1. हिंदी भाषा का व्यवस्थित और यथोचित ज्ञान।
- PSO-2. भावनात्मक और सौंदर्यात्मक विकास।
- PSO-3. निवेदक और सूत्र संचालक।
- PSO-4. पटकथा लेखक, संवाद लेखक, विज्ञापन लेखक।
- PSO-5. प्रकाशक, संपादक, संवाददाता।
- PSO-6. दुभाषिया, अनुवादक, प्रूफ शोधक।
- PSO-7. एम.ए, बी.एड, पत्रकारिता, अनुवाद और दूरसंचार, पर्दावका और पदवी।
- PSO-8. मूल्य संवर्धन: नैतिक, राष्ट्रीय, सामाजिक मूल्यों का संवर्धन।
- PSO-9. राष्ट्रीय एकात्मता, समानता, बंधुता, उत्तरदायित्व और वैज्ञानिकता का विकास।
- PSO-10. नागरी सेवा परीक्षा।

Programme Outcomes: B.A. Hindi

Department of Hindi: After successful completion of three year degree program in Hindi a student should be able to

Course Outcomes - B.A. Hindi (Elective)

Semester-1

हिंदी(ऐच्छिक)

CO-1 आदिकाल की प्रवृत्तियों और परिस्थितियों की जानकारी उपलब्ध हुई छात्रों को हिंदी के गद्य और पद्य रचनाकारों का परिचय प्राप्त हुआ।

CO-2 छात्रों को इतिहास के कालखण्डों और उनके नामकरण की जानकारी प्राप्त हुई।

CO-3 छात्रों को पारिभाषिक शब्दावली, पर्यायवाची शब्द,समानार्थक शब्दों आदि का परिचय प्राप्त हुआ।

CO-4 छात्रों में हिंदी कहानी का स्वरूप, तत्व और भेद आदि मानदण्डों के आधार पर समीक्षा की क्षमता का निर्माण हुआ।

CO-5 छात्रों को हिंदी भाषा को समझने, अध्ययन, आस्वादन और मूल्यांकन की क्षमता विकसित हुई।

CO-6 छात्रों का भावनात्मक और सौन्दर्यात्मक विकास हुआ।

Semester-II

CO-1 छात्रों को मीराबाई और तुलसी की काव्यगत विशेषताओं का परिचय प्राप्त हुआ।

CO-2 छात्रों को वृंदावनलाल वर्मा के उपन्यास झांसी की रानी के अध्ययन के पश्चात उपन्यास के मूल्यांकन की दृष्टि विकसित हुई।

CO-3 उपन्यास की परिभाषा, तत्व और वर्गीकरण के विषय में जानकारी प्राप्त हुई।

CO-4. छात्रों को निजी पत्र लेखन का ज्ञान प्राप्त हुआ।

CO-5 छात्रों को भक्तिकाल की प्रवृत्तियों और परिस्थितियों की जानकारी प्राप्त हुई।

CO-6 छात्रों में साहित्य कृतियों के शिल्प और सौन्दर्य को देखने की दृष्टि विकसित हुई।

Semester-III

(ऐच्छिक हिंदी)

CO-1 छात्रों को एक सत्य हरिश्चन्द्र नाटक की प्रासंगिकता परिचित करवाया गया।

CO-2. छात्रों में हिंदी नाटक का स्वरूप, तत्व आदि मानदंडों के आधार पर समीक्षा की क्षमता का निर्माण हुआ।

CO-3. छात्रों को छायावादी युग के कवियों की कृतियों तथा उनके योगदान का परिचय प्राप्त हुआ।

CO-4. छात्रों को रीतिकाल की परिस्थितियों, प्रवृत्तियों, नामकरण तथा रीतिकाल के प्रमुख कवियों से अवगत करवाया गया।

CO-5. पारिभाषिक शब्दावली, संधि विच्छेद, समाकृति भिन्नार्थक शब्द युग, वाक्य शोधन आदि के परिचय से छात्रों की भाषा समृद्ध हुई।

CO-6. छात्रों को हिंदी के पद्य रचनाकारों का परिचय प्राप्त हुआ।

Semester-IV

CO-1. छात्रों को महादेवी वर्मा, अजेय,धर्मवीर भारती के काव्यत वैशिष्ट्य से अवगत हुए।

CO-2. छात्रों को हिंदी साहित्य के इतिहास के आधुनिक काल की प्रवृत्तियों से परिचित हुए।

CO-3. छात्रों को एकांकी के तत्व, परिभाषा, वर्गीकरण आदि मानदंडों के आधार पर समीक्षा की क्षमता का विकास हुआ।

CO-4. छात्रों को हिंदी के पद्य रचनाकारों का परिचय प्राप्त हुआ।

CO-5. छात्रों में हिंदी साहित्य और रचनाकारों के प्रति रुचि का निर्माण हुआ।

CO-6. छात्रों को हिंदी के प्रशासकीय पत्रों के स्वरूप का ज्ञान प्राप्त हुआ।

Semester-V

CO-1. छात्रों में दिनकर की काव्यकृति कुरुक्षेत्र के समीक्षात्मक अध्ययन के पश्चात काव्य के आस्वादन, अध्ययन और मूल्यांकन की दृष्टि विकसित हुई।

CO-2. छात्रों को महाकाव्य, खण्डकाव्य एवं गीतिकाव्य के तात्विक स्वरूप का ज्ञान प्राप्त हुआ।

CO-3. छात्र गद्य की विभिन्न विधाओं के स्वरूप से परिचित हुए।

CO-4. हिंदी के प्रमुख अलंकारों का सामान्य परिचय प्राप्त करने के पश्चात छात्रों में सौंदर्यात्मक दृष्टि का विकास हुआ।

CO-5. छात्र कुरुक्षेत्र काव्य की प्रासंगिकता से परिचित हुए।

CO-6. छात्रों में राष्ट्रीय ऐक्य, सामाजिक उत्तदायित्व, वैज्ञानिकता आदि मूल्यों की प्रतिष्ठा हुई।

Semester-VI

CO-1. छात्रों ने गद्य की विभिन्न विधाओं के उद्भव व विकास की जानकारी प्राप्त की।

CO-2. छात्रों में हिंदी साहित्य और रचनाकारों के प्रति रुचि का निर्माण हुआ।

CO-3. छात्रों को देवनागरी लिपि के उद्भव, विकास, वैज्ञानिकता, दोषों के विषय में जानकारी प्राप्त की।

CO-4. प्रमुख छंदों के सामान्य परिचय के माध्यम से छात्र काव्य में छंदों के महत्व से अवगत हुए।

CO-5. साहित्य की विभिन्न विधाओं के माध्यम से छात्रों का भावनात्मक विकास हुआ।

CO-6. छात्रों को हिंदी गद्य रचनाकारों का परिचय प्राप्त हुआ।

Programme Outcomes: M.A. Hindi

Department of Hindi: After successful completion of two year PG degree program in Hindi a student should be able to;

PO-1. छात्रों को हिंदी साहित्य के विभिन्न रूपों, विधाओं, प्रवृत्तियों, रचनाओं और रचनाकारों का परिचय प्राप्त हुआ।

PO-2. भारतीय एवं पाश्चात्य साहित्यशास्त्र का सैद्धांतिक और अनुप्रयोगात्मक ज्ञान प्राप्त हुआ।

PO-3. समीक्षात्मक दृष्टिकोण विकसित हुआ।

PO-4. भाषा और साहित्य के अध्ययन, आस्वादन और मूल्यांकन की क्षमता का विकास हुआ।

PO-5. साहित्य और युग जीवन का संबंध विशद करने का दृष्टिकोण विकसित हुआ।

PO-6. साहित्य का विभिन्न विधाओं के माध्यम से छात्रों का भावात्मक विकास हुआ।

PO-7. छात्रों में हिंदी साहित्य के माध्यम से नैतिक मूल्य, राष्ट्रीय मूल्य तथा सामाजिक मूल्यों के प्रति आस्था निर्माण हुई।

PO-8. छात्रों को सरकारी कार्यालयों में प्रयुक्त कार्यालयीन हिंदी भाषा का परिचय प्राप्त हुआ।

PO-9. अनुसंधान करने की क्षमता निर्माण हुई।

PO-10. अनुवादक, दुभाषियां बनने की क्षमता निर्माण हुई।

Programme Specific Outcomes:M.A. Hindi

- PSO-1.हिंदी भाषा का व्यवस्थित और यथाेचित ज्ञान।
PSO-2.भावात्मक और साैंदर्यात्मक विकास।
PSO-3.अनुसंधान कर्ता।
PSO-4.निवेदक और सूत्र संचालक।
PSO-5.पटकथा लेखक, संवाद लेखक, विज्ञापन लेखक।
PSO-6.प्रकाशक, संपादक, संवाददाता।
PSO-7.दुभाषिया, अनुवादक, प्रूफ शोधक।
PSO-8.मूल्य संवर्धन:नैतिक,राष्ट्रीय, सामाजिक मूल्यों का संवर्धन।
PSO-9.राष्ट्रीय एकात्मता, समानता बंधुता, उत्तरदायित्व और वैज्ञानिकता का विकास।
PSO-10.सृजनात्मक लेखन।
PSO-11. NET/SET परीक्षा।
PSO-12.अध्यापक, प्राध्यापक, हिंदी अधिकारी, हिंदी सलाहकार, हिंदी निदेशक।
PSO-13. प्रबोधक, उपदेशक।

Course outcomes M.A Hindi

Semester-1

Paper- I : (HSM) हिंदी साहित्य का आदिकाल व मध्यकाल

- CO-1.छात्रों को हिंदी साहित्य के इतिहास लेखन की परंपरा का परिचय प्राप्त हुआ।
CO-2.छात्रों को हिंदी साहित्य के इतिहास के कालखण्डों एवं उनके नामकरण का परिचय प्राप्त हुआ।
CO-3.छात्रों को हिंदी साहित्य के आदिकाल, भक्ति काल तथा रीतिकाल के प्रतिनिधि रचनाकारों का महत्व, प्रदेय, प्रभाव आदि का ज्ञान प्राप्त हुआ।
CO-4.छात्रों को हिंदी साहित्य के विकासक्रम तथा साहित्य के परिवर्तनों के कारणों का ज्ञान प्राप्त हुआ।
CO-5.छात्रों को मध्यकालीन युग की सामाजिक, राजनीतिक, धार्मिक, साहित्यिक परिस्थितियों का ज्ञान प्राप्त हुआ।
CO-6.छात्रों में साहित्य और युग जीवन का संबंध विशद करने की क्षमता का निर्माण हुआ।

Paper-II : (AHK) आधुनिक हिंदी काव्य

- CO-1.छात्रों को आधुनिक हिंदी काव्य (द्विवेदी, प्रगतिवाद और प्रयोगवाद) की प्रवृत्तियों का परिचय प्राप्त हुआ।

- CO-2. छात्रों को आधुनिक युग के प्रतिनिधि रचनाकारों के व्यक्तित्व, कृतित्व और महत्त्व के विषय में जानकारी प्राप्त हुई।
- CO-3. छात्र आधुनिक काव्य के प्रकारों से अवगत हुए।
- CO-4. छात्रों में काव्य के आस्वादत, अध्ययन और मूल्यांकन की यथोचित दृष्टि विकसित हुई।
- CO-5. छात्रों को आधुनिक युग की सामाजिक, राजनीतिक, धार्मिक और साहित्यिक परिस्थितियों का ज्ञान प्राप्त हुआ।
- CO-6. छात्रों में काव्य के प्रति रुचि उत्पन्न हुई।

Paper-III: (AGS) आधुनिक हिंदी गद्य साहित्य

- CO-1. छात्रों को गद्य विधाओं के विकासक्रम की जानकारी प्राप्त हुई।
- CO-2. छात्र गद्य विधाओं के (नाटक, निबन्ध और उपन्यास)के तात्विक स्वरूप से परिचित हुए।
- CO-3. छात्रों को ऐतिहासिक विकास के परिप्रेक्ष्य में रचना विशेष के महत्त्व को समझने की और मूल्यांकन की क्षमता प्राप्त हुई।
- CO-4. छात्रों में उपन्यासों, नाटकों में अभिव्यक्त जीवन विषयक मूल्यांकन की क्षमता विकसित हुई।
- CO-5. छात्रों में मौलिक चिंतन की क्षमता विकसित हुई।
- CO-6. छात्रों में गोदान(उपन्यास),आषाढ का एक दिन(नाटक) और चिंतामणि भाग 1 (निबंध) के अध्ययन के पश्चात साहित्य के आस्वादन की क्षमता का निर्माण हुआ।

Paper -IV : (BKS) भारतीय काव्यशास्त्र के सिद्धांत और हिंदी आलोचक

- CO-1. छात्रों को भारतीय काव्य शास्त्र के स्वरूप का ज्ञान प्राप्त हुआ।
- CO-2. छात्रों को काव्य के हेतु तथा का प्रयोजनां का परिचय प्राप्त हुआ।
- CO-3. छात्रों को काव्य के विभिन्न अंगों तथा शब्दशक्तियों का ज्ञान प्राप्त हुआ।
- CO-4. छात्रों को काव्य के विभिन्न संप्रदायों के स्वरूप, परम्परा तथा मुख्य स्थापनाओं के विषय में जानकारी प्राप्त हुई।
- CO-5. छात्रों में साहित्य के रसास्वादन की दृष्टि विकसित हुई।
- CO-6. छात्रों में मौलिक चिंतन की क्षमता विकसित हुई।

Semester -II

Paper -I: (HSK) हिंदी साहित्य आधुनिक का काल

- CO-1. छात्रों को आधुनिक युग की सामाजिक, धार्मिक, राजनीतिक, साहित्यिक परिस्थितियों का ज्ञान हुआ।
- CO-2. छात्रों को हिंदी गद्य के आविर्भाव के कारणों का परिचय प्राप्त हुआ।
- CO-3. छात्रों को हिंदी साहित्य के आधुनिक युग के रचनाकारों का महत्त्व प्रदेय, प्रभाव आदि का ज्ञान प्राप्त हुआ।

- CO-4. छात्रों को हिंदी गद्य के विकासक्रम का परिचय प्राप्त हुआ।
CO-5. छात्र आधुनिक काल के साहित्य की उपलब्धियों तथा सीमाओं से अवगत हुए।
CO-6. छात्रों को गद्य की विषय वस्तु, भाषा शैली, विचारधारा, प्रभाव आदि का ज्ञान प्राप्त हुआ।

Papar-II: (AHK) आधुनिक हिंदी काव्य

- CO-1. छात्रों को आधुनिक हिंदी काव्य(छायावाद, प्रगतिवाद) की प्रवृत्तियों का परिचय प्राप्त हुआ।
CO-2. छात्रों को आधुनिक युग के रचनाकार निराला और मुक्तिबोध के महत्व और प्रभाव आदि का ज्ञान प्राप्त हुआ।
CO-3. छात्रों को आधुनिक काव्य के प्रकारों की जानकारी प्राप्त हुई।
CO-4. छात्रों में काव्य के प्रति रुचि में वृद्धि हुई।
CO-5. छात्रों में अध्ययन और मूल्यांकन की यथोचित दृष्टि विकसित हुई।
CO-6. छात्रों को आधुनिक युग की परिस्थितियों(सामाजिक, राजनीतिक, धार्मिक और साहित्यिक) का ज्ञान प्राप्त हुआ।

Paper-III : (AGS) आधुनिक हिंदी गद्य साहित्य

- CO-1. छात्र उपन्यास नाटक और निबंध विधा की विभिन्न प्रवृत्तियों से अवगत हुए।
CO-2. छात्रों में उपन्यास और नाटक के आस्वादन, अध्ययन और मूल्यांकन की क्षमता विकसित हुई।
CO-3. छात्रों को हिंदी उपन्यासों और नाटकों में अभिव्यक्त मानव जीवन का परिचय प्राप्त हुआ।
CO-4. छात्रों में समीक्षात्मक दृष्टिकोण का निर्माण हुआ।
CO-5. छात्रों को गद्य विधाओं (उपन्यास, नाटक और निबंध) के विकासक्रम की जानकारी प्राप्त हुई।
CO-6. छात्र कहानियों के मनोवैज्ञानिक पक्ष से परिचित हुए।

Paper-IV : (PKS) पाश्चात्य काव्यशास्त्र एवम समकालीन अाचोलना सिद्धांत

- CO-1. छात्रों को पाश्चात्य काव्यशास्त्र का परिचय प्राप्त हुआ।
CO-2. छात्रों को पाश्चात्य काव्यशास्त्र के विकासक्रम का ज्ञान प्राप्त हुआ।
CO-3. छात्रों को पाश्चात्य काव्यशास्त्र की समीक्षा का महत्व ज्ञात हुआ।
CO-4. छात्रों को पाश्चात्य जगत के प्रमुख अालोचकों के विषय में जानकारी प्राप्त हुई।
CO-5. छात्रों को अालोचना की विभिन्न प्रणालियों का ज्ञान प्राप्त हुआ।
CO-6. छात्रों में समीक्षात्मक दृष्टिकोण विकसित हुआ।

Semester-III

Paper 1: (BHV) भाषा विज्ञान एवम हिंदी भाषाओं का अध्ययन

- CO-1. छात्रों को भाषा के स्वरूप, परिभाषा और विशेषताओं की जानकारी प्राप्त हुई।
CO-2. छात्रों को भाषा के विविध रूपों का ज्ञान प्राप्त हुआ।
CO-3. छात्रों में भाषा विज्ञान के वैज्ञानिक अध्ययन की दृष्टि निर्मित हुई।

- CO-4. छात्रों को भाषा विज्ञान के अध्ययन की प्राचीन और आधुनिक परम्परा का परिचय प्राप्त हुआ।
CO-5. छात्रों को विश्व भाषा परिवार का परिचय प्राप्त हुआ।
CO-6. छात्रों को आर्य तथा आर्यान्तर परिवारों की मुख्य भाषाओं का सामान्य परिचय हुआ।

Paper-II: (PMK) प्राचीन एवमं मध्यकालीन काव्य

- CO-1. छात्रों को प्राचीन तथा मध्ययुगीन काव्य कृतियों का परिचय प्राप्त हुआ।
CO-2. छात्रों को आदिकाल और भक्तिकाल के साहित्य की प्रवृत्तियों की जानकारी प्राप्त हुई।
CO-3. छात्र कबीर, सूरदास, मीराबाई की काव्य कृतियों विशेष रूप से परिचित हुए।
CO-4. छात्र प्राचीन तथा मध्य युग की भाषा से अवगत हुए।
CO-5. छात्र प्राचीन तथा मध्य युग की काव्य परम्परा से परिचित हुए।
CO-6. छात्रों में काव्य के प्रति समीक्षात्मक दृष्टि विकसित हुई।

Paper-III: (SAK) सूरदास और अन्य कृष्ण भक्त कवि

- CO-1. छात्रों को सूरदास के व्यक्तित्व और कृतित्व का परिचय प्राप्त हुआ।
CO-2. छात्र सूरदास की काव्यगत शक्ति और सीमाओं से परिचित हुए।
CO-3. छात्र सूरदास के काव्य की प्रासंगिकता से अवगत हुए।
CO-4. छात्र कुछ अन्य कृष्ण भक्त कवियों के व्यक्तित्व और कृतित्व से भी परिचित हुए।
CO-5. छात्रों में कृष्ण भक्त कवियों के समीक्षण की यथोचित दृष्टि का विकास हुआ।
CO-6. छात्रों में कृष्ण काव्य के प्रति रुचि में वृद्धि हुई।

Paper-IV : (MLA) मीडिया लेखन एवं अनुवाद विज्ञान

- CO-1. छात्रों को मीडिया लेखन के स्वरूप की जानकारी प्राप्त हुई।
CO-2. छात्र मीडिया की प्रविधि और प्रकारों से अवगत हुए।
CO-3. छात्रों को प्रिंट मीडिया और इलेक्ट्रॉनिक मीडिया के उद्भव व विकास का ज्ञान प्राप्त हुआ।
CO-4. छात्रों को अनुवाद के क्षेत्र और स्वरूप की जानकारी प्राप्त हुई।
CO-5. छात्रों को अनुवाद की प्रक्रिया और महत्त्व का ज्ञान प्राप्त हुआ।
CO-6. छात्रों को अनुवाद की समस्याएं और उनके समाधान के संबंध की जानकारी प्राप्त हुई।

Semester-IV

Paper 1: (BHV) भाषा विज्ञान एवम हिंदी भाषा का अध्ययन

- CO-1. छात्रों ने शब्द और अर्थ के संबंध, अर्थ विकास की दिशाओं तथा कारणों के विषय में जानकारी प्राप्त की।
CO-2. छात्रों को हिंदी भाषा के उद्भव, विकास तथा ऐतिहासिक पृष्ठभूमि का परिचय प्राप्त हुआ।

- CO-3. छात्र हिंदी की उपभाषाओं और बोलियों के वर्गीकरण और क्षेत्र से परिचित हुए।
CO-4. छात्रों को मानक हिंदी के स्वरूप, शब्द भंडार, रूप संरचना और वाक्य संरचना के विषय में जानकारी प्राप्त हुई।
CO-5. छात्रों ने प्राचीन भारतीय लिपियों के विषय में जानकारी प्राप्त की।
CO-6. छात्रों ने देवनागरी लिपि के उद्भव, विकास, वैज्ञानिकता, त्रुटियों तथा हिंदी वर्तनी के मानकीकरण के विषय में जानकारी प्राप्त की।

Paper-II : (PHK) प्राचीन एवम मध्यकालीन काव्य

- CO-1. छात्रों को प्राचीन तथा मध्ययुगीन काव्य कृतियों का परिचय प्राप्त हुआ।
CO-2. छात्र प्राचीन तथा मध्य युग की काव्य परम्परा से परिचित हुए।
CO-3. छात्र प्राचीन तथा मध्ययुग की भाषा की परिचित हुए।
CO-4. छात्रों को प्राचीन तथा मध्ययुगीन साहित्य की प्रवृत्तियों से अवगत करवाया गया।
CO-5. छात्र तुलसीदास, बिहारी, घनानंद की काव्य कृतियों से विशेष रूप से परिचित हुए।
CO-6. छात्रों में काव्य के प्रति समीक्षात्मक दृष्टि तथा रुचि विकसित हुई।

Paper III : (SAK) सूरदास और अन्य कृष्ण भक्त कवि

- CO-1. छात्रों को सूरदास के व्यक्तित्व और कृतित्व का परिचय प्राप्त हुआ।
CO-2. छात्र सूरदास की काव्यगत शक्ति और सीमाओं से परिचित हुए।
CO-3. छात्र सूरदास के काव्य की प्रासंगिकता से अवगत हुए।
CO-4. छात्र अन्य कृष्ण भक्त कवियों के व्यक्तित्व और कृतित्व और मूल संवेदना से भी परिचित हुए।
CO-5. छात्रों में कृष्ण भक्त कवियों के समीक्षण की यथोचित दृष्टि का विकास हुआ।
CO-6. छात्रों में कृष्ण काव्य के प्रति रुचि में वृद्धि हुई।

Paper-IV :(BAS) भारतीय साहित्य

- CO-1. छात्र भारतीय साहित्य की प्रमुख रचनाओं से परिचित हुए।
CO-2. छात्रों को भारतीय साहित्य के स्वरूप तथा महत्व की जानकारी प्राप्त हुई।
CO-3. छात्रों को भारतीय साहित्य की विभिन्न विधाओं का ज्ञान प्राप्त हुआ।
CO-4. छात्र भारतीय साहित्य की व्यापकता और उपयोगिता से अवगत हुए।
CO-5. छात्रों को गीतांजलि(काव्य), घासीराम कोतवाल(नाटक) और संस्कार(उपन्यास) का ज्ञान प्राप्त हुआ।

PG Department of English

Programme Outcomes: B.A (English)

Department Of English	After the successful completion of a three year degree programme in B.A (English) a student should be able to develop the following competencies:
Programme Specific Outcomes (English Compulsory)	<p>PSO-1. Have basic vocabulary and the knowledge of basic grammar</p> <p>PSO-2. Know how to study language and literature</p> <p>PSO-3. Know the difference among prose, poetry, and drama as the forms of literature</p> <p>PSO-4. Develop the skills of analysis of literature</p>
Programme Specific Outcomes(Elective English)	<p>PSO-1. Know the various forms of literature</p> <p>PSO-2. The knowledge of literary values</p> <p>PSO-3. Analysis/criticism of literature</p> <p>PSO-4. After the completion of the course the students should be able to take up the special studies in language and literature.</p>
Programme Specific Outcomes(Functional English)	<p>PSO-1. The four skills of English language</p> <p>PSO-2. The knowledge of basics of communication</p> <p>PSO-3. The basics of TV, radio and print journalism</p> <p>PSO-4. The basic of office communication</p>

Course Outcomes B.A.(English)

Semester-1

Course	Outcomes
	After completion of these courses students should be able to ;
English Compulsory	<ul style="list-style-type: none"> • Basic knowledge of English as Language. • Major knowledge of English as Literature. • Basic knowledge of English Grammar. • Critical study of English Literary studies. • Relation between pleasure of literature and real life.
Elective English	<ul style="list-style-type: none"> • Knowledge of literary terms • Understanding of Style and language of literary works • Critical reading • Basic grammar
Functional English	<ul style="list-style-type: none"> • Familiarity with the functioning of English – English sounds through listening in the Language Lab. • Accuracy in oral production by the use of the

	<p>pronunciation dictionary.</p> <ul style="list-style-type: none"> • An optimum level of intelligibility and fluency in speech • Ability of communication in the spoken mode with accuracy and fluency for various functions.
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Semester-II

Course	Outcomes After completion of these courses students should be able to ;
English Compulsory	<ul style="list-style-type: none"> • Basic knowledge of English as Language. • Major knowledge of English as Literature. • Basic knowledge of English Grammar. • Critical study of English Literary studies. • Relation between pleasure of literature and real life.
Elective English	<ul style="list-style-type: none"> • Knowledge of literary terms • Understanding of Style and language of literary works • Critical reading • Basic grammar
Functional English	<ul style="list-style-type: none"> • Enhanced ability of communication in the written mode with accuracy and fluency • Trained use of specific formats of written discourse • Knowledge of the fundamentals of study skills • Familiarity with the study skills to collect, classify & retrieve information from different sources and to record and store it

Semester-III

Course	Outcomes After completion of these courses students should be able to ;
English Compulsory	<ul style="list-style-type: none"> • Basic knowledge of English as Language. • Major knowledge of English as Literature. • Basic knowledge of English Grammar. • Critical study of English Literary studies. • Relation between pleasure of literature and real life.
Elective English	<ul style="list-style-type: none"> • Knowledge of literary terms • Understanding of Style and language of literary works • Critical reading • Basic grammar
Functional English	<ul style="list-style-type: none"> • Acquaintance with the different mechanisms of radio

	<p>broadcast.</p> <ul style="list-style-type: none"> • Script writing for different genres of Radio broadcast. • Acquaintance them with the elements of voice • Identification and overcoming speech problems
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Semester-IV

Course	Outcomes After completion of these courses students should be able to ;
English Compulsory	<ul style="list-style-type: none"> • Basic knowledge of English as Language. • Major knowledge of English as Literature. • Basic knowledge of English Grammar. • Critical study of English Literary studies. • Relation between pleasure of literature and real life.
Elective English	<ul style="list-style-type: none"> • Knowledge of literary terms • Understanding of Style and language of literary works • Critical reading • Basic grammar
Functional English	<ul style="list-style-type: none"> • Acquaintance with the lay-out, equipment and functioning of a T.V. station • Scriptwriting for different genres of T.V. Broadcast. • Sensitization to body movements, demeanor and gestures involved in T.V. presentation. • Practice in previously covered features of broadcast presentation. • Familiarity with different genres of T.V. production

Semester-V

Course	Outcomes After completion of these courses students should be able to:
English Compulsory	<ul style="list-style-type: none"> • Basic knowledge of English as Language. • Major knowledge of English as Literature. • Basic knowledge of English Grammar. • Critical study of English Literary studies. • Relation between pleasure of literature and real life.
Elective English	<ul style="list-style-type: none"> • Knowledge of literary terms • Understanding of Style and language of literary works • Critical reading

	<ul style="list-style-type: none"> • Basic grammar
Functional English	<ul style="list-style-type: none"> • Awareness of issues deserving reporting in print • Familiarity with different aspects of print journalism, its formats, its avenues. • Writing news stories from the stage of news gathering to editing to their final presentation. • Familiarity with the lay-out, equipment and functioning of a newspaper/magazine production centre • Acquisition of the art and skills of feature writing for freelancing • Awareness of the aspects of graphic arts in Print Journalism.

Semester-VI

Course	Outcomes After completion of these courses students should be able to ;
English Compulsory	<ul style="list-style-type: none"> • Basic knowledge of English as Language. • Major knowledge of English as Literature. • Basic knowledge of English Grammar. • Critical study of English Literary studies. • Relation between pleasure of literature and real life.
Elective English	<ul style="list-style-type: none"> • Knowledge of literary terms • Understanding of Style and language of literary works • Critical reading • Basic grammar
Functional English	<ul style="list-style-type: none"> • Language proficiency in Business/work situations particularly in spoken interaction • Awareness of the special features of format and style of informal communication through various modes. • Techniques of written communication in business situations. • Expanded vocabulary and developed reading comprehension of material related to business.

Programme Outcomes: M.A. (English)

Department Of English	<p>After successful completion of a three year degree programme in B.A(English) a student should be able to develop:</p> <ul style="list-style-type: none"> • Literary sensibility • Critical thinking
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	<ul style="list-style-type: none"> • Understanding of a wide range of literary texts , literary history and literary criticism • Proficiency in English language and ELT
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Semester-I

Course	Outcomes After completion of these courses students should be able to ;
Paper I- Literary Criticism-I	Understand the basic concepts in literary criticism starting from Aristotle
Paper II- British Poetry-I	<ul style="list-style-type: none"> • Introduce students to the poetry of selected British poets. • Make the students aware of the literary period • Display a working knowledge of poetry as a literary genre • Identify and describe distinct literary characteristics of poetic form • Critically analyse poetic work and write analytically about it
Paper-III- British Drama-I	<ul style="list-style-type: none"> • Introduce students to the plays of selected British dramatists. • Make the students aware of the literary period • Display a working knowledge of drama as a literary genre • Identify and describe distinct literary characteristics of different dramatic forms • Critically analyse dramatic works and write analytically about it
Paper-IV British Novel-I	<ul style="list-style-type: none"> • Introduce students to the novels of selected British writers. • Make the students aware of the literary periods in which the novels were set. • Display a working knowledge of novel as a literary genre • Identify and describe distinct literary characteristics of novel • Get sensitised with the critical tools used in the reading of novel • Enhances critical thinking of the student and help them to become critical readers • Critically analyse literary text and write analytically about it

Semester-II

Course	Outcomes After completion of these courses students should be able to ;
Paper I- Literary Criticism-II	Understand the different approaches to literature and their application to literary works
Paper II- British Poetry-II	<ul style="list-style-type: none"> • Introduce students to the poetry of selected British poets • Make the students aware of the literary period • Display a working knowledge of poetry as a literary genre • Identify and describe distinct literary characteristics of poetic

	<p>form</p> <ul style="list-style-type: none"> • Critically analyse poetic work and write analytically about it
Paper-III- British Drama-II	<ul style="list-style-type: none"> • Introduce students to the plays of selected British dramatists • Make the students aware of the literary period • Display a working knowledge of drama as a literary genre • Identify and describe distinct literary characteristics of different dramatic forms • Critically analyse dramatic works and write analytically about it
Paper-IV British Novel-II	<ul style="list-style-type: none"> • Introduce students to the novels of selected British writers. • Make the students aware of the literary periods in which the novels were set. • Display a working knowledge of novel as a literary genre • Identify and describe distinct literary characteristics of novel • Get sensitised with the critical tools used in the reading of novel • Enhances critical thinking of the student and help them to become critical readers • Critically analyse literary text and write analytically about it

PG Department of Sociology

Programme Outcomes: B.A. (Sociology)

Department of Sociology	After successful completion of three-year degree program in B.A. Sociology, a student should be able to:
Programme Outcomes	<p>PO-1. Students gain knowledge in initial areas of sociology.</p> <p>PO-2. It develops sociological thinking.</p> <p>PO-3. Students will be able to know about society in a scientific way. In order to achieve advancement in different fields. The scientific knowledge of human society is required to solve societal problems using scientific thinking.</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1. Provide knowledge of basic concepts of society such as social structure, institutes, communities, norms, values, social groups. Attitude, functions and Culture</p> <p>PSO-2. Enable to gain efficient knowledge of society before any social policies can be implemented.</p> <p>PSO-3. Aware the student about sociological theoretical frameworks that will show the empirical sophistication of sociology, the concepts must be scientifically evaluated.</p> <p>PSO-4. Aware students about the social problems and the develop the thinking to find out the solutions of these problems</p> <p>PSO-5. It enable student to have a better understanding about the marginalized communities and governmental measurements for the welfare of these communities.</p>
Course Outcomes B.A. Sociology	
Semester-I	
Course	Outcomes After completion of these courses students should be able to;
FUNDAMENTALS OF SOCIOLOGY	<p>CO-1. Students will be able to understand the fundamentals of Sociology and Sociology as a discipline</p> <p>CO-2. Students will be able to study the various terms, concepts and processes that will help in formulating a Sociological</p>

	<p>Viewpoint</p> <p>CO-3. Students will be able to understand the theoretical framework of origin of society</p> <p>CO-4. Students will be able to know about the process of socialization</p> <p>CO-5. Students will understand the formal and informal agencies of social control in society</p>
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Semester-II	
SOCIOLOGY of STRATIFICATION	<p>CO-1. Students are exposed to the theoretical understanding of social stratification.</p> <p>CO-2. Learned about the social groups and differentiated from one another and often ranked in terms of certain criteria.</p> <p>CO-3. Pertinent to apprise the students of the concept of social mobility and various factors that contribute to it.</p> <p>CO-4. Prepare the students to understand the hierarchical structure of groups in various societies and help them understand the social mobility</p>

Semester-III	
Course	Outcomes
	<p>After completion of these courses students should be able to;</p>
SOCIAL STRUCTURE AND SOCIAL CHANGE	<p>CO-1. Introduces students both to conceptual and some theoretical understanding of social structure and social change</p> <p>CO-2. Students are introduced to characteristics and elements of social structure and to understand the meaning, process and factors of social change.</p> <p>CO-3. Students are able to effectively to know about the process and connotations of development and globalization</p> <p>CO-4. Students make effective use of the library, conduct research and make oral and written presentations of their findings.</p>

Semester-IV	
SOCIAL INSTITUTIONS	<p>CO-1. Student make their efficiency by defining the concept of social institutions in detail</p> <p>CO-2. Study of various institutions which are foundations of human society, will help students to look at society in an objective and analytical way.</p> <p>CO-3. Pertinent to apprise the students of the functions of different social institutes in society</p>

Semester-V	
Course	Outcomes
	After completion of these courses students should be able to;
(Paper Code+ Paper Name) SOCIETY IN INDIA	<p>CO-1. Provide a comprehensive view of Indian Society</p> <p>CO-2. The students are exposed to the tribal, rural and urban societies and are presented with the social structure and social institutions to understand these segments of Indian Society</p> <p>CO-3. Understand effectively about the problems and government measurements for the uplift of underprivileged section of Indian Society</p>

Semester-VI	
DISORGANISATION AND EMERGING PROBLEMS	<p>CO-1. Depiction the students about the social disorganization, its levels and current problems.</p> <p>CO-2. It helps students to understand social realities and also equips them to utilize their knowledge in various theoretical and practical exercises</p> <p>CO-3. Understanding of basic notions that how the different social problems create personal, familial and societal disorganization</p> <p>CO-4. Enable students to create critical thinking about the solution of social problems</p>

Programme Outcomes: Bachelor of Arts (Hons.)

Department of Sociology	After successful completion of three year degree program in Bachelor of Arts a student should be able to;
Program me Outcomes	<p>PO-1 Students gain knowledge in initial areas of sociology and develops sociological thinking.</p> <p>PO-2. Students will be able to know about society in a scientific way. In order to achieve advancement in different fields.</p> <p>PO-3. Equip the student with skills to analyze problems, formulate an hypothesis, evaluate and validate results, and draw reasonable conclusions thereof.</p> <p>PO-4.Prepare students for pursuing research or careers in Sociology .</p> <p>PO-5. Create awareness to become an educated citizen of society, committed to fulfilling his or her responsibilities within the scope of the rights and privileges granted.</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1. Aware the student about sociological theoretical frameworks that will show the empirical sophistication of sociology, the concepts must be scientifically evaluated</p> <p>PSO-2. Enable student to gain efficient knowledge of society before any social policies can be implemented.</p> <p>PSO-3. Aware students about the social problems and the develop the thinking to find out the solutions of these problems.</p> <p>PSO-4. Provide knowledge of a wide range of Research methods and techniques and application</p> <p>PSO-5. Assist students in preparing (personal guidance, books) for competitive exams e.g. Civil Services, CDPO and BDPO.</p>
Course Outcomes B.A. Hons. sociology	
Semester-III	
Course	Outcomes After completion of these courses, students should be able to;

Paper-SOCIAL THOUGHT (Compulsory)	<p>CO-1. Familiarize the students with the contributions of major thinkers in classical Sociology and their continuing relevance to its contemporary concerns.</p> <p>CO-2. The honors students will develop their understanding of the development of Sociology as a discipline, with a focus upon classical thinkers..</p>
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Semester-IV

Paper-SOCIAL PSYCHOLOGY	<p>CO-1. Understand the relationship between the fields of Sociology and Social Psychology.</p> <p>CO-2. Demonstrate basic concepts in Social Psychology, which have a bearing on the Social Psychological understanding of social interaction, social groups, public opinion and leadership qualities.</p> <p>CO-3. Students will prepare to study the social phenomena from social-psychological perspectives.</p>
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Semester-V

Course	Outcomes After completion of these courses, students should be able to;
Paper-Methods and Techniques of Social Research	<p>CO-1. Understand the basic methods and techniques in social research.</p> <p>CO-2. The students will understand the basic elements of scientific method, various methods of data collection and social measurements in detail.</p>

Semester-VI

Paper- Social Deviance	<p>CO-1. Understand the contemporary social problems in society,</p> <p>CO-2 the students will knowledgeable about the basic concept of deviance in contemporary society</p> <p>CO-3 Demonstrate its theoretical perspectives and control mechanisms.</p>
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Programme Outcomes: M.A. Sociology

Department of Sociology	After successful completion of two year degree program in chemistry a student should be able to;
Programme Outcomes	<p>PO-1. Inculcate critical thinking in order to conduct objective scientific research without being influenced by preconceived notions.</p> <p>PO-2. Equip the student with skills to analyze problems, formulate a hypothesis, evaluate and validate results, and draw reasonable conclusions thereof.</p> <p>PO-3. Prepare students for pursuing research or careers in Sociology</p> <p>PO-4. Imbibe effective social and scientific communication in both oral and writing.</p> <p>PO-5. Continue to acquire relevant knowledge and skills appropriate to professional activities and demonstrate highest standards of ethical issues such as ethnic, gender and employment discrimination</p> <p>PO-6. Create awareness to become an educated citizen of society, committed to fulfilling his or her responsibilities within the scope of the rights and privileges granted</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1 • Understanding of the fundamental of Sociology and capability of developing ideas based on them.</p> <p>PSO-2• Inculcate the study of society and the scientific promotion of human welfare that has been neglected for long periods.</p> <p>PSO-3• Prepare and motivate students for research studies in sociology to diagnosis and analyze social problems and find suitable solutions.</p> <p>PSO-4 • Provide knowledge of a wide range of Research methods and techniques and application</p> <p>PSO-5• Provide advanced knowledge on topics of Peasant and rural society, unbanization, gender and development and social deviance.</p> <p>PSO-7 • Good understanding of thepretical perspective comprises of ideas and current theory used for specific research together with its definitions and references to appropriate academic literature</p> <p>PSO-9• Assist students in preparing (personal guidance, books) for competitive exams e.g. NET/SLET and Civil Servicesetc.</p>

Course Outcomes M.A Sociology

Semester-I

Course	Outcomes After completion of these courses students should be able to;
Paper-I SOC R 411: HISTORY OF SOCIAL THOUGHT	<p>CO-1. Students will be able to describe fundamental and historical evolution of sociological thought.</p> <p>CO-2. Effectively sensitize students to a detailed study of Classical Sociologists, i.e. Karl Marx, Max Weber and Emile Durkheim.</p> <p>CO-3. Develop the scientific thinking of students about the past and present social problems and developed the body of thoughts in systematic manners.</p> <p>CO-4. Demonstrate formulation of these thinkers to contemporary issues</p>
Paper-II SOC R 412: SOCIOLOGY OF FAMILY AND GENDER	<p>CO-1. Disclose to the students regarding the basic concepts of family and Gender</p> <p>CO-2. Demonstrate the Process of gender socialization within the framework of the family</p> <p>CO-3. Students will be able to expose the specific problems and legal provisions made available to counter these problems relating to gender inequality in the Indian context.</p>
Paper-III SOC R 413: SOCIOLOGY OF DEVELOPMENT	<p>CO-1. Students will be able to identify the relevance of the theme of development, especially in the less developed societies</p> <p>CO-2. Familiarize the students with the various ways that development has been conceptualized</p> <p>CO-3. Reveal the modernization theory in its economic, sociological, social-psychological and political forms with its critical evaluation.</p> <p>CO-4. The student will be able to exhibit a review of the underdevelopment theory given by the Latin American political economists; and re-assess the various paths to development.</p>
Paper-IV SOC R 414: SOCIAL STRATIFICATION : CONCEPTS & THEORIES	<p>CO-1 students are enlightened with the knowledge about elements of discrimination, exploitation, inequality and prevalence of hierarchies in everyday life</p> <p>CO-2. Effectively helpful for students give a background of important sociological concepts of stratification</p> <p>CO-3. Students will understand about the theoretical formulations of important thinkers like Max Weber, Karl Marx, Talcott Parsons, Davis and</p>

	<p>Moore and Ralph Dahrendorf</p> <p>CO-4. Students also gain knowledge o contemporary formulations like the emerging of middle class and changing dimensions of caste and class.</p>
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Semester-II	
Course	Outcomes After completion of these courses students should be able to;
<p>Paper-I SOC R 425: POSITIVISTIC SOCIOLOGICAL THEORIES</p>	<p>CO-1. Knowledge and understanding :Learn the theories and writings of sociologists constituting the School of Positivistic Theories who actually treat Sociology as a natural sciences.</p> <p>CO-2. It also includes the more recent theories such as Structuration, Post-structuralism, etc.</p> <p>CO-3. Student will create intellectual understanding about the wisdom, rationalism, pragmatism and scientific methods</p> <p>CO-4. Student will communicate effectively in both written and oral form.</p>
<p>SOC R 426: METHODOLOGY OF SOCIAL RESEARCH</p>	<p>CO-1. Student will familiarize with the major Epistemological Schools in methodology of social sciences</p> <p>CO-2. It will also acquaint the students with the basic elements of social research and the major problems confronted by social scientists in arriving at objectivity and value neutrality.</p> <p>CO-3. Demonstrate knowledge and understanding of different statges of research.</p> <p>CO-4. Understand sampling and their various types in detail.</p>
<p>Paper –III SOC O 721: SOCIOLOGY OF URBAN SETTLEMENTS</p>	<p>CO-1. Introduce and understand the students about the history of urban settlements and emergence of Urban Sociology as a discipline.</p> <p>CO-2. Acquaint the students with the basic concepts, approaches and theoretical formulations relating to urban typology, urban ecology, Urbanism etc., with a special focus on the diverse experiences of western and non-western, particularly Indian, regions.</p> <p>CO-3. Students will provide the basic understanding to the students who wish to specialize in urban sociology.</p>

<p>Paper-IV SOC O 921: PEASANTS AND RURAL SOCIETY IN INDIA</p>	<p>CO-1. The students will impart about the basic differences of rural sociology vis-a-vis the urban sociology, and the crucial role played by the peasantry therein.</p> <p>CO-2. Effectively understand how the traditional social institutions, agricultural economy and the caste system together build up social structure which is entirely different from the ideal market-oriented capitalist institutions.</p> <p>CO-3. Enable to gain efficient knowledge the nature of changes taking place in the rural social structure after the presentation of money and market economy linked to the global capital.</p>
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Semeter-III	
Course	Outcomes After completion of these courses, students should be able to;
<p>Paper-I SOC R 438: INTERPRETIVE SOCIOLOGICAL THEORIES</p>	<p>CO-1. The students will knowledgeable about the works and ideas of sociologists who have contributed to the perspective of Interpretive Sociology, as against the Positivistic sociology.</p> <p>CO-2. Understand the different approaches that diverges from positivistic sociological theories by recognizing that subjective experience, social interaction, thoughts and human behavior are equally important as are observable and objective facts.</p> <p>CO-3. It focuses on the work of Action theorists, Interactionist theorists and the scholars belonging to the Frankfurt School of Critical Theory.</p>
<p>SOC R 439: METHODS AND TECHNIQUES IN SOCIAL RESEARCH</p>	<p>CO-1. The student will effectively understand the different methods and techniques of data collection.</p> <p>CO-2. The student will familiarize with the basic elements of scientific method, data collection, data processing and analysis and finally, report writing.</p> <p>CO-3. Students will trained to how get information from the field and to draw influences and conclusions out of field research.</p>

Paper-III SOC O 632: SOCIAL DEVELOPMENT IN INDIA	<p>CO-1. Student will enrich with knowledge about the development process in India focuses mainly on the issues of the India State and planned development.</p> <p>CO-2. Demonstrate the role of the voluntary sector in India's development.</p> <p>CO-3. Demonstrate the assessment of the problems of, and measures taken to improve the conditions of the underprivileged groups such as the SCs, STs and BCs.</p> <p>CO-4. Students will consider the phenomenon of globalization and its consequences for the Indian society</p>
Paper-IV SOC O 933: SOCIOLOGY OF DEVIANCE: CONCEPTS AND THEORIES	<p>CO-1. Demonstrate the concept of deviance and its related terms.</p> <p>CO-2. Demonstrate types of Deviance in contemporary society</p> <p>CO-3. Students will also be made aware of different explanations of deviance.</p>

Semester-IV	
Course	Outcomes After completion of these courses students should be able to;
Paper-I SOC R 440: PERSPECTIVES ON INDIAN SOCIETY	<p>CO-1 Acquaint the students with some of the sociological perspectives which have been developed to study the Indian Society.</p> <p>CO-2. Giving a chronological view on studies of Indian society.</p> <p>CO-3- The student will develop their understanding about the importance of Indian Sociologists and their monographs.</p> <p>CO-4 It further hopes to help the students formulate a link between their theoretical background and examples from the field and to sensitize students about important Indian Social Institutions: Family, Village and Caste, etc.</p>
Paper-II SOC O 843: FAMILY DYNAMICS IN CONTEMPORARY INDIA	<p>CO-1. Students will be enabled to have a grasp of the changing marriage and family patterns in India.</p> <p>CO-2. Demonstrate the impact of technological and economic factors on family and how family has responded to these by undergoing changes in its Form, Structure and Functions, which in turn influence the values and</p>

	<p>role-relations within the family.</p> <p>CO-3. Students will be further acquainted with the family's failure in coping with the pressures of modern life.</p>
<p>Paper-III SOC O 844: GENDER AND DEVELOPMENT</p>	<p>CO-1. Students will enable to establish a link between Development and Gender.</p> <p>CO-2. Effectively focus on different perspectives and schemes adopted for promoting Gender and Development.</p> <p>CO-3. Understand about the developmental policies which have been detrimental to women.</p> <p>CO-4. Look at the changes taking place in gender relations, particularly in the area of women and work; differentials and role conflict in the family due to changing equations.</p> <p>CO-5. Understand the overview of indicators of issues related to Discrimination, Exploitation and Oppression.</p>
<p>Paper-IV SOC O 942: SOCIAL PROBLEMS</p>	<p>CO-1. Understand India's social problems that have become more difficult, intricate and hydra-headed, pervading the entire social, economic, cultural and demographic structure.</p> <p>CO-2. Keeping this in view, learn the concept and various perspectives on social problems.</p> <p>CO-3. Understand detailed knowledge about specific social problems ranging from socio-cultural problems to socio-demographic problems.</p>

PG Department of History

Programme Outcomes : B.A(History)

Department of History	After successful completion of three year degree program in B.A History a student should be able to;
Programme Outcomes	<p>PO-1.Students will demonstrate knowledge of the chronology, narrative, major events, personalities and turning points of the history of the India,Punjab and the World.</p> <p>PO-2.Students will offer multi-causal explanations of major historical developments based on a contextualized analysis of interrelated political, social, economic, cultural and intellectual processes.</p> <p>PO-3.Students will be able to demonstrate a breadth of training across historical time and space.</p> <p>PO-4.Students will be able to develop an in-depth understanding of a field, theme or region.</p> <p>PO-5.Students will be able to formulate historical arguments and communicate those arguments in clear and persuasive prose.</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1. Understand background of our religion, customs institutions, administration and so on.</p> <p>PSO-2. Understand the present existing social, political, religious and economic conditions of the people.</p> <p>PSO-3. Analyze relationship between the past and the present is lively presented in the history.</p> <p>PSO-4. Develop practical skills helpful in the study and understanding of historical events.</p> <p>They:</p> <p>(a) Draw historical maps, charts, diagrams etc.</p> <p>(b) Prepare historical models, tools etc.</p> <p>PSO-5 .Develop interests in the study of history and activities relating to history. They:</p> <p>(a) Collect ancient arts, old coins and other historical materials;</p> <p>(b) Participate in historical drama and historical occasions;</p> <p>(c) Visit places of historical interests, archaeological sites,</p>

	<p>museums and archives;</p> <p>(d) Read historical documents, maps, charts etc.</p> <p>(e) Play active roles in activities of the historical organizations and associations; and</p> <p>(f) Write articles on historical topics.</p> <p>PSO-6. The study of history helps to impart moral education.</p> <p>PSO-7. History installs the feeling of patriotism in the hearts of the pupils.</p>
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Course Outcomes B.A (History)

Semester-I

Course	Outcomes
	After completion of this course students should be able to;
History of India upto 1200 A.D.	<p>CO-1. Understand the major sources of Ancient Indian history.</p> <p>CO-2. Understand the salient features of Indus valley civilization.</p> <p>CO-3. Understand the vedic culture, society, economy, polity and religion.</p> <p>CO-4. Evaluate the features of Buddhism and Jainism.</p> <p>CO-5. Visualize the administration of Mauryas and the Dhamma of Ashoka.</p> <p>CO-6. Identify the achievements of Gupta Empire and their cultural and scientific developments.</p> <p>CO-7. Know about the Pallava, Chola and Pandya dynasties.</p> <p>CO-8. Understand about the origin of Rajputs.</p> <p>CO-9. Understand the important ancient historical places on map of India and extent of Mauryan Empire.</p>

Semester-II

History of India 1200-1750 A.D.	<p>CO-1. Understand the foundation of the Delhi sultanate and the Sultanate administration.</p> <p>CO-2. Recognise the Socio, economic and religious conditions under Vijayanagar Empire.</p> <p>CO-3. Identify the condition of India under the Mughal Empire.</p> <p>CO-4. Explain the Administration and decline of Mughals.</p> <p>CO-5. Analyse the rise of the Marathas and the contribution of Shivaji.</p> <p>CO-6. Understand the important historical places of medieval India on map of India.</p>
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Semester-III

History of India, 1750-1964 A.D.	CO-1. Discuss the advent of Europeans and their administration.
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	<p>CO-2. Evaluate the various causes of revolt of 1857 and its results.</p> <p>CO-3. Understand the British agrarian policies and deindustrialization.</p> <p>CO-4. Understand about the Socio-religious reform movements in 19th century.</p> <p>CO-5. State the role of moderates and extremists in the freedom movement.</p> <p>CO-6. Discuss the making of new constitution.</p> <p>CO-7. Understand the important historical places of Modern India on map of India.</p>
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Semester-IV

History of Punjab 1469-1849A.D.	<p>CO-1. Understand the foundation of sikh religion.</p> <p>CO-2. Evaluate the life and teachings of Guru Nanak Devji.</p> <p>CO-3. Understand the contribution all guru in spread of Sikhism.</p> <p>CO-4. Explain the region of Maharaja Ranjit Singh.</p> <p>CO-5. Under stand the role of Banda Bahadur in history of Punjab and Misil period history.</p> <p>CO-6 Understand the important historical places of Punjab on the map of Punjab.</p>
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Semester-V

History of Punjab 1849-1966	<p>CO-1 Explain the British administration after the annexation of Punjab.</p> <p>CO-2 Understand the British agrarian policies.</p> <p>CO-3 Understand the introduction of modern education.</p> <p>CO-4 Learn about the socio- religious activities.</p> <p>CO-5 Explain the growth of political consciousness.</p> <p>CO-6 Understand the formation of Punjabi Suba and reorganization act 1966.</p> <p>CO-7 Understand about the historical places of Punjab.</p>
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Semester-VI

Course	Outcomes
	After completion of this course students should be able to;

World History 18 th -20 th century	CO-1 Understand the rise of modern world. CO-2 Evaluate the American revolution and French revolution. CO-3 Discuss the role of Napoleon in the World political system. CO-4 Understand the major events of unification Italy and Germany. CO-5 Discuss the rise of new type of imperialism in the world. CO-6 Understand the division of Europe into two parts and World War – I. CO-7 Evaluate the World War-II and modernization of China and Japan. CO-8 Identify World Historical places on map of World.
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PG Department of Commerce

Programme Outcomes : B.Com

Department of Commerce	After successful completion of three year degree program in B.Com a student should be able to;
Programme Outcomes	<p>PO-1. After completing three years for Bachelors in Commerce (B.Com) program, students would gain a thorough grounding in the fundamentals of Commerce and Finance.</p> <p>PO-2. The commerce and finance focused curriculum offers a number of specializations and practical exposures which would equip the student to face the modern-day challenges in commerce and business.</p> <p>PO -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 also progress to the valuing and organization levels.</p>
Programme Specific Outcomes	<p>PSO-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.</p> <p>PSO-2. Learners will gain thorough systematic and subject skills within various disciplines of commerce, business, accounting, economics, finance, auditing and marketing.</p> <p>PSO-3. Learners will be able to recognize features and roles of businessmen, entrepreneur, managers, consultant, which will help learners to possess knowledge and other soft skills and to react aptly when confronted with critical decision making.</p> <p>PSO-4. Learners will be able to prove proficiency with the ability to engage in competitive exams like CA, CS, ICWA and other courses.</p> <p>PSO-5. Learners will be able to do higher education and advance research in the field of commerce and finance.</p> <p>PSO-6. Learners will involve in various co-curricular activities to demonstrate relevancy of foundational and theoretical knowledge of their academic major and to gain practical exposure.</p> <p>PSO-7. Learners can also acquire practical skills to work as tax consultant, audit assistant and other financial supporting</p>

services.

Course Outcomes B.Com

Semester-I

Course	Outcomes
BCM 101 A PUNJABI	After completion of these courses students should be able to; CO-1. The students know about the different streaks of human life by reading bibliography. CO-2. The students get the literary sense of comprehension of the subject. CO-3. The students know the skill of communication in Punjabi. CO-4. The students also know about the word formation and vocabulary. CO-5. The students know the bibliography as a form of literature.
BCM 102 ENGLISH AND BUSINESS COMMUNICATIO N	CO-1. Focus on different aspects of communication CO-2. Developing language and writing skills CO-3. Writing of Tender, business letters, notice, memos, resume, and public notices. CO-4. Focus on interview techniques CO-5. Creating an interest in literature CO-6. Understanding and interpretation of short stories and one-act plays.
BCM 103 INTERDISCIPLIN ARY PSYCHOLOGY FOR MANAGERS	CO-1. To provide broad understanding about the basic concepts and techniques of human behavior. CO-2. To provide knowledge about the inter-personal behavior, conflict management and stress management. CO-3. To impart knowledge of motivation, leadership, perception and personality. CO-4. To provides knowledge about individual behavior, factors affecting individual behavior. CO-5. To impart knowledge of attitude, values, beliefs.
BCM 104 BUSINESS ECONOMICS-I	CO-1. To study the basic of concept of Micro Economics relevant for business decision making. CO- 2. It helps students to understand the application of Economics Principles in Business Management. CO-3. Students understand about how to apply the concept of opportunity cost. CO-4. To study shapes of different cost curves. CO-5. Students analyse operations of markets under varying competitive

	situations.
BCM 105 PRINCIPLES OF FINANCIAL ACCOUNTING**	CO-1. To give conceptual knowledge about accounting concepts and Conventions. CO-2. Basic as well as practical knowledge about accounting treatment. CO-3. Under royalty ,branch, consignment and joint venture with GST Implication. CO-4. Introduction to IFRS and Accounting Standards. CO-5. To study about dissolution and insolvency of Paretnership firms.
BCM 106 COMMERCIAL LAWS	CO-1. Learn the difference between valid void and voidable contract. CO-2. Learn how to pursue the consumer rights under consumer protection act 1982. CO-2. Aware about rights to information act, 2005. CO-3. To acquaint the students with general commercial laws. CO-4. To understand basic principles and Origins in the area of commercial law. CO-5. To Identify the fundamental legal principles behind contractual agreements.
BCM 107 PRINCIPLES AND PRACTICES OF MANAGEMENT	CO-1.To helps the students in understanding the process of business management. CO-2.To gives basic knowledge about the management functions. CO-3.To imparts basic knowledge of management by objective, its mechanism. CO-4. To give knowledge about the communication, motivation, leadership. CO-5. To give knowledge about the organizational structures, authority and delegation.

Semester-II	
BCM 201 A PUNJABI	<p>CO-1. The students enrich their esthetic sense by reading bibliography.</p> <p>CO-2. The students know the nature of the subject in comprehension to the secondary level.</p> <p>CO-3. The students get more knowledge of Punjabi culture.</p> <p>CO-4. The students get strong on technical vocabulary.</p>
BCM 202 ENGLISH AND BUSINESS COMMUNICATIO N	<p>CO-1. Creating an interest in literature</p> <p>CO-2. Understanding and interpretation of prose, short stories and plays.</p> <p>CO-3. Focus on different aspects of business communication in written form.</p> <p>CO-4. Basic understanding of Non-verbal communication.</p> <p>CO-5. Developing the skill of Effective listening.</p> <p>CO-6. Skilled use of modern forms of communication like e-mails, Fax Messages, Teleconferencing, Audio-Visual Aids and Power-Point Presentations.</p>
BCM 203 INTERDISCIPLIN ARY E- COMMERCE	<p>CO-1. Logically observed and experienced the main activities of E-Commerce.</p> <p>CO-2. Learned and evaluated about the various components of E-Commerce.</p> <p>CO-3. Conceptually learned the concept of online shopping and models of Electronic market.</p> <p>CO-4. Thoroughly learned the concepts of instant messaging and Electronic Data Exchange.</p> <p>CO-5. Learned about the implementation of HTTP and Secure Electronic transaction.</p>
BCM204 BUSINESS ECONOMICS-II	<p>CO-1. Students will be able to identify the determinants of various macroeconomic aggregates such as output, unemployment, inflation, productivity and the major challenges associated with the measurement of these aggregates.</p> <p>CO-2. Apply economic reasoning to understand the operation of an economy.</p> <p>CO-3. Understand the basics of national income accounting.</p> <p>CO-4. To provide knowledge about the basic concepts of distribution.</p> <p>CO-5. To enable students to learn about the modern tools of macroeconomic analysis.</p>

<p>BCM205 CORPORATE ACCOUNTING</p>	<p>CO-1. Preparation of final accounts of companies. CO-2. Practical knowledge of issue and redemption of debentures. CO-3. Practical knowledge of issue and redemption of shares. CO-4. To study how to maintain accounts of banking and insurance Companies. CO-5. Guidelines and procedure of issuing bonus and right shares.</p>
<p>BCM206 BUSINESS LAWS</p>	<p>CO-1. Critically evaluate conditions and warranties of sale of goods act. CO-2. Able to use negotiable instrument in practical life. CO-3. Demonstrate understanding of the legal environment of business. CO-4. Communicate effectively using standard business and legal terminology. CO-5. To Aware students about the different business laws.</p>
<p>BCM 207 HUMAN RESOURCE MANAGEMENT</p>	<p>CO-1. Learn the qualities of human resource manager in an organization. CO-2. Analysis the importance of different methods of training given to the employees in organization. CO-3. Memorize the difference between on the job training and of the job training. CO-4. Learn the participant of industrial relation and recruitment of good industrial relation programme.</p>

Semester-III

<p>BCM 301 INTERDISCIPLINARY ISSUES IN INDIAN COMMERCE</p>	<p>CO-1. To enable the students to acquire basic knowledge of different issues in Indian commerce. CO-2.To enhances the knowledge about the international sources of finance. CO-3. To give knowledge about stock exchanges, credit rating agencies. CO-4. To give knowledge about credit rating agencies and role of ICRA and CRISIL. CO-5.To imparts knowledge about the Investor protection, SFIO, growth of infrastructure in India, PPP.</p>
<p>BCM 302 COST ACCOUNTING</p>	<p>CO-1. This Course exposes students to a broad range of Cost Accounting concept and terminology. CO-2. Student learn about how to identify, measure, accumulate direct and indirect cost, how to apply different costing techniques like Job Costing, Process Costing, CVP analysis etc. CO- 3. Students learn various inventory control techniques used by different concerns. CO-4. To give conceptual knowledge regarding allocation and apportionment of overheads.</p>
<p>BCM 303 COMPANY LAW</p>	<p>CO-1. To update the knowledge of various provisions of the Companies Act of 2013. CO-2. To apprise the students of new concepts involving in company law regime. CO-3. To acquaint the students with the duties and responsibilities of key managerial personnel. CO-4.To imparts depth knowledge about the provisions and procedures to hold various kinds of meetings under company law. CO-6.Understand the use of the memorandum of association, article of association in a company and prospectus in a company.</p>
<p>BCM304 BUSINESS MATHEMATICS AND STATISTICS</p>	<p>CO-1. Students will learn how to calculate and apply measure of location and measure of dispersion –grouped and ungrouped data cases. CO-2. Students will be able to compute and interpret the result of bivariate and multivariate regression and correlation analysis. CO-3. Students will be familiar with a variety of examples where mathematics or statistics helps accurately explain abstract or physical phenomena. CO-4. Students will recognize and appreciate the connection between theory and applications. CO-5. Students will be able to communicate key statistical concept to non statisticians.</p>

<p>BCM 305 BANKING AND INSURANCE</p>	<p>CO-1. To acquaint the students with their Indian banking structure. CO-2. Detailed knowledge of various banking products. CO-3 To impart practical knowledge of operating ATM ,CDM ,Debit & Credit cards, PAYTM Banking ,GOOGLE PAY & other e-banking modes. CO-4. To give complete picture on Insurance Industry & IRDA</p>
<p>BCM 306 GOODS AND SERVICES TAX (GST)</p>	<p>CO-1.To gain working knowledge on GST and application of the same in the organizations. CO-2. To enable the students to learn the concepts indirect tax and GST from the pre GST period to post GST period. CO-3. To understand the implications of GST on the taxable capacity consumers, dealers and of the society at large and its changes CO-4. Understand and make use of knowledge of GST rules in taking managerial decisions in various tax related matters. CO-5. To enable students to learn about the various GST authorities.</p>

<p style="text-align: center;">Semester-IV</p>	
<p>BCM 401 INTERDISCIPLINARY SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT</p>	<p>CO-1. Analyze and evaluate financial markets, how securities are traded, mutual funds, investment companies, and investor behavior. CO- 2. Construct optimal portfolios and illustrate the theory and empirical applications of asset pricing models. CO-3. Explain macro and industry analysis, equity valuation, financial statement analysis and technical analysis. CO-4. Analyze bond prices and yields and fixed-income portfolios. CO-5. Characterize the implications of the market efficiency evidence on active portfolio management.</p>
<p>BCM 402 ADVANCED ACCOUNTING</p>	<p>CO-1.To give conceptual knowledge to students about advanced accounting problems with relevant Indian Accounting Standard. CO-2. To give student's basic as well as practical knowledge relating to the valuation of shares and valuation of good will. CO- 3. To provide deep knowledge to the students about the procedure of amalgamation and absorption. CO-4. To impart depth knowledge about the procedure of liquidation of companies.</p>

<p>BCM 403 AUDITING AND SECRETARIAL PRACTICE</p>	<p>CO-1. Student will understand the audit process from the engagement planning stage through completion of the audit, as well as the rendering of an audit opinion via the various report options.</p> <p>CO-2. To help the students in understanding concepts and issues in Auditing and secretarial practices.</p> <p>CO-3. To identifies the steps needed to prepare for an audit.</p> <p>CO-4. To know how to report results of audit plan and Audit taking into account concepts of evidence, risk and evaluate internal control.</p> <p>CO-5. To knows about the position and role of a company Secretary.</p>
<p>BCM 404 COST MANAGEMENT</p>	<p>CO-1. To acquaint the students with the various methods of cost determination.</p> <p>CO-2. To understand the tools and techniques of cost control.</p> <p>CO-3. Able to prepare various budgets like fixed and flexible budgets.</p> <p>CO-4. Define the terms with regard to variance analysis.</p> <p>CO-5. Define the process to compute total cost of a product belong to various production processes.</p>
<p>BCM405 MARKETING MANAGEMENT</p>	<p>CO-1. Students can identify how consumer behaves differently.</p> <p>CO-2. Able to understand how a product passed from different stages.</p> <p>CO-3. Able to understand the difference between trademark and branding.</p> <p>CO-4. Able to describe the customer segmentation, target marketing and positioning.</p> <p>CO-5. Understand different methods of sale promotion.</p>
<p>BCM 406 QUANTITATIVE TECHNIQUES AND METHODS*</p>	<p>CO-1. Students will acquaint with the various quantitative techniques and methods.</p> <p>CO-2. Students will understand the theory of probability and applications of linear programming.</p> <p>CO-3. Students will understand the concept of correlation, regression and their practical implications.</p> <p>CO-4. Students can apply such techniques and methods in practical life.</p> <p>CO-5. It will help students in making managerial decisions.</p>

Semester-V

<p>BCM501 INCOME TAX LAW</p>	<p>CO-1. To understand the provisions and procedure to compute total income under five heads of income i.e. salaries, house property, profits & gains from business & profession, capital gains and other sources. CO-2. To make aware about provisions of direct tax with regard to IT Act, 1961 and IT Rules, 1962. CO-3. To make aware about agriculture income, residential status and incidence/charge of tax. CO-4. Able to compute total income and define tax complicacies and structure. CO-5. Able to understand amendments made from time to time in Finance Act.</p>
<p>BCM502 MANAGEMENT ACCOUNTING*</p>	<p>CO-1. To develop the knowledge of business finance and management decision. CO-2. To teach a sense of responsibility and a capacity for accounting for management. CO-3. To study the basic concepts of management accounting relevant in business. CO-4. To understand the usage of accounting in financial management.</p>
<p>BCM 503 INDIAN ECONOMY</p>	<p>CO-1. TO give knowledge about Indian economy. CO-2. Detailed study of foreign trade, foreign trade policy. CO-3. Study of demographic features of Indian economy. CO-4. Study of economic reforms and its impact in Indian economy.</p>
<p>BCM 504 PRODUCTION AND OPERATION MANAGEMENT</p>	<p>CO-1. To understand the basics of operations management terminology and technological trends. CO-2. To develop certain quantitative skills, competencies in the input transformation and output process. CO-3. To have knowledge about types of processes used in manufacturing. CO-4. Make familiar regarding demand forecasting, plant layout, location and supply chain management related decisions. CO-5. To have adequate knowledge about work study and work measurement.</p>

<p>BCM 505 ENTREPRENEURS HIP AND SMALL BUSINESS</p>	<p>CO-1. To give knowledge about issues involved in setting up a private Enterprise and to develop required entrepreneurial skills in economic development. CO-2. To motivate students to opt for entrepreneurship and self-employment as alternate career options. CO-3. To give knowledge about the small scale industries and role of SSI in India, problems faced by SSI, tax exemptions for SSI, small business and modern technology. CO-4. To impart knowledge of business planning, motivation, leadership, decision-making, innovation, risk taking. CO-5. To give knowledge about the EDP's, relevance of EDP's and role of government in organizing EDP's.</p>
<p>BCM 506 FINANCIAL MARKETS AND SERVICES</p>	<p>CO-1. To familiarize the students with the traditional and modern financial markets and services. CO-2. It helps the learners to understand the structure of Indian Financial System. CO-3. It provides knowledge to the students about the types of financial markets their nature and working. CO-4. It helps the students to know about the concept of mutual funds, its management and its types.</p>

Semester-VI

<p>BCM 601 DIRECT TAX LAWS*</p>	<p>CO-1. To understand the provision and procedure for clubbing & aggregation of incomes and set-off & carry forward of losses. CO-2. To understand the various deductions to be made from gross total income U/s 80-C to 80-U in computing total income. CO-3. To understand the provisions and procedure to compute total income and tax payable by an individual. HUF, Firms and AOP/BOI. CO-4. To understand various tax rebates & relief and procedure to file IT return. CO-4. To aware the students about the tax authorities and their powers. CO-5. Able to file IT return on individual basis.</p>
<p>BCM602 FINANCIAL MANAGEMENT</p>	<p>CO-1. To learn capital budgeting and different techniques. CO-2. To study effective financial planning. CO-3. Students will able to understand the concept of working capital management. CO-4. Perform analytical reviews of financial results, proposals, and plans. CO-5. Identify funding sources, instruments, and markets.</p>

<p>BCM 603 ISSUES IN FINANCIAL REPORTING</p>	<p>CO-1. The main purpose of this subject is to provide to knowledge to the students about development in financial reporting.</p> <p>CO-2. Students learn about the various reporting issues at the national and international level.</p> <p>CO-3. To provide conceptual knowledge of framework of FASB and IASB.</p> <p>CO-4. To study about the recent trends in FR in the Indian Contest.</p>
<p>BCM 604 SOCIAL AND BUSINESS ETHICS</p>	<p>CO-1. Develop strategies for identifying and dealing with typical ethical issues, both personal and organizational.</p> <p>CO-2. The student will be able to analyze various ethical codes in corporate governance.</p> <p>CO-3. The student will be able to Analyze corporate social Responsibility.</p> <p>CO-4. Students will be able to understand the environmental issues regarding business.</p>
<p>BCM 605 OPERATIONAL RESEARCH*</p>	<p>CO-1. Students will understand the concept and techniques of operations research.</p> <p>CO-2. Identify and develop operational research models from the verbal description of the real system.</p> <p>CO-3. Understand the mathematical tools that are needed to solve optimization problems.</p> <p>CO-4. Use mathematical software to solve the proposed models.</p> <p>CO-5. Develop a report that describes the model and the solving technique, analyze the results and propose recommendations in language understandable to the decision-making processes in Management Engineering.</p>
<p>BCM606 SECTORAL ASPECTS OF INDIAN ECONOMY</p>	<p>CO-1. To study about ways to enhance agricultural productivity.</p> <p>CO-2. To share benefits of organic and corporate farming.</p> <p>CO-3. Study of latest industrial policy with five year plans.</p> <p>CO-4. To determine problems of large scale and small scale industries.</p> <p>CO-5. To throw light on problems of Indian economy with special reference to inflation, unemployment</p>

Programme Outcomes: M.Com.

Department of Commerce	After successful completion of two year degree program in commerce a student should be able to;
Programme Outcomes	<p>PO-1. To acquaint a student with conventional as well as contemporary areas in the discipline of Commerce.</p> <p>PO-2. To enable a student well versed in national as well as international trends.</p> <p>PO-3. To enable the students for conducting business, accounting and auditing practices, role of regulatory bodies in corporate and financial sectors nature of various financial instruments.</p> <p>PO-4. To provide in-depth understanding of all core areas specifically Advanced Accounting, International Accounting, Management, Security Market Operations and Business Environment, Research Methodology and Tax planning.</p>

Programme Specific Outcomes

Programme Specific Outcomes	<p>PSO-1. To inculcate the knowledge of business and the techniques of managing the business with special focus on marketing, Insurance and banking theory law and practices.</p> <p>PSO-2. To enhance the horizon of knowledge in various field of commerce through accounting and finance, marketing and sales promotion, auditing and entrepreneurial development.</p> <p>PSO-3. To create awareness in application oriented research through research for business decisions.</p>
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Course Outcomes M. Com

Semester-I

Course	Outcomes After completion of these courses students should be able to;
M.C.101 MANAGERIAL ECONOMICS	<p>CO-1. To integrate the basic concept of Economics with the tools of mathematics and statistics in order to analyze and make optimal business decisions.</p> <p>CO-2. To understand the role of managers informs.</p> <p>CO-3. To analyze the demand and supply condition and access the position of a company.</p> <p>CO-4. To design competitive strategies including pricing, marketing</p>

	<p>environment according to the nature of product and structure of markets.</p> <p>CO-5. Analyze real world business problems with a systematical theoretical framework.</p>
<p>M.C.102 QUANTITATIVE METHODS FOR BUSINESS</p>	<p>CO-1. To understand statistical tools for quantitative analysis</p> <p>CO-2. To understand the statistical tools for research and business decision making.</p> <p>CO-3. To develop an understanding of the theory of probability, rules of probability and probability distributions.</p> <p>CO-4. To comprehend the decision making process under uncertainty using statistical tools.</p> <p>CO-5. To become aware of the concepts in sampling, sampling distributions and estimation.</p> <p>CO-6. To understand the meaning and process of hypothesis testing including one-sample and two-sample tests.</p>
<p>M.C.103 MODERN ACCOUNTING THEORY & REPORTING PRACTICES</p>	<p>CO-1. To give knowledge about the IASB and its conceptual framework.</p> <p>CO-2. To give basic and conceptual knowledge about international financial reporting standards and practices.</p> <p>CO-3. To imparts knowledge of Harmonization process, and its benefits.</p> <p>CO-4. To impart basic and conceptual knowledge of preparation of financial statements for single entities as well as combined entities.</p> <p>CO-5. To give basic and conceptual knowledge about presentation and disclosure of financial statements.</p>
<p>M.C.104 ORGANISATION THEORY AND BEHAVIOUR</p>	<p>CO-1. To develop understanding among students about the structure and behavior of organizations.</p> <p>CO-2. To make them capable of realizing the competitiveness of firms.</p> <p>CO-3. To impart knowledge about organization structures, organizational culture, organization development.</p> <p>CO-4. To impart knowledge of stress management, conflict management.</p> <p>CO-5. To give knowledge about motivation, leadership, group decision-making and communication.</p>
<p>M.C.105 MARKETING MANAGEMENT</p>	<p>CO-1. To equip the students to take effective distribution decisions for products and services.</p> <p>CO-2. To develop the skills among students to enable them to design the Promotion-Mix strategies advertising campaigns.</p> <p>CO-3. To make the students aware about the current trends in marketing to enable them to take proactive measures while taking marketing decisions.</p> <p>CO-4. To familiarize the students with the fundamentals of marketing to enable them to take better marketing decisions.</p>

<p>M.C.106 MANAGEMENT INFORMATION SYSTEM</p>	<p>CO-1. Enable students to identify how Information Systems support business strategy business processes and practical applications in an organisation</p> <p>CO-2. Enable students to interrelate how various support systems can be used for business decisions and to sustain competitive advantage</p> <p>CO-3. Describe how the Internet and world wide web provide a global platform for business business mobility and Communications collaboration and cloud computing.</p> <p>CO-4. Express the proven value of and relationship between business data, data management and business intelligence.</p> <p>CO-5. Analyse systems development and project management methodologies</p> <p>CO-6. Help students to learn MIS challenges future Trends and relevant case studies</p> <p>CO-7. Express ethical awareness and moral reasoning applied to MIS</p>
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Semester-II	
Course	Outcomes After completion of these courses students should be able to;
<p>M.C.201 BUSINESS ENVIRONMENT</p>	<p>CO-1. To study about features of prevailing business environment.</p> <p>CO-2. To study about MNC'S and their impact in the country.</p> <p>CO-3. Detailed study of how stock market, capital market, money market effect business environment.</p> <p>CO-4.Study of latest industrial policy and critical evaluation of the same.</p>
<p>M.C.202 RESEARCH METHODOLOGY IN COMMERCE</p>	<p>CO-1. To impart knowledge about the various stages of research process and their application in commerce and management education.</p> <p>CO-2. The aim of courses to be provides the students with an introduction to research methods and report writing.</p> <p>CO-3. To develop understanding on various kinds of research, objectives of doing research, research design and sampling.</p> <p>CO-4. Have basic awareness of data analysis and hypothesis testing procedure.</p>
<p>M.C.203 FINANCIAL MANAGEMENT AND POLICY</p>	<p>CO-1. Skill to manage financial resources of a company.</p> <p>CO-2. Knowledge about the various sources of finance available to businessmen these days.</p> <p>CO-3. Ability to select an investment proposal by analyzing the compounded and discounted value of money invested.</p>

	<p>CO-4. To acquaint the students regarding the various types of decisions taken by financial managers in current competitive environment.</p> <p>CO-5. To enable students to select an investment project out of alternative investment proposal.</p>
M.C.204 PRODUCTION AND MATERIALS MANAGEMENT	<p>CO-1. To impart knowledge regarding production and management techniques.</p> <p>CO-2. To understand the production process and tools.</p> <p>CO-3. To acquaints the students with the knowledge of marketing function and techniques.</p> <p>CO-4. To give knowledge about functions and quality control techniques.</p> <p>CO-5. To give details about strategic importance, layout of production and materials management.</p>
M.C.205 OPERATIONS RESEARCH	<p>CO-1. Students will understand the concept and techniques of operations research.</p> <p>CO-2. Identify and develop operational research models from the verbal description of the real system.</p> <p>CO-3. Understand the mathematical tools that are needed to solve optimization problems.</p> <p>CO-4. Use mathematical software to solve the proposed models.</p> <p>CO-5. Develop a report that describes the model and the solving technique, analyze the results and propose recommendations in language understandable to the decision-making processes in Management Engineering.</p>
M.C.206 BUSINESS POLICY & STRATEGIC MANAGEMENT	<p>CO-1. Familiarization with the strategic management process.</p> <p>CO-2. Understanding about the techniques to scan an environment and the role of environment scanning in hurdle less strategic management of an organization.</p> <p>CO-3. Understanding about the equal importance of strategy formulation and strategy implementation.</p> <p>CO-4. Clarity about the strategies followed by different companies in the corporate world.</p> <p>CO-5. To make students understand and formulate different strategies at business level and corporate level.</p>

Semester-III

Course	Outcomes After completion of these courses students should be able to;
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<p>M.C.301 Business Performance Measurement</p>	<p>CO-1. To study techniques of measuring corporate performance. CO-2. To study techniques of enhancing corporate performance. CO-3. Comparison of traditional and modern techniques of Performance Measurement. CO-4.Steps of setting SMART goals and achieving the same.</p>
<p>M.C.302 TAX PLANNING AND MANAGEMENT</p>	<p>CO-1. To enable students to understand various aspects of corporate planning with a view to derive maximum possible tax benefits. CO-2. To familiarize the students with the latest updates of tax law. CO-3.To enable students to understand tax implications for different forms of business. CO-4. To understand the implications of GST on the taxable capacity consumers, dealers and of the society at large and its changes. CO-5. To make them to be a tax consultant in preparing the tax planning, tax management, payment of tax and filing of tax returns.</p>
<p>MC. 305 Human Resource Development</p>	<p>CO-1. : Build an understanding, perspective and appreciation for HRD as discipline, process and activity. CO-2: Critically evaluate the exiting theoretical edifice of HRD in order to draw a sketch of HRD relevant in present times. CO-3: Develop skills to assess need for HRD intervention, design learning and development programs and evaluation of HRD programs. CO-4: Develop a perspective to understand organizational dynamics and learning challenges possessed by organizational and social complexities. CO-5: Integrate human with technology and other emerging realities in order to understand how theory unfolds itself in present world of practice.</p>
<p>MC. 306 Industrial Relations</p>	<p>CO-1. To give knowledge about industrial relations. CO-2. To make them understand the importance of industrial relations for an organization. CO-3. To give knowledge about trade unions, role of trade unions, trade unions in different countries. CO-4.To give knowledge about dispute resolution and to impart knowledge of labor welfare. CO-5.To impart knowledge of trade union act 1926</p>
<p>MC. 309 Strategic Cost Management</p>	<p>CO-1. To give knowledge about various aspects of cost management from strategic perspective. CO-2.To give basic knowledge about ROI, EVA,RI. CO-3.To impart knowledge of budgeting, ZBB, responsibility centre's and financial control. CO-4. To give basic knowledge of activity based costing mad activity based management. CO-5. To impart knowledge of balance scorecard, performance evaluation and control.</p>

MC. 310 International Accounting	<p>CO-1. To give basic and conceptual knowledge about international accounting Issues.</p> <p>CO-2. To makes students capable to tackling issues in prevailing regulatory environment</p> <p>CO-3.To impart knowledge of foreign currency translation, foreign exchange risk management, performance evaluation of foreign operations.</p> <p>CO-4. To give basic and conceptual knowledge about IASB and international and regional efforts in standard setting, harmonization.</p> <p>CO-5. To impart basic knowledge of transfer pricing, strategic planning, management control system.</p>
MC. 315- WORKSHOP ON FINANCIAL MARKETS AND INSTRUMENTS	<p>CO-1. To inculcate adequate presentation skills in students.</p> <p>CO-2. Detailed knowledge about financial markets.</p> <p>CO-3. To impart depth knowledge of derivatives and factoring.</p> <p>CO-4. Detailed study on capital market, money market and stock market.</p> <p>CO-5.To give complete picture on mutual funds.</p>

Semester-IV	
Course	Outcomes After completion of these courses students should be able to;
M.C.401 PROJECT PLANNING AND CONTROL	<p>CO-1. Manage the scope, cost, timing, and quality of the project, at all times focused on project success as defined by project stakeholders.</p> <p>CO-2.Align the project to the organization's strategic plans and business justification throughout its lifecycle.</p> <p>CO-3.Identify project goals, constraints, deliverables, performance criteria, control needs, and resource requirements in consultation with stakeholders.</p> <p>CO-4. Implement project management knowledge, processes, lifecycle and the embodied concepts, tools and techniques in order to achieve project success.</p>
M.C.402 KNOWLEDGE MANAGEMENT	<p>CO-1. To aware the students about the details of knowledge management.</p> <p>CO-2. To create knowledge about the concept in changing scenario.</p> <p>CO-3.To discusses its significance in framing the business strategy.</p> <p>CO-4. To discuss knowledge management as a tool of excellence.</p> <p>CO-5. To give details of knowledge management system.</p>
M.C.403 BUSINESS ETHICS AND CORPORATE GOVERNANCE	<p>CO-1. To create a framework for effective corporate governance by understanding the role and responsibility of different stakeholders in large corporate and how their interplay results in alternate governance structures in different countries.</p> <p>CO-2: To appreciate the accountability of corporations towards its stakeholders and society and to create an integrated value framework for</p>

	<p>sustainability.</p> <p>CO-3: To serve as an effective board member, build professional boards and as senior managers contribute to strengthening board performance.</p> <p>CO-4: To know about rights and responsibilities of shareholders.</p> <p>CO-5: To build and monitor systems that has strong internal control to prevent corporate frauds.</p> <p>CO-6: To appropriately address ethical issues such as conflicts of interest and insider trading.</p>
<p>MC. 407 Organizational Change and Development</p>	<p>CO-1. To impart basic knowledge about change management.</p> <p>CO-2. To learn theories of processed change.</p> <p>CO-3. Detailed comparison of coaching and mentoring.</p> <p>CO-4. To study about OD interventions in detail.</p>
<p>MC. 408 Training and Development</p>	<p>CO-1. To familiarize the students with basic concepts and principles of training and development of human resource.</p> <p>CO-2. To train them to understand the learning environment of a firm.</p> <p>CO-3. The knowledge so obtained will make them capable of providing training to human resource of a business firm.</p> <p>CO-4. To create awareness about assessment of training needs and curriculum development.</p> <p>CO-5. To discuss the emerging pattern of training and development in India.</p>
<p>MC. 409 Compensation Management</p>	<p>CO-1. To promote understanding in issues related to compensation in corporate sector.</p> <p>CO-2. To provide knowledge about skills in designing, analyzing and restructuring compensation management system, policies and strategies.</p> <p>CO-3. How compensation be used as a motivational tool?</p> <p>CO-4. To provide in depth knowledge regarding how to frame compensation policy for corporate directors, senior managers, R & D Staff, Sales Executive etc.</p> <p>CO-5. Students learn about the role of trade unions in compensation management.</p>

Department of Business Administration

Programme Outcomes BBA

Department of Business Administration	After successful completion of three year degree program in B.B.A a student should be able to;
Programme Outcomes	<p>PO-1. Apply knowledge of management theories and practices to solve business problems.</p> <p>PO-2. Ability to develop ethical and value-based leadership ability</p> <p>PO-3. Ability to understand, analyze and communicate regional, national, global economic, legal, and ethical aspects of business.</p> <p>PO-4. Ability to lead themselves and others in the achievement of organizational goals, contributing effectively to a team environment</p>

Programme Specific Outcomes

Programme Specific Outcomes	<p>PSO-1 Develop ethical thinking.</p> <p>PSO-2 Develop functional and general management skills.</p> <p>PSO-3 Build and Demonstrate leadership, teamwork, and social skills.</p> <p>PSO-4 Communicate effectively in different contexts.</p> <p>PSO-5 Determine the functional areas of management such as Production, purchasing, marketing, sales, advertising, finance, human resource system.</p>
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Course Outcomes BBA

Semester-I

Course	Outcomes
	After completion of these courses students should be able to;
Financial Accounting	<p>CO-1. Upon completion of this course, students will be able to understand different accounting concepts and conventions.</p> <p>CO-2. Prepare financial statements in accordance with generally accepted Accounting Principles (GAAP)</p> <p>CO-3 Be familiar with the rules governing accounting transactions.</p>

	CO-4. Analyze financial statements with the help of various tools and techniques of accountancy.
Business Statistics	CO-1 Students will learn how to calculate and apply measure of location and measure of dispersion –grouped and ungrouped data cases. CO-2 Students will be able to compute and interpret the result of bivariate and multivariate regression and correlation analysis. CO-3. Students will be familiar with a variety of examples where mathematics or statistics helps accurately explain abstract or physical phenomena. CO-4. Students will recognize and appreciate the connection between theory and applications. CO-5 Students will be able to communicate key statistical concept to non statisticians.
Punjabi	CO-1. By reading Modern Poetry student is able to understand issues of modernism. CO-2. The students get the literary sense of comprehension of the subject. CO-3. The students know the skills of communication in Punjabi. CO-4. The students know the story as a form of literature. CO-5. The students get strong on technical vocabulary.
Essentials of Business Economics-1	CO-1. Upon completion of this course, students will be able to: Understand background of managerial economics. CO-2. Develop an understanding of role and function of managers. CO-3. Provide a detailed view of various roles played by cost and revenue in business. CO-4 To understand the application of economic principles in business management.
Fundamentals of IT	CO-1. To help the student understand concept of information technology which is dire need of today's world. CO-2. Make them capable to do their own work on computer by giving them practical exposure of MS-Word and MS-Excel CO-3. To aware them about the concept of internet and capable them to work on Internet to explore their capabilities. CO-4. Prepare them to present their seminars by using ICT technologies with knowledge of Power point presentation.

<p>Management of concepts and practices</p>	<p>CO-1. To help the students understand the process of Management and its evolution as a body of knowledge</p> <p>CO-2. To understand the concept of planning for a Business Organization and develop the ability to make and execute Business Plans</p> <p>CO-3. The student understand the process of designing an Organizational structure suited to its business needs and recruit manpower to fit the Structure</p> <p>CO-4. The student will be able to understand the application of various Motivation Techniques suitable for various Business Environments</p> <p>CO-5. Apply various techniques of controlling to ensure the execution of the Business Plan</p>
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<p align="center">Semester-II</p>	
<p>Course</p>	<p>Outcomes After completion of these courses students should be able to;</p>
<p>Essentials of Business Economics-II</p>	<p>CO-1. This course helps in providing the knowledge of basic concepts of Macro Economics, National Income.</p> <p>CO-2. Understand the term inflation and measures to control inflation.</p>
<p>Managerial and soft skills Management</p>	<p>CO-1. Upon completion of this course, students will be able to Conduct effective business correspondence and prepare business reports which produce results.</p> <p>CO-2. Become self-confident individuals by mastering interpersonal skills, team management skills and leadership skills</p> <p>CO-3. Develop broad career plans, evaluate the employment market, identify the organizations to get good placement, match the job requirements and skill sets.</p>
<p>Punjabi</p>	<p>CO-1. The students know the nature of the subject in comprehension to the secondary level</p> <p>CO-2. The student get more knowledge of Punjabi story.</p> <p>CO-3. The student get strong on Technical Vocabulary.</p> <p>CO-4. The students enrich their esthetic sense by reading Modern Poetry.</p>

Financial Management	<p>CO-1. To enable the student to Apply the fundamental concepts and tools of finance.</p> <p>CO-2: To enable the student to appraise the risk profile of firms; specifically, estimate the costs of capital, including debt and equity capital, using financial data.</p> <p>CO-3: To enable the student to Evaluate the sources of financing for inventory and financial management.</p>
Psychology for Managers	<p>CO-1. Describe the evolution of psychology and the major pioneers in the field</p> <p>CO-2. Differentiate between sensation and perception</p> <p>CO-3. Describe Intelligence Theories and Intelligence Testing</p> <p>CO-4. Explain learning and the process of classical conditioning</p> <p>CO-5. Describe and differentiate between personality theories</p>
Business laws	<p>CO-1: To familiarize the students with the meaning, scope and the sources of Business Law.</p> <p>CO2 : To develop in the student an understanding of the various Acts related to sales and Goods, etc.</p> <p>CO3: To develop in the student habits of analytical thinking and logical reasoning about the Negotiable instruments, Endorsements and Banks.</p>

Semester-III	
Direct Tax Laws	<p>CO-1. This course imparts basic knowledge of direct tax laws in India.</p> <p>CO-2. Students of the course will be able to explain different types of incomes and their taxability and expenses and their deductibility.</p> <p>CO-3. Students who complete this course will be able to learn various direct taxes and their implication in practical situations.</p> <p>CO-4. Students of the course will able to state the use of various deductions to reduce the taxable income</p>

Operations Research	<p>CO-1. Identify and develop operational research models from the verbal description of the real system.</p> <p>CO-2. Understand the mathematical tools that are needed to solve optimization problems</p> <p>CO-3. Use mathematical software to solve the proposed models.</p> <p>CO-4. Develop a report that describes the model and the solving technique, analyse the results and propose recommendations in language understandable to the decision-making processes in Management Engineering.</p>
English and Business Communication skills	<p>CO-1. Focus on different aspects of communication in general and business communication in particular.</p> <p>CO-2. Developing language and writing skills.</p> <p>CO-3. Writing of Tender, business letters, notice, memos , resume and public notice.</p> <p>CO-4. Focus on interview techniques</p> <p>CO-5. Creating an interest in literature</p>
Economics of Money and Banking	<p>CO-1. Students will understand the role of money and banks in the broader economy.</p> <p>CO-2. Outline the functions of money and its unique position in the economy.</p> <p>CO-3. Compare different financial instruments and the institutions that issue them.</p> <p>CO-4. Analyze the factors that influence interest rates</p> <p>CO-5. Examine the impact of interest rates have on the economy.</p>
Regulatory Framework for Companies	<p>CO-1. Understand the concept of a company and various types of companies</p> <p>CO-2. Understand the process of Incorporation of a company & starting a new Business</p> <p>CO-3. To formulate the MOA and AOA for a Company</p> <p>CO-4. How to Issue share capital for a company</p> <p>CO-5. Understanding the role of Board of Directors of a company</p>

Marketing Management	<p>CO-1. Familiarize the students with marketing concepts and application in real business situations</p> <p>CO-2. Enable students to develop and implement successful marketing planning for a real business company</p> <p>CO-3. Analyze the customers, competitors and other business environments for marketing planning</p> <p>CO-4. Apply both managerial judgment and analytical approaches to current marketing problems and issues and suggest solutions</p> <p>CO-5. Work productively as part of a team, and in particular, communicate and present qualitative and quantitative information effectively in written and electronic formats in a collaborative environment</p>
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Semester-IV	
Research Methodology	<p>CO-1. Upon completion of this course, students will be able to: Understand and use the concept of research methodology.</p> <p>CO-2. parametric and non-parametric hypothesis tests</p> <p>CO-3. Judge the reliability and validity of experiments and perform exploratory data analysis</p> <p>CO-4. Collect and analyse data to support business decision –making processes.</p> <p>CO-5. Critically explain research terminology, concepts and principles.</p>
GST	<p>CO-1. Understanding the tax structure in India</p> <p>CO-2. Knowledge of Registration Procedure under GST</p> <p>CO-3. How to do Levy and Collection of CGST/ SGST</p> <p>CO-4. How to do Levy and Collection of IGST</p> <p>CO-5. Understanding Refund system under GST</p>
English	<p>CO-1. Focus on different aspects of communication in general and business communication in particular.</p> <p>CO-2. Developing language and writing skills.</p> <p>CO-3. Writing of Tender, business letters, notice, memos , resume and public notice.</p> <p>CO-4. Focus on interview techniques</p> <p>CO-5. Creating an interest in literature</p>

Data base management system	<p>CO-1. It aims at acquainting students better with the basics of DBMS, different Architectural Models for DBMS, Normalization of data, Concurrency control problems and its management, Protection, Security and recovery aspects of databases along with practical knowledges of databases using SQL and PL/SQL.</p> <p>CO-2 The key goal is to prepare students for a professional career in the field of data administration and database design.</p> <p>CO-3. To get acquaint students with good knowledge of DBMS. During the course, students will learn about database design and database handling activities.</p> <p>CO-4. Learn how to identify an organization's information processing requirements.</p>
Human resource Management	<p>CO-1. To Explain the importance of human resources and their effective management in organizations.</p> <p>CO-2. Analyze the role of recruitment and selection in relation to the organization's business and HRM objectives .</p> <p>CO-3.Demonstrate appropriate implementation, monitoring and assessment procedures of training & development</p> <p>CO-4.To give an understanding of compensation to employees and the ways and means of delivering these monetary and non monetary benefits.</p>
Project Management	<p>CO-1. To determine the effective strategies of project management that can lead to better decision making.</p> <p>CO-2To understand the concept of Plant layout and its implications.</p> <p>CO-3To determine the sources of finance available for the companies.</p> <p>CO-4 To understand the human aspects associated with Project Management.</p>

Semester-V	
Course	Outcomes
	After completion of these courses students should be able to;

<p>International Business</p>	<p>CO-1. To address the emerging issues related to the International Business.</p> <p>CO-2. To address the economic, social, legal, political and technological issues related to business</p> <p>CO-3. To familiarize students with impact of international marketing on the host and guest countries</p> <p>CO-4. To understand the roles, functions of International Financial Institutions</p>
<p>Entrepreneurship and Small Business Management</p>	<p>CO-1 To determine the factors that affects the choice of technology by entrepreneurs.</p> <p>CO-2To develop a business plan that should serve the needs of all the sectors of the society.</p> <p>CO-3To understand Marketing, Human Resource, Operations in an enterprise.</p> <p>CO-4To familiarize the students with the ethical qualities required in entrepreneurs.</p>
<p>Sales and distribution Management</p>	<p>CO-1. The purpose of this paper is to acquaint the student with the concepts which are helpful in developing a sound sales and distribution policy.</p> <p>CO-2. Organizing and managing sales force and marketing channels</p> <p>CO-3. To enable the students to do Sales forecasting and prepare the sales Budget</p> <p>CO-4. To design appropriate channels of Distribution according to the product needs</p> <p>CO-5. To gain knowledge about the concept of warehousing and its automation</p>
<p>Business Environment</p>	<p>CO-1. Establishing the framework to study factors affecting business</p> <p>CO-2. Making Interaction Matrix between various Environmental factors</p> <p>CO-3. Analysing the Impact of Economic Environment on Business</p> <p>CO-4. Analysing the Impact of Political and Legal Environment on Business</p> <p>CO-5. Analysing the Impact of Social and Cultural Environment on Business</p>

Insurance and risk Management	<p>CO-1. Identify and categories the various risks faced by an organization & individuals.</p> <p>CO-2. Understand the various risk control measures available & the evaluation techniques.</p> <p>CO-3. Relate to the role of Insurance in economic development of society and social security.</p> <p>CO-4. Learn about various terminology used in insurance. Apply the Customer importance & behavior in various situations.</p> <p>CO-5 Describe the Principles of Insurance.</p> <p>CO-6 Describe the difference between Life & Non –Life insurance Products</p>
Consumer Behaviour	<p>CO-1 The course aims at enabling students to understand the concept of consumer behavior, various internal and external factors that influence consumer behavior.</p> <p>CO-2 Identify and explain factors which influence consumer behavior</p> <p>CO-3. To understand consumer behaviour, preferences, and consumer satisfaction.</p>

Semester-VI	
Social and ethical issues in Business	<p>CO-1. This course familiarizes the students with the importance of ethics in business</p> <p>CO-2. The student understand issues related to corporate social responsibility and corporate governance</p>
Production and Operation Management	<p>CO-1. The Course imparts knowledge regarding production and operation management tools, techniques and processes</p> <p>CO-2. The student learns about production techniques, Quality Management , Statistical quality control.</p> <p>CO-3 This Course familiarize students how to take managerial decisions with respect to production function</p>
Business Policy and strategy	<p>CO-1. The course structure gives an insight into the strategic planning process done by business organizations.</p> <p>CO-2. The student is required learns the basics of that how a strategy is formed and finally implemented by organizations.</p> <p>CO-3. The student will know how to develop the Vision and Mission statements of an organization and then analyze them</p> <p>CO-4. To develop the ability to scan the Environment using various matrix tools such as SWOT , QUEST etc</p>

	CO-5. To carry out the internal appraisal of an organization.
Advertising and Brand Management	CO-1. The course aims at providing understanding of basic principles of advertising management, ethics in advertising CO-2. This course will also exposes student to issues in brand management. CO-3. Understanding the concept of Brand equity, Brand personality, brand positioning etc.
Marketing of Services	CO-1. This course aims at enabling students to apply marketing concepts and principles to the unique challenges and opportunities of services marketing to create customer value. CO-2. Applying the concepts of Consumer Behavior to service Industry CO-3. Creating new services, Identifying and classifying supplementary services, Designing Service blue prints CO-4. Implementing the pricing decision in service Industries CO-5. Designing the service distribution network .

Department of Philosophy

Programme Outcomes: Philosophy

PHILOSOPHY	After successful completion of three year degree program a student should be able to;
Programme Outcomes	<p>PO-1.It enables the students to think critically, logically, creatively and independently</p> <p>PO-2. It makes the students decisive and enhances their level of confidence</p> <p>PO-3.It provides the wisdom to the students to understand the world all its aspects.</p> <p>PO-4. It makes the students aware of real purpose of their life learn the truth of life</p> <p>PO-5. It improves their reasoning and critical skills</p> <p>PO-6. It inculcate such moral and spiritual values which helps students to lead a peaceful and balanced life in this materialistic world</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1. Jobs in teaching as well as civil services</p> <p>PSO-2. Competitive exams</p> <p>PSO-3. Student can move for the higher studies.</p>
Course Outcomes B.A. (Philosophy)	
Semester-I	
Course	Outcomes After completion of these courses students should be able to;
Paper: Elements of philosophy	<p>The aim of this paper is to familiarize the student with subject, its branches, problems and methods.</p> <p>CO-1.The contents of this paper provide the students with a wider canvas about tackling day to day problems from a larger perspective</p> <p>CO-2.The student will learn to recognize and articulate fundamental questions about what exists, what we can know and how we should live our life.</p>

Semester-II	
Paper: logic	<p>This paper aims at a systematic study of the science of logic which is the most effective means of developing logical abstract thinking in us</p> <p>CO-1. It tries to provide students with a mastery of logic so that they can think in clearer terms and be less prone to error.</p> <p>CO-2. Logic is to determine the validity of arguments. It develops vocabulary knowledge and sharpens the brain of student by using the symbol logic.</p>
Semester-III	
Paper: Indian ethics	<p>This paper highlights the ethical philosophies propounded in the different Indian Philosophical systems.</p> <p>CO-1. It exposes the students to the main tenants of different Indian philosophical systems like Buddhism, Sikhism, Gandhism, Gita and Vedic culture.</p>
Semester-IV	
Paper: Western Ethics	<p>This paper gives an insight into the nature of ethics, moral notions and basic moral theories as propounded by Western ethical philosophers. This paper also deals with problems of applied ethics</p> <p>CO-1. The student of philosophy comes to know about the ideas and thoughts of western philosophers and with the help of that they can develop their own thoughts. A student of philosophy gets enriching outcome that shapes their lifestyle in the best possible way.</p>
Semester-V	
Paper: Indian epistemology and metaphysics	<p>This paper discusses the main epistemological and Metaphysical issues as discussed in various Indian philosophical systems.</p> <p>CO-1. It develops the philosophical ideas and enriches the values of action. Students come to know about the importance of nishkam karma, swadharma, lok sangraha and apply this philosophy in his or her life.</p>
Semester-VI	
Paper: Western epistemology and metaphysics	<p>This paper aims at exposing the students to main epistemological and metaphysical theories and problems of western philosophy. It also deals with basic themes of existentialism, logical positivism and analytical philosophy.</p> <p>CO-1. Student will be able to explain epistemological concepts such as nature of knowledge, justification, evidence and skepticism. Student also able to know the metaphysical concept such as god, soul and reality etc.</p>

Department of Political Science

Programme Outcomes: Political Science

Political Science	After successful completion of three year degree program in BA with Political Science a student should be able to;
Programme Outcomes	<p>PO-1.The course curriculum inculcates among students a basic understanding of the rights and duties of citizen with special reference to directive principles of state policy.</p> <p>PO-2.Encouraging a comprehensive, comparative understanding of specific world constitutions such as UK & USA.</p> <p>PO-3. Developing knowledge of administrative studies with special reference to Indian administrative structures and practices.</p> <p>PO-4. Students enable to develop academic proficiency in the subfields of Indian Government and Politics, Comparative Government, International Relations, Political Theory.</p> <p>PO-5. Use of case study method for analysing the working of important International and regional organisations like UN, EU, SAARC etc.</p> <p>PO-6. Examining India's foreign policy with her neighbours and great powers.</p> <p>PO-7. Demonstrate the ability to outline and defend a vision of politics in areas such as justice, equality, liberty, democracy.</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1.Serve as a politician.</p> <p>PSO-2. Work as a teacher in schools and high schools.</p> <p>PSO-3. Serve as political party member, political adviser, and well citizen of India.</p> <p>PSO-4. Work in elections and political as well as administrative system.</p> <p>PSO-5. Can admit to MA Pol.Sci., LLB.</p> <p>PSO-6. Work in NGOs.</p> <p>PSO-7. Can Prepare for upsc & other Competitive exams.</p>
Course Outcomes B.A(Political Science)	
Semester-I	
Course	Outcomes: After completion of these courses students should be able to

<p>(0033) Political Theory-I</p>	<p>CO-1. Students enable to understand the nature and scope of political theory. CO-2. Students enable to understand the various traditional and modern theories of political science. CO-3. Assessing the theories of State (Origin, Nature, Functions): Social Contract Theory with special reference to Hobbes, Locke, Rousseau. CO-4. Evaluating the theories of the State: Liberal and Neo-liberal theory, Marxist theory and Gandhian theory. CO-5. Analysing the concept of Sovereignty of the State. Discussing Monistic Theory, Pluralistic Theory, Doctrine of Popular Sovereignty.</p>
<p>Semester-II</p>	
<p>(0135) Political Theory-II)</p>	<p>CO-1. To learn the origin of the concepts such as Power, Authority, and Legitimacy. CO-2. Accessing the concepts of Rights , Duties and their relationship. CO-3. Understanding basic concepts of Liberty, Equality and Justice. CO-4. Analysing the Concept of Democracy: Nature, Features and Critique. CO-5. Examining the theory of Democracy: Elite & Marxist.</p>
<p>Semester-III</p>	
<p>(0234) Indian Government & Politics)</p>	<p>CO-1. Introducing the Indian Constitution with a focus on the role of the Constituent Assembly and examining the essence of the Preamble. CO- 2. Examining the Fundamental Rights and Duties of Indian citizens with a study of the significance and status of Directive Principles. CO-3. Assessing the nature of Indian Federalism with focus on Union-State Relations. CO 4- Critically analyzing the important institutions of the Indian Union: The Executive: President; Prime Minister, CoMs. Governor, Chief Minister and Council of Ministers; The legislature: Rajya Sabha, Lok Sabha, Speaker, State Legislature, The Judiciary: Supreme Court and the High Court. CO-5. Students enable to know the salient features of Indian Constitution.</p>
<p>Semester-IV</p>	

<p>(0334 Indian Politics)</p>	<p>CO-1.Students enable to evaluate the evolution, functioning and consequences of political parties & pressure groups in India. CO-2.Critically evaluating the Indian Party system – its development and looking at the ideology of dominant national & regional parties. CO-3 Evaluating the role of various forces on Indian politics: religion; language; caste; regionalism. CO-4 Evaluating the Electoral Process in India with focus on the Election Commission: Composition, Functions and Role. CO-5. Examining Indian Foreign Policy: Basic Principles, Non alignment & its relevance.</p>
<p>Semester-V</p>	
<p>(0426) Comparative PoliticalSystems(U K&USA)</p>	<p>CO-1. Tracing the evolution of Comparative Politics as a discipline and drawing a distinction between Comparative Politics and Comparative Government. CO-2.Investigating the nature and scope of Comparative Politics. CO-3. Exploring the Constitution of UK: salient features; the executive – the Crown, Prime Minister and cabinet; the legislature: House of Lords, House Commons, speaker and Committees; Party System in UK. CO-4. Exploring the US Constitution: salient features; the executive: President; Legislature: Senate. House of Representative; Speaker; Judiciary: the composition and role of the Supreme Court; Bill of Rights; Party System. CO-5. Making a comparative analysis of the following institutions of UK and USA: Legislature, Executive and party systems.</p>
<p>Semester VI</p>	
<p>(0532) International Politics: Theory & Practice</p>	<p>CO-1. Students enable to understand the evolution, scope and significance of international relations. CO-2.Approaches and methods to study the discipline through Political realism& idealism. CO-3.Students enable to demonstrate an understanding of: contemporary international system; and the key actors which shaped the international Politics i.e National power, Balance of Power & Collective Security. CO-4. Studying the developments in third world countries in post world war II era like NAM: Relevance, ASEAN, SAFTA and SAARC, NIEO after coldwar. Co-5. Evaluating bi-polar world order during cold war, uni-polar world order& multi-polar world order after cold war.</p>

Department of Home Science

Programme outcomes of :Home Science

Home Science	After successful completion of three year degree program in bachelor of arts A student should be able to
Programme Outcomes	PO 1- Students understands human physiology, health, family goals and immunization. Skill development in the field of garment industry, foods and nutrition and clothing and construction. PO2-Students have deep knowledge of design, arts and elements of design. PO3-Students develops skills of garment construction. PO4-Students identify human nutritional requirements. PO5- Students understand the planning of diets.
Programme Specific Outcomes	
Programme Specific Outcomes	PSO1-Students can counsel in family courts, nursery schools and day care centers. PSO2-Students can serve as surveyor in health department and social surveys. PSO3- Students can become dietician after clearing registered dietician exam. PSO4-Students can appear for civil services and allied services. PSO5-self employment as an entrepreneur is possible.
Course Outcomes	
Semester-I	
Paper code- FRM Paper name- Family resource management	CO1- Students should have knowledge regarding different types of diseases and their prevention also CO2- students have deep understanding of elements of arts and design with respect to house. CO3- Students know about different types of colour schemes and their application. CO4- They have indepth knowledge of principles of interior decoration.
Paper code- CLT Paper name- Clothing and textiles	CO1- They have indepth knowledge regarding the identification of different types of fibres. CO2- Students have clear understanding about textile identification and their properties. CO3- Students have knowledge about making of different types of textile fibres. CO4- they have clear ideas about the techniques of dyeing and printing.
Paper code- FN Paper name- Foods and	CO1- Students have indepth knowledge about the various nutrients which are required for the body.

nutrition	CO2- They have basic knowledge about the various types of diets for the patients. CO3- They can make the therapeutic diets for different diseased patients. CO4- They can done health surveys on the basis of 24 hour recall method.
Semester-II	
Paper code- FRM Paper name- Family resource management	CO 1- Students have knowledge regarding the survey work and different types of design. CO2- They have basic ideas about the interior decoration of the house. CO3- They can easily identify the basic metals and non-metals which are being used on their household levels. CO4- They know about the different types of cleaning techniques for the glassware's and other equipments.
Paper code- CLT Paper name- Clothing and textiles	CO1- Students have knowledge about the garment construction and pattern making. CO2- They have the clear the principles of design with respect to the clothing construction. CO3- They can apply the element of arts on the pattern making and clothing construction. CO4- Students have basic ideas about different types of fabric making and construction.
Paper code- FN Paper name- Foods and nutrition	CO1-Students have indepth knowledge about the child birth and various complications during this. CO2- They can guide to the parents for the overall development of their new born children. CO3- They can make different of types of recipes with respect to the age and requirement of people. CO4- Students can act as child educator in the field of teaching.

Department of Geography

Programme Outcomes: Geography

Geography	After successful completion of three year degree program in BA with Geography a student should be able to;
Programme Outcomes	<p>PO-1. The course curriculum inculcates among students a basic understanding of earth sciences and synthesize geomorphic material (like properties of rocks, minerals and its characteristics)</p> <p>PO-2. Encouraging a student to comprehensive, comparative understanding of spatial distribution of regions of world.</p> <p>PO-3. Developed knowledge of climatic and weather conditions of particular area.</p> <p>PO-4. Students enable to develop academic proficiency in the subfields of Survey of India, Census of India, Geographical theories.</p> <p>PO-5. Student able to do primary and secondary survey to understand the problems and analyze the demographic data and its properties of a particular region.</p> <p>PO-6. Student able to making maps and other geometrics diagrams related to geographic data (like population density, population distribution, crop combination).</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1. Serve as a Geographer.</p> <p>PSO-2. Work as a teacher in schools and high schools.</p> <p>PSO-3. Serve as political party member, political adviser, and well citizen of India.</p> <p>PSO-4. Work in elections and political as well as administrative system.</p> <p>PSO-5. Can admit to M.A., M.Sc in Geography and remote sensing.</p> <p>PSO-6. Work in NGOs.</p> <p>PSO-7. Can Prepare for upsc & other Competitive exams.</p>
Course Outcomes	
Semester-I	
(Geomorphology)	<p>CO-1. Students enable to understand the nature and scope of Geography</p> <p>CO-2. Students enable to understand the various theories of earth's origin and its topographical patterns</p> <p>CO-3. Assessing the theories of continents (Theory of continent drift and plate tectonic).</p> <p>CO-4. Student also understand the internal and external</p>

	<p>movements of the earth from this student also studies about earthquakes and volcanos.</p> <p>CO-5. Student easlity understand the major landforms.</p>
Semester-II	
(Geography of India)	<p>CO-1. To learn about India's location and its neighbouring countries.</p> <p>CO-2. Accessing the knowldge of relief, drainage system and natural vegetation of India.</p> <p>CO-3.Understanding various types of crops and its production in major states of India.</p> <p>CO-4. Analysing the Concept trade system with realating to foregin trade policies.</p>
Semester-III	
(0432 World Regional Geography I)	<p>CO-1.Introducing the world's major continents (Anglo America, Latin Amercia, Australia and Europe).</p> <p>CO- 2. Examining relief, drainage system and natural vegetation of major continents</p> <p>CO-3.Assessing the knowldge about mineral and power resources and its distribution .</p> <p>CO 4-.Understanding various types of crops and its production in major countries of world.</p> <p>CO-5. Analysing the Concept trade system with realating to foregin trade policiesand major ports of world.</p>
Semester-IV	
(Climatology)	<p>CO-1.Students enable to evaluate the nature and scope of climatology and know the difference between weather and climate</p> <p>CO-2.Student easily understand the whether conditions of particular area</p> <p>CO-3 Evaluating the role of climatic condtions on Indian monsoon.</p> <p>CO-4 Evaluating the wind and pressure system overall the world according to temprature belts.</p> <p>CO-5. Examining the oceanic basins and its major landforms.</p>
Semester-V	
(Geography of Punjab)	<p>CO-1. To learn about Punjab's location and its neighbouring countries.</p> <p>CO-2. Accessing the knowldge of relief, drainage system and natural vegetation of Punjab.</p> <p>CO-3.Understanding various types of crops and its production in major states of Punjab.</p> <p>CO-4. Analysing the Concept trade system with realating to foregin trade policies.</p> <p>CO-5. Assessing the knowldge about mineral and power resources and its distribution of Punjab</p>

Semester VI

**(World Regional
Geography II)**

- CO-1. Introducing the world's major continents (Asia and Africa).
- CO- 2. Examining relief, drainage system and natural vegetation of major continents
- CO-3. Assessing the knowledge about mineral and power resources and its distribution .
- CO 4-. Understanding various types of crops and its production in major countries of world.
- CO-5. Analysing the Concept trade system with relating to foreign trade policies and major ports of world.

Department of Economics

PROGRAM SPECIFIC OUTCOMES:

1. Economics students in general will be able to pinpoint and understand the past, present economic conditions of the country. They will also be able to forecast the future course of changes and development through their knowledge of policies and programmes set by the governments and other development agencies. They are equipped with the techniques to find solution of the problems like mobilization of manpower and materials available in the country.
2. As the Under Graduate Course (UGC) contains the fields like statistics, mathematics and economics principles, it enhances them to compute and assess the real situation of the economy including the size and changes of population income pattern, nature of an extend of employment, rate of development with pattern of investments and savings, policies in relation to other countries, and social security measures adopted in the country.
3. Basically, economic graduates are familiar with the knowledge and application of microeconomics and macroeconomics for the formulation of policies and planning. They are equipped with all the relevant tools/ knowledge based on economic principles including market functions and structures, efficiency in manpower and resources management, need of credit/finance for initiating and accelerating projects.
4. Though the syllabi do not contain research methodology, students are taught the techniques to collect and disseminate information like primary and secondary data, preparation of questionnaire. Students are deployed to do survey and on the spot interaction with the personnel of the case under study. Students who graduated from this institution are directly involved and effectively participate in the discussions .
5. Graduates from our department are effectively taught and explained the cause with the help of visual aids like white board. They will be able to visualize the real world situation and enhance them to initiate the programmes for pursuing studies and be alert with the importance of entrepreneurial skills for their self employment, to improve the general attitudes and living conditions of the masses.

In the nutshell : the Students should be able

1. To understand basic concepts of economics.
2. To analyze economic behavior in practice.
3. To understand the economic way of thinking.
4. To analyze historical and current events from an economic perspective.
5. To write clearly expressing an economic point of view.

6. To be exposed to alternative approaches to economic problems through exposure to coursework in allied fields.
7. To create students ability to suggest of the various economic problems.

Course Outcome:

Sem-I (MICRO ECONOMICS)

Objectives: Microeconomics is concerned with the analysis of economic phenomena from the perspective of the individual. The course covers the basic concepts and tools needed to undertake the analysis of such problems that arise due to the law of scarcity. The course also aims at introduction of the functioning of competitive and noncompetitive product markets and performance of the markets for resources. The students are expected to develop rudimentary understanding of how and why consumers, firms, and markets in the economy function the way they do.

Upon completion of Micro economics, students should be able to:

1. Analyze about Traditional and Modern Definitions of economics.
2. Understand about Methodology in economics.
3. Perform supply and demand analysis to analyze the impact of economic events on Markets.
4. Analyze the behavior of consumers in terms of the demand for products.
5. Analyze the performance of firms under different market structures.
6. Evaluate the factors affecting firm behavior, such as production and costs to analyze the Behavior Pattern of the Firms.
7. To be aware about Price determination of firms under different Market Structures Perfect and Imperfect Market.
8. To grasp knowledge regarding Different Pricing Strategy .
9. To have a better awareness regarding different Factor Pricing Rent, Wages, Interest, Profit.

SEM –II (MACRO ECONOMICS)

Objectives: This paper aims to familiarize the student with the generally accepted principles of macroeconomics. It deals with aggregates i.e. consumers as a whole, producers as a whole, exporters and importers as a whole, the effects of government spending and taxation, and the monetary policy of the central bank. The course includes the basic theories of determination of income, consumption, investment, employment, money and interest, inflation, Monetary and Fiscal policies, and business cycles.

Upon completion of Macro - economics, students should be able to:

1. Compute different measures of macroeconomic activity such as the national income accounts, inflation, and unemployment, and evaluate the shortcomings of traditional economic measures.
2. Analyze the forces that affect the aggregate level of economic activity.
3. Understand Business cycle using AD-AS analysis.
4. Recognize how monetary and fiscal policy can be used to achieve policy goals.
5. Know the Operation of multiplier

6. Learn Macro income and employment theories
7. Focus on Determination of income, consumption, investment, employment, money and interest, inflation, Monetary and Fiscal policies, and business cycles.

SEM –III (Public Finance and International Trade)

Objectives: The primary course objective is to introduce the students to the basics of public finance and international trade. The first two units aim to introduce students to the primary functions of government to generate resources from the people and to spend money improving their lives. The last two units are concerned with basic theories of international trade and commercial policies, balance of payments, determination of exchange rates and role of international financial institutions.

Upon completion of Public Finance and International Trade, students should be able to:

1. Understand the sources of finance both public and private, demonstrate the role of government to correct market failures and possible advantage of public financing.
2. Attain the advantages and knowledge of public investments and other government expenditures. Understand the causes of growing public expenditures for various programmes and policies within and outside the country.
3. Understand the possible burden, benefits and distribution of various types of taxes among various classes of people, know the general trend and impact on general welfare and arouse them to suggest good and bad tax system.
4. Understand the needs of public borrowing from all possible sources to meet necessary public investment/expenditures. Also be alerted to find sources for repayment.
5. Identify the basic difference between inter-regional and international trade, understand how international trade has helped countries to acquire goods at cheaper cost and explain it through the various international trade theories.
6. Show the benefits of international trade in a way how nations with strong international trade have become prosperous and have the power to control world economy and how global trade can be one of the major contributors of reducing poverty.
7. Explain how restrictions to international trade would limit a nation in the services and goods produced within its territories and at the same time explain that a rise in international trade is essential for the growth of globalization.
8. Show the importance of maintaining equilibrium in the balance of payments and suggests suitable measures to correct disequilibrium as well.
9. Be aware of the changes in the composition as well as direction of foreign trade after international trade and know the causes and effects of deficits in the balance of payments, measures adopted to correct the deficits and identify the need for having trade reforms.

SEM –IV (Quantitative Methods)

Objectives: The objective of the course is to train the students in the use of basic mathematical and statistical tools in analyzing various economic phenomenons. It deals with the design of how data is presented, the analysis of the data, and the drawing of conclusions from the data. The course aims to improve decision-making accuracy of the students and enabling them to test new

ideas.

Upon completion of Quantitative Methods, students should be able to:

1. Able to understand meaning, scope & importance of statistics
2. Collect appropriate data needed, manipulate and draw inferences, describe the concept of statistical averages, use and apply central tendency, dispersion, skewness, and kurtosis.
3. Explain concept of correlation, analyze and interpret covariance and correlation coefficient, illustrate ordinary least squares and use it to estimate regression coefficient. To gain knowledge on correlation and rank correlation and its application.
4. Describe the components of time series, apply time series analysis in business scenarios, illustrate the different types of index numbers, and calculate index numbers.
5. Able to understand measures and types of price index.
6. To understand and apply index number in economic phenomena.

SEM –V (Development Economics)

Objectives: The primary course objective is to introduce the students to the basic features, determinants, and theories and strategies of development of underdeveloped economies. It also introduces students to the theory of how control and direction of economic activity by a central public authority can be used as an alternative to market by the underdeveloped economies.

Upon completion of Development Economics, students should be able to:

1. To able to understand conceptualizing development.
2. To able to understand theories of economic development.
3. To able to understand difference between economic development and economic growth.
4. To able to understand planning in india.
5. To able to understand Rostow stages of economic growth.
6. To able to understand social and technical dualisum.
7. To able to understand Classical and neo classical models.
8. Distinguish between Economic growth and Development .
9. Describe the tools for measuring development .
10. Describes the approaches to development .
11. Describe the issues and challenges of development .
12. Identify the theories of development useful for Indian Economy.

SEM –VI (Indian Economy)

Objectives: The objective of the paper is to familiarize the students with the features and characteristics of the Indian Economy. It also includes performance and problems of Industrial development, Indian tax structure, external trade and balance of payments, and objectives, strategy and performance of Indian planning. The course aims to develop analytical understanding of the students by exposing them to the basic issues of the Indian economy.

Upon completion of Indian Economy, students should be able to:

1. Develop ideas of the basic characteristics of Indian economy, its potential on natural resources.
2. Understand the importance, causes and impact of population growth and its distribution, translate and relate them with economic development.

3. Grasp the importance of planning undertaken by the government of India, have knowledge on the various objectives, failures and achievements as the foundation of the ongoing planning and economic reforms taken by the government.
4. Understand agriculture as the foundation of economic growth and development, analyse the progress and changing nature of agricultural sector and its contribution to the economy as a whole.
5. To provide basic understanding of the features and determinants of Indian Economy .
6. To understand the concept of poverty and poverty line .
7. To make awareness about Human development index .
8. To create an idea about the significance of Agriculture in Indian Economy .
9. To understand the importance of small , medium and large scale industries and its problems .
10. To make awareness about the significance of Industry and service sector in Indian Economy.
11. Multi National Corporations.

Department of Physical Education

Programme Outcomes: Physical Education

Department of Basic Sciences	After successful completion of three year degree program in Physical education a student should be able to;
Program me Outcomes	<p>PO-1. Physical education provides in with a great opportunity for the students to attain physical and mental balance in their life which would help them in their academic and overall growth in life.</p> <p>PO-2.Physical education is not just the group of physical exercises or games, but in broaden sense also includes the study of various topics that involve in good health and techniques that would make one life better.</p> <p>PO-3.Physical education provides students with opportunities to learn some special skills, develop physical fitness and gain understanding about the importance of physical activity.</p> <p>PO-4. Physical education as a subject aims at improving physical as well as mental health of the students and providing them with the knowledge to lead a healthy life ahead.</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1. A students with passion for sports can also work as coach, team manager/sports manager</p> <p>PSO-2. In today's era spas and yoga centres are at a rise, one can also use his/her expertise for a job as yoga instructors or fitness trainer in such places</p> <p>PSO-3. Students can also look forward to satisfying jobs in assignments such as umpires and referees.</p> <p>PSO-4.Student of physical education put their knowledge to use in sports journalism, marketing, commentator and other related fields.</p> <p>PSO-5. Trained physical education personnel get priority in defence and policies services with special recruitment.</p>
Course Outcomes Physical Education	
Semester-I	
Paper-I	<p>CO-1. Know about pre and post independence development of physical education in india.</p> <p>CO-2. Learn about ancient Olympic games, modern Olympic games and common wealth games</p> <p>CO-3.understands the various schemes in sports and their</p>

	<p>functions</p> <p>CO-4. Learn basic fundamentals of handball.</p> <p>CO-5. Learn about the history of the handball.</p>
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Semester-II	
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Paper-I	<p>CO-1. Understand the muscular system, structure and function of muscular system.</p> <p>CO-2. Learn about the importance of warming-up and cooling down in sports and its significance.</p> <p>CO-3.learn about components of physical fitness.</p> <p>CO-4. Learn about the importance of health education.</p> <p>CO-5. Understand the biological basis of physical education.</p>
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Semester-III	
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Paper-I	<p>CO-1. Able to know psychological characteristics and identify problems of an adolescence.</p> <p>CO-2. Importance of motivation in physical education and sports.</p> <p>CO-3.study various factors affecting the development of personality.</p> <p>CO-4. Understand making and layout of field.</p> <p>CO-5. Learn the basic fundamentals rules of softball.</p>
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Semester-IV	
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Paper-I	<p>CO-1. Learn about maintenance of blood supply.</p> <p>CO-2. Learn about the history of the tennis.</p> <p>CO-3. Know about the rules and regulations of tennis.</p> <p>CO-4. know about the meaning and aim of yoga.</p> <p>CO-5. Study the problems of the disabled ,physical activity and health of disabled.</p>
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Semester-V	
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Paper-I	<p>CO-1. Study various theories of play and its significance in physical education and sports.</p> <p>CO-2. Understand the meaning and types of tournament and its merits and demerits.</p> <p>CO-3.learn about the organization of an athletic meet.</p> <p>CO-4. Know about types of massage and their benefits.</p> <p>CO-5. Learn about the rules and regulations of the cricket.</p>
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Semester-VI

Paper-I

CO-1. Learn about the main organs of nervous system and their functions.

CO-2. Learn about the main organs of excretory system and their functions.

CO-3. understand the characteristics and principals of sports training.

CO-4. Learn about the meaning of blood pressure.

CO-5. Effects of physical exercises on various system of body.

Department of Music

Programme Outcomes: Music

Department of Music	After successful completion of three year degree program in Music a student should be able to;
Program me Outcomes	<p>PO-1.Learns to write the practical compositions according to the notation system.</p> <p>PO-2.creates own rhymes, games, songs and simple compositions.</p> <p>PO-3. They are able to recognize, classify and interpret Indian musical ragas and their divisions.</p> <p>PO-4.experiments with different forms of technology in the composition process.</p> <p>PO-5.sings or plays different instruments.</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1. Students will be able to make their career as a singer or perform on his/her instrument.</p> <p>PSO-2. Students can become coach for Indian orchestra,percussion,non-percussion etc.</p> <p>PSO-3. Perform a variety of music with expressions and musical accuracy.</p> <p>PSO-4. They are able to organize musical competitions, concerts and workshops.</p> <p>PSO-5. Students can establish his/her own institutes and they can teach music as a subject in school/colleges also.</p>
Course Outcomes :Music	
Semester-I	
Course	Outcomes After completion of these courses students should be able to;
Paper-I	<p>CO-1. Learn different jatis of Ragas of the present raga system of north Indian music.</p> <p>CO-2..know about Bhatkhande Notation System.</p> <p>CO-3.know about Shruti,Swara,Saptak and Alankaars.</p> <p>CO-4. Learn to write Alankaars in taal.</p> <p>CO-5. Learn to sing and play National Anthem.</p>
Semester-II	

Paper -I	<p>CO-1. Know about Bhatkhande Thaat Paddhati.</p> <p>CO-2. Know about Laya and Taal in Music.</p> <p>CO-3. Understand the various bols of Mizrab.</p> <p>CO-4. Demonstrate Dadra,Ektaal and Kehrawa taal by hand in Ekgun and Dugun layakaaries</p> <p>CO-5. Learn about the life and contribution of the Pt.vishnu Digamber Pluskar,Pt. Ravi Shankar and Ustad Hafiz Ali Khan in Hindustani music.</p>
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Semester-III

Paper-I	<p>CO-1. Know about Gun and Dosh of Gayak and VadaK.</p> <p>CO-2. Know about Alap and its various forms.</p> <p>CO-3.Learn about Avirbhav-Tirobhav and Alaptav-Bahutav.</p> <p>CO-4. Learn about the life and contribution of the Ustad Faiyaz Khan Sahib, Sh. Krishan Rao Shankar, Pandit,Ustad Inayat khan Sahib,Pt. Lal Mani Mishra in Hindustani music.</p> <p>CO-5. Demonstrate Tilwada,Chaartaal,Ektaal,Rupak and Kehrawa Taal by hand in Ekgun and Dugun layakaaries.</p>
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Semester-IV

Paper-I	<p>CO-1. Learn about the historical development of north Indian music during 13th to 17th century.</p> <p>CO-2. Know about the classification of Indian musical instruments</p> <p>CO-3.Understand the musical terms like Kampan,Meend,Zamzama, Krintan,Gamak .</p> <p>CO-4. Know about the life sketches of the great masters of music like Ustad Amir Khan Sahib,Ustad Vilayat Khan Sahib etc. and their contributions in Hindustani music.</p> <p>CO-5. Demonstrate Tivra,Jhaptaal and Rupak by hand in Ekgun and Dugun Layakaaries.</p>
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Semester-V

Paper -I	<p>CO-1. Know about the variety of Tana/Tora.</p> <p>CO-2. Learn about the different Vadan Shailies of their own instrument.</p> <p>CO-3 Understand the Time theory of Indian Ragas.</p> <p>CO-4. Know about the Life sketches of the great masters of music like Ustad Bismillah Khan ,Pt. Kumar Gandharv etc. and their contributions in Hindustani music.</p> <p>CO-5. Demonstrate Jhoomra,Sultaal,Deepchandi,Tilwada by hand in Ekgun and Dugun Layakaaries.</p>
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Semester-VI

Paper -I	CO-1.Understand the role of Akashvani and Doordarshan towards the popularizing of Indian Classical Music. CO-2.Understand the role of Electronic Mediums(Basic Instruments)i.e. ElectronicTabla, Tanpura . CO-3.know about Uttari and Dakshani Sangeet Paddhati. CO-4. Know about the life sketches of the great masters of music . like Ustad Vilayat Hussain khan ,Dr.Panna Lal Ghosh etc. and their contributions in Hindustani music. CO-5. Demonstrate Dhamaar, Sultaal, Deepchandi,Adachautaal by hand in Ekgun and Dugun Layakaaries.
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Department of Skill Development Courses

Programme Outcomes: B.Voc. Retail Management

Department of Retail mangement	After successful completion of three year degree program in B.voc retail management a student should be able to;
Programme Outcomes	<p>PO-1. Apply knowledge of retailing and can relate things with the real world to solve business problems.</p> <p>PO2: Ability to develop critical thinking skills and can apply same in solving real world business problems.</p> <p>PO3: Compare and contrast different challenges and decision making skills.</p> <p>PO4: Recognize carrer opportunities that are available in retail business and can lead themselves effectively in the retail environment</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1. Become proficient with the retail terms, specialized practical knowledge of applying various strategies of retailing in the business and contributing towards its success.</p> <p>PSO2: Be capable of marketing a product or a service.</p> <p>PSO3: To understand consumer behavior , preferences, and consumer satisfaction techniques.</p>
Course Outcomes B.voc RM	
Semester-I	
Course Outcomes:	After completion of these courses students should be able to;
Gen101 Communication Skills	<p>CO-1. Focus in different aspects of communication in general and business communication in particular</p> <p>CO-2. Developing language and writing skills</p> <p>CO-3.Focus on interview techniques</p> <p>CO-4. Writing tender, business letters, notice memos, resume and public notice</p> <p>CO-5. Improve communication skills</p>
Gen 102 Fundamentals of IT	<p>CO-1 Understand the basic concept and terminology of information technology</p> <p>CO-2. Have a basic understanding personal computer</p> <p>CO-3. Acquire knowledge about generation of computer and types of computer</p> <p>CO-4. Know about hardware and software methods</p> <p>CO-5. Learn about internet and browsing services available in internet.</p>

<p align="center">RSC 103 Product display and Visual Merchandising</p>	<p>CO-1. To provide students with fundamentals of organizing the display of products at retail store. CO-2. To plan, schedule, supply of products related with retail store CO-3. To recognize the accessories to be used for effective display and essential requirements of retail store . CO-4. To understand the importance and elements of visual merchandising CO-5. To make and implement policies regarding merchandise.</p>
<p align="center">RSC104 Customer Relationship Management</p>	<p>CO-1. To aware about customer needs and preferences in target market. CO-2. To adopt approaches on how to monitor store settings and to provide ambience services to customers. CO-3. To identify loyal customers by providing them quality and excellent services . CO-4.To investigate into customer problems and provide immediate and rational solutions. CO-5.Summarize the role of satisfied customer and customer retention policies.</p>
<p align="center">RSC 105 Sales processing and sales management</p>	<p>CO-1. To provide the enlarged view of sales processing techniques in relation to retail environment CO-2. To ensure that store contain adequate number of products at proper time and awareness about rights of customers. CO-3.Various cash handling techniques and POP services. CO-4.Detailed information regarding products and pricing policies adopted by retail stores. CO-5.Various billing instruments and sales promotion techniques used by retail stores.</p>

Semester-II	
<p align="center">Gen201 Soft Skill and personality development</p>	<p>CO-1. Will develop their social and work life skills CO-2. Developing their personal as well as social well being CO-3.Focus on interview techniques CO-4. Teamwork, leadership and emotional health will be improved CO-5. Improve communication skills</p>
<p align="center">Gen 202 Business Ethics</p>	<p>CO-1 Understand the basic concept and terminology of business ethics CO-2. Have a basic understanding of importance of business ethics CO-3. Acquire knowledge about corporate social responsibility and corporate governance. CO-4. Know about issues related with CSR, business ethics and corporate governance CO-5. Enhance awareness and critical examination of oneself and relevance of ethics at workplace.</p>

<p align="center">RSC 203 Organizational communication in retail</p>	<p>CO-1. To provide students with fundamentals of and principle of communication in retail. CO-2. To develop an effective approach for communication with various retail stakeholders. CO-3. To prepare for use of online resources for communication in an organization. . CO-4. To make familiar with business reports and other key records. CO-5. Various communication channels and barriers to proper communication</p>
<p align="center">RSC 204 Human resource management in Retail</p>	<p>CO-1. To provide knowledge about allocating work in team and working effectively as a team member. CO-2. To adopt approaches on optimum use and allocation of resources. CO-3. Understanding the concept of cultural diversity . CO-4.Setting performance standards and to evaluate performance of employees. CO-5. Effective approaches to resolve conflict and maintaining health and safety measures.</p>
<p align="center">RSC 205 Organizational Effectiveness in Retail</p>	<p>CO-1. To provide knowledge and skills to work effectively in team and organization CO-2. Understanding cultural difference among organization and knowledge about employee rights and obligations. CO-3.Company policies to deal with accidents and obligation emergency situation in to promote health and safety. CO-4.To make familiar with value system of the organization. CO-5.To develop skills for effective functioning of an organization and apply the same at work settings.</p>
<p align="center">**201 Summer Industrial Training</p>	<p>SIT of 4-6 weeks in relevant industry to apply the theoretical knowledge at workplace and gain knowledge on real time basis.</p>

Semester-III

Course	Outcomes
<p>GEN 301 Value education and human rights</p>	<p>CO1-To make students aware about the importance of values in personal and professional life CO2-To develop their personalities in physical,mental and emotional aspects CO3- Developing respect for dignity of individual and inculcation of national spirit CO4-Make them aware about human rights.</p>
<p>Gen 302 E-Commerce</p>	<p>CO1-To understand the basic concepts and technologies used in area of management information system CO2-To gain knowledge about different types of MIS CO3- To be aware of basic tools of e-commerce and use of IT in retailing</p>

	C04- To have knowledge about Electronic data interchange & Enterprise Resource Planning with their applications in retail operations.
RSC 303 Store operations and performance mgt.	CO1-To be able to set the SMART objectives of retail and regularly monitor their operations CO2- To promote team work and their outcomes CO3-Location,layout,material handling decisions CO4-Recruitment,selection and management of store employees. CO5- To be aware of Cost control techniques used in retail store and various compensation plans
RSC 304 Retail servicing and marketing	CO1-Setting sales targets for different personnel CO2- Opportunity to make student familiar with role of Client Relationship in retailing CO3-ways to promote sales and goodwill of business CO4-identifying various potential competitors and strategies to beat them. CO5-To make familiar with certain laws of record keeping and data protection
RSC 305 Retail store team mgt.	CO1-To make them able to identify the various types of diversities and frame strategies to cope with these diversities at workplace CO2-To know the importance of communication in business CO3-To enhance the importance of team work CO4-To understand the process of team formation CO5- To be able to provide feedback and ways to improve shortcomings in team performance

Semester-IV

COURSE	OUTCOMES
GEN 401 Environmental studies	CO1- To be able to understand and address the environmental issues CO2- Master core concepts and evaluation of environmental policies CO3- Understand the transnational character of environmental problems and provide solutions . CO4- To be able to study the interaction between environment and social systems CO5-Reflect their role as citizens and environmental actors in global world.
GC402 Project Mgt.	CO1- To understand the term project and its life cycle along with role of project manager CO2- To manage the scope,cost,timing,quality of project CO3-To align the project to organizational strategic plans CO4-identify the goals, delivery time and various constraints involved CO5-To be able to interact with team members and stakeholders to

	implement various policies and evaluation process.
RSC 403 Leadership In Retail	CO1- To know the role of departmental manager CO2- To know different styles of leadership CO3- To communicate effectively with team members and setting SMART objectives CO4- To know the different ways to motivate, retain, support and encourage team members CO5- To be able to cope with conflicts, challenges and promote creativity within the team
RSC 404 Budgetary control in Retail	CO1- Introduction to budget and budgetary control systems CO2- Importance of communication on regular performance CO3- Organizational policies for approving the budgets and revising them CO4- Using Budget to evaluate the performance CO5- To provide knowledge about fraudulent activities involved in budget.
RSC 405 Mgt. Information System for retail	CO1- To provide knowledge about application of MIS in retailing CO2- Importance of information in decision making process, strategic planning and controlling CO3- To make aware about the concept of information quality, overload, filtering CO4- To give knowledge about various information systems and their applicability in organization CO5- System development methodologies, System design and their implications in retailing.
SIT** 401	Summer industrial training for practical exposure

Semester-V

COURSE	OUTCOMES
GEN 501 Critical thinking and elementary statistics	CO1- Explain the use of data collection and statistics as tools to reach conclusions. CO2- Examine the basic principles of describing and presenting data and rules of probabilities CO3- Sampling distribution of various variables CO4- Solve linear regression and correlation problems CO5- Perform hypothesis testing using statistical methods.
GC 502 Introduction to research methodology and report writing	CO1- Basic concepts of research and research design CO2- Methods of collecting data and sampling techniques CO3- data analysis and its interpretation CO4- To demonstrate the role of computers in research CO5- Writing business reports and proposals and solving various case studies

RSC 503 Accounting applications	CO1-To understand basic accounting concepts and CO2-To be able to contrast Cost/management/financial accounting CO3-To be able to make data entries and keep cash books CO4-to identify and rectify the errors in business records CO5- To understand the concepts of cost and management accounting.
RSC 504 Business laws for retail	CO1-To enable students to acquire knowledge of legal aspects of business CO2-To understand the aspects of legislation in retail industry CO3-To appreciate the relevance of business laws in social,economic,political context CO4-Examine how business can be held liable in not complying with laws CO5-Acquire problem solving techniques and able to present valid solutions.
RSC505 business environment	CO1-Understand relationship between business and environment CO2-Appling the environment analysis techniques in actual practice CO3-Understand PESTLE environment CO4-To know the macroeconomic policies and economic reforms laid by government. CO5-To have knowledge about current status of technology in India.
Winter industrial training	To enhance their practical skills with industrial exposure

Semester-VI

COURSES	OUTCOMES
GEN 601 ENTREPRENEURSHIP DEVELOPMENT PROGRAMME	CO1-Have the ability to discern distinct entrepreneurial skills CO2-To know the parameters to assess opportunities and constraints for new business ideas CO3-Designing strategies for successful implementation of ideas CO4-Writing business plans
GC 602 TOTAL QUALITY MGT.	CO1-Evaluate the principles of quality mgt. and their applications CO2-identify key aspects of quality improvement cycle CO3-Critically appraise the organizational requirements for effective quality management CO4-Analysis of strategic issues in quality management and implementation plans.
RSC 603 FINANCIAL MGT.	CO1-To know the concepts of financial mgt. CO2-Understand the terms of capital structure and dividends CO3-To have basic knowledge of Cost of capital and its methods CO4-To have practical knowledge on working capital management.
RSC 604 MARKETING MGT.	CO1-Understanding marketing concepts and its evolution

	<p>CO2-Analyze the market based on its segmentation, targeting and positioning</p> <p>CO3-To know the consumer behavior and their decision making process</p> <p>CO4-Make decisions on 5P's of marketing</p> <p>CO5-Understanding rural markets and issues involved therein.</p>
RSC 605 HUMAN RESOURCE MGT.	<p>CO1-Incorporate themselves in changing environment of HRM</p> <p>CO2-Apply right recruitment and selection process, Compensation management in retail</p> <p>CO3- Job analysis ,job design and understanding various training needs</p> <p>CO4-Understanding Transfer policy and performance management</p>

B.Voc- Food Science and Technology

Programme Outcomes: B.Voc- Food Science and Technology

Food Science and technology	After successful completion of three year degree program in B.Voc Food Science and technology a student should be able to;
Programme Outcomes	<p>PO-1. Apply knowledge of general education subjects and skill development subjects to the conceptualization of food Science and technology.</p> <p>PO2: Designing and formulation of new food products, on the basis of consumers demands, development of methodology/technologies of food processing, design that meet solutions needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations</p> <p>PO3: Conduct and undertake investigations of problems of including design of processing technology for various type food, food analysis, food quality and safety aspects and interpretation of data in order to provide valid conclusions..</p> <p>PO4: This program would enable students to update their knowledge and professional skills for entering the work force executing income generating activities or occupying better positions</p>
<b style="color: red;">Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1. Students with vocational training can find work in several state and central government organizations, non-profit groups, and academic institutions and in private sectors as well</p> <p>PSO-2: This program prepares students for specific types of occupations and frequently for direct entry into the market.</p>

	<p>PSO3: After completion of this program students will have enough competences, to get benefit from market opportunities.</p> <p>PSO4: Communicate effectively on minimal processing activity and value addition to the farmers/producers/grower at large, such as being able to comprehend and write effective reports, design documentation and make effective presentations.</p>
Course Outcomes B.Voc. (FST)	
Semester-I	
Course	Outcomes: After completion of these courses students should be able to;
GEN - 101 Communication Skills	<p>CO-1. Focus on different aspects of communication in general and formal communication in particular</p> <p>CO-2. Developing language and writing skills</p> <p>CO-3. Writing of emails, industrial letters, notice, report writing and resume</p> <p>CO-4. Focus on interview techniques</p> <p>CO-5. Creating interest in literature</p>
GEN - 102 Fundamentals of Information Technology	<p>CO-1 Students will have command on basic IT skills</p> <p>CO-2. Students will be able to use computer and internet facilities for their academic and holistic development purpose</p> <p>CO-3. Know about hardware/software methods and tools</p> <p>CO-4. To facilitate the students to make functional use of IT skills in teaching – learning process.</p> <p>CO-5. Have a basic understanding of personal computer</p>
FST 103 Introduction To Food Microbiology	<p>CO-1. Students will develop knowledge and understanding of different food microorganisms and know different techniques used to detect microorganisms.</p> <p>CO-2. Student will enable to know the basics of microbiology.</p> <p>CO-3. To understand the types of food microbes, causes for food spoilage process for food spoilage, need for food preservation.</p> <p>CO-4. To aware about various techniques that are used to grow useful microbes for fermented foods</p>
FST 104 Bakery And Confectionery Technology-I	<p>CO-1. Course will acquaint the students regarding the preparation of various bakery, sugar and chocolate confectionary products</p> <p>CO-2. Understand the importance and role of various ingredients used in bakery and confectionary products.</p> <p>CO-3. Understand the different methods of bread & cake making and their formulations</p> <p>CO-4. Understand the different types of biscuits, cookies and their methods of manufacturing</p> <p>CO-5. Understand the different types of sugar confectionary products and their process</p>

FST 105 Bakery And Confectionery Technology-II	CO-1. Able to learn their quality control, control of processing parameters and handling of equipments, which is essential for the students to perform efficiently and effectively in the industry CO-2. To understand the various types of sugar and its grades CO-3. To provide know about the machinery and process involved in the baking process CO-4. To know the confectionery product manufacture
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Semester-II	
Course	Outcomes After completion of these courses students should be able to;
GEN 201 Soft Skills and Personality Development	CO-1. To improve the writing skills of students. CO-2. Presentations skill of students will improve CO-3. To bring about personality development with regard to the different behavioral dimensions that have far reaching significance in the direction of organizational effectiveness. CO-4. To create awareness in the participants with regard to the different aspects of Interpersonal relations based on the ideas
FST 202 Management of Food Industry	CO-1. To impart necessary expertise to run a food service unit. CO-2. To provide practical level experience in managing food service management CO-3. To develop a knowledge base in key areas of institutional food management CO-4. To critically evaluate the functioning of food service units.
FST 203 Dairy Technology	CO-1. Students will ability to know about composition and nutritional value of milk CO-2. To study about physical and chemical properties of milk and its related products CO-3. To impart knowledge about processing of milk and its products and legislation for the quality control of milk and milk products. CO-4. Students should able to learn various techniques about milk processing
FST 204 Milk And Dairy Food Products	CO-1. To understand about various dairy products that are highly nutritious CO2: To learn about preparation of various milk based products CO3: Students will able to learn about quality control, hygienic conditions to be maintained and keeping quality of products

FST 205 Food Packaging	<p>CO-1. To enable to learn about packaging and packaging material for various food products</p> <p>CO-2. To learn about testing of various packaging materials to ensure that are safe or unsafe</p> <p>CO-3. Ability to learn about multifarious packing technologies include retort processing, glass processing and so on</p> <p>CO-4. To know about interaction of packaging material with food ingredients</p>
SIT-201 Summer Industrial Training	<p>CO-1: To create industrial and human relation among students</p> <p>CO2 : Capability to communicate effectively</p> <p>CO3: Ability to be a multi skilled person with good technical knowledge, management, leadership and entrepreneurship skills</p>

Semester-III

Course	Outcomes After completion of these courses students should be able to;
GEN 301 Value Education And Human Rights	<p>CO-1. To develop interaction society and educational institutions</p> <p>CO-2. To sensitize the citizens so that the norms and values of human right and duties, education programmes are realized</p> <p>CO-3.To create awareness, conviction and commitment to values for improving the quality of life through education and for advancing social and well being</p>
FST 302 Food Biochemistry	<p>CO-1. To learn and understand the chemistry with respect to role and functionality of constituents of the food.</p> <p>CO-2. Student will able to understand basic chemistry of carbohydrates, lipids and proteins</p> <p>CO-3. To learn and understand the chemistry of various Food micronutrient used in foods along with their role and properties</p> <p>CO-4. Make different processed food products with quality assurance.</p> <p>CO-5. Students will learn about basic reaction in food and their kinetics; nucleic acid, digestion and electrophoresis - protein electrophoresis, protein purification.</p>

FST 303 Food Microbiology	<p>CO-1. Students will develop knowledge and understanding of different food microorganisms and different techniques used in its detection.</p> <p>CO-2. Students will understand causes of food spoilage of different foods and its type.</p> <p>CO-3. To enable the students to gain an insight into basic aspects of food microbiology.</p> <p>CO-4. To understand the advanced techniques in microbial analysis of food.</p>
FST 304 Food Analysis and Instrumentation	<p>CO-1. To generate the skill of handling the different instruments of food process technology</p> <p>CO-2. To understand the sensory evaluation methodology used for food analysis</p> <p>CO-3. Students will able to Demonstrate interaction of food by using different analytical techniques</p> <p>CO-4. Learning ability to assess physico-chemical properties of foods</p>
FST 305 Microbiological Analysis	<p>CO-1. To develop skills and competencies in standard microbiological laboratory techniques</p> <p>CO-2. To gain experience in microbiological laboratory practices and skills in the design and execution of microbiology related research.</p> <p>CO-3. To generate skill of handling different instruments of microbiological analysis</p> <p>CO-4. To study about various microbial analysis techniques</p>

<u>Semester-IV</u>	
Course	Outcomes
	After completion of these courses students should be able to;
GEN 401 Environmental Studies	<p>CO-1. As we aware, the world environmental problems, students should acquaint basic knowledge of environment and its components.</p> <p>CO-2. To solve the environmental problems, it is necessary to develop and invent new advanced technologies to control environmental pollution.</p> <p>CO-3. Student will possess the intellectual flexibility necessary to view environmental question from multiple perspectives</p> <p>CO-4. To prepare to alter their understanding as they learn new ways of understanding.</p>

<p>FST 402 Food Quality Testing and Evaluation</p>	<p>CO-1. To understand basic quality attributes of foods in raw as well as processed form. CO-2. To learn various systems of objective and subjective evaluation and their application in industry CO-3. To gain knowledge about quantitative and qualitative analysis of food CO-4. To understand about various instruments that are used for quality testing and evaluation.</p>
<p>FST 403 Technology of cereals, pulses and oilseeds</p>	<p>CO-1. Student will acquire the understanding of the technology for Wheat Milling & Wheat based Food Products. CO-2. Student will acquire the understanding of the technology for Rice Milling & Rice based other Food Products. CO-3. Student will be able to understand technology for Milling of Corn & Corn based other Food Products along with equipments. CO-4. Student will be able to understand technology for Oil Extraction & Oil Seed Processing along with equipments.</p>
<p>FST 404 Food Safety</p>	<p>CO-1. To create understanding of quality control and assurance system in food industry. CO-2. To understand the risk assessments procedure for food sector. CO-3. GMPs and GHP regulations in the food sector. CO-4. To understand the different food safety management used worldwide.</p>
<p>FST 405 Food Quality Management</p>	<p>CO-1. Demonstrate appropriate implementation, monitoring and assessment procedures CO2: To learn about latest trends and techniques in food science CO3: To understand the significance of safe processing of foods. CO4: To understand the role of food standards and regulations in maintaining food quality</p>
<p>SIT- 401 Summer Industrial Training</p>	<p>CO-1. To learn about various plating techniques of microbial growth CO-2: To understand preservation techniques of culture media CO-3. Ability to learn about inoculation and incubation practices.</p>

B.Voc Software and Development

Programme Outcomes B.Voc (Software Development)

Programme Outcomes	<p>PO-1 Acquire knowledge about generation of computers and types of computers</p> <p>PO-2 Student will develop a vocabulary of key terms related to the computer and to software program menus</p>
Course Outcomes	
Semester-I	
<p>Paper Code-GEN-101 Paper Name-Communication Skills</p>	<p>CO-1. To improve the communication skills and soft skills</p> <p>CO-2. To enhance the grammatical concepts and writing or formation skills</p>
<p>Paper Code-GEN-102 Paper Name-Fundamentals of Information Technology</p>	<p>CO-1. Know about hardware/software methods and tools</p> <p>CO-2. Learn about internet and browsing services available in internet.</p> <p>CO-3. Understand basic concepts and terminology of information technology</p> <p>CO-4. Have a basic understanding of personal computer</p> <p>CO-5. Acquire knowledge about generation of computers and types of computers</p>
<p>Paper Code-SD 103 Paper Name-Logic Development Techniques</p>	<p>CO-1. To develop the logic of the different problems.</p> <p>CO-2. To equip students with the basic knowledge of logic development techniques.</p> <p>CO-3. To enhance the skills of students for software development.</p>
<p>Paper Code-SD 104 Paper Name-Fundamentals of Information Technology2</p>	<p>CO-1. Student will develop a vocabulary of key terms related to the computer and to software program menus</p> <p>CO-2. Student will be able to identify the components of a personal computer system</p> <p>CO- 3. Student will be able to demonstrate mouse and keyboard functions</p> <p>CO-4. Student will be able to demonstrate window and menu commands and how they are used</p>

	CO-5. Student will be able to demonstrate how to organize files and documents on a USB/hard drive
Paper Code-SD 105 Paper Name- Internet Application	CO-1. To familiarize the students with the Fundamentals of Information Technology and its applications. CO- 2. To use computer systems at operating system level and application level. CO-3. To assess the implications for the markets and organizational change of advances in information technologies

Semester-II	
Paper Code-SD 108 Paper Name- RDBMS	CO-1. Exploring database management skills CO-2. Enhancement of the linking capabilities of database with the front end
Paper Code-SD 109 Paper Name- MySQL	CO-1.Can opt for the SQL database and placed in the companies for the database management
Paper Code-SD 110 Paper Name-C Language	CO-1. To develop the logic of the different problems. CO-2.Develop the applications in C CO-3. To enhance the skills of error checking.
Paper Code-SD 111 Paper Name- PC maintenance	CO-1. Carrier in maintenance of PCs and rectifying hardware related problems CO 2. Student will be able to manage, assemble PCs .
Paper Code-SD 105 Paper Name- Internet Application	CO-1. Students can work in the internet based applications CO-2 Develop apps related to cloud, browser and server based

Semester-III	
Paper Code-GEN 301 Paper Name- Value Education and Human Rights	CO-1. The strengthening of respect for human rights and fundamental freedoms. CO-2. The full development of the human personality and the sense of its dignity. CO-3The promotion of understanding, respect, gender equality, and friendship among all nations, indigenous peoples and racial, national, ethnic, religious and linguistic groups.

Paper Code-SD 202 Paper Name- Mathematical Tools for Computer Science	CO-1. Use set notation, including the notations for subsets, unions, intersections, differences, complements, cross (Cartesian) products, and power sets. CO-2. State the definitions of binary relation, reflexive, symmetric, transitive, equivalence relation, equivalence class, class representative, and partition. CO-3. Perform basic matrix operations including sums, products, and transpose and perform 0-1 matrix operations. CO-4. Apply numerical methods to find our solution of algebraic equations using different methods under different conditions, and numerical solution of system of algebraic equations
Paper Code-SD 203 Paper Name-Object Oriented Programming Using C++	CO-1. Master using key structured programming constructs: declarations, sequence, selection, repetition, evaluating expressions CO-2. Be familiar with using C++ functions and the concepts related to good modular design. CO-3. Be familiar with using pointers and reference parameters. CO-4. Be familiar with using text file input/output
Paper Code-SD 204 Paper Name- Data Structure using C++	CO-1.Understand the concept of Dynamic memory management, data types, algorithms, Big O notation. CO-2.Understand basic data structures such as arrays, linked lists, stacks and queues. CO-3.Describe the hash function and concepts of collision and its resolution methods. CO-4.Solve problem involving graphs, trees and heaps
Paper Code-SD 205 Paper Name-Data Communication and networks	CO-1. Study the basic taxonomy and terminology of the computer networking and enumerate the layers of OSI model and TCP/IP model. CO-2. Acquire knowledge of Application layer and Presentation layer paradigms and protocols. CO-3. Study Session layer design issues, Transport layer services, and protocols. CO-4. Gain core knowledge of Network layer routing protocols and IP addressing.

Semester-IV

Paper Code-GEN 401 Paper Name- Environmental Studies	CO-1.Understand core concepts and methods from ecological and physical sciences and their application in environmental problem-solving. CO-2.Understand the transnational character of environmental problems and ways of addressing them, including interactions across local to global scales. CO-3. Students can describe the various perspectives that different constituencies bring to environmental issues.
Paper Code-SD 208 Paper Name- Operating System	CO-1.Understand and analyze theory and implementation of processes resources control physical and virtual memory scheduling I/O and files. CO-2.General understanding of structure of modern computers CO-3.Purpose,structure and functions of operating systems

<p>Paper Code-SD 209 Paper Name-Web Programming</p>	<p>CO-1.Apply a structured approach to identifying needs, interests, and functionality of a website. CO-2.Design dynamic websites that meet specified needs and interests. CO-3.Select appropriate HTML, CSS, and JavaScript code from public repositories of open-source and free scripts that enhances the experience of site visitors.</p>
<p>Paper Code-SD 210 Paper Name-Java Programming</p>	<p>CO-1.Designs will demonstrate the use of good object-oriented design principles including encapsulation and information hiding. CO-2.The implementation will demonstrate the use of a variety of basic control structures including selection and repetition; classes and objects in a tiered architecture (user interface, controller, and application logic layers); primitive and reference data types including composition; basic AWT components; file-based I/O; and one-dimensional arrays.</p>
<p>Paper Code-SD 211 Paper Name-Computer Based Accounting</p>	<p>CO-1.Define and apply management/cost accounting concepts. CO-2.Identify and analyze variances, flexible budgets and management control. CO-3.Set-up and maintain Vendors, Customers, Employee Centers, Chart of Accounts, Items, and Payroll Item Lists.</p>

Semester-V	
<p>Paper Code-GEN 501 Paper Name-Critical Thinking and Elementary Statistics</p>	<p>CO-1. Using the Elements of Reasoning and Intellectual Standards to create critical thinking lessons in your subject area. CO-2.Designing instruction that fosters explicit critical thinking. CO-3.Using the Elements of Reasoning and Intellectual Standards to think through intellectual, academic, personal, social, and political problems. CO-4.Providing your students with the intellectual tools they need to engage in fair-minded critical reasoning.</p>
<p>Paper Code-SD 302 Paper Name-Software Engineering and Quality Assurance</p>	<p>CO-1 To present in detail the steps for the software development. CO-2To presents the students various testing strategies for the software. CO-3 TO inculcate the designing process with various models.</p>
<p>Paper Code-SD 303 Paper Name-Computer Graphics And Multimedia Applications</p>	<p>CO-1.Critical understanding of the theory of 2D and 3D transformations, projection and viewing CO-2. Ability to find & combine relevant sources and synthesize designs CO-3. Detailed knowledge of the graphics pipeline CO-4. Detailed knowledge of shading and texture mapping algorithms</p>

Paper Code-SD 304 Paper Name-ASP .NET using C#	CO-1.Gain a thorough understanding of the philosophy and architecture of .NET. CO-2.Acquire a working knowledge of the .NET programming model and .NET Security. CO-3.Learn how to implement database applications using .NET. CO-4.Learn how to debug .NET applications using .NET diagnostic classes and tools.
Paper Code-SD 305 Paper Name-Linux Operating System	CO-1.To familiarize the students with the Operating System. CO-2.To demonstrate the process, memory, file and directory management issues under the UNIX/ LINUX operating system CO-3.To introduce LINUX basic commands CO-4.To make students how to make simple programs in LINUX and administrative task of LINUX

Semester-VI

Paper Code-GEN 601 Paper Name- Entrepreneurship Development Programme	CO-1.research and evaluate the personal attributes and skills that characterizethe“successful”entrepreneur. CO-2.compare their personal characteristics and interests to that of the “successful”entrepreneur. CO-3.identify and assess sources of support for small businesses and entrepreneurs. CO-4.research and explain issues relevant to entrepreneurs such as “green” business practices, environmental sustainability, social entrepreneurship, and intellectual property.
Paper Code- SD 308 Paper Name-E- Commerce	CO-1.Understand e-Commerce and e-Business and their types. CO-2.Understand some innovative e-Business systems: e-Leaning, e-Government, e-Tourism...etc. CO-3.Understand the requirements for starting an online business. CO-4.Discuss and work in a group in order to design a new online business idea.
Paper Code- SD 309 Paper Name- Emerging Technologies in Computing	CO-1.Describe and evaluate the impact of the implementation of new software, hardware, and networking technologies. CO-2. Research, summarize, and present trends that will have an effect on the computer industry. CO-3. Investigate, test, and consider the use and cost effectiveness of software and/or hardware in the business environment.
Paper Code- SD 310 Paper Name- Network Management	CO-1.Define ‘operations’ and ‘operations management’. CO-2.Identify the roles and responsibilities of operations managers in different organisational contexts. CO-3.apply the ‘transformation model’ to identify the inputs, transformation processes and outputs of an organization. CO-4.Identify operational and administrative processes.

Paper Code- SD 311 Paper Name-PHP Programming	CO-1.discuss the concepts of PHP and its advantages over other languages CO-2.use HTML form elements that work with any server-side language CO-3.create, back up and restore a MySQL database CO-4.perform various MySQL database queries
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Medical Lab Technology

Programme Outcomes: Advanced diploma in MLT

Department of Medical Lab Technology	After successful completion of two years diploma program in Medical Lab technology a student should be able to;
Programme outcomes	PO-1. Achieve skills that are necessary for them to function as part of the healthcare team. PO-2. Recognize the responsibilities of laboratory and health care personnel and interaction with respect for their jobs and patient care. PO-3. Prepare students to compete national certification examination PO-4. Develop skills from basic to more complex laboratory Diagnostics PO-5.Make students competitive for jobs in clinical labs and hospitals

Programme Specific outcomes

Programme specific outcomes	PSO-1. Achieve competency in urinalysis, hematology, clinical chemistry, immune-hematology, microbiology and serology. PSO-2. Understand and apply Lab safety measures and ethics. PSO-3. Understand working of lab equipments and procedures.
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Course Outcomes Advanced Diploma in MLT

Semester-I

Paper I Basics of anatomy	CO-1. Student will be able to understand anatomy of human body CO-2. Differentiate the cells and organs of human body CO-3. Understand structures of bones and muscles.
Paper II Biocemistry	CO-1. Prepare laboratory reagents. CO-2. Understand composition and function of blood. CO-3. Recognize lab ethics, responsibility and safety measures. CO-4 Calibrate volumetric apparatus

Paper III Haematology	CO-1. Understand haematology and laboratory organization. CO-2. Lab safety measures and Instrumentation CO-3. Know Physiological variations in HB, PCV, TLC and platelets. CO-4 Quality assurance in hematology.
Paper IV Microbiology	CO-1. know Safety measures and precautions in microbiology CO-2. Operate procedure of sterilization CO-3. Decontaminate and dispose the contaminated material. CO-4 knows basis instruments of microbiology.
Paper V Histotechnology	CO-1. Collect & preserve blood for various hematological investigations. CO-2. Prepare of blood smear. CO-3. Total leukocyte count and Differential leukocyte count. CO-4 hematology and laboratory organization Lab safety and Instrumentation.
Semester-II	
Paper I basics of physiology	CO-1. Understand structure and functions of organ. CO-2. Know ABO Blood grouping, Bleeding time. CO-3. Measure clotting time, Blood Pressure. CO-4. Differences on physiology of organs.
Paper II Biochemistry	CO-1. Collect and record biological specimens. CO-2. Analyze urine (qualitative) for physical and chemical constituents CO-3. Estimate essential electrolytes in blood. CO-4 Assay procedures for biological material and estimation of kidney function test.
Paper III Haematology	CO-1. Understand methods of estimation of Hb, errors involved and standardization of instrument for adaptation for Hb estimation. CO-2. Preparation and staining procedures of blood smears. CO-3. Able to perform volumetric analysis-Preparation of Standard acid and base solutions
Paper IV Microbiology	CO-1. Operate laboratory instruments and safety precautions. CO-2. Perform macroscopic examination of adult worms, cysts, tissues and processing of stool sample for routine examination. CO-3. Prepare slides of protozoal cysts and trophozoites. CO-4. Examination and identification of ova and cyst of parasites of medical importance
Paper V Internship for one month	CO-1. Understand day to day load together with the employed technicians under supervision by the technology teachers/faculty members/resident doctors.
Semester-III	

Paper I Basics of physiology	CO-1. Understand functions of endocrine glands through permanent slides CO-2. Understand functions of organs. CO-3. Differentiate between organ systems.
Paper II Biochemistry	CO-1. Able to collect, handle and examine specimens CO-2. Handle techniques of colorimetry, spectroscopy. CO-3. Screen and perform coagulation procedures. CO-4 Perform quantitative assay of coagulation factors.
Paper III Haematology	CO-1. Understand methods of estimation of Hb, errors involved and standardization of instrument for adaptation for Hb estimation. CO-2. Preparation and staining procedures of blood smears. CO-3. Able to perform volumetric analysis-Preparation of Standard acid and base solutions
Paper IV Histology	CO-1. Handle staining procedures, preparation of the stains and demonstration of viral inclusion bodies. CO-2. Prepare reagents for serological tests. CO-3. Perform viral haemagglutination and Haemagglutination inhibition test. CO- 4. Demonstration of Haemadsorption test, IHA, and RPHA tests.
Paper V Microbiology	CO-1. Operate laboratory instruments and safety precautions. CO-2. Perform macroscopic examination of adult worms, cysts, tissues and processing of stool sample for routine examination. CO-3. Prepare slides of protozoal cysts and trophozoites. CO-4. Examination and identification of ova and cyst of parasites of medical importance
Semester-IV	
Paper I Microbiology	CO-1. Perform aerobic and anaerobic culture methods. CO-2. Understand mode of action of antibiotics and chemotherapeutic agents for bacteria and fungi. CO-3. Acquaint with laboratory organization, management, recording of results and quality control in microbiology. CO-4 Collection, transportation and processing of clinical samples for microbiology investigations
Paper II Fundamentals of applied histology	CO-1. Understand microscopy, working principle, maintenance and applications of various types of microscopes. CO-2. Demonstrate and identify the minerals and pigments CO-3. Stain cells for microscopic examinations.
Paper III Computer skill	CO-1. Handle operating System Introduction to computer Operating System. CO-2. Understand windows structures, its use and application. CO-3. Prepare spread sheet for simple data and numeric operations, making tables, sorting and querying.

<p>Paper IV Communcation skill</p>	<p>CO-1. Understand essentials of good communication and methods of communication, oral, written and non-verbal CO-2. Write technical report using the given outlines. CO-3. Prepare report, notices, agenda notes, business correspondence preparation of summery & prices.</p>
<p>Paper V One month internship in a reputed lab</p>	<p>CO-1. Understand day to day load together with the employed technicians under supervision by the technology teachers/faculty members/resident doctors.</p>

Fashion Designing and Clothing Construction

Programme Outcomes: Advance Diploma in Fashion Designing and Clothing Construction

Department of Fashion designing	After successful completion of three year degree program in (CC-ADFD) a student should be able to;
Programme Outcomes	PO-1. Students understand basic garment construction techniques, sewing knowledge, and skill development in the field of fashion design. PO2-Students have deep knowledge of design, arts and Elements of design. PO3-Students develop skills of sketching, pattern making and garment construction. PO4- Students understand the knowledge about computer aided designing. PO5- students can be able to manage events like fashion shows, workshops and exhibitions.
Programme Specific outcomes	
Programme Specific Outcomes	PSO-1. PSO1-Students can be designer in fashion industries. PSO2-students can be placed as a merchandiser in garment industries. PSO3- students can be served as a instructor of computer aided designing. PSO4-self employment as an entrepreneur is possible.
Course Outcomes CC-ADFD	
<u>Semester-I</u>	
Course Outcomes	After completion of these courses students should be able to;
BASIC GARMENT CONSTRUCTION	CO-1. Students learn machines and tools used for sewing. CO-2. Students learn knowledge of different garment components. CO-3. They learn various basic hand stitches, seams and seam finishes, different fullness treatments CO-4 They learn various construction techniques.
SEWING TECHNOLOGY	CO-1. students can able to understand various Sewing tools. CO-2. Students can gain knowledge about different types of machine, threads and needles.
PATTERN MAKING-I	CO-1. They can gain knowledge of different aspects of Pattern Making such as drafting, draping and good fitting.

FASHION SKETCHING	CO-1. Students can be to understand knowledge of figure sketching and fleshing CO-2. Rendering of textures CO-3. Sketching and illustration of figure.
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Semester-II

GARMENT FINISHING	CO-1. students can understand various types of finishing. CO-2. Students can understand various types of finishing processing.
FIBRE TO FABRIC	CO-1. They can gain knowledge of fibers, sources of fibers and their properties CO-2. Students can able to understand manufacturing process of textiles fibers. CO-3. To help the students to identify various classes of textiles fibers.
DESIGNING & MANUFACTRING CHILDREN APPAREL	CO-1. They acquire knowledge of various types of baby garment. CO-2. They learn various baby garments construction techniques.
COMPUTER APPLICATION	CO-1. They can gain basic computer knowledge to students. CO-2. Students are able to understand concept of fundamentals and its applications in computer.

Semester-III

HISTORIC COSTUMES AND TEXTILES	CO-1. To acquaint the students with different types of Ancient costumes.
CAD IN TEXTILEAND FASHION	CO-1. To acquaint students with knowledge of CAD based application in fashion designing.
DESIGNING & MANUFACTRING WOMWN APPAREL	CO-1. They acquire knowledge of various types of women garment. CO-2. They learn various women garments construction techniques.

Semester-IV

APPAREL QUALITY ASSURANCE	CO-1. They learn about quality consciousness and awareness of quality parameters required for apparel quality products.
FASHION MARKETING AND MERCHANDISING	CO-1. students can gain knowledge of marketing and its environment CO-2. They can be able to understand the importance of fashion forecasting. CO-3. They can acquire knowledge about various brands of apparel and accessories CO-4 Student can gain knowledge about various display materials and installations and different kind of storage displays
LINE DEVELOPMENT & PORTFOLIO-I	CO-1. students can be to apply the principles and knowledge of garment design development to create a collection CO-2. They can understand the meaning and importance of making a good portfolio CO-3. Identify, organize, and gather documentation to build portfolios

Certificate Courses

Certificate Course in Dress Designing and Tailoring

Programme Outcomes: Certificate Course in Dress Designing and Tailoring

Certificate in dress designing and tailoring	After successful completion of certificate course in dress designing and tailoring) a student should be able to;
Programme Outcomes	PO-1. Students understand basic garment construction techniques, sewing knowledge, and skill development in the field of fashion design. PO2- students can be able to manage events like workshops and exhibitions.
Programme Specific Outcomes	
Programme Specific Outcomes	PSO-1. PSO1-Students can be boutique worker. PSO4-Self employment as an entrepreneur is possible.
Course Outcomes	
Course Outcomes	After completion of these courses students should be able to;
BASIC GARMENT CONSTRUCTION	CO-1. Students learn machines and tools used for sewing. CO-2. Students learn knowledge of different garment components. CO-3. They learn various basic hand stitches, seams and seam finishes, different fullness treatments CO-4 They learn various construction techniques of garments.

Certificate Course in Website Designing

Programme outcomes: Certificate Course in Website Designing

Certificate Course in Website Designing	After successful completion of six months certificate course in Website Designing a student should be able to;
Program Outcomes	<p>PO-1. Understand the principles of creating an effective web page, including an in-depth consideration of information architecture.</p> <p>PO-2. Become familiar with graphic design principles that relate to web design and learn how to implement theories into practice.</p> <p>PO-3. Develop skills in analyzing the usability of a web site.</p> <p>PO-4. Understand how to plan and conduct user research related to web usability.</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1 Students will utilize coding and software tools to analyze and present data in a professional manner that could be translated to web-based or app-based media.PSO-2 Effectively integrates IT-based solutions into the user environment.</p> <p>PSO-2 Students will develop and understanding of information design and usability as it applies to interactive media projects.</p> <p>PSO-3 A series of tasks (website evaluation, website development, reflective report, collaborative website development, website self-assessment), as well as several group activities (discussions, online resource sharing, collaborative work) will help to gain practical experience on web development and a thorough understanding of web design issues.</p>
Course Outcomes	
Certificate Course in website designing	
Paper Name: PROGRAMMING IN HTML/DHTML	<ul style="list-style-type: none"> • Insert a graphic within a web page. • Create a link within a web page. • Create a table within a web page. • Insert heading levels within a web page. • Insert ordered and unordered lists within a web page. • Use cascading style sheets. • Create a web page. • Validate a web page. • Publish a web page

<p>Paper Name: PROGRAMMING IN JavaScript/VBScript</p>	<ul style="list-style-type: none">• Develop interactive web applications through coding using HTML , CSS and Remember client-Side Programming, Server-Side Programming, Active Server Pages, Database Connectivity to web applications• Understand VB Script language programming constructs.• Gain knowledge of JavaScript language programming constructs.• Develop a dynamic web page using client side and server side scripting languages.• Apply role of languages like HTML, JavaScript, VBScript, ASP and protocols in the workings of the web and web application• Analyze a web project and identify its elements and attributes in comparison to traditional projects and build customize web sites and web applications
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Certificate Course in Food Processing and Preservation

Programme outcomes: Food Processing and Preservation

Certificate course in Food Processing And Preservation	After successful completion of six program in Add-on Course (FPP) a student should be able to;
Programme Outcomes	PO-1. Students understand the present status of Food processing Industry globally and in India. PO2-Students have deep knowledge of food preservation significance and need.
Programme Specific Outcomes	
Programme Specific Outcomes	PO-1. Students can determine proximate composition of various food, physio-chemical properties of food and also prepare various food products such as sau.ce, Squash, Jam, Bread, Biscuit etc PO2-students can work in food industries. PO3- Students can choose teaching profession PO5-self employment as an entrepreneur is possible.
Course Outcomes	
Food Preservation (Theory)	CO-1: Students will understand the present status of Food processing Industry scenario. CO2-Students will have deep knowledge of food preservation significance and need. PO3-Students develop skills of importance of food in diet and various sources of plant and animal food in India.
Practical	CO-1: Students can determine proximate composition of various food such as Moisture content, Carbohydrate and Sugars, Protein,, Fat and Ash CO-2: Students will study physio-chemical properties of food such as pH, acidity, total solids and soluble solids. CO-3: Students will also learn to prepare various food products such as sau.ce, Squash, Jam, Bread, Biscuit etc

Certificate Course in Mushroom Cultivation

Programme outcomes: Certificate course in Mushroom Cultivation

Certificate course in Mushroom Cultivation	After successful completion of six months certificate in mushroom cultivation a student should be able to;
Program outcomes	PO-1. Achieve skills that are necessary for them to become self-reliable and self-employed farmer with small land holdings.
Programme specific outcomes	
Programme specific outcomes	PSO-1. Understand basic technique and procedure of mushroom cultivation. PSO-2. Provide raw material in form of compost and spawn to other mushroom grower to generate extra income.
Course outcomes	
MC-1: Mushroom Cultivation	CO-1. To understand mushroom morphology and nutritional requirements. CO-2. To study mushroom cultivation system and farm design CO-3. To prepare compost by different methods, CO-4. To know harvesting methods, packaging and post harvest technology CO-5. To understand disease control and pest management for mushroom cultivation.
MC-2: Field Visit	CO-1. Field Visit & Interaction with Mushroom cultivators and other Support Agencies to gain real time exposure for large scale production of mushroom.

Certificate Course in Yoga and Mental Health

Department of Physical Education	After successful completion of six months certificate course in yoga and mental health a student should be able to;
Programme Outcomes	<ul style="list-style-type: none"> • To acquaint students with the eternal values of Indian culture as lived and propagated by exemplary personalities like Swami Vivekananda and some other modern Indian sages such as Sri Ramakrishna, Ma Sarada, Shri Aurobindo and Shri Ramana Maharishi. • To highlight the significance of our traditional values for generating peace, universal love, acceptance, tolerance and harmony in our real life. • To sensitize students to the values of service, sacrifice, self control, selflessness and moral courage and highlight the significance of character building and spirituality in their self development. • To awaken the inherent spiritual strengths through yogic asans, pranayam and meditation. • Through the course students are expected to understand and become more aware about self and the environment. • For developing self-observation, body awareness, self-study, self-discipline and to develop positive attitude. • To increase flexibility, elasticity, calmness and strength. • To develop attention and concentration. • To improve relaxation, attention and concentration. • To learn autonomic control through passive attention. • To create an overall state of Homeostasis and Mental well being.
Programme Specific Outcomes	
Programme Specific Outcomes	<ul style="list-style-type: none"> • Creating a healthy and peaceful society by assimilating these practices in daily life. • Harmonizing inner and outer self to create integrated personalities • Harmonizing self with natural and social environment • Giving direction to youth by imparting value based education • Preparing students for corporate life.

Department of Add on Courses

Programme Outcomes: Add-on Course (Fashion Designing)

Fashion designing	After successful completion of three year degree program in Add-on Course (FD) a student should be able to;
Programme Outcomes	PO-1. Students understand textile science, garment details, skill development in the field of fashion design. PO2-Students have deep knowledge of design, arts and Elements of design. PO3-Students develop skills of sketching, pattern making and garment construction. PO4- Students understand the various department of apparel manufacturing technology.

Programme Specific Outcomes

Programme Specific Outcomes	PO-1. Students can be designer in fashion industries. PO2-students can work in garment industries. PO3- Students can choose teaching profession PO5- self employment as an entrepreneur is possible.
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Course Outcomes Add on course (FD)

Certificate course

Course	Outcomes
	After completion of these courses students should be able to;
FUNDAMENTALS OF CLOTHING	CO-1. students understand tools used in garment construction and Correct body measurements CO-2. They understand garment construction techniques CO-3. students understand traditional Embroideries of India

FABRIC STUDY AND DESIGN CONCEPT	CO-1 they can get knowledge about fibers and their properties and yarn size and properties. CO-2 They can understand principles and elements of and different dyes and printing techniques
BASIC CONSTRUCTION TECHNIQUES AND SKETCHING	CO-1 they can get knowledge about Various seams and seams finishes CO-2 students can learn about fancy and traditional embroidery stitches.
Diploma Course	
TEXTILE AND COSTUME APPRECIATION	CO-1 They can get knowledge about different types of Traditional Indian costumes and textiles. CO-2 Students can learn about Indian and Western costumes
PATTERN MAKING AND ADVANCE CONSTRUCTION TECHNIQUES	CO-1 They can get knowledge about Tools and terminology used in Pattern making CO-2 Students can learn about commercial Paper Pattern, handling of Special fabrics and figure defects and their remedies
Advanced Diploma Course	
FASHION DESIGNING AND MERCHANDISING	CO-1 students can learn about Indian and western designers CO-2 they can get knowledge about sourcing and sales promotion Techniques
APPAREL INDUSTRY AND ENTREPRENEURS HIP DEVELOPMENT	CO-1 Students can learn about Entrepreneurship CO-2 They can get knowledge about quality control, labeling and packaging, main centers of trade
FASHION DESIGNING AND ADVANCE CONSTRUCTION TECHNIQUES	CO-1 Students can learn about drafting and construction techniques, Draping techniques, Fashion illustrations, computer aided designing.

Programme Outcomes Add on Course Journalism

Department of Journalism	After successful completion of three year dual degree program in journalism a student should be able to;
Programme Outcomes	<p>PO-1. To Enhance the knowledge about the role of newspapers in society and understanding its critical role in various aspects. Students develop critical understanding about the public service role of a newspaper. Media Watch, national and international newspapers, has been subscribed to help the students inculcate the habit of reading research oriented material on the subject. Regular group discussions and other class activities help in better understanding.</p> <p>PO-2. To Understand what news is all about and have an insight into the working of various news persons. This helps the students to have a clear idea about the functioning of a newspaper organization</p> <p>PO-3. To learn about various types of writing for newspapers and magazines.</p> <p>PO-4 Core knowledge about media law, economy and polity which helps the students to understand crucial aspects related to working on the field as journalists.</p>
Programme Specific Outcomes	
Programme Specific Outcomes	<p>PSO-1. Develop communicative and reading skills</p> <p>PSO-2. Acquire the skill set to be as PRO, lecturer, journalist, reporter, editor, translator & news reader in media</p> <p>PSO-3. Higher Studies can be continued in Journalism</p> <p>PSO-4. Analyzing the work of various news persons, their qualities, duties and the professional requirements.</p> <p>PSO-5. Gain practical knowledge through assignments</p>
Course Outcomes (Add on journalism)	
Certificate course	
Course	Outcomes
	After completion of certificate course students should be able to;

<p>(Paper A Theory)</p>	<p>CO-1. To introduce the students to the profession of journalism CO-2. Defining News and understanding its elements, news sources and different types of news CO-3. Describing page make-up, typography, main type groups with recent changes and development CO-4. To enable students to understand different forms of journalistic Writing CO-5. To enable students to understand newspaper organization structure and editorial department</p>
<p>Paper-B (Practical)</p>	<p>CO-1. Field visit and report of media organization CO-2. Multimedia presentation on typology of media content CO-3. Identifications of different types of sources of news stories CO-4. Interview of a media professional</p>

Diploma Course	
Paper A (Theory)	<p>CO-1. To introduce students to basics of reporting and writing for print media</p> <p>CO-2. To enable the students understand news values and qualities of reporters</p> <p>CO-3. To provide them basic understanding on various media laws and ethics</p> <p>CO-4. Analyzing headlines of news stories and the different types of headlines.</p> <p>CO-5. Describing the principles of editing, copy testing, processing copies and computer editing</p>
Paper B (Practical)	<p>CO-1. Journalistic writing exercises</p> <p>CO-2. Editing exercises</p> <p>CO-3. Multimedia presentation on ethical/legal violation by media</p>
Advanced Diploma Course	
Paper A (Theory)	<p>CO-1. To train the students in designing media content and to introduce them to specialized journalism</p> <p>CO-2. To provide students an understanding of the importance of public opinion and role of journalism in framing it</p> <p>CO-3. To help students understand the history and basics of online media</p> <p>CO-4. To introduce students to development issues in India and coverage of media on these issues.</p> <p>CO-5. To inculcate the idea of social responsibility and create awareness of state and central government welfare measures</p>
Paper B (Practical)	<p>CO-1. Design a newspaper mock-up/magazine cover/Radio/TV news package</p> <p>CO-2. Exercise in news writing using CAR</p> <p>CO-3. Case study of IEC campaign/Pressure Group</p>

Add On Course in Communicative English

Programme Outcomes:

After the award of an Advanced Diploma Certificate in Communicative English, a learner would be :

- Skilled in the use of the four skills of the language,
- Familiar with the basics of radio, TV and print journalism,
- Familiar with the various methods of business communication,
- To get some employment on the basis of the skill acquired .

Course Specific Outcomes:

Certificate Course:

- Familiarity with the functioning of English – English sounds through listening in the Language Lab.
- Accuracy in oral production by the use of the pronunciation dictionary.
An optimum level of intelligibility and fluency in speech.
- Ability of communication in the spoken mode with accuracy and fluency for various functions.
- Enhanced ability of communication in the written mode with accuracy and fluency
Trained use of specific formats of written discourse
- Knowledge of the fundamentals of study skills
- Familiarity with the study skills to collect, classify & retrieve information from different sources and to record and store

Diploma Course:

- Acquaintance with the different mechanisms of radio broadcast.
Script writing for different genres of Radio broadcast.
- Acquaintance them with the elements of voice
Identification and overcoming speech problems
- Acquaintance with the lay-out, equipment and functioning of a T.V. station
Scriptwriting for different genres of T.V. Broadcast.
- Sensitization to body movements, demeanor and gestures involved in T.V. presentation. Practice in previously covered features of broadcast presentation.
- Familiarity with different genres of T.V. production

Advanced Diploma:

- Awareness of issues deserving reporting in print
- Familiarity with different aspects of print journalism, its formats, its avenues. Writing news stories from the stage of news gathering to editing to their final presentation.
- Familiarity with the lay-out, equipment and functioning of a newspaper/magazine production centre
- Acquisition of the art and skills of feature writing for freelancing
Awareness of the aspects of graphic arts in Print Journalism.
- Language proficiency in Business/work situations particularly in spoken interaction
- Awareness of the special features of format and style of informal communication through various modes.
- Techniques of written communication in business situations.
- Expanded vocabulary and developed reading comprehension of material related to business.

Programme Outcomes: Ad on Information Technology

ADD-ON IT	After successful completion of one year certificate course in ADD-ON a student should be able to;
Program Outcomes	PO-1. Focus on the learning resulting from the activity rather than on the activity itself. PO-2. Focus on the important aspects of the learning that provide life long learning skills. PO-3. Focus on the skills and abilities central to the discipline and based on professional standards of excellence. PO-4. Capturing important learning skills specific enough to be measurable
Programme Specific Outcomes	
Programme Specific Outcomes	PSO-1 Use and apply current technical concepts and practices in the core Information Technologies of human computer interaction, information Management, programming, networking. PSO-2 Effectively integrates IT-based solutions into the user environment.

	<p>PSO-3 The ability to understand, analyze and develop computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics, and networking for efficient analysis and design of computer - based systems of varying complexity.</p>
<p>Course Outcomes</p>	
<p>Certificate Course</p>	
<p>Paper Name: Fundamental of Information Technology</p>	<ul style="list-style-type: none"> ○ Student will develop a vocabulary of key terms related to the computer and to software program menus ○ Student will be able to identify the components of a personal computer system ○ Student will be able to demonstrate mouse and keyboard functions ○ Student will be able to demonstrate window and menu commands and how they are used ○ Student will be able to demonstrate how to organize files and documents on a USB/hard drive ○ Student will be able to compose, format and edit a word document ○ Student will be able to send email messages (with or without attachments) ○ Student will be able to navigate and search through the internet
<p>Paper Name- Practical</p>	<ul style="list-style-type: none"> ○ To make the student learn a programming language. ○ To learn problem solving techniques. ○ To teach the student to write programs in C and to solve the problems. ○ Read, understand and trace the execution of programs written in C language. ○ Write the C code for a given algorithm. ○ Implement Programs with pointers and arrays, perform pointer arithmetic, and use the pre-processor. ○ Write programs that perform operations using derived data types.

Paper Name-C Programming Language	<ul style="list-style-type: none"> ○ Students learn how build an algorithm for problems ○ Students learn basics of logic development using C-language ○ Enable students to create pictorial representations of the program ○ Enhance students programming concepts ○ Students learn basics of file handling.
Diploma Course	
Paper Name- Object Oriented Programming Using C++	<ul style="list-style-type: none"> ○ Describe the important concepts of object oriented programming like object and class, Encapsulation, inheritance and polymorphism. ○ Write the skeleton of C++ program. ○ Write the simple C++ programs using the variables, operators, control structures, functions and I/O objects cin and cout. ○ Write the simple object oriented programs in C++ using objects and classes. ○ Use features of C++ like type conversion, inheritance, polymorphism, I/O streams and files to develop programs for real life problems. ○ Use advance features like templates and exception to make programs supporting reusability and sophistication. ○ Use standard template library for faster development. ○ Develop the applications using object oriented programming with C++.
Paper Name- Computer Networks and Internet Programming	<ul style="list-style-type: none"> ○ Have a good understanding of the OSI Reference Model and in particular have a good knowledge of Layers ○ Analyze the requirements for a given organizational structure and select the most appropriate networking architecture and technologies; ○ Have a basic knowledge of the use of cryptography and network security; ○ Specify and identify deficiencies in existing protocols, and then go onto formulate new and better protocols; ○ Have an understanding of the issues surrounding Mobile and Wireless Networks. ○ Implement interactive web page(s) using HTML, CSS ○ Design a responsive web site ○ Demonstrate Rich Internet Application. ○ Build Dynamic web site using server side Database connectivity. ○ Describe and differentiate different Web Extensions and Web Services.

<p>Paper Name- practical</p>	<ul style="list-style-type: none"> ○ Understand the syntax and semantics of the C++ programming language. ○ Write inline functions for efficiency and performance. ○ Create C++ classes for code reuse. ○ Implement copy constructors and class member functions. ○ Understand the concept of data abstraction and encapsulation. ○ Learn how to overload functions and operators in C++. ○ Learn how inheritance and virtual functions implement dynamic binding with polymorphism. ○ Design and implement generic classes with C++ templates. ○ Learn how to Implement SDL graphic libraries to develop a GUI based programs. ○ Boost your hire ability through innovative and independent learning
<p>Advance Diploma Course</p>	

<p>Programming</p>	<ul style="list-style-type: none"> ○ The key goal is to prepare students for a professional career in the field of data administration and database design. ○ To get acquaint students with good knowledge of DBMS. During the course, students will learn about database design and database handling activities. ○ Learn how to identify an organization’s information processing requirements. ○ Learn how to develop a detailed specification for an information system that can fulfill these requirements. ○ Understand that the successful systems analyst needs to have a broad understanding of organizations, organizational culture, organizational change, organizational operations, and business processes. ○ Design/develop programs with GUI interfaces ○ Code programs and develop interface using Visual Basic.Net ○ Perform tests, resolve defects, and revise existing code
<p>Paper Name- Linux System</p>	<ul style="list-style-type: none"> ○ To familiarize the students with the Operating System ○ To demonstrate the process, memory, file and directory management issues under the UNIX/ LINUX operating system ○ To introduce LINUX basic commands ○ To make students how to make simple programs in LINUX.