



ALVA'S COLLEGE (AUTONOMOUS) MOODUBIDIRE Pos & Cos of the Academic year 2024 -25

UG Courses

BACHELOR OF COMPUTER APPLICATIONS B.C.A.

Program Outcomes (PO)

PO1: Computational information: Appreciate and apply mathematical organization, computing and domain information for the conceptualization of computing models from clear harms.

PO2: Difficulty Analysis: Talent to classify, significantly evaluate and prepare complex computing problems using fundamentals of computer knowledge and request domains.

PO3: Accomplish Computing Troubles: Ability to invent and ways experiments interpret data and present well up to date conclusions.

PO4: Current Implement Procedure: Skill to select recent computing t ools, skills and techniques compulsory for original software solutions

PO5: Ultimate Education: Identify the need for and enlarge the ability to appoint in permanent education as a Computing qualified.

PO6: Announcement Usefulness: Converse successfully with the computing society as well as culture by being able to know successful documentations and presentations.

PO7: Personality & Group Job: Ability to job as a part or manager in various teams in multidisciplinary situations.

PO8: Modernization and Private Enterprise: Classify opportunities, private enterprise

dream and use of original thoughts to build worth and means for the betterment of the human being and the world.

Program Specific Outcome (PSO)

PSO1: An ability to enhance the application of knowledge of theory subjects in diverse fields.

PSO2: Develop language proficiency to handle corporate communication demands.

PSO3: Preparing students in various disciplines of technologies such as computer applications, computer networking, software engineering, JAVA, database concepts and programming.

PSO4: In order to enhance programming skills of the young IT professionals, the concept of project development in using the technologies learnt during the semester has been introduced.

PSO5: To enhance logical ability and programming concepts by implementing programming lab.

PSO6: Preparing students for future aspects by building and improving their creativity, social awareness, and general knowledge.

PSO7: Encouraging students to convert their start-up idea to reality by implementing.

PSO8: Ability to understand the changes or future trends in the field of computer application.

PSO9: Ability to identify, formulate, analyze and solve problems of programming using different languages.

COURCE OUTCOME:

FOC (FUNDAMENTALS OF COMPUTERS)

After completing this course satisfactorily, a student will be able to:

- Understand the fundamentals of computer system
- Identify different components within the computer system
- Understand different types of input and output devices 80

- Demonstrate the working concepts of different devices connected to computer
- Explain different generations of programming languages and their significance
- Understand the use of Word processing, Spreadsheet, Presentation and DBMS applications
- Understand Digital computer and digital systems functioning.

Programming in C(Theory)

After completing this course satisfactorily, a student will be able to:

- Confidently operate Desktop Computers to carry out computational tasks
- Understand working of Hardware and Software and the importance of operating systems
- Understand programming languages, number systems, peripheral devices, networking, multimedia and internet concepts
- Read, understand and trace the execution of programs written in C language
- Write the C code for a given problem
- Perform input and output operations using programs in C
- Write programs that perform operations on arrays

Discrete Mathematics for Computer Applications (Theory)

After the successful completion of the course, the student will be able to:

- Study and solve problems related to connectives, predicates and quantifiers under different situations.
- Understand the basic concepts of Discrete Probability.
- To develop the knowledge about derivatives and know various applications of differentiation.
- Understand the Applications of Discrete Mathematics in Modelling Computation.
- Understand the basic concepts of Mathematical reasoning, set and functions

II SEMESTER:

DATA STRUCTURE

After the successful completion of the course, the student will be able to:

• Describe how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms

- Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs
- Write programs that use arrays, linked structures, stacks, queues, trees, and graphs
- Demonstrate different methods for traversing trees
- Compare alternative implementations of data structures with respect to performance
- Describe the concept of recursion, give examples of its use
- Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing.

Object Oriented Programming with JAVA

After the successful completion of the course, the student will be able to:

Understand the features of Java and the architecture of JVM

- Write, compile, and execute Java programs that may include basic data types and control flow constructs and how type casting is done
- Identify classes, objects, members of a class and relationships among them needed for a specific problem and demonstrate the concepts of polymorphism and inheritance
- The students will be able to demonstrate programs based on interfaces and threads and explain the benefits of JAVA's Exceptional handling mechanism compared to other Programming Language
- Write, compile, execute Java programs that include GUIs and event driven programming and also programs based on files.

Discrete Mathematical Structures:

After completing this course satisfactorily, a student will be able to:

- To understand the basic concepts of Mathematical reasoning, set and functions.
- To understand various counting techniques.
- Understand the concepts of various types of relations, partial ordering and equivalence relations.
- To understand the concept of probability and mathematical induction.
- Familiarize the fundamental concepts of graph theory and shortest path algorithm.
- To understand the concept of binary tree representation.

III SEMESTER:

Course Title: Database Management System

At the end of the course, students will be able to:

• Understand the various database concepts and the need for database systems.

• Identify and define database objects, enforce integrity constraints on a database using DBMS.

• Demonstrate a Data model and Schemas in RDBMS.

• Identify entities and relationships and design ER diagrams for given real-world problems.

• Represent ER model to relational model and its implementation through SQL.

• Formulate queries in Relational Algebra, Structured Query Language (SQL) for database

manipulation.

• Understand the transaction processing and concurrency control techniques.

Course Title: C# and Dot Net Framework C

At the end of the course, students will be able to:

• Understand Object Oriented Programming concepts like Inheritance and Polymorphism in

C# programming language.

• Interpret and Develop Interfaces for real-time applications.

• Build custom collections and generics in C#.

Course Title: Computer Communication and Network

At the end of the course, students will be able to:

• Explain the transmission technique of digital data between two or more computers and a

computer network that allows computers to exchange data. • Apply the basics of data

communication and various types of computer networks in real world applications.

• Compare the different layers of protocols.

• Compare the key networking protocols and their hierarchical relationship in the conceptual

model like TCP/IP and OSI.

Course Title: Open Source Tools:

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- Recognize the benefits and features of Open Source Technology and to interpret, contrast and compare open source products among themselves
- Use appropriate open source tools based on the nature of the problem
- Write code and compile different open-source software.

IV Semester:

Course Title: Python Programming

Course Outcomes (COs): At the end of the course, students will be able to: • Explain the basic concepts of Python Programming. • Demonstrate proficiency in the handling of loops and creation of functions. • Identify the methods to create and manipulate lists, tuples and dictionaries. • Discover the commonly used operations involving file handling. • Interpret the concepts of Object-Oriented Programming as used in Python. • Develop the emerging applications of relevant fields using Python.

Course Title: Computer Multimedia & Animation

At the end of the course, students will be able to:

- Write a well-designed, interactive Web site with respect to current standards and practices.
- Demonstrate in-depth knowledge of an industry-standard multimedia development tool and its associated scripting language.
- Determine the appropriate use of interactive versus standalone Web applications

Course Title: Operating System Concepts

At the end of the course, students will be able to:

- Understand the fundamentals of the operating system.
- Comprehend multithreaded programming, process management, process synchronization, memory management and storage management.
- Compare the performance of Scheduling Algorithms
- Identify the features of I/O and File handling methods.

V SEMESTER:

Design And Analysis of Algorithms (Theory)

After the successful completion of the course, the student will be able to:

• CO1. Understand the fundamental concepts of algorithms and their complexity, including time and space complexity, worst-case and average-case analysis, and Big-O notation.

- CO2. Design algorithms for solving various types of problems, such as Sorting, Searching, and Graph traversal, Decrease-and-Conquer, Divide-and-Conquer and Greedy Techniques.
- CO3. Analyze and compare the time and space complexity of algorithms with other algorithmic techniques.
- CO4. Evaluate the performance of Sorting, Searching, Graph traversal, Decrease-and-Conquer, Divide-and-Conquer and Greedy Techniques using empirical testing and benchmarking, and identify their limitations and potential improvements.
- CO5. Apply various algorithm designs to real-world problems and evaluate their effectiveness and efficiency in solving them.

Statistical Computing & R Programming (Theory)

After the successful completion of the course, the student will be able to:

- CO1. Explore fundamentals of statistical analysis in R environment.
- CO2. Describe key terminologies, concepts and techniques employed in Statistical Analysis.
- CO3. Define Calculate, Implement Probability and Probability Distributions to solve a wide variety of problems.
- CO4. Conduct and interpret a variety of Hypothesis Tests to aid Decision Making. CO5. Understand, Analyse, and Interpret Correlation Probability and Regression to analyse theunderlying relationships between different variables

Software Engineering (Theory)

After the successful completion of the course, the student will be able to:
☐ CO1 How to apply the software engineering lifecycle by demonstrating
competence in communication, planning, analysis, design, construction, and deployment.
☐ CO2 An ability to work in one or more significant application domains.

□ CO3 Work as an individual and as part of a multidisciplinary team to develop anddeliver qualitysoftware.

□ CO4 Demonstrate an understanding of and apply current theories, models, and techniques that provide a basis for the software lifecycle.

CO5 Demonstrate an ability to use the techniques and tools necessary for engineering practice

Cloud Computing (Theory)

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

CO1 Explain the core concepts of the cloud computing paradigm such as how and
why this paradigm shift came about, the characteristics, advantages and
challenges brought about by the various models and services in cloud computing.

- CO2 Apply the fundamental concepts in data centres to understand the tradeoffs in power, efficiency and cost.
- CO3 Identify resource management fundamentals like resource abstraction, sharing and sandboxing and outline their role in managing infrastructure in cloud computing.
- CO4 Analyze various cloud programming models and apply them to solve problems on the cloud.

Digital Marketing (Theory)

After the successful completion of the course, the student will be able to:

CO1. Understand the fundamental concepts and principles of digital marketing.

CO2. Develop practical skills to implement various digital marketing strategies and techniquesCo3. Analyse and evaluate the effectiveness of digital marketing campaigns.

CO4. Apply critical thinking and problem-solving skills to real-world digital marketing scenarios.

CO5. Create comprehensive digital marketing plans and strategies.

Employability skills

- The employability skills are embedded in the Qualification Packs of the different job roles in various sectors under the National Skill Qualification Framework.
- Aims to provide learning experience through a blended approach of text and videobased interactive e-learning lessons.

VI SEMESTER

PHP & MySQL:

Course Outcomes: After the successful completion of the course, the student will be able to:

- Design dynamic and interactive web pages and websites.
- Run PHP scripts on the server and retrieve results.
- Handle databases like MySQL using PHP in websites.

Advanced JAVA and J2EE

Course Outcomes: After the successful completion of the course, the student will be able to:

- Identify the need for advanced Java concepts like Enumerations and Collections
- Construct client-server applications using Java socket API
- Make use of JDBC to access database through Java Programs
- Adapt servlets to build server side programs
- Demonstrate the use of JavaBeans to develop component-based Java software

Artificial Intelligence and Applications

Course Outcomes (COs): After the successful completion of the course, the student will be able to

- Gain a historical perspective of AI and its foundations.
- Become familiar with basic principles and strategies of AI towards problem solving
- Understand and apply approaches of inference, perception, knowledge representation, and learning.
- Understand the various applications of AI

Fundamentals of Data Science (Theory)

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

- Understand the concepts of data and pre-processing of data.
- Know simple pattern recognition methods
- Understand the basic concepts of Clustering and Classification
- Know the recent trends in Data Science

Web Content Management System (Theory)

After the successful completion of the course, the student will be able to:

- Understand content development basics
- Gain Knowledge of tools for multimedia content development for audio/ video, graphics, animations, presentations, screen casting
- Host websites and develop content for social media platforms such as wiki and blog

- Understand e-publications and virtual reality
- A• Use of e-learning platform Moodle and CMS applications Drupal and Joomla

BSc PROGRAMME CORE SUBJECT: CHEMISTRY

Program Outcome:

By the end of the program, the students will be able to

- 1. Understand the applications of chemistry in various fields.
- 2. Get the broad and balanced knowledge of chemistry.
- 3. Develop practical skills which can be applied in actual practice.
- 4. Get the knowledge necessary for employment and higher education.

I Semester Chemistry Paper-I

Course Outcome:

- 1. Principles of chemical kinetics and different theories of reaction rate.
- 2. Adsorption isotherms and adsorption by liquids.
- 3. Physical and chemical properties of solvents.
- 4. Nature of bonding in organic molecules and criteria for aromaticity, resonance, hyper conjugation etc.
- 5. The concepts of organic reactions and techniques of writing the reaction mechanism.
- 6. Basics of analytical methods and chromatographic techniques.
- 7. Analytical skills involved in volumetric analysis.

Chemistry Practicals - I

Course Outcome: After the completion of the course, the student will develop the skill of analysis by volumetric methods.

II SEMESTER Chemistry Paper-II

Course Outcomes:

On completion of this course, the student will be able to appreciate the following aspects.

- 1. Molecular structure of solids and their properties.
- 2. Different types of liquid crystals and their applications.
- 3. Thermodynamic properties of gases.
- 4. Applications of chemicals in daily life.
- 5. General characteristics and properties of s and p block elements.
- 6. Organic reaction pathways and writing the reaction mechanism.
- 7. Basic concepts of electrophilic and nucleophilic substitution reactions.

Chemistry Practical-II

Course Outcome:

After the completion of the course, the student will develop the skill of chromatographic technique and qualitative organic analysis.

Name of the Degree Program: BSc (Honors) Chemistry with Analytical Specialization Program Outcomes:

By the end of the program the students will be able to:

- 1. PO. 1: To create enthusiasm among students for Analytical chemistry and its application in various fields of life.
- 2. PO. 2: To provide students with broad and balanced knowledge and understanding of key concepts in Analytical chemistry
- 3. PO. 3: To develop in students a range of practical skills so that they can understand and assess risks and work safely measures to be followed in the laboratory.
- 4. PO. 4: To develop in students the ability to apply standard methodology to the solution of problems in chemistry
- 5. PO. 5: To provide students with knowledge and skill towards employment or higher education in Analytical chemistry or multi-disciplinary areas involving Analytical chemistry.
- 6. PO. 6: To provide students with the ability to plan and carry out experiments independently and assess the significance of outcomes and to cater to the demands of chemical Industries of well-trained graduates
- 7. PO. 7: To develop in students the ability to adapt and apply methodology to the solution of unfamiliar types of problems.
- 8. PO. 8: To instil critical awareness of advances at the forefront of chemical sciences, to prepare students effectively for professional employment or research degrees in chemical sciences and to develop an independent and responsible work ethics

Semester 1

Title of the Course: DSC-1: Analytical and Organic Chemistry – I

Course Outcomes:

- 1. The concepts of chemical analysis, accuracy, precision and statistical data treatment
- 2. Prepare the solutions after calculating the required quantity of salts in preparing the reagents/solutions and dilution of stock solution.
- 3. The concept of volumetric and gravimetric analysis and deducing the conversion factor for determination
- 4. Handling of toxic chemicals, concentrated acids and organic solvents and practice safety procedures.
- 5. The concepts of Organic reactions and techniques of writing the movement of electrons, bond breaking, bond forming
- 6. The Concept of aromaticity, resonance, hyper conjugation, etc.
- 7. Understand the preparation of alkanes, alkenes and alkynes, their reactions, etc.
- 8. Understand the mechanism of nucleophilic, electrophilic reactions

BSc Semester 2 – Chemistry (Hons) with specialization in Analytical Chemistry Title of the Course: DSC –2:INORGANIC AND PHYSICAL CHEMISTRY - I

Course Outcomes:

- 1. To know the concept of Bohr's atomic theory and atomic spectrum of Hydrogen.
- 2. Importance of de Broglie equation, Heisenberg's Uncertainty Principle.
- 3. Understand the properties of S, P, D and F block elements: atomic radii, ionic radii, covalent radii, ionization enthalpy, electron gain enthalpy, electronegativity.
- 4. Understand about Ideal and Real gases: kinetic theory of gases.
- 5. To know the different properties of Liquid state: surface tension, viscosity, refraction, parachor.
- 6. The concepts of unit cell, space lattice, laws of Crystallography.
- 7. Understand Nernst distribution law and its applications.

THIRD SEMESTER BSc CHEMISTRY

DSC-3: Analytical and Organic Chemistry-II

Course Specific Outcomes

After the completion of this course, the student would be able to

- 1) Understand the importance of fundamental law and validation parameters in chemical analysis
- 2) Know how different analytes in different matrices (water and real samples) can be determined by spectrophotometric, nephelometric and turbidometric methods.
- 3) Understand the requirement for chemical analysis by paper, thin layer and column chromatography.
- 4) Apply solvent extraction method for quantitative determination of metal ions in different samples
- 5) Utilize the ion-exchange chromatography for domestic and industrial applications
- 6) Explain mechanism for a given reaction.
- 7) Predict the probable mechanism for an reaction

Eexplain the importance of reaction intermediates, its role and techniques of generating such intermediates

- 8) Explain the importance of Stereochemistry in predicting the structure and property of organic molecules.
- 9) Predict the configuration of an organic molecule and able to designate it.
- 10) Identify the chiral molecules and predict its actual configuration
- 11) Apply solvent extraction method for quantitative determination of metal ions in different samples
- 12) Utilize the ion-exchange chromatography for domestic and industrial applications
- 13) Explain mechanism for a given reaction.
- 14) Predict the probable mechanism for an reaction

Explain the importance of reaction intermediates, its role and techniques of generating such intermediates

- 15) Explain the importance of Stereochemistry in predicting the structure and property of organic molecules.
- 16) Predict the configuration of an organic molecule and able to designate it.
- 17) Identify the chiral molecules and predict its actual configuration.

III SEM PRACTICALS

Course Specific outcomes

After the completion of this course, the student would be able to

1) Understand the importance of instrumental methods for quantitative applications

- 2) Apply colorimetric methods for accurate determination of metal ions and anions in water or real samples
- 3) Understand how functional groups in a compound is responsible for its characteristic property
- 4) Learn the importance of qualitative tests in identifying functional groups.
- 5) Learn how to prepare a derivative for particular functional groups and how to purify it.

IV SEMESTER

DSC-4: Inorganic and Physical Chemistry-II

Course outcomes: After the completion of this course, the student would be able to

- 1. Predict the nature of the bond formed between different elements
- 2. Identify the possible type of arrangements of ions in ionic compounds
- 3. Write Born Haber cycle for different ionic compounds
- 4. Relate different energy parameters like, lattice energy, entropy, enthalpy and solvation energy in the dissolution of ionic solids
- 5. Explain covalent nature in ionic compounds
- 6. Write the M.O. energy diagrams for simple molecules
- 7. Differentiate bonding in metals from their compounds
- 8. Learn important laws of thermodynamics and their applications to various thermodynamic systems
- 9. Understand adsorption processes and their mechanisms and the function and purpose of a catalyst
- 10. Apply adsorption as a versatile method for waste water purification.
- 11. Understand the concept of rate of a chemical reaction, integrated rate equations, energy of activation and determination of order of a reaction based on experimental data
- 12. Know different types of electrolytes, usefulness of conductance and ionic mobility measurements
- 13. Determine the transport numbers

IV SEM PRACTICALS

Course outcomes: At the end of the course student would be able to

- 1. Understand the chemical reactions involved in the detection of cations and anions.
- 2. Explain basic principles involved in classification of ions into groups in semi-micro qualitative analysis of salt mixture

- 3. Carryout the separation of cations into groups and understandthe concept of common ion effect.
- 1. Understand the choice of group reagents used in the analysis.
- 2. Analyse a simple inorganic salt mixture containing two anions and cations
- 3. Use instruments like conductivity meter to obtain various physicochemical parameters.
- 4. Apply the theory about chemical kinetics and determine the velocity constants of various reactions.
- 5. Learn about the reaction mechanisms.
- 6. Interpret the behaviour of interfaces, the phenomena of physisorption and chemisorptions and their applications in chemical and industrial processes.
- 7. Learn to fit experimental data with theoretical models and interpret the data

V SEMESTER BSc CHEMISTRY

PAPER - V: INORGANIC AND PHYSICAL CHEMISTRY

BSCCHCN501

Course outcomes:

After the completion of this course, students will

- i) Understand the types of bonding in compounds and the theories to explain them
- ii) Understand nuclear reactions, the importance of nuclear phenomenon, radiation chemistry & it's applications.
- iii) Know the application of Quantum mechanics to particle in a box and hydrogen atom.
- iv) Know chemistry of main group elements and acid base concepts.
- v) Know chemical dynamics and kinetics of chemical reactions.

PRACTICAL V

INORGANIC & PHYSICAL CHEMISTRY PRACTICAL

BSCCHPN501

Course outcomes:

- i) Students will have practical experience in systematic semimicro qualiitative analysis of inorganic mixtures containing less familiar elements.
- ii) Students acquire the knowledge in the preparation of inorganic complexes.
- iii) Theoretical knowledge of students is strengthened with laboratory experiments using instruments like colorimeter, conductivity meter and potentiometer.

PAPER - VI: ORGANIC CHEMISTRY AND SPECTROSCOPY

BSCCHCN502

Course outcomes:

After the completion of the course students will be able to:

- i) Differentiate aliphatic and aromatic compounds, understand the concept of resonance and write simple reaction mechanisms.
- ii) Identify some of the heterocyclic compounds, their structure and physiological properties.
- iii) have the basic knowledge of molecular spectroscopic methods like rotational, vibrational, Raman, NMR and UV Spectroscopy.

PRACTICAL VI

ORGANIC CHEMISTRY PRACTICAL

BSCCHPN502

Course outcomes:

- i) Students will know how to systematically identify organic compounds containing two functional groups by qualitative method.
- ii) Students will be able to do simple single stage organic synthesis.

VI SEMESTER BSc CHEMISTRY

PAPER VII: INORGANIC AND PHYSICAL CHEMISTRY

BSCCHCN601

Course outcomes:

After the completion of course, the students will

- i) know the Kinetics of complex formation and also the electronic spectra of complexes which will help them in selecting the methods of synthesis and identification of complex compounds.
- ii) understand the theories of bonding in complex compounds.
- iii) understand the principle of steam distillation and separation of components of binary mixtures.
- iv) get introduced to thermal methods of analysis.
- v) understand the concept of galvanic cells and potentiometric methods of quantitative analysis.

PRACTICAL - VII

PHYSICAL & INORGANIC CHEMISTRY PRACTICAL

BSCCHPN601

Course Specific outcomes:

- i) Students learn the application of gravimetry and volumetry in chemical analysis.
- ii) Learn some of the instrumental and physical methods used in quantitative analysis.

PAPER VIII: ORGANIC CHEMISTRY AND SPECTROSCOPY

BSCCHCN602

Course Specific outcomes:

After the completion of the course, the students will

- i) know the mechanism of selected electrophilic and nucleophilic substitution reactions
- ii) understand the mechanism of addition reactions in organic compounds.
- iii) get exposure to symmetry and group theory.
- iv) get introduction to photo electron spectroscopy and flame photometry.

PRACTICAL - VIII

ORGANIC CHEMISTRY PRACTICAL

BSCCHPN602

Course Specific outcomes:

After the practical course, the students will know

- i) two and three stage synthesis of selected organic compounds.
- ii) how to analyze amino acids, phthalic acid, glucose and phenol volumetrically.
- iii) to determine the saponification and iodine value of oils

DEPARTMENT OF MANAGEMENT

PROGRAM OUTCOMES, PROGRAM SPECIFIC OUTCOMES, COURSE OUTCOMES

BACHELOR OF BUSINESS ADMINISTRATION (BBA):

SEP AND NEP SCHEME

Semester	Course/Subject	Course Outcomes	Program Outcomes (Sum of all six semesters)
SEP I	Principles of Management	 The ability to understand the concepts of business management, principles and function of management in a developing economy The ability to explain and undertake the process of planning and decision making in modern management system The ability to create organization structures based on authority, task and responsibilities. The ability to explain the principles of direction, importance of communication, barrier of communication, motivation theories and leadership styles. The ability to understand the requirement of good control system and control techniques. 	On successfully completing the program the student will be able to: 1. Understand concepts and principles of management/business; identify the opportunities in the corporate environment and manage the challenges 2.Demonstrate the knowledge of management science to solve complex corporate problems using limited resources. Display enhanced personality and soft skills 3.Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
	Business Accounting-I	1.understand the mechanism of accounting as well as accounting standards 2.pass journal entries and prepare ledger accounts 3.prepare subsidiary books 4. understand the depreciation accounting 5. prepare trial balance and final accounts of sole proprietary concern	 4.Demonstrate entrepreneurial competencies 5.Exhibit managerial skills in the areas of marketing, finance, HR, etc. 5.Identify business opportunities, design and implement innovations in workspace. 5. Possess a sturdy foundation for higher education

	Contemporary Marketing Management	 Familiarize to the concepts and Contemporary issues of marketing and its applications. Understand the 4 Ps of marketing and 	On the successful completion of B.B.A., the students will be able to: PSO1: Acquire Practical learning
		its strategies.3. Analyse the importance of digital and green marketing	through summer internship, industrial visit and Business Plan etc.
		4. Describe the service and rural marketing concepts and challenges	PSO2: Demonstrate analytical and problem-solving skills through specialization in Finance,
	Open Elective Business	1. Understand the concepts and form of Business organizations.	Human Recourse and Marketing to solve the business issues.
	Organisation	2. Examine the dynamics of the most suitable form of business organizations in different situations.	PSO3: Understand and develop the new dimensions of knowledge through open
		3. Analyse business models for different organisations.	electives to cater the need of the industry.
		4. Evaluate changes in the working pattern of modern organisations	PSO4: Comprehend the core concepts, methods and practices
II	Business Environment	1.Explore the dynamic nature of business in an intensely competitive environment.	in management. PSO5: Venture into his/her own business or excel in executive
		2.Examine the two-way impact of Business on Environment and Environment on Business.	roles in private /government sector.
		3.Identify and evaluate the multidimensional settings within which	PSO6: Demonstrate the ability to create business plans
		businesses operate. 4. Forecast possible impacts of change in	PSO7: Develop an understanding of business that reflects the moral responsibility of
		policies and law son operations of business. 5.Build a conducive internal business	business to all relevant stakeholders and the natural
		environment for the firm to operate.	environment. PSO8: Matured Individuals and
	Business Accounting-II	1.Understand and prepare accounts for consignment	responsible Citizens to the country
		2.Prepare accounts for the Not-For- Profit Organisations	

		3.Understand the distinction between Unlimited and Limited Liability Partnership 4.Prepare accounts of Partnership Firms in the various circumstances of Admission, Retirement and Death of a Partner	PSO9: Demonstrate Ability to work in Groups
		5.Prepare accounts on Dissolution of Partnership Firm	
	Work Force Management	1.To understand the basic concepts of Workforce or Human Resource Management.	
		2.To be aware of how the Human Resource works in an organization.	
		3.To understand about the role and functions of Human Resource	
	Optional Course	1.Get awareness about development in import and export of India	
	Foreign Trade Management	2.Understand the comprehend theories of International Trade.	
		3. Apply appropriate Trade mechanism to manage foreign trade in India	
NEP III	Cost Accounting	1. Be able to demonstrate an understanding of the elements of cost and prepare a cost sheet.	
		2. Be able to prepare material related documents, understand the management of stores and issue procedures.	
		3. Develop the ability to calculate Employee costs.	
		4. Able to classify, allocate apportion overheads and calculate overhead absorption rates.	
		5. Understand and reconcile cost and financial account	
	Organisational Behaviour	1. Demonstrate an understanding of the role of OB in business organization.	

		 Demonstrate an ability to understand individual and group behavior in an organization. Be able to explain the effectiveness of organizational change and development of organisation. Demonstrate an understanding of the process of organizational development and OD Interventions. 	
	Statistics for Business Decisions	 To understand the basic concepts in statistics. To classify and construct statistical tables. To understand and construct various measures of central tendency, dispersion and skewness. 	
		4. To apply correlation and regression for data analysis	
	Social Media Marketing	goals for successful online campaigns. 2. Analyze the effective social media marketing strategies for various types of industries and businesses. 3. Design social media content and create strategies to optimize the content's reach to the target audience. 4. Appraise the reach and track progress in achieving social media objectives with a variety of measurement tools and metrics. 5. Design a suitable social media campaign for the business goals	
IV	Management Accounting	 Explain the application of management accounting and various tool used Make inter – firm and inter- period comparison of financial statements 	

	3. Analyse financial statements using various ratios for business decisions.	
	4. Prepare fund flow and cash flow statements 5. Prepare different types of budgets for the business	
Financial Markets and Services	1.Understand the financial system, Institutions, financial markets and services.	
	2. Analyse the concepts relevant to Indian financial market and relevance.	
	3. Understand concept of financial services, types and functions.	
	4. Understand the types of financial Instruments.	
	5. Demonstrate an understanding the functioning of stock markets.	
Financial Management	1. To identify the goals of financial management.	
	2. To apply the concepts of time value of money for financial decision making.	
	3. To evaluate projects using capital budgeting techniques.	
	4. To design optimum capital structure using EBIT and EPS analysis.	
	5. To evaluate working capital effectiveness in an organization.	
Financial Education and	1. Provide the foundation for financial decision making.	
Investment Awareness	2. List out various savings and investment alternatives for a common man.	
	3. Give a detailed overview of stock market and stock selection	
	4. Orient the learners about mutual funds and the criteria for selection	

V	Production and Operations Management	 1.Understand ever growing importance of Production and Operations Management in uncertain business environment. 2. Gain an in-depth understanding of Plant Location and Layout 3. Appreciate the unique challenges 	
		faced by firms in Inventory Management. 4. Understand the subject as to Production Planning and Control.	
		5. Develop skills to operate competitively in the current business scenario	
	Income Tax-I	1. Comprehend the procedure for computation of Total Income and tax liability of an individual.	
		2.Understand the provisions for determining the residential status of an Individual.	
		3. Comprehend the meaning of Salary, Perquisites, Profit in lieu of salary, allowances and various retirement benefits.	
		4. Compute the income house property for different categories of house property.	
		5. Comprehend TDS & advances tax Ruling and identify the various deductions under section 80.	
	Banking Law and Practice	1.Understand the legal aspects of banker and customer relationship.	
		2.Open the different types of accounts.	
		3. Describe the various operations of banks.	
		3.Understand the different types of crossing of cheques and endorsement.	

	4. Understanding of different types of E-payments	
Finance Elective	1.Understand and determine the overall cost of capital.	
Advanced Corporate	2.Comprehend the different advanced capital budgeting techniques.	
Financial Management	3. Understand the importance of dividend decisions and dividend theories.	
	4.Evaluate mergers and acquisition.	
	5 Enable the ethical and governance issues in financial management	
Marketing Elective	1.Understanding of Consumer Behaviour towards products, brands and services.	
Consumer Behaviour	2.Distinguish between different consumer behaviour influences and their relationships.	
	3 Establish the relevance of consumer behaviour theories and concepts to marketing decisions.	
	4. Implement appropriate combinations of theories and concepts.	
	5. Recognise social and ethical implications of marketing actions on consumer behaviour.	
Human Resource	1.Understand the concepts of Compensation management.	
Elective Performance	2.Describe job evaluation and its methods.	
and Compensation Management	3.Evaluate the different methods of wages.	
	4.Describe performance management and methods of performance management.	
	5.Preparation of Payroll	

	Logistic and Supply Chain	1.Understand the different functions of Commercial transport.	
	Management	2.Analyse pricing and pricing strategy.	
	Freight Trasport	3.Understand transport administration.	
	Management	4.Understand of transport and export documentations	
	Vocational Information	1.Understand the fundamentals of information technology	
	Technology for Business	2. Understand usage of information technology in business.	
		3.Learn core concepts of computing and modern systems	
		4. Applications of Excel and SQL.	
		5.Awareness about latest information	
	Employability Skills	1.Develop systematic problem-solving abilities	
		2.Enhance verbal and non-verbal reasoning skills.	
		3.Improve numerical and analytical abilities.	
		4.Enhance English Language and communication skills	
VI	Business Law	1. Comprehend the laws relating to Contracts and its application in business activities.	
		2. Comprehend the rules for Sale of Goods and rights and duties of a buyer and a Seller.	
		3. Understand the importance of Negotiable Instrument Act and its provisions relating to Cheque and other Negotiable Instruments.	
		4. Understand the significance of Consumer Protection Act and its features	
		5. Understand the need for Environment Protection.	

Income Tax -II	1.Understand the procedure for computation of income from business and other Profession.	
	2.the provisions for determining the capital gains.	
	3.Compute the income from other sources.	
	4.Demonstrate the computation of total income of an Individual.	
	5.Comprehend the assessment procedure and to know the power of income tax authorities.	
International Business	1.Understand the concept of International Business.	
	2. Differentiate the Internal and External International Business Environment.	
	3. Understand the difference MNC and TNC	
	4.Understand the role of International Organisations in International Business.5. Understand International Operations Management	
Finance Elective	1. Understand the concept of basics of Investment.	
Security Analysis and	2.Evaluate the different types of alternatives.	
Portfolio Management	3.Evaluate the portfolio and portfolio management.	
	4.Understand the concept of risk and returns	
	5. Gain the knowledge of fundamental and technical analysis	
Marketing Elective	1. Understand the nature, role, and importance of IMC in marketing strategy	
Advertising and Media Management	2. Understand effective design and implementation of advertising strategies 3. Present a general understanding of	

	content, structure, and appeal of
	content, structure, and appeal of advertisements
	4.Understand ethical challenges related to responsible management of advertising and brand strategy.
	5. Evaluate the effectiveness of advertising and agencies' role
Human Resource Elective	1.Understand, interpret question reflect upon and engage with the notion of "diversity".
Cultural Diversity at	2.Recall the cultural diversity at work place in an organization.
Work Place	3.Support the business case for workforce diversity and inclusion.
	4.Identify diversity and work respecting cross cultural environment. 5. Assess contemporary organizational strategies for managing workforce diversity and inclusion.
Logistic and Supply Chain Management Sourcing for	1.Understand the role of sourcing in logistics and supply chain management, and its impact on overall business performance.
Logistics and Supply Chain Management	2. Analyze and evaluate sourcing strategies and decisions, including make-or-buy, insourcing vs. outsourcing, and supplier selection criteria.
	3.Develop effective supplier relationship management skills, including negotiation, communication, and collaboration.
	4.Apply sourcing best practices, including risk management, sustainability, and ethical sourcing.
	5.Evaluate the impact of technology and innovation on sourcing, and apply relevant tools and techniques to optimize sourcing processes and outcomes

Vocational Goods and Services Tax	1.Understand the basics of taxation, including the meaning and types of taxes, and the differences between direct and indirect taxation.	
	2. Analyze the history of indirect taxation in India and the structure of the Indian taxation system.	
	3. Understand the framework and definitions of GST, including the constitutional framework, CGST, SGST, IGST, and exemptions from GST.	
	4. Understand the time, place, and value of supply under GST, and apply this knowledge to calculate the value of supply and determine GST liability.	
	5.Understand input tax credit under GST, including its meaning and process for availing it, and apply this knowledge to calculate net GST liability.	
Mini Project	1.Students will deepen their understanding of theoretical concepts learnt in their courses.	
	2.Helps to bridge the gap between academic learning and practical application, preparing students for future challenges in their careers.	
	3. The process fosters students' problem- solving abilities, enabling them to approach complex problems with confidence and creativity.	
	4.Opportunity to explore current industry practices and trends.	
	5. Develop a conceptual framework to address the identified problem statement by applying the research methodology concepts and theories. Test and validate data to address the research questions/hypothesis.	

Bachelor of Commerce

Semester	Course	Course Outcome	Programme Outcome
I	QUANTITATIVE T TECHNIQUES-I FINANCIAL ACCOUNTING- I	1. Students connect formulas to problem solving and decision making. 2. Students utilize the idea of Index Number to comprehend current market conditions. 3. Students understand merits of dispersion, mean, median and mode. 4. Students compute the ratio and proportions, discount, percentage that utilized in business. 1. Can apply various principles, concepts and conventions while maintaining books of accounts of an organisation. 2. Students will prepare the final account of a sole proprietor independently. 3. Students prepare final accounts of non-trading concerns independently.	_
		4. Students can identify the causes for differences in cash and pass book balance.5. Students understood the charging of depreciation in cost method and written down value method.	collaboratively and productively in teams. Critically evaluate new ideas, research findings, methodologies and theoretical

FOUNDATION OF COMMERCE-I

- 1. Students understand the Concept of HRM, & Changing role of the HR Manager in a dynamic business environment.
- 2. Students leant the various dimensions of HRM.
- 3. Students understand various approaches to studying marketing and the different marketing philosophies that guide business strategies.
- 4. Students gained knowledge on the concept of market segmentation and its importance for targeting specific customer groups.
- 5. Students understand the Fundamental concepts of Financial Management.

INDIVIDUAL AND TEAM MANAGEMENT

- 1. Students can become effective in their day to day transactions.
- 2. Students can develop strategies to manage conflicts.
- 3. Students can learn various Interpersonal skills.
- 4. Can communicate effectively in teams with team members.
- 5. Enhance individual resourcefulness in all walks of life and can improve the quality of their thinking and become self motivated in their personal dealings.

framework in their chosen elective field. e. Courses like Financial Accounting, Quantitative Techniques, and Foundation ofCommerce will built the basics of the field and help a student choose electives in the 3rd & 4th Semester. Corporate Accounting course will help a student build confidence in the accounting knowledge of the corporate world, Business and Corporate Law will strengthen the legal aspects of business. Financial Management, Direct Tax, Cost & Management Accounting & GST will help in all round growth of a learner about the working of any business.

II	QUANTITATIVE TECHNIQUES-II	Learned to establish relationships between variables in real world situations by using correlation and regression analysis. 1. Students are able to use ideas from probability to solve practical issues. 2. Students are able to predict results using time series. 3. Students recognize the relationship between two variables.	
	FINANCIAL ACCOUNTING- II	 Students gained recent developments in the accounting field. Students will convert a single entry into a double entry system of bookkeeping of a sole proprietor or firm. Will prepare ledger accounts in the book of hire purchaser Will analyse the net result and financial position of various departments of an organisation. Will prepare a royalty chart and ledger accounts in the book of lessee. 	

FOUNDATION OF COMMERCE- II	 Understand the concept of Insurance, Banking and Finance. Apply fundamental conceptual knowledge to analyse and interpret areas in Insurance, Banking and Finance. 	
	3. Students learn new reforms and technology in the field of Insurance4. Evaluate the Investment	
	opportunities using risk and return 5. Students understand Various innovative and Digital banking concepts.	
FUNDAMENTAL S OF ORGANISATION AL BEHAVIOUR	1. Create awareness about how organizational behaviour works in an organization and its role and functions.	
	2. Develop insight with different theories of motivations and strategies in improve motivation in the workplace	
	3. Understand group dynamics and demonstrate skills required for working in groups and team building	
	4. Understand the concepts of Personality and attitude, Perception and motivation,	

III	CORPORATE ACCOUNTING-I	1. Students understand the underwriting of shares and SEBI regulations	
		2. They understand the different types of ratios and calculate the pre and post incorporation profits.	
		3. They learnt the methods of valuation of Goodwill	
		4. They understand the factors affecting valuation of shares, right issues, valuation of warrants	
		5. They learnt statutory provisions regarding preparation of financial statements of companies as per schedule III of companies act,2013 and IND AS-1	
	BUSINESS STATISTICS	1. Familiarizes statistical data and descriptive statistics for business decision- making,	
		2. Comprehend the measures of variation and measures of skewness.	
		3. Demonstrate the use of probability and probability distributions in business.	
		4. Validate the application of correlation and regression in business decisions.	
		5. Show the use of index numbers in business.	

COST Students can learn the basic **ACCOUNTING** concepts of cost accounting. 2. Students come to know how to purchase material from suppliers and can prepare store ledger accounts using different methods. 3. Students are able to solve problems on systems of wage payment under Halsey, Rowan and Taylor's piece rate system. 4. Students can solve problems on primary and secondary distribution of overheads under different methods. 5. Students can learn what are the reasons for the difference in profits as per cost and financial books and reconciliation can prepare statements. **CYBER** 1). Students would be able to **SECURITY** understand the concept of cyber security and issues and challenges associated with it. 2. Students, at the end of this course, should be able to understand the cyber crimes, their nature, legal remedies and as to how report the crimes through available platforms and procedures 3) students should be able to appreciate various privacy and security concerns on online social media and understand the reporting procedure of inappropriate content, underlying legal aspects and best

platforms

practices for the use of social media

IV	CORPORATE ACCOUNTING-II	1. Students understand the process of redemption of preference share	
		2. Students learned merger and acquisition of companies	
		3. Students understand the concept of internal reconstruction of companies	
		4. They learnt accounting treatment on liquidation of company	
		5. They understand the theoretical concepts of recent development in accounting and accounting standards	
	BUSINESS REGULATORY FRAMEWORK	1. Students learnt to Recognize the laws relating to Contracts and its application in business activities.	
		2. Student learnt to Acquire knowledge on bailment and indemnification of goods in a contractual relationship and role of agents.	
		3. Students Comprehend the rules for Sale of Goods and rights and duties of a buyer and seller.	
		4. Students learnt to distinguish the partnership laws, its applicability and relevance.	
		5. Student Rephrase the cyber law in the present context.	

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COSTING METHODS AND TECHNIQUES	1. Students can prepare job cost sheets of various industries and their applications.	
	2. Students can ascertain the cost of a contract.	
	3. Students can analyze the cost of each process and determine the selling price of an output.	
	4. Will ascertain the cost and transport charges of transport industries.	
	5. Analyse the variances for material and labour costs of various manufacturing industries.	
	6. Can prepare an individual Cash budget or for an industry. So can do financial planning.	
FINANCIAL EDUCATION	1. Students Understand the Different Modes of Investment.	
AND INVESTMENT AWARENESS	2. Students Understand the Difference between With Risk And Risk free investments.	
	3. Students understand the Concept of Stock Market.	
	4. Students are aware of Sensex And Nifty.	
	5. Students Understand Role of Investment in Economic Development.	

V	FINANCIAL MANAGEMENT	1. Understand the role of financial managers effectively in an organization.	
		2. Learnt to apply the compounding & discounting techniques for time value of money.	
		3. Learned to take investment decisions with appropriate capital budgeting techniques for investment proposals.	
		4. Understand the factors influencing the capital structure of an organization.	
		5.Understand & estimate the working capital requirement for the smooth running of the business	
	INCOME TAX LAW AND PRACTICE-I	1. Students understand the provisions of direct Tax Laws in India.	
		2.Students are able to determine the residential status of an individual	
		3.Students are able to calculate Taxable HRA, Gratuity, Pension, leave cash encashment and VRS	
		4. Students are able to compute the income from Salary and House property under different situations.	
		5. Students learnt TDS & Advance tax ruling and identify the various deductions under section 80.	

AUDITING	1. Students have gained a comprehensive understanding of auditing concepts.	
	2.Students have learned about the importance of internal control system in preventing errors and irregularities.	
	3. Students understand the procedure of verification and valuation of various assets and liabilities.	
	4. Students learnt the audit procedure of various entities, appointment, powers and rights of an auditor.	
	5. Students can analyse the importance of audit reports, professional ethics.	
FINANCIAL INSTITUTIONS AND MARKETS	1. Students understand the structure of the Indian Financial System and its constituents.	
	2. Students are able to outline the role of money market and capital market in Economic Development.	
	3. Comprehend primary and secondary market and its relevance in capital formation.	
	4. Students learnt the role played by banking and financial institutions in economic development.	
	5. Students understand the different types of NBFCs and their contributions.	

RETAIL	1 Understand the contemporary of	
MANAGEMENT	1. Understand the contemporary of retail management, issues, strategies and trends in retailing.	
	2. Students understand the theories and strategies of retail planning.	
	3. Students perceive the roles and responsibilities of store manager and examine the visual merchandising and its techniques in the present context.	
	4. Students understand the factors to be considered while fixing the price in retailing.	
	5. Students understand the emerging trends in retailing.	
GST	1. The students learnt the concepts of GST, types and Structure of GST.	
	2. The students are able to categorize taxable and exempted goods and services.	
	3. Students are able to analyse the differences between mixed and composite supply.	
	4. Students come to know about GSTIN and documents required for GST registration.	
	5. Students able to know about Input tax credit and person who liable for Input tax credit	
EMPLOYABILIT Y SKILLS	1.Develop systematic problem- solving abilities	
	2. Enhance verbal and non-verbal reasoning skills.	
	3.Improve numerical and analytical abilities	
	4.Enhance English language and communication skills	

VI	ADVANCED FINANCIAL MANAGEMENT	 Understand and determine the overall cost of capital. Comprehend the different advanced capital budgeting techniques. 	
		3. Understand the importance of dividend decisions.	
		4. Learned to evaluate mergers and acquisition.	
		5. Understand the ethical and governance issues in financial management.	
	INCOME TAX LAW AND PRACTICE-II	1. Students understand the procedure for computation of Income from business and profession.	
		2. The students are able to compute taxable and exempted capital gains.	
		3. Students understood the computation of Income from other sources.	
		4. Students are able to demonstrate the computation of total income of an Individual.	
		5. Comprehend the assessment procedure and various powers of income tax authorities.	

MANAGEMENT ACCOUNTING	1. Students understand the basic concepts of management accounting.	
	2 Students can analyse and interpret financial statements to inform business decisions.	
	3 Students can solve problems on ratio analysis and prepare financial statements using accounting ratios.	
	4 Students can prepare cash flow statements according to accounting standards.	
	5 Students understand the procedure of management audit and report on management audit.	
NVESTMENT MANAGEMENT	1. Students understand the basic concepts of investment.	
	2. Students can perform fundamental analysis to evaluate investment opportunities.	
	3. Students understand the concept of risk and return and can calculate Alpha and Beta.	
	4. Students can perform technical analysis to identify trends and patterns in investment markets.	
	5. Students understand the concept of portfolio management and can construct an optimum portfolio to achieve goals.	

	CUSTOMER RELATIONSHIP	1. Students Aware of the concept of customer Relationship.	
	MANAGEMENT	2. Students Analyze the CRM link with other Aspects of marketing.	
		3. Students impart basic knowledge of the role of CRM.	
		4. Students aware of the different CRM Models.	
		5. Students Aware and Analysis of different issue in CRM.	
	ASSESSMENT OF PERSONS OTHER THAN INDIVIDUALS	1. Students understood conditions for allowing depreciation and computation of allowable depreciation.	
	AND ITR FILING	2. Students are able to assess the taxable income of partnership firm and companies	
		3. Syllabus focuses on filing of income tax return, documents required.	
		4. The students can relate them to practical questions and get theoretical understanding of case laws and amendments.	

B.COM (COMPUTER APPLICATION)

Semester	Course/ Subject	Course Outcome	Programme outcome
I	QUANTITATIVE TECHNIQUES-I	 Students Study concerning metrics of dispersion, mean, median, and mode. Students Connect a formal quantitative approach to problem solving and decision-making. 	a. Provide students with the knowledge, skills, attitudes and values that will help them take decisions for their lives. b. Hands on tools to help them in the world of
		3. Students Utilize the idea of index numbers to comprehend current market conditions4. Students Compute the ratios, proportions, discounts, and percentages that are utilized in business.	business and commerce with in depth awareness of the contents of different courses under the Programme. c. Holistic development of the personality to understand and actively participate in
	FINANCIAL ACCOUNTING -I	1.The students understood the concept of accounting, it's usages, importance and limitations, systems and preparation of journal and ledger accounts 2.They learnt the practical aspects of depreciation accounting and also change in method of depreciation and its calculations. 3.They understood the preparation and theoretical aspect of non trading concerns. 4.They understood the treatment of cash book and pass book and also overdraft problems from BRS. 5.They understood the preparation of trading and profit and loss accounts and also	the well-being of the society. d. Work collaboratively and productively in teams. Critically evaluate new ideas, research findings, methodologies and theoretical framework in their chosen elective field. e. Courses like Financial Accounting, Quantitative Techniques, and Foundation of Commerce will built the basics of the field and help a student choose electives in the 3rd & 4th Semester. Corporate Accounting

		Balance sheet of Sole trading	course will help a
		Balance sheet of Sole trading concerns and it's importance.	course will help a student build confidence in the accounting knowledge of the corporate world, Business and Corporate Law will strengthen the legal aspects of the business, Financial Management, Direct Tax, Cost & Management Accounting & GST will help in all round growth of a learner about the working of any business.
II	QUANTITATIVE TECHNIQUES-II	1.Students Establish relationships between variables in real-world situations by using methods like regression and correlation.	
		2.Students Use the ideas from probability distributions to solve practical issues.	
		3.Students Predict future results using time series	
		4.Students Recognise the relationship between two variables and how to use ratios and proportions to express it.	
	FINANCIAL ACCOUNTING -II	1.Students will be able to understand the recent trends in accounting.	
		2.Students understood the concept and practicality of conversation of single entry in to double entry system	
		3.The students can focus on accounting treatment for hire	

		purchase systems and the different methods calculation of Interest. 4.Students will learn about royalty accounts. 5.Students will study about inter departmental transfer, invoice price etc.,	
III	CORPORATE ACCOUNTING - I	1) Students understand the underwriting of shares and SEBI regulations 2) They understand the different types of Ratios under pre and post incorporation concepts 3) They learnt about methods of valuation of Goodwill 4) They understand the factors affecting valuation of shares, right issues, valuation of warrants 5) They learnt about statutory provisions regarding preparation of financial statements of companies as per schedule III of companies act, 2013 and IND AS-1	
	CYBER SECURITY	1)Students would be able to understand the concept of cyber security and issues and challenges associated with it. 2.Students, at the end of this course, should be able to understand the cybercrimes, their nature, legal remedies and as to how report the crimes through available platforms and procedures	

		3) students should be able to appreciate various privacy and security concerns on online social media and understand the reporting procedure of inappropriate content, underlying legal aspects and best practices for the use of social media platforms	
IV	CORPORATE ACCOUNTING - II	 Students understand the redemption of preference share Students learnt about merger and acquisition of companies Students understand the concept of internal reconciliation of companies They learnt about liquidation of company They understand the 	
	FINANCIAL EDUCATION AND INVESTMENT AWARENESS	theoretical concepts of recent development in accounting and accounting standards 1.Students Understand the Different Modes of Investment. 2. Students Understand the Difference between With Risk and Risk free investment. 3.Students understand the	
		 3.Students understand the Concept of Stock Market. 4.Students Aware of Sensex and Nifty. 5.Students Understand Role of Investment in Economic Development. 	
	COMPUTERIZED ACCOUNTING	1.Understanding of basics concepts of accounting in respects of revenue, expenses, assets, liability and equity	

		2.Competency to enter accounting transactions in accounting software and generate different account reports 3.Ability to make cost analysis	
		reports, profits and loss accounts ,balance sheets and cash flow statements	
		4.Develops skill in maintaining accounting records, payroll and inventory methods	
		5.Know about computerized accounting for account maintenance, making management decisions etc	
V	FINANCIAL MANAGEMENT	1.Students learnt the role of financial managers, scope of financial management etc.,	
		2. They learnt to apply the compounding & discounting techniques for time value of money.	
		3. They understood to take investment decisions with appropriate capital budgeting techniques for investment proposals.	
		4. They understood the factors influencing the capital structure of an organization and its calculations.	
		5. They learnt to estimate the working capital requirement for the smooth running of the business	
	INCOME TAX LAW AND PRACTICE- I	1.Students understand the provisions of direct Tax Laws in India.	

	2.Students are able to determine the residential status of an individual 3.Students are able to calculate Taxable HRA, Gratuity, leave cash encashment and VRS 4. Students are able to compute the income from house property under different categories. 5.Students learnt TDS & Advance tax ruling and identify the various deductions under	
EMPLOYABILITY SKILLS	section 80. 1)Develop systematic problem- solving abilities 2)Enhance verbal and non-	
	verbal reasoning skills. 3)Improve numerical and analytical abilities 4)Enhance English language	
DIGITAL MARKETING	and communication skills 1.Students learn about digital marketing channels of distribution and strategy and planning for digital marketing	
	2. They will learn about different platforms of social media and how to optimizing the social media, social media advertising and content strategy	
	3.Students will learn about email marketing, effective email campaign and email automation and segmentation	
	4.Students will learn about mobile marketing strategy, mobile app marketing, analytics in digital marketing	

VI	ADVANCED FINANCIAL MANAGEMENT	1. They learn to Calculate and analyse the overall cost of capital.	
		2. They learn to Evaluate investment opportunities using techniques such as NPV, IRR, and sensitivity analysis.	
		3.Understand the factors influencing dividend policy and make informed decisions about dividend payments.	
		4. They learn to analyse the financial implications of mergers and acquisitions and evaluate their potential success.	
		5. They understand to Identify and address ethical dilemmas in financial management, ensuring transparency and accountability.	
	INCOME TAX LAW AND PRACTICE - II	1.Students understand the procedure for computation of Income from business and profession.	
		2. The students are able to compute taxable and exempted capital gains.	
		3.Students are able to compute taxable Income from other sources.	
		4.Students are able to demonstrate the computation of total income of an Individual.	
		5.Comprehend the assessment procedure and various powers of income tax authorities.	

B.COM(TAX PROCEDURE)

Semester	Course/ Subject	Course outcome	Programme outcome
I	FINANCIAL ACCOUNTIN G-I	1.The Students are able to learn calculation of depreciation with change in method	a. Provide students with the knowledge, skills,
		2.The students can learn to record and account for various transaction such as sales, purchase and expenses 3.The Students are able to prepare financial statements of any trust, charitable institutions or sports associations etc.	attitudes and values that will help them take decisions for their lives. b. Hands on tools to help them in the world of business and commerce with in depth awareness of the contents of
		4. The students can learn to prepare Bank reconciliation statement, reasons for changes and finding	different courses under the Programme. c. Holistic development
		mistakes while recording. 5.The students can understand theoretical aspects and passing journal entries	of the personality to understand and actively participate in the well-being of the society.
	ITL-I	1.Students are able to understand the theoretical framework of Direct Tax.	 d. Work collaboratively and productively in teams. Critically evaluate new ideas,
		2. It enable the students to know how to determine the incidence of tax liability based on their residential status.3. Students comes to know various	research findings, methodologies and theoretical framework in their chosen elective field.
		incomes which are exempt under section 10. 4. Students are able to understand	e. Demonstrate leadership skills, become academically brilliant, inculcate
		legal provisions & deductions available under income tax act. 5. It enables the students to compute salary income of an individual.	research skills, urge to become global citizens and become constructive citizens of our country

GST-I	1.The study familiarises the students with the provisions of Indirect Tax Laws in India. 2.The students can understand supply or not to charge GST under the Act 3.The students can understand Procedure of Registration for liable person n provision of compulsory Registration. 4.The students can understand that	f. Students will prove themselves in different professional exams like C.A., C S, CPA, CMA, MPSC, UPSC. as well as other courses. Thorough systematic and subject skills within various disciplines of finance, auditing and taxation, accounting, management,
INDIVIDUAL AND TEAM MANAGEME NT	 4. The students can understand that eligible for Composition levy. 1. Students can become effective in their day to day transactions. 2. Students can develop strategies to manage conflicts. 3. Students can learn various Interpersonal skills. 4. Can communicate effectively in teams with team members. 5. Enhance individual resourcefulness in all walks of life and can improve the quality of their thinking and become selfmotivated in their personal dealings. 	communication, computer and also get the practical skills to work as accountant, audit assistant, tax consultant, and computer operator as well as other financial supporting services.

II	FINANCIAL ACCOUNTIN G-II	1.The students can analyse the accounting standards and recent developments in accounting.	
		2.The students are able to prepare the Financial statements by converting single entry system to double entry system	
		3.The students can focus on accounting treatment for hire purchase system and how the interest is calculated	
		4.The students can learn about Royalty income	
		5. The students can understand the effects of inter departmental transfer by preparing departmental accounts.	
	ITL-II	1.It enables the students to determine key differences between depreciation under accounting method and income Tax act.	
		2. Students comes to know how to compute income under various heads.	
		3. Students are able to understand provisions of clubbing of income, set-off of losses & carry forward of losses.	

GST-II	 The students can understand how to identify the types of GST. The students can able to know where Reverse and Forward charge is applicable and calculation. 	
	3. The students can Know about applicability of rate of tax through Time of Supply.	
	4. The students can understands about place of supply to calculate Type of GST to tax liability.	
	5. The students can understands how to calculate Value of supply to charge GST liability.	
FOUNDATION OF ORGANISATI ONAL	1. The students will be able to create awareness about how organizational behaviour works in an organization and its role and functions.	
	2. Students can develop insight with different theories of motivations and strategies to improve motivation in the workplace.	
	3.Understand group dynamics and demonstrate skills required for working in groups and team building	
	4. Understand the concepts of Personality and attitude, Perception and motivation.	

III	CORPORATE ACCOUNTING -I) Students understand the underwriting of shares and SEBI regulations	
		2)They understand the different types of Ratios under pre and post incorporation concepts	
		3) They learnt about methods of valuation of Goodwill	
		4)They understand the factors affecting valuation of shares, right issues, valuation of warrants	
		5) They learnt about statutory provisions regarding preparation of financial statements of companies as per schedule III of companies act,2013 and IND AS-1	
	GST- III	1.The Students can understand how to calculate Input tax and set off	
		2. The students can know about different provisions of ITC	
		3.The students can know about various book of accounts and documents for business	
		4.The students can identify various forms to file the GST Returns.	
		5.The students can know the procedure of Registration of CTP and NRTP	

ITL-III	1. The students can understands how to calculate tax liability of Individual.	
	2. The students can understand the provisions of TDS	
	3. The students can understands the provisions of TCS	
	4. The students can understands the computation of payment of Advance tax.	
	5. The students can get the knowledge of income tax Authorities.	
CYBER SECURITY	1)Students would be able to understand the concept of cyber security and issues and challenges associated with it.	
	2.Students, at the end of this course, should be able to understand the cybercrimes, their nature, legal remedies and as to how report the crimes through available platforms and procedures	
	3) students should be able to appreciate various privacy and security concerns on online social media and understand the reporting procedure of inappropriate content, underlying legal aspects and best practices for the use of social media platforms	

IV	CORPORATE ACCOUNTING -II	1) Students understand the redemption of preference share 2) Students learnt about merger and acquisition of companies 3) Students understand the concept of internal reconciliation of companies 4) They learnt about liquidation of company	
		5) They understand the theoretical concepts of recent development in accounting and accounting standards	
	GST- IV	1.The students can know the calculation of Payment of tax by taxable person.	
		2.The students can understand the provisions of Assessment	
		3.The students can understand provisions of Inspection, search, seizure and arrest under GST law.	
		4.The students can know about the process of Appeal and Revision under GST law.	
	ITL-IV	1.The students can understand how to file the income under Income Tax Act.	
		2.The students can understands the Assessment procedure as per IT Act	
		3.The students can understands Assessment of Firms and Companies.	
		4.The students can able to calculate Interest for default	
		5.The students can understand Filing of self-assessment tax.	

	LEINIANICIAI	1 Chadanta II. Janetan J. d	
	FINANCIAL EDUCATION AND	1.Students Understand the Different Modes of Investment.	
	INVESTMENT AWARENESS	2. Students Understand the Difference between With Risk And Risk free investment.	
		3.Students understand the Concept of Stock Market.	
		4.Students Aware of Sensex And Nifty.	
		5.Students Understand Role of Investment in Economic Development.	
V	FINANCIAL MANAGEMEN T	1.Understand the role of financial managers effectively in an organization.	
		2.Learnt to apply the compounding & discounting techniques for time value of money.	
		3. Learned to take investment decisions with appropriate capital budgeting techniques for investment proposals.	
		4.Understand the factors influencing the capital structure of an organization.	
		5.Understand & estimate the working capital requirement for the smooth running of the business	
	ADVANCED INCOME TAX LAW AND PRACTICE-I	1.Students are able to understand the assessment procedure of various persons.	
	TRICITEL-1	2. Students come to know the special provisions under income tax act to curb the avoidance of tax.	
		3. It enables the students to know penalties under various sections of income tax act.	

AUDITING	1.Understand the conceptual framework of auditing.	
	2. Examine the risk assessment and internal control in auditing	
	3. Comprehend the relevance of IT in audit and audit sampling for testing.	
	4. Examine the company audit and the procedure involved in the audit of different entities.	
	5. Gain knowledge on different aspects of audit reporting and conceptual framework applicable on professional accountants.	
FINANCIAL INSTITUTIONS AND	1.Students understand the structure of the Indian Financial System and its constituents.	
MARKETS	2.Students are able to outline the role of money market and capital market in Economic Development.	
	3. Comprehend primary and secondary market and its relevance in capital formation.	
	4. Students learnt the role played by banking and financial institutions in economic development.	
	5.Students understand the different types of NBFCs and their contributions.	

RETAIL	1. Understand the
MANAGEMEN T	contemporary of retail management, issues, strategies and trends in retailing.
	2. students understand the theories and strategies of retail planning.
	3. Students perceive the roles and responsibilities of store manager and examine the visual merchandising and its techniques in the present context.
	4. students understand the factors to be considered while fixing the price in retailing.
	5. students understand the emerging trends in retailing.
COST ACCOUNTING	1.Students understood the importance of cost accounting for internal management of an organisation.
	2. Will prepare a Cost Sheet.
	3. Will prepare the store's ledger.
	4. Will analyse the difference in the profits of cost and FA.
	5. Learned different incentives and bonus plans for the employees.

	EMPLOYABILI TY SKILLS	1)Develop systematic problem- solving abilities	
		2)Enhance verbal and non-verbal reasoning skills.	
		3)Improve numerical and analytical abilities	
		4)Enhance English language and communication skills	
VI	ADVANCED FINANCIAL	1.Understand and determine the overall cost of capital.	
	MANAGEMEN T	2.Comprehend the different advanced capital	
		budgeting techniques.	
		3.Understand the importance of dividend decisions.	
		4. Learned to evaluate mergers and acquisition.	
		5.Understand the ethical and governance issues in financial management.	
	CUSTOMS DUTY	1.Students are able to understand the theoretical framework of indirect tax.	
		2. Students come to know how the concept of Customs works in international trade.	
		3. Students understand how the concept of GST is applicable in Imports.	
		4. It helps the students to understand the import & export procedures in international trade.	

MANAGEMEN T ACCOUNTING	1.Students Ca. Understand the basic concepts of management accounting.	
	2. Students can analyse and interpret financial statements.	
	3. Students can solve problems on ratio analysis and prepare financial statements using accounting ratios.	
	4. Students can prepare Cashflow statement according to Cost Accounting Standards.	
	5. Students can understand the concept of Portfolio Management.	
Cost Accounting -I	1.Students will prepare a contract account independently.	
	2. Students will be equipped to understand the concept of process costing and determine the cost per unit of output.	
	3.Students can analyse material and labour cost variances.	
	4. Students will prepare operating cost statements of transport agencies.	
	5. Students understood the concept of job costing and its applications in various industries.	

INVESTMENT MANAGEMEN T	1)Students understand the basic concepts of management accounting.	
	2)students can analyse and interpret financial statements to inform business decision.	
	3)students can solve problems on ratio analysis and prepare financial statements using accounting ratios.	
	4)Students can prepare cash flow statement according to accounting standard.	
	5)Students understand the procedure of management audit and report on management audit.	
CUSTOMER RELATIONSHI	1.Students Aware of the concept of customer Relationship.	
P MANAGEMEN T	2.Students Analyze the CRM link with other Aspects of marketing.	
	3.Students impart basic knowledge of the role of CRM.	
	4.Students aware of the different CRM Models.	
	5.Students Aware and Analysis of different issue in CRM.	

B.COM (ACCOUNTING AND FINANCE)

Semester	Course/ Subject	Course outcome	Programme outcome
I	QUANTITATIV E TECHNIQUES - I	 Students Study concerning metrics of dispersion, mean, median, and mode. Students Connect a formal quantitative approach to problem solving and decision-making. Students Utilize the idea of index numbers to comprehend current market conditions Students Compute the ratios, proportions, discounts, and percentages that are utilized in business. 	 a. Make students industry ready and develop various finance and accounting skills for better opportunities. b. Develop an attitude and personality with communication, research, analytical skills in c. accounting,
	FUNDAMENT ALS OF FINANCIAL ACCOUNTING - I	1.Students understand the Basic Accounting Terminology ,Concepts and Conventions. 2.Students understand Rules of Debit and Credit, Passing of journal Entries, preparation of Ledger and Subsidiary books 3.Understanding the preparation of Simple, Two Column and Three Column Cash Book. 4.The students can learn to prepare Bank reconciliation statement, reasons for difference between cash book and pass book and finding mistakes while recording. 5.Understand the concept of Depreciation and Methods of charging depreciation.	finance and related areas required for workplace and higher studies. d. Enhance the capability of decision making at personal and professional level. e. Face global challenges and be exposed to newer avenues in the field of accounting, finance, and allied fields.

	FUNDAMENT ALS OF FINANCIAL MANAGEMEN T - I	 Students understand the basic concept of financial management Apply the concept of time value of money in assessing investment Apply the concept of risk and return in investment Know the concept of capital structure Articulate the concept of leverages 	Apply the knowledge and skills in accounting and finance to cater to the needs of enterprise and society
	INDIVIDUAL AND TEAM MANAGEMEN T	1.students understand the basic aspects of individual and team management 2.learned to develop strategies for managing conflicts 3.learnt to manage the time effectively 4.developed leadership and management skills. 5.communicate effectively with team members	
II	QUANTITATIV E TECHNIQUES -II	1.Students Establish relationships between variables in real-world situations by using methods like regression and correlation. 2.Students Use the ideas from probability distributions to solve practical issues. 3.Students Predict future results using time series 4.Students Recognise the relationship between two variables and how to use ratios and proportions to express it.	

FINANCIAL ACCOUNTING	1.Understand the procedure of rectifying the errors committed and to set right the accounting records.	
	2.Understand and compute the amount of claim for loss of stock and loss of profit.	
	3.Understanding preparation of final accounts of Sole proprietor	
	4.Know the features and accounting treatment of Joint Ventures.	
	5.Prepare Final Accounts of Professionals.	
FUNDAMENT ALS OF FINANCIAL	1.Students can estimate the working capital requirement of the firm	
MANAGEMEN T - I	2. Understand the significance of cost of capital	
	3.Apply the concept of capital budgeting	
	4. Analyse risk in capital budgeting.	
	5.Know the determinants of dividend policy	

FOUNDATION OF ORGANISATI ONAL BEHAVIOUR	1. Create awareness about how organizational behaviour works in an organization and its role and functions.	
	2. Develop insight with different theories of motivations and strategies in improve motivation in the workplace	
	3.Understand group dynamics and demonstrate skills required for working in groups and team building	
	4. Understand the concepts of Personality and attitude, Perception and motivation,	

III	ADVANCED	1.Understand the accounting	
	FINANCIAL ACCOUNTING	treatment for Royalty transactions and articulate the Royalty Agreement.	
		2.Students can understand Accounting treatments for dependent and independent branches	
		3.Understanding Departmental Accounts, interdepartmental transfers and their accounting treatment	
		4.Students get knowledge regarding Accounting treatments for Consignment transactions and events in the books of Consignor and Consignee.	
		5.Learn regarding recording of Hire Purchase transactions in the books of Buyer and the Seller.	
	FUNDS MANAGEMEN	1.Students are able to compute the Preparation of Cash Budget.	
	Т	2.Students understand the dimensions of Receivables Management.	
		3.Students learnt different tools and techniques of Inventory Management.	
		4.Students can analyze and interpret the corporate financial statements by using various techniques.	
		5. Students are able to prepare Cash Flow Statements as per the latest provisions.	

COST ACCOUNTING	1.Students learned the basic concepts of cost accounting.	
	2.Students can prepare stores ledger accounts using different methods .	
	3.Students learned to slove problems on Halsey, Rowan, Taylor's piece rate system.	
	4.Students can slove problems on primary and secondary distribution.	
	5.Students are able to prepare reconciliation statement.	
CYBER SECURITY	1)Students would be able to understand the concept of cyber security and issues and challenges associated with it.	
	2.Students, at the end of this course, should be able to understand the cyber crimes, their nature, legal remedies and as to how report the crimes through available platforms and procedures	
	3) students should be able to appreciate various privacy and security concerns on online social media and understand the reporting procedure of inappropriate content, underlying legal aspects and best practices for the use of social media platforms	

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CORPORATE ACCOUNTING - I	1.Students Understand the concept of pre-incorporation profits and their treatment in financial statements.	
	2.Gain knowledge of different methods used to value goodwill and their implications on financial statements.	
	3.Learn the techniques of valuing shares based on different valuation models.	
	4.Students Learn the techniques of valuing shares based on different valuation models.	
	5.Acquire the ability to prepare comprehensive final accounts for companies in compliance with accounting standards	
MANAGEMEN T OF FINANCIAL	1.Students understand the core concepts and components of the Financial markets.	
MARKETS	2.Students gained a comprehensive understanding of lease and hire purchase financing.	
	3.Students are able to define and differentiate factoring and forfeiting, understand the mechanisms and types of factoring.	
	4.Students are able to calculate the Net Asset Value of Mutual Fund Schemes.	
	5.Students understand the Various Emerging Trends in Financial Services.	
	ACCOUNTING - I MANAGEMEN T OF	ACCOUNTING -I of pre-incorporation profits and their treatment in financial statements. 2.Gain knowledge of different methods used to value goodwill and their implications on financial statements. 3.Learn the techniques of valuing shares based on different valuation models. 4.Students Learn the techniques of valuing shares based on different valuation models. 5.Acquire the ability to prepare comprehensive final accounts for companies in compliance with accounting standards MANAGEMEN T OF FINANCIAL MARKETS 1.Students understand the core concepts and components of the Financial markets. 2.Students gained a comprehensive understanding of lease and hire purchase financing. 3.Students are able to define and differentiate factoring and forfeiting, understand the mechanisms and types of factoring. 4.Students are able to calculate the Net Asset Value of Mutual Fund Schemes. 5.Students understand the Various Emerging Trends in Financial

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	COSTING METHODS AND TECHNIQUES	1.Students can prepare job cost sheet and understand the application of contract costing. 2.Students understand the basic elements of process costing and	
		3.Service costing and can prepare process and service cost statements.	
		4.Students can apply the ABC system to assign costs to products and services.	
		5.Students understand marginal costing and can solve problems related to it.	
		6.Will prepare a flexible and cash budget and solve problems on material and labour variances.	
	FINANCIAL EDUCATION AND INVESTMENT AWARENESS	1.Students Understand the Different Modes of Investment. 2. Students Understand the Difference between With Risk And Risk free investment.	
		3.Students understand the Concept of Stock Market.	
		4.Students Aware of Sensex And Nifty.	
		5.Students Understand Role of Investment in Economic Development.	

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V	CORPORATE ACCOUNTING - II	1.To understand the procedure for Redemption of preference shares and Debentures.	
		2.Students Understand the preparation of the consolidated balance sheet.	
		3.Students can understand the accounting for price level changes.	
		4.Students can understand the preparation of Final Accounts of Insurance Companies.	
	INCOME TAX LAW AND PRACTICE-I	ř	
		2.The students understood basic concepts of income tax.	
		3.Students are able to determine the residential status of an individual	
		4.Students are able to calculate Taxable HRA, Gratuity,leave cash encashment and VRS	
		5. Finally students are able to compute the taxable salary by understanding all kinds of allowances and perquisites.	
	SECURITY ANALYSIS	1.Understand the nature of investment decisions	
	AND PORTFOLIO MANAGEMEN T-I	2.Know the types of issues in the primary market	
		3.Understand the nature of secondary market	
		4. Analyse economy, industry and company	
		5.Apply the tools of technical analysis in investment decisions	

BUSINESS LAW	1.Understand the concept of Mercantile law, Contract and its formation.	
	2.Understand the essential elements of Contract.	
	3.Understand the concept of free consent, Lawful object and Contingent contract.	
	4.Students understand Discharge of contract and quasi contractual obligations.	
	5.Students understand Contemporary issues in Business law such as IPR, RTI and Cyber Crimes.	
DIGITAL BANKING	1.Students understand the use of Digital banking.	
	2.Students Analyse the Types of Digital banking.	
	3.Students get practical Usages of Debit card,credit card.	
	4.students gets Difference between NEFT, RTGS and IMPS	
	5.Student Analyse use of Digital Banking to Morden Business.	
	6.Students get Awareness about digital fraud.	

GST	1.The students learnt the concepts of GST,types and Structure of GST.	
	2.The students are able to categorize taxable and exempted goods and services.	
	3.Students are able to analyse the differences between mixed and composite supply.	
	4.Students come to know about GSTIN and documents required for GST registration.	
	5.Students able to know about Input tax credit and person who liable for Input tax credit	
EMPLOYABILI TY SKILLS	1)Develop systematic problem- solving abilities	
	2)Enhance verbal and non-verbal reasoning skills.	
	3)Improve numerical and analytical abilities	
	4)Enhance English language and communication skills	

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VI	CORPORATE ACCOUNTING - III	1. To understand the procedure of Liquidation of Companies and provisions relating to liquidation.	
		2. To understand the procedure for mergers and Acquisitions of Companies.	
		3. To know the Preparation of Final Accounts of Banking Companies.	
		4. To understand the procedure for Internal reconstruction of Companies.	
		5.To know the recent advancement like Block chain ,big Data analysis etc, in Corporate Accounting	
	INCOME TAX LAW AND PRACTICE-II	1. The students understood profits and gains of business or profession are also subjected to taxation.	
		2. The students are able to compute taxable and exempted capital gains.	
		3.Students understood the concept of provident fund and other incomes.	
		4.Students gain the knowledge about set off and carry forward of losses.	
		5. The students are able to assess the taxable income of an individual with understanding of deduction u/s 80.	

SECURITY ANALYSIS AND PORTFOLIO MANAGEMEN T-II	1.Construct Portfolio 2.Analyse risk and return of portfolio 3.Learn portfolio selection models 4.Understand the concept of risk free assets, risk free lending and borrowing 5. Know and apply portfolio revision strategies	
INSURANCE AND RISK MANAGEMEN T	1.Students understand the use of Insurance in Morden Business. 2.Students Evaluate the Growth, Function of Insurance Business. 3.Students Understand the Concept of Risk Management. 4.Students Understand Relationship between Insurance and Risk Management. 5.Students Understand the Role of Insurance Intermediary.	
ASSESSMENT OF PERSONS OTHER THAN INDIVIDUALS AND ITR FILING	1.The students understood conditions for allowing depreciation and computation of allowable depreciation. 2.The students are able to assess the taxable income of partnership firm and companies 3.Syllabus focuses on filing of income tax return, documents required. 4.The students can relate them to practical questions and get theoretical understanding of case laws and amendments.	

INDIAN CORPORATE LAW	1.Students gain knowledge of laws relating to formation, administration and operation of a company.	
	2.Students understand current policy trends and developments in Corporate law	
	3.Understand Issue and Allotment procedures of Shares and Debentures	
	4.Understand the procedure of Acquiring the company membership and company meetings.	
	5. Students understand the essentials of Corporate Meeting and passing of Resolutions.	

BA (HRD)

Programme and Course Out Come Report

Programme outcome (POs):

- 1. HR Knowledge and Understanding: Demonstrate a solid understanding of human resource theories, principles, and practices, including recruitment, training, performance management, and labor relations.
- 2. Strategic HR Management: Apply strategic HR management principles to align human resource strategies with organizational goals and objectives.
- 3. Workforce Planning and Talent Management: Develop effective workforce planning, talent acquisition, and retention strategies to meet organizational needs.
- 4. Legal and Ethical HR Practices: Apply knowledge of labor laws, regulations, and ethical practices to ensure compliance and fairness in the workplace.
- 5. Communication and Interpersonal Skills: Exhibit strong communication, negotiation, and conflict resolution skills to foster a positive organizational culture.
- 6. Problem-Solving and Decision-Making: Utilize analytical and critical thinking skills to address HR-related challenges and make informed decisions.
- 7. Cultural Competence and Diversity: Promote inclusivity and manage diversity effectively in multicultural and global work environments.
- 8. Technology and HR Analytics: Leverage technology and HR analytics to enhance decision-making and improve HR processes.
- 9. Leadership and Teamwork: Demonstrate leadership capabilities and teamwork skills to manage and develop teams effectively.
- 10. Continuous Learning and Development: Engage in lifelong learning to adapt to evolving HR trends and practices.
- 11. Research and Innovation: Conduct HR-related research to identify trends, solve workplace issues, and drive organizational improvements.
- 12. Global Perspective: Develop a global outlook to address HR challenges in international and cross-cultural settings.

These outcomes equip graduates with the skills and knowledge required to pursue roles in human resource management, organizational development, and related fields.

Course : BA(HRD) Outcomes I SEMESTER				
GROUP-1	Principles and	Understand the basic concepts of principles of		
(CORE COURSES)	Practices of	management. Understand the different		
, i	Management	activities performed by middle level and lower-		
		level managers in the organization. Plan,		
		prepare and execute the right decisions.		
	Business and	Students will be able to analyze how external		
	Society	environment factors such as market trends,		
		regulatory changes, and environmental		
		sustainability impact business strategies. To		
		increase awareness of Social Ethical		
		Responsibilities.		
	Personal	Plan for personal development. Develop		
	Development and	interpersonal skill. Focus on self-management		
	Interpersonal Skills	helping in overall development of the		
		personality		
	Employee	Students will be able to identify the concepts		
	Engagement	and practices of employee engagement.		
	(Elective)	Recognize and sustain the focus of employee		
	,	engagement in the organization. Create the		
		strategies for employee engagement.		
	Dynamics of	Identify and evaluate the role of psychology in		
	Human Behavior	HRD, focusing on learning process, their		
	(Elective)	nature, types, and factors influencing them.		
	(21001110)	Analyze the types and functions of human		
		senses, sensation and sensitivity. Apply		
		knowledge of psychology to analyze human		
		behavoir in educational, social and professional		
		environment.		
	II SEM			
GROUP-1	Human Resource	Develop necessary skill set for application of		
(CORE COURSES)	Management	various HR practices. Equip with the		
, i		knowledge on modern HR techniques. Acquire		
		knowledge on modern trends in HRM		
	Basics of marketing	Apply the working knowledge of the field of		
		marketing I their respective business. Develop		
		the cognitive an analytical ability with		
		application of marketing knowledge required		
		for marketing career prospects. Understand the		
		concepts and functions of marketing. Analyze		
		marketing environment impacting the business.		
	Business	Gain specialized knowledge of economic		
	Economics	theories and methodologies in facing the		
		diverse challenges of competitive environment.		
		Explain how the business organization works		
		by applying economics principles and thereby		
		enhance entrepreneurial skilled and acquire		
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	Professional Skill Development (Elective)	Students will be able to analyze the role of Talent management in building competitive advantage and the consequences of poor talent management. Create strategies for developing successional plans band identify high-potential, high-performance employees. To understand the qualities required to be a good professional. To develop skills for efficient performance. To understand the quality and attribute to build high performance team
	III SEM	
GROUP-1 (CORE COURSES)	Organizational Behaviors	To apply the conceptual foundation and theories of organizational behaviour at workplace. To analyse inefficiency and weakness in an individual and apply various measures to improve it in the organisation. To analyse how to develop coordination and teamwork in the organisation. To understand how to use organisation power and politics in an effective manner.
	Strategic Management	Describe and critique the concept of employee participation. Identify problems associated with employee relations .Critically evaluate the role of trade union in settlement of Industrial disputes. Identify the issues associated with wage and salary administration
	Employee Relations	Describe and critique the concept of employee participation Identify problems associated with employee relations Critically evaluate the role of trade union in settlement of Industrial disputes. Identify the issues associated with wage and salary administration
	Compensation Management	To discuss the principles and importance of compensation management b) To relate the bases of compensation on performance. c) To develop and design compensation system. d) To identify the contemporary compensation practices.
	IV SEM	
GROUP-1 (CORE COURSES)	Organizational Development and Management of Change	Understand the framework of organizationa development. Acquire knowledge o interventions designed for organizationa development. Acquire knowledge on managing change and resistance to change. Gain insight into organization development as learning system.

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	Human Resource	Understand the philosophy of Research. Learn
	Research	various research techniques and methods. Use
	Methodology	statistical values in Human research. Handle
		Quantitative and Qualitative data in research.
		Understand the Research Ethics.
	Entrepreneurship	Equip the knowledge of defining basic terms of
	Development	entrepreneurship. Identify the elements fo
	1	success of entrepreneurial ventures. Interpre
		their own business plan.
	Human Resource	Understand relevance of HRD techniques in all
	Development	fields of work. Apply new practices of HRD to
	Bevelopment	keep pace with changes.
	V SEMEST	· · ·
GROUP-1	Global Human	Effectively manage key global human resource
(CORE COURSES)	Resource	functions. Examine current trends and
(CORE COURSES)		
	Management	practices in HRM. Contribute to global
		employee performance management Problem-
	T' ' 1 A 1 '	solve in global human resource challenges.
	Financial Analysis	Understand the basic concepts of accounting
	for Human	and financial management. Understand the
	Resource Manager	different types of financial statements and
		financial analysis Plan, prepare and execute the
		right decisions.
	Corporate	Able to use and draft a business correspondent
	Communication	needed. Develop skills and techniques for
	And Public	Public Relation
	Relation	
	Corporate	Students understood the importance of business
	communication and	communication and its channels, theories of
	public relation	public relations and its changes, skills of public
		relations and its challenges in the global market.
	Dynamics Of	Demonstrate the applicability the concept of
	Human Behavior	human behavior to understand the behavior of
		people in the organization. Develop individual
		and learning skills.
	Labour Law	Understand the various industrial laws and its
	Edoodi Edw	mechanism. Understand the various rights
		available to the workmen employed in
		industries and the remedies for its misuse by the
		employer. Demonstrate an understanding of
		the underlying legal principles, rules and
	VICEMECTED	institutions which regulate Indian Labour law.
CDOUD 1	VI SEMESTER Tranda In Human	Understanding of leavy terms concerts and
GROUP-1	Trends In Human	Understanding of key terms, concepts and
(CORE-COURSES)	Resources	practices within the field of HRM and HRD.
	Development	Understanding competence in development and
		problem-solving in the area of HRD.
		Understanding innovative solutions to
		problems in the fields of HRD

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Business Ethi	cs and Evaluate the range of ethical issues that arises
Corporate	in business and the theories that are used to
Governance	model these issues. Will be able to identify
	various issues that may arise in the domain of
	Marketing, HRM and Finance in a given
	organization/situation. Will be able to analyse
	various ethical codes in corporate governance
Human Resou	
Information S	1
Stress Manage	• 11
Strong Wanag	stress Discuss issues relating to their daily lives
	that cause stress. Explain how healthy habits
	i.e., regular exercise, better sleep, hygiene and
	proper nutrition can defend against stress and
	prevent understand the concepts of counselling
	in detail.
Wage and Sal	
administration	
administration	offered in an organisation. Recognize legal and
	ethical considerations in compensation
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Social And	management.
	Learn the basic concepts of the field of
Workforce	psychology with an emphasis on application of
Psychology	social psychology in everyday life. learn how
	they can make adjustments and manage to cope
	with stress more effectively. develop an
	understanding of the individual in relation to
	the social world, the core course also introduces
	students to the realm of social influence as to
	how individuals think feel and behave in social
	situations.

BIOCHEMISTRY

Semester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
I	Chemical Foundation of Biochemistry	CO: 1- To understand the basic principles of biochemistry. CO: 2- To understand water as solvent of life, importance of buffers in biological systems, atoms and chemical bonding. CO: 3- To understand fundamentals of physical phenomena associated with adsorption, viscosity, osmotic pressure etc. CO: 4- To acquire and consolidate the fundamental concepts of kinetics and reaction mechanism CO: 5- To understand the concepts of colloids and explore its importance in everyday life.	PO: 1-To create interest in Biochemistry and appreciation for chemical basis of biological processes. PO: 2-To inculcate the spirit of inquiry and value of systematic study of a discipline. Provide a general understanding of the related disciplines with a holistic knowledge generation in biological sciences. PO: 3- To provide an indepth understanding of chemical reaction mechanism in biological processes. PO: 4-To provide a flavor of historical developments of enzymes and their applications in research, diagnostics and various industries. PO: 5- To gain
II	Bio-Organic chemistry	CO1: To understand the fundamentals of organic chemistry and their importance in understanding	proficiency in basic laboratory techniques and be able to apply the scientific method to the processes of

III	Bio-Organic chemistry	Biochemical reactions CO2:To acquire knowledge of organic reactions, isomerism and Stereochemistry of molecules • These topics will enable students to understand the fundamentals of organic chemistry pertinent to their importance in understanding biochemical reactions.	experimentation, hypothesis testing, data interpretation and logical conclusions. PO: 6-To develop problem solving and analytical skills through case studies, research papers and hands-on- experience. PO: 7-To appreciate biochemical mechanistic basis of physiological processes, metabolism under normal and pathological conditions importance and levels of
IV	Analytical chemistry	 These topics will enable the students to Understand the concept of biological sample preparation. Appreciate chemistry and application of analytical instruments. Get acquainted with care and maintenance of equipment and chemicals. Understand clinically relevant biochemical analysis of all biochemical components 	PO8- To apply and effectively communicate scientific reasoning and data analysis in both written and oral forms. They will be able to communicate effectively with well-designed posters and slides in talks aimed at scientific audiences as well as the general public. PO: 9- To bridge the knowledge and skill gap between academic out and industry requirements. PO: 10- To give students experience in conducting independent, hypothesis-driven, biological research, project planning and management.

		i.e.,proteins, electrolytes, hormones etc. • Have basic knowledge of clinical and forensic analytical methods and their principles.	PO: 10- To give students experience in conducting independent, hypothesis-driven, biological research, project planning and management PO:11-To provides kills to publish research findings, and awareness of IP rights, and scientific publication of this and problems of
V	BIOCHEMISTRY OF MACROMOLECULES	• The course provides fundamental insights on the types of macromolecules; and unique structural features, chemical properties and biological importance of each.	ethics and problems of plagiarism. PO: 12- To prepare competent human resource with better knowledge, hands-on-experience
V	HUMAN PHYSIOLOGY AND ENZYMOLOGY	Describe cell structure and functions, how cells form and divide, and how they differentiate and specialize. • Students will be able to describe the cyclical events of cell division and types of cell divisions. Student's knowledge with regard to the process of cell death and	

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		cellaging will enhance to its core.	
		• Physiology involves the study of how living systems function, from the molecular	
		and cellular level to the system level, and emphasizes an integrative approach to	
		studying the biological functions of the human body.	
		• Enzymology topics will enable students to describe structure, functions and the	
		mechanism of action of enzymes.	
		Learning kinetics of enzyme catalyzed reactions	
		and enzyme inhibitions and regulatory process, Enzyme activity, Enzyme Units,	
		Specific activity.	
VI	BIOENERGETICS AND METABOLISM	At the end of the course the students will be able to:	
		Understand the concepts of metabolism, characteristics of metabolic pathways and strategies used to study these pathways.	

	1		
		• Gain a detailed	
		knowledge of	
		various catabolic	
		and anabolic	
		pathways and its	
		regulation.	
		Systematically	
		learn the	
		breakdown and	
		synthesis of	
		amino acids and	
		nucleotides in	
		humans and	
		recognize its	
		relevance with	
		respect to	
		nutrition and	
		human diseases	
		Acknowledge	
		the role of	
		inhibitors of	
		nucleotide	
		metabolism	
		which are	
		potentially being used	
		as chemotherapeutic	
		drugs	
		Comprehend	
		how the amino	
		acid and	
		nucleotide	
		metabolism are	
		integrated with	
		carbohydrata and linid	
		carbohydrate and lipid metabolism	
VI	MOLECULAR	• Defines the	
'-	BIOLOGY AND	concept of	
	IMMUNOLOGY	immunology,	
		concepts of	
		antigen and	
		antibody	

Explain immune
system cells ,
Discuss active
immunity and
passive
immunity
Explain the cellular immune mechanism.

BIOTECHNOLOGY (UG)

Semester	Course / Subject	Course Outcome	Program Outcome
I	Cell Biology and	CO 1. Understand	1. Acquire
	Genetics	concepts of	knowledge
		Biotechnology and	pertaining to
		demonstrate	biotechnology
		knowledge acquired	and its
		in interdisciplinary	applications
		skills in cell biology,	2. Studying
		genetics,	various
		biochemistry,	aspects in
		microbiology, and	each semester
		molecular biology	with practical
		CO 2. Describe the	approaches
		ultra-structure of	and various
		cells, structure and	tools to solve
		function of	the biology
		organelles, cytosol	related
		and cytoskeleton	problems.
		CO 3. Understand	3. Outcomes of
		phases of cell cycle,	biotechnology
		cell division,	for industrial
		reductional division	applications
		in gametes,	and novel
		molecular	product
		mechanisms that	development
		regulate life and	protocol
		death of a cell	preparations.
		including	
		programmed cell	

		Ι	
		death or apoptosis	
		and cell cycle	
		regulation.	
		CO 4. Comprehend	
		organization and	
		structure of	
		chromosomes, and	
		Mendelian laws of	
		inheritance,	
		deviations and	
		exceptions to these	
		laws.	
		CO 5. Describe	
		mutations at the	
		molecular level,	
		types of mutations,	
		genetic or hereditary	
		disorders and	
		concepts in	
		population genetics	
II	Biochemistry and	CO 1. Acquire	
	Biophysics	knowledge about	
		types of	
		biomolecules,	
		structure, and their	
		functions	
		CO 2. Will be able to	
		demonstrate the	
		skills to perform	
		bioanalytical	
		techniques	
		CO 3. Apply	
		comprehensive	
		innovations and	
		skills of	
		biomolecules to	
		biotechnology field	
III	Microbiology and	CO 1. Understand	
	Immunology	Historical	
		prospective and	
		scope Microbiology	
		CO 2. Experiment	
		with various	
	I	I.	

methods of sterilization in microbiological work CO3. Prepare different types of perform media, culture methods, preservation of microorganisms for isolation, characterization of microbes CO 4. Handle and antimicrobial use agents and perform anti-microbial assays CO 5. Demonstrate the Laboratory skills in basic and applied microbiology with reference to technological aspects. CO6. Demonstrate comprehension of the underlying structure and function of the immune system and related disorders. CO 7. Demonstrate an understanding of the role of cells and molecules in immune reactions and responses CO 8. Demonstrate technical skills in immunological tools and techniques CO 9. Explain the fundamental

		Γ	
		concepts of	
		immunity, and the	
		contributions of the	
		organs and cells in	
		immune responses.	
		CO 10. Realize how	
		the MHC molecule's	
		function and host	
		encounters an	
		immune insult.	
		CO 11. Understand	
		the antibodies and	
		complement system	
		CO12. Comprehend	
		the overreaction by	
		our immune system	
		leading to	
		hypersensitive	
		conditions and its	
		consequences.	
IV	Molecular Biology	CO 1. Study the	
1 V	and Recombinant	advancements in	
		molecular biology	
	DNA Technology	with latest trends.	
		CO 2. Will acquire	
		the knowledge of	
		structure, functional	
		relationship of	
		proteins and nucleic	
		acids.	
		CO 3. Aware about	
		the basic cellular	
		processes such as	
		transcription,	
		translation, DNA	
		replication and repair	
		mechanisms.	
		CO 4. Demonstrate a	
		thorough	
		understanding of the	
		fundamental	
		principles and	

		A To real control of the control	
		techniques of genetic	
		engineering.	
		CO 5. Apply the	
		knowledge of	
		genetic engineering	
		to diverse	
		applications in	
		agriculture,	
		medicine,	
		biotechnology, and	
		environmental	
		science.	
		CO 6. Perform	
		laboratory	
		procedures and	
		develop practical	
		skills in genetic	
		engineering	
		techniques.	
		CO 7. Evaluate	
		genetic engineering's	
		ethical, social, and	
		legal implications	
		1 1	
		responsible solutions.	
		CO 8. Stay updated	
		with recent	
		advancements in	
		genetic engineering,	
		critically evaluate	
		emerging trends, and	
		assess their potential	
		impact on various	
		fields.	
V	Plant Biotechnology	CO 1. Demonstrate a	
		comprehensive	
		understanding of	
		plant biology,	
		physiology, genetics,	
		and molecular	
		biology.	
<u> </u>			

CO 2. Explore	
methods of	
introducing foreign	
genes into plants	
through	
transformation	
techniques.	
CO 3. Gain practical	
skills in plant tissue	
culture for	
improvement.	
CO 4. Design	
strategies for plant	
genetic manipulation	
against biotic and	
abiotic stressors.	
CO 5. Hypothesize	
strategies to increase	
plant yield and	
fruit/seed quality.	
CO 6. Apply	
biotechnological	
tools and techniques	
used in plant	
research and	
agriculture, such as	
plant tissue culture,	
genetic engineering	
and transgenics.	
CO 7. Execute plant	
tissue culture	
techniques for callus	
induction, somatic	
embryogenesis, and	
micropropagation,	
and apply them in	
plant breeding and	
propagation.	
CO 8. Perform plant	
transformation	
methods and	
demonstrate the	
ability to introduce	

	foreign genes into
	plants using different
	techniques.
	CO 9. Apply
	knowledge about
	ethical
	considerations and
	regulatory
	frameworks
	associated with plant
	biotechnology and
	genetically modified
	crops.
Animal	CO 1. To learn the
Biotechnology	fundamental aspects
	of animal
	biotechnology.
	CO 2. Discuss about
	biotechnological
	tools and techniques
	used in animal
	research.
	CO3. Understand the
	biology and
	characterization of
	cultured cells,
	including their
	adhesion,
	proliferation,
	differentiation,
	morphology, and
	identification.
	CO 4. Gain practical
	skills in basic
	mammalian cell
	culture techniques,
	measuring growth
	parameters, assessing cell
	ε
	viability, and
	understanding
	cytotoxicity.

		CO 5. Learn about	
		germplasm	
		conservation	
		techniques and the	
		establishment of	
		gene banks, along	
		with large-scale	
		culture methods for	
		cell lines.	
		CO 6. Explore	
		methods of	
		introducing foreign	
		genes into animals	
		through	
		transformation	
		techniques.	
		CO 7. Explore organ	
		and histotypic	
		culture techniques,	
		biotransformation,	
		3D cultures, whole	
		embryo culture,	
		somatic cell cloning,	
		and the ethical	
		considerations	
		surrounding stem	
		cells and their	
		applications	
		CO 8. Apply	
		knowledge to real-	
		world challenges in	
		veterinary medicine,	
		conservation, and	
		biomedical research	
		CO 9. Understand	
		the need for animal	
		biotechnology for human welfare.	
X 7 T	Dia		
VI	Bioprocess and	CO1. Exploitation of	
	Environment	microorganisms for	
	Biotechnology	industrial use and	
		their improvement,	
		and formulation of	

media for efficient growth and production of microbial or cellbased products. CO 2. The design, operation, specific applications of various bioreactors. CO 3. Demonstrate a comprehensive understanding of the fundamental and concepts principles of environmental biotechnology. CO 4. Apply of knowledge biotechnological techniques to address environmental challenges, such as pollution control and waste management. CO 5. Analyze and evaluate environmental biotechnology case studies, research findings, and realworld applications. CO 6. Design and implement biotechnological approaches for environmental remediation, utilizing microbial processes and biodegradation principles.

	CO 7. Evaluate the	
	ethical and	
	sustainable aspects	
	of environmental	
	biotechnology	
	practices and make	
	informed decisions	
	regarding their	
	application in	
	environmental	
	conservation.	
	CO 8. Communicate	
	scientific concepts	
	and research	
	findings related to	
	environmental	
	biotechnology	
	effectively, both in	
	written and oral	
	forms, to diverse	
	audiences	
Biostatis	tics and Course Outcomes:	
Bioinfor	rmatics After successful	
	completion of this	
	Course, students will	
	be able to:	
	CO 1: Describe the	
	scope and	
	importance of	
	biostatistics and	
	explain types of data	
	their presentation in	
	easily	
	understandable way.	
	CO 2: Demonstrate	
	analysis of data using	
	different statistical	
	methods which helps	
	to draw inference	
	from the data	
	CO3: Explain the	
	organization and	
	working of	

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computers and
illustrate the use of
computers in
biological science
especially in
automated control of
fermenters
CO 4: Describe the
scope and
importance of
bioinformatics and
demonstrate the use
of basic
bioinformatics tools
for analysis of
biological data
CO 5: Discuss
biological databases,
their types and
importance and
discuss the
applications of
bioinformatics in
biology

BOTANY (UG) SEP SYLLABUS

Semester	Course/	Course outcome	Program outcome (summary of
	Subject		all six semesters)

I	Diversity	1. Understand the diversity	Students will be
SEMESTER	of	of microbes in nature.	proficient to comprehend
	Microbes,	2. Know the diversity of	classification,
	Algae and	algae, fungi, lichens and	morphology,
	Fungi	their uses.	anatomy, and physiology of
			various groups of plants.
		3. Identify and classify algae	
		and fungi.	• Students will be able to
		4. Develop practical skills in	understand the
		staining techniques and	contribution of botany for human welfare with
		slide preparation.	potential uses of plants
		5. Identify plant disease	along with their
		symptoms and	conservation and
		management techniques.	sustainable development.
II	Diversity	To identify and classify	-
SEMESTER	of non-	non-flowering plants.	 Students will be enriched by various skills related
SEIVIESTER	flowering		to Gardening and
	plants and	2. Will gain basic knowledge	_
	Plant	of GTS and plant fossils.	Floriculture, preparation of
	anatomy	3. Observation of variations	biofertilizers, mushroom
		that exist in the internal	cultivation and
		structure of various parts	ethnobotanical knowledge.
		of a plant and among	 Students will be able to
		different plant groups in	understand and relate
		support of the evolutionary	physical features of the
		concept.	
		4. Skill development for the	environment to the structure of
		proper description of	population, community, ecosystem, and
		internal structure using	ccosystem, and
		botanical terms, their	sustainable conservation
		identification and further classification.	strategies.
		Ciassification.	
		5. Induction of the	
		enthusiasm towards the	
		internal structure of locally	
		available plants.	
		NEP 2020 SYLLABUS	

NEP 2020 SYLLABUS

Semester	Course/ Subject	Course outcome	Program outcome
			(summary of all six
			semesters)
			<u> </u>
I Semester	MICROBIAL	1. Understand the fascinating	1. Skill development
	DIVERSITY	diversity, evolution, and	for the proper
	AND	significance of	description using
	TECHNOLOGY	microorganisms.	botanical terms,
		2. Comprehend the systematic	identification,
		position, structure, physiology	naming and
		and life cycles of microbes and	classification of
		their impact on humans and	plants and
		environment.	microbes.
		chvironment.	2. Acquisition of
		3. Gain laboratory skills such as	knowledge on
		microscopy, microbial cultures,	structure, life
		staining, identification,	cycle and life
		preservation of microbes for	processes that
		their applications in research	exist among plant
		and industry.	and microbial
II Semester	DIVERSITY OF	Understand the diversity and	diversity through
11 Semester	NON-		certain model
	FLOWERING	affinities among Algae,	organism studies.
	PLANTS	Bryophytes, Pteridophytes and	organism studies.
	PLANIS	Gymnosperms.	3. Understanding of
		2. Understand the morphology,	various
		anatomy, reproduction and life	interactions that
		cycle across Algae, Bryophytes,	exist among plants
		Pteridophytes and	and microbes; to
		Gymnosperms, and their	develop the
		ecological and evolutionary	curiosity on the
		significance.	dynamicity of
		2 Obtain laboratory alvilla/avralara	nature.
		3. Obtain laboratory skills/explore	4. Understanding of
		non-flowering plants for their	4. Understanding of the major elements
		commercial applications.	of variation that
III Semester	PLANT	1.Observation of variations that exist	exist in the living
	ANATOMY AND	in internal structure of various parts of	world through
	DEVELOPMENT	a plant and among different plant	=
	BIOLOGY	groups in support of the evolutionary	comparative
		concept.	morphological and anatomical study.
		2 Shill dayslamment for the more	anatomical study.
		2. Skill development for the proper	
		description of internal structure using	

		botanical terms, their identification and	5. Ability to explain
		further classification.	the diversity and
		3. Induction of the enthusiasm on	evolution based on
		internal structure of locally available	the empirical
		plants.	evidences in
		plants.	morphology,
		4. Understanding various levels of	anatomy,
		organization in a plant body with an	embryology,
		outlook in the relationship between the	physiology,
		structure and function through	biochemistry,
		comparative studies.	molecular biology
		5. Observation and classification of the	and life history.
		floral variations from the premises of	6. Skill development
		college and house.	for the collection,
		conege and nouse.	preservation and
		6.Understanding the various	recording of
		reproductive methods sub-stages in the	information after
		life cycle of plants	observation and
		7. Observation and classification of the	analysis- from
		embryological variations in	simple illustration
		angiosperms.	to molecular
			database
		8. Enthusiasm to understand evolution	development.
		based on the variations in reproduction	_
		among plants	7. Making aware of
IV Semester	ECOLOGY AND	1. A basic course to understand	the scientific and
1 v Semester	CONSERVATION	ecosystem functioning	technological
	BIOLOGY	, c	advancements-
	BIOLOGI	2. Chapters on autecology, community	Information and
		ecology and population ecology can be	Communication,
		of use in higher studies	Biotechnology and
		3. Chapters on global warming and	Molecular Biology
		pollution of various kinds are very	for further
		relevant and helps to appreciate these	learning and
		problems	research in all
		problems	branches of
		4. It gives an exhaustive idea about	Botany.
		biodiversity at different levels and	8. Internalization of
		groups of plants	the concept of
		5. A detailed account on endemism and	conservation and
		the various uses of biodiversity further	evolution through
	l	in the second se	8

		amphagizes the immertance of	the channel of
		emphasizes the importance of	
		biodiversity	spirit of inquiry.
		6. Also, there is a detailed study on the	9. To enable the
		use of remote sensing in monitoring	graduates to
		various aspects of diversity	prepare for
		7. With the tremendous human impact	national as well as
		on biodiversity the course becomes	international level
		very relevant	competitive
		very relevant	examinations like
V Semester	PAPER V -	1. Understand the main features in	UGC-CSIR,
	PLANT	Angiosperm evolution	UPSC, KPSC etc.
	MORPHOLOGY	2. Identify, classify and describe a	10. To enable the
	AND	plant in scientific terms,	students for
	TAXONOMY	thereby, Identification of plants	practicing the best
		using dichotomous keys. Skill	teaching pedagogy
		development in identification	as a biology
		and classification of flowering	teacher including
		plants.	the latest digital
		2 Interpret the males of ICN in	modules.
		3. Interpret the rules of ICN in botanical nomenclature.	11. The graduates
		botanicai nomenciature.	should be
		4. Classify Plant Systematic and	knowledgeable
		recognize the importance of	and competent
		herbarium and Virtual	enough to
		Herbarium, Evaluate the	appropriately
		important herbaria and	deliver on aspects
		botanical gardens.	of global
		5. Recognize locally available	importance like
		angiosperm families,	climate change,
		economically important plants.	SDGs, green
		Appreciation of human	technologies etc at
		activities in conservation of	the right
		useful plants from the past to	opportunity.
		the present.	11
	DADED 177	-	12. The graduate
	PAPER VI -	1. Understand the basics of	should be able to
	GENETICS AND	genetics and plant breeding	demonstrate sufficient
	PLANT	2. Identify, calculate and describe	
	BREEDING	crossing over, allelic	proficiency in the hands-on
		generations and frequencies of	
		recombination.	experimental techniques for
			techniques for

		3. Interpret the results of mating	their area of
		and pollinations.	specialization
		Classify Plant pollination methods	within biology during research and in the
		5. Recognise modes of inheritance of traits/phenotypes and Phenotype-genotype correlation.	professional career.
VI Semester	PAPER VII - CELL BIOLOGY	Understand of Cell metabolism, chemical composition, physiochemical and functional organization of organelle	
		Learn the contemporary approaches in modern cell and molecular biology.	
		3. Study the organization of cell, cell organelles and biomolecules (i.e protein, carbohydrate, lipid, and nucleic acid)	
		4. Gain knowledge on the activities in which the diverse macro molecules and microscopic structures inhabiting the cellular world of life are engaged.	
		5. Understand the various metabolic processes such as respiration, photosynthesis etc. which are important for life.	
	PAPER VIII - PLANT PHYSIOLOGY AND PLANT BIOCHEMISTRY	 As certain the Importance of water and the mechanism of transport. Explain the biosynthesis and breakdown of biomolecules. 	

3. Interpret the role of plant hormones in plant development and about secondary metabolites.	
4. Perceive the basic functions and metabolism in a plant body.	
5. Understand the importance of nutrients in plant metabolism and crop yield.	

BSc Animation and Visual Effects

Scheme: SEP

Semester	Course/ Subject	Course outcome	Program outcome
			(summary of all six
			semesters)
I	Fundamentals of Drawing	☐ To develop a foundational understanding of the core principles of visual art, including elements and principles of design. ☐ To enhance observational and analytical skills through the exploration of various artistic techniques. ☐ To foster creativity and critical thinking by applying design principles to generate original visual expressions	Foundational Knowledge and Skills: Graduates will possess a deep understanding of the fundamental principles and techniques of computer graphics, animation, and visual effects. This includes: Mastery of industry- standard software (e.g., Maya, 3ds Max, Blender, After Effects, Nuke) Proficiency in 3D modeling, texturing, rigging, animation, lighting, rendering, and compositing.

Strong understanding of color theory, composition, and visual storytelling.

Creative and Critical Thinking: Graduates will be able to apply creative and critical thinking skills to solve complex visual problems and develop innovative solutions in CGI and animation production. This includes:

Concept development and visualization.

Problem-solving and troubleshooting technical challenges.

Analyzing and evaluating the effectiveness of visual communication.

Technical
Proficiency: Graduates
will demonstrate a high
level of technical
proficiency in the
creation of 3D models,
animations, and visual
effects, meeting
industry standards for
quality and efficiency.
This includes:

Optimizing workflows and pipelines for efficient production.

Utilizing advanced techniques and

technologies in CGI and animation.

Maintaining up-to-date knowledge of industry trends and advancements.

Collaboration and Communication:

Graduates will be able to effectively collaborate in a team environment and communicate their ideas and technical expertise clearly and professionally. This includes:

Working effectively in diverse teams with varying roles and responsibilities.

Communicating technical information to both technical and non-technical audiences.

Providing and receiving constructive feedback.

Professional Practice:

Graduates will be prepared for successful careers in the CGI and animation industry, demonstrating professionalism, ethical conduct, and a commitment to lifelong learning. This includes:

		Understanding industry standards, practices, and ethics. Building a professional portfolio and demo reel. Developing career planning and job search strategies.
Traditional and Stop Motion Animation	To gain a comprehensive understanding of the principles and techniques of traditional and stopmotion animation. To develop skills in storyboarding, character design, and animation production processes. To explore various animation styles and techniques, including cell animation, stopmotion, and experimental methods.	
Basics of Graphic Design	To gain a comprehensive understanding of raster graphics and their applications. □ To develop proficiency in using Adobe Photoshop for image editing,	

	manipulation, and
	creation.
	☐ To explore
	various creative
	applications of
	Photoshop, including
	digital painting,
	photo manipulation,
	and animation.
	☐ To develop a
	strong foundation in
	digital imaging
	principles and
	techniques.
Storyboard and	☐ To develop a
Advanced Drawing	strong foundation in
	visual storytelling
	and character design
	through the creation
	of effective
	storyboards.
	☐ To enhance
	observational and
	drawing skills
	through the
	exploration of
	various drawing
	techniques and
	mediums.
	☐ To foster
	creativity and visual
	communication
	abilities by
	translating ideas into
	compelling visual
	narratives.
Advances in	To gain a
Graphic Design	comprehensive
Grapine Besign	understanding of
	contemporary
	graphic design trends
	and technologies.
	and technologies.

	☐ To develop	
	advanced skills in	
	using industry-	
	standard software	
	and tools for graphic	
	design.	
	☐ To explore	
	innovative	
	approaches to visual	
	communication and	
	problem-solving in a	
	digital and	
	interactive	
	environment.	
	☐ To develop a	
	professional	
	portfolio showcasing	
	creative and effective	
	graphic design	
	solutions	
2D Digital	To gain a	
Animation	comprehensive	
	understanding of 2D	
	digital animation	
	principles and	
	techniques.	
	☐ To develop	
	proficiency in using	
	industry-standard	
	software for 2D	
	animation	
	production.	
	☐ To create	
	compelling and	
	engaging 2D	
	animated projects,	
	from concept to final	
	output.	
	☐ To develop a	
	strong foundation in	
	character animation,	
	storytelling, and	
	visual	

	1	· · · ·	
		communication	
		through animation.	
		☐ To foster	
		creativity, problem-	
		solving, and	
		teamwork skills	
		within the context of	
		2D animation.	
III	3D Modelling	☐ To gain a	
		comprehensive	
		understanding of 3D	
		modeling principles	
		and techniques.	
		☐ To develop	
		proficiency in using	
		industry-standard 3D	
		modeling software.	
		quality 3D models	
		for various	
		applications,	
		including games,	
		animation, and	
		visualization.	
		☐ To develop a	
		strong foundation in	
		3D modeling	
		workflows, from	
		concept to final model.	
		□ To foster	
		creativity, problem-	
		solving, and spatial	
		reasoning skills	
		_	
		through 3D	
	Diaging 0-	modeling.	
	Rigging &	To gain a comprehensive	
	Animation	understanding of 3D	
		character rigging and	
		animation principles	
		and techniques.	
		☐ To develop	
		proficiency in using	
		industry-standard 3D	
		animation software	

	C 1	
	for character rigging	
	and animation.	
	☐ To create	
	believable and	
	engaging 3D	
	character animations,	
	from basic poses to	
	complex	
	performances.	
	☐ To develop a	
	strong foundation in	
	character mechanics,	
	weight distribution,	
	and expressive	
	movement.	
	☐ To foster	
	creativity, problem-	
	solving, and	
	teamwork skills	
	within the context of	
	3D character	
T 4 1 4' T	animation.	
Introduction To	To gain a	
Blender	comprehensive	
	understanding of	
	Blender's interface	
	and core	
	functionalities.	
	☐ To develop	
	foundational skills in	
	3D modeling,	
	sculpting, texturing,	
	and rendering within	
	the Blender	
	environment.	
	☐ To create basic	
	3D models and	
	scenes for various	
	applications,	
	including games,	
	animation, and	
	visualization.	
	\Box To explore the	
	creative possibilities	
	of Blender and	
	develop a	
	foundational	
	understanding of 3D	
	graphics principles.	

	T		
		☐ To foster	
		creativity, problem-	
		solving, and spatial	
		reasoning skills	
		through hands-on	
		projects	
IV	Audio Production	☐ To gain a	
		comprehensive	
		understanding of	
		audio production	
		principles and	
		techniques.	
		☐ To develop	
		proficiency in using	
		industry-standard	
		audio recording,	
		editing, and mixing	
		software.	
		☐ To create high-	
		quality audio	
		recordings and	
		productions for	
		various applications,	
		including music,	
		film, and	
		multimedia.	
		☐ To develop strong	
		listening skills,	
		critical thinking, and	
		problem-solving	
		abilities within the	
		context of audio	
		production.	
		□ To foster	
		creativity and artistic	
		expression through	
		the exploration of	
		sound design and	
		audio manipulation.	
	Surfacing &	To gain a	
		comprehensive	
	Lighting	understanding of 3D	
		surfacing and	
		_	
		lighting techniques.	
		☐ To develop	
		proficiency in	
		creating realistic and	
		visually appealing	
		3D scenes.	

	☐ To explore	
	various lighting and	
	rendering techniques	
	to achieve desired	
	visual effects.	
	☐ To develop a	
	strong foundation in	
	materials and	
	textures, and their	
	impact on the overall	
	look of a 3D scene.	
	☐ To foster	
	creativity and artistic	
	expression in 3D	
	visualization and	
	rendering.	
Aesthetics of Video	To develop a strong	
Editing	understanding of the	
C	aesthetic principles	
	and techniques used	
	in video editing.	
	☐ To cultivate a	
	refined sense of	
	visual storytelling	
	and cinematic	
	language.	
	☐ To gain	
	proficiency in using	
	professional video	
	editing software to	
	achieve desired	
	aesthetic effects.	
	☐ To explore and	
	experiment with	
	various editing styles	
	and approaches to	
	enhance visual	
	communication.	
	To develop a critical	
	eye for analyzing	
	and evaluating the	
	aesthetic qualities of	
	film and video.	

BSW

Semester	Course/ Subject	Course outcome	Program outcome
			(summary of all six
			semesters)
I Semester	SW 1.1	1. To understand the	Students are
	Fundamentals of	fundamental concepts of	expected to
	Social Work	Social Work,	Understand the
		differentiate between	concepts and needs
		social work and	of school social
		2. other related concepts	work
		and brief overview on	Understanding the
		methods of social work	roles of social work
		3. To trace the historical evolution of social work,	and social workers in enhancing
		key milestones and	educational
		movements that shaped	opportunity and
		social work in Western	performance
		countries and India	Understanding
		4. To familiarise with the	intervention
		concept of Social Work	approaches in school
		Profession, Values,	settings
		Principles, Ethical	Locating social work
		Guidelines and	in the realm of social
		professional	sciences
		organisations, social	
		work practicum	Appreciating the
		components, innovative	foundational pillars
		approaches, current	of social work
		status and challenges	Appreciating the
		related to social work	basics and necessity
		practice	for communication
			skills
			Developing a basic
			understanding of
			field work and its
			components
			1

			Fostering an evolved understanding of the individual, family, ecology, and their problems Imparting knowledge and skills in social casework and group work
I Semester	SW 1.2 Social Science Concepts for Social Work Practice	1. To understand the core elements of Social Sciences 2. To comprehend the relationship of Sociology, Anthropology, Economics and Political 3. Science with Social Work	
I Semester	SW 1.3 Communication Skills for Social Work Practice	1. To understand the basic aspects of communication skill for social work practice 2. To acquire the knowledge about types of communication 3. To develop speaking and presentation skills needed for a social worker 4. To understand media and digital communication engagement in social work practice	

I Semester	SW 1.4 Social	To obtain conceptual	
	work Practicum-I	clarity of different	
	Work Tructicum T	approaches of providing	
		help to people in need	
		2. To get acquainted with	
		the professional role of	
		social workers	
		3. To develop self-	
		awareness and	
		orientation to teamwork	
		4. To acquire introductory	
		skills in the use of	
		programme media,	
		report writing and use of	
		5. Supervision	
II Semester	SW 2.1 Social	6. To understand Social	
	Case Work	Casework as a method	
		of Social Work practice	
		_	
		7. To gain knowledge	
		about the basic concepts,	
		tools, techniques,	
		processes and skills of	
		working	
		8. with individuals.	
		9. To develop an	
		understanding of	
		application of case work	
		in diverse settings	
II Semester	SW 2.2 Social	To understand Social	
	Group Work	Group Work as a method	
	_	of Social Work practice	
		2. To know the basic	
		concepts, tools,	
		techniques, processes	
		and Skills of working	
		with groups	

		 3. To develop an understanding of the process of group development and group dynamics 4. To develop an understanding of application of group work in diverse settings 	
II Semester	SW 2.3 Human Growth and Development	To develop an understanding of the characteristics and developmental stages of human life Identify common developmental challenges and risks To understand Social Work Intervention during stages of human life	
II Semester	SW 2.4 Social Work Practicum – II	 Have an understanding of different approaches to providing help to people in need; Be acquainted with the professional role of social workers; Develop self-awareness and orientation to teamwork; Acquire introductory skills in the use of programme media; and Develop skills in report writing and use of supervision 	

III Semester	BSWBWCN 301:	1. Able to demonstrate	
III Semester	Community Organization and Social Action	familiarity with community organization and social action as methods of social work profession 2. Able to develop skills of	
		collecting and collating information to understand community, its structure and components.	
		3. Able to gain the experience and exposure to practice community organization and social action at micro and macro levels	
		4. Able to understand the relationship of community organization and social action with other methods of social work	
III Semester	BSWBWCN 302 Psychology for Social Work Practice	Able to understand psychological concepts and its relevance to Social Work Able to understand the	
		basic concepts and processes in social psychology and its relevance to Social Work 3. Able to understand	
		determinants and processes of personality development	

		4. Able to understand	
		social attitudes and	
		psycho-social behaviour	
III Semester	BSWBWPN 303	1. Able to understand	
III Semester	Field Work	Programmes and	
	Practice 3	projects of governmental	
	Tractice 5	and non- governmental	
		organizations and	
		critically appraise them	
		2. Able to prepare work	
		plan and its execution	
		3. Able to develop	
		professional attitude	
		conducive to deal with	
		human problems	
		4. Able to develop	
		sensitivity towards the	
		needs and problems of	
		different target groups	
		5. Able to develop	
		understanding of the role of Social Workers in	
		different settings.	
		6. Able to apply	
		programme Media Skills	
		in Social Work	
		interventions.	
		7. Able to develop skills to	
		write reports of work	
		performed during field	
		work and make use of	
		supervision	
III Semester	INDIA &	1. Able to understand the	
	INDIAN	philosophy and the	
	CONSTITUTION	structure of the	
	(OE - AECC)	Constitution.	
		2. Measure the powers,	
		functions and limitations	
	1	<u>l</u>	

of various offices under the Constitution.	
the Constitution.	
2 Domanstrate the volume	
3. Demonstrate the values, ideals and the role of	
Constitution in a	
democratic India.	
IV Semester BSWBWCN 401 1. Able to demonstrate	
ability to be able to	
Social Work conduct research, and to	
Research do this with an	
understanding of the	
application of different	
methods and tools	
methods and tools	
2. Able to develop skills of	
data collection,	
organization,	
presentation, analysis	
and report writing	
IV Semester BSWBWCN 402 1. Able to understand the	
Human Rights concept of human rights	
and Social Justice and its significance to	
the Social Work	
Course Objectives profession	
2. Able to understand the	
application of human	
rights to the various	
practice domains of the	
profession	
3. Able to Understand on	
Human Right based	
Social Work	
interventions	
IV Semester BSWBWPN 403 1. Able to understand	
Field Work social work	
Practice 4 interventions in different	
areas	
2. Able to prepare work	
plan and its execution	
plan and its execution	

	1		
		3. Able to form small	
		groups with different age	
		and gender groups	
		4. Able to apply	
		programme media skills	
		in social work	
		interventions	
		5 Abla ta vymita mua agg	
		5. Able to write process	
		oriented reports and	
		engage in meaningful	
		discussions during	
		supervisory conferences	
		6. Able to develop the	
		ability to link theoretical	
		<u> </u>	
		learning with practical	
		realities	
V Semester	BSWBWCN 501	1. CO1. Develop	
		understanding of	
	Social Policy,	concept of social policy	
	Planning and		
	Development	and social planning; and	
		2. CO2. Understand	
		Concept and nature of	
		Development and	
		Human Development.	
V Semester	BSWBWVN 501	1. CO1. Know concept and	
	NGO and Project	basic features of NGO	
	Formulation	and project formulation	
	1 of mulation	2. CO2. Develop legal	
		understanding about the	
		organization	
		organization	
		3. CO3. Understand how	
		knowledge of project	
		formulation is helpful	
		for Social Workers	
V Semester	BSWBWEN 501	1. Understand various	
v Schlester	DS VY D VY EIN SUI	environmental issues	
	Environmental	environmental issues	
	Social Work		

		2. Understand strategies of	
		managing environmental	
		degradation	
		3. Apply knowledge of	
		Social Work to protect	
		environment	
V Semester	BSWBWCN 502	1. Gain opportunity in	
	Areas of Social	understanding	
	Work Practice- 1	contemporary fields of	
	work Practice- 1	social work profession	
		2. Influence to practice,	
		analyse and evaluate	
		social work	
		interventions	
V Semester	BSWBWCN 503	1. Develop an	
V Semester	BS WE WEIT 303	understanding of the	
	Social Work	_	
	Perspectives in	Holistic concept of	
	Health Care	Health	
		2. Develop an	
		understanding of the	
		health situation in India.	
		3. Promote healthy lifestyle	
V Semester	BSWBWPN 504	1. Familiarization with	
. 2011102001	DS (VD (VIII CO)	agency, its objectives	
	Social Work	and Programmes.	
	Practice -V	and Programmes.	
	(Practical)	2. Familiarization with	
		target group and prepare	
		its profile.	
		2 Evalue and a 1 41	
		3. Explore and analyze the	
		needs, problems and	
		resources of individuals,	
		groups and communities.	
		4. Organize activities with	
		groups of women,	
		children, youth and other	
		1	
		population groups.	

	T	- 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	T
		5. Mobilize resources and develop network with other institutions/organizations working in the neighbouring areas.	
		6. Understand power structure of surrounding area and of local Community leaders and stakeholders.	
		7. Practice Methods of social work – Social Case Work, Social Group Work, Community Based programmes	
V Semester	SEC- 5 Employability skills	Able to communicate effectively in writing, verbally, and non- verbally. they also learn to follow communication etiquette and active listening techniques.	
		2. Able to analyze to analyze facts, define problems, and develop creative solutions. They also learn to solve problems independently and in teams.	
		 3. Able to understand the difference between a job and a career, and how to prepare a career development plan. 4. Learn to work 	
		collaboratively with others in a team. They	

	<u> </u>	also learn to build and	
		lead teams for problem	
		solving.	
		5. Learn to develop	
		leadership qualities and	
		practice them.	
		6. To develop critical	
		thinking skills.	
		_	
		7. Learn to develop self-	
		learning habits for	
		continuous development.	
		8. Learn to appreciate the	
		rights of others and	
		moral and social values.	
		9. To develop skills and	
		preparedness for	
		aptitude tests.	
		-	
		10. To master presentation	
		skills and are ready for	
		facing interviews	
VI Semester	BSWBWCN 601	1. Understand concept of	
	Social Welfare	social welfare and social	
	Administration	welfare administration	
	Administration	2. Understand the Structure	
		and components of	
		social welfare	
		administration	
		3. Understand the	
		relevance of social	
		welfare administration	
		for social workers	
VI Semester	BSWBWCN 602	Develop understanding	
		of different areas of	
		social work practice like	
		correctional social work,	
		medical, psychiatric and	
		school social work	

		2. Know about the community and ecological development 3. Understand the role and functions of social workers in different settings
VI Semester	BSWBWCN 603 Social Work with Marginalized Populations	1. Demonstrate familiarity with issues and concerns of the marginalized and a perspective towards their issues and problems 2. Understand constitutional provisions and legal framework available for the marginalized groups
		3. Understand the scope of government and non-governmental efforts in welfare, developmental and empowerment of marginalized sections
VI Semester	BSWBWPN 604 Social Work Practice -VI	1. Organize activities with groups of women, children, youth and other population groups. Mobilize resources and develop network with other institutions/organizations working in the neighboring areas. 2. Understand power structure of surrounding area and of local community stakeholders.

	Т	2 6 1	
		3. Seek	
		client's/beneficiary's	
		and/or people's	
		participation in utilizing	
		agency and or	
		community services.	
		4. Continuous self-	
		assessment of field work	
		experiences and	
		professional growth.	
		5. Prepare and submit field	
		work records for all the	
		process involved.	
		process involved.	
		6. Integrate theoretical	
		knowledge with field	
		practice i.e. methods,	
		principles, skills and	
		techniques of social	
		work etc.	
		7. Practice Methods of	
		social work – Social	
		Case Work, Social group	
		Work, Community based	
		programmes	
		8 Conduct a community	
		8. Conduct a community survey	
		•	
VI Semester	BSWBWEN 601	1. Understand how to	
	Dissertation	initiate and conduct	
	2 10001 0001011	research	
		2. Understand research	
		skills of identifying and	
		selecting topic for	
		research	
		3. Develop skill of doing	
		3. Develop skill of doing literature review and	
		data collection and	
		accompanying	
		drawbacks	
		GIUW OUOKS	

4 Understand different	
1	
research and associated	
limitations	
5. Do data analysis and report writing CO6. Understand ethics involved in Research	
1. Understand the	
conceptual framework of CSR	
2. Understand the legal	
framework of CSR	
3. Understand the CSR practices and role of Social Workers	
	 5. Do data analysis and report writing CO6. Understand ethics involved in Research 1. Understand the conceptual framework of CSR 2. Understand the legal framework of CSR 3. Understand the CSR practices and role of

Hospitality Science

Semester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
I	Food production theory 1	1.To understand the basics of food production and the various jargons associated with it	Students can understand the basics of the subject by knowing the food production terms and practical exposure in cooking.
2.	Food and beverage service -1	To know the essentials of food and beverage service and the terms related to it.	Students learn about various skills and practical sessions are being conducted to enhance student knowledge in the subject
3.	Front office Theory	To understand front office as core department	Practical sessions are conducted and students are educated with

	in a hotel and its working	latest trend pertaining to the subject.

Bachelor of Visual Art

Semester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
I and II	Introduction to Basic	1.Students Can Explore	Students are eligible to
Semester	drawing -1	Creative Ideas Through the	convey the Social and
		Basic lines.	Reality Harmony on their
			work.
III and IV	Design/Painting	1.Students can compose	Students are eligible to do
Semester		well Design/composition	their own commercial
		with Basic Fundamentals	works.
		and Ethics.	

V and VI semester	Drawing/Painting	1.Students are able to understand morality of society and they can	Students can do the drawings /Paintings and logo,Designs for Reputed
		implement that in their works	Companies.
V/II 1 V/III	D : /D :	10, 1, 0, 1, 1	Ct 1 t A D 1 t
VII and VIII	Drawing / Design	1.Students Can implement	Students Are Ready to
Semester		Their own Ideas and Style	Start Their Professional
		in Their works.	Works.

Chemistry (UG)

Semester	Course/ Subject	Course outcome	Program outcome
			(summary of all six
			semesters)
I	Chemistry paper -I	1.Understand the	1.Get the broad and
	USCCHC11	principle of	balanced knowledge
	o seemen	chemical kinetics	of chemistry.
		and different	2. Get the
		theories of reaction	knowledge and skill
		rate.	towards employment
		2.enrich the	and higher
		knowledge of	education.
		concept of organic	3.Develop
		reaction and	-
		techniques of	Practical akill which
		writing the reaction	can be applied in
		mechanism	actual practice.
		3.Analytical skill	
		involved in	
		volumetric analysis.	
		4.Basics of	
		analytical methods	
		and chromatography	
		technique.	

II	Chemistry paper -II	1. Give information about the chemicals	1. molecular structure of solids
		used in industry.	and their properties.
		2.understand the properties and characteristics of s	2. Different types of liquid crystal and their properties
		and p block elements.	3.general characteristics and
		3.give information about the structure	properties of s and p block elements
		and properties of solids, liquids, crystals and gas.	4.Applications of chemicals in daily life
		4.Basic concepts of electrophilic and nucleophilic reaction.	5.organic reaction pathway and writing the reaction mechanism
III	Analytical and Organic chemistry BSCCHPN303	1. Understand the quantitative analysis and the instrumental methods, 2.chromatographic techniques and importance of stereochemistry in predicting the structure and properties of organic molecules.	1. understand the importance of fundamental law and validation parameters. 2. understand the requirement for chemical analysis by paper, thin layer and column chromatography. 3. explain mechanism for different reactions.
IV	Inorganic and physical chemistry-	1.understand the structure and bonding in different crystals	1.Predict the nature of the bond formed between different elements
		2.diiferent laws of thermodynamics	2. apply adsorption as a versatile method

		3. principle of chemical kinetics and different theories of reaction rate. 4. Adsorption isotherm and adsorption by liquids.	for waste water treatment. 3.Know different types of electrolytes, usefulness of conductance and ionic mobility measurements.
V	Inorganic and physical chemistry - V BSCCHCN501 Organic chemistry and spectroscopy BSCCHCN502	1.Quantum Chemistry and Chemical dynamics. 2.To know structure and bonding in diboranes. 3. Understand the concept heterocyclic compounds, vitamins and UV Visible	1.Enrich the knowledge about the different spectroscopic studies. 2. application of radiation chemistry 3.different types of bonding involved in electron deficient compounds. 4. importance and synthesis of different types of vitamins.

ECONOMICS

Semester	Course/ Subject	Course outcome	Program
			outcome(summary of all six semesters)
			,
FIRST	Foundations of	CO1 Comprehend new	Upon completion
SEMESTER	Microeconomics	concepts, vital to the	of this BA
		understanding of economics	Economics
		of information, property rights	programme, a
		and public policy.	student will have
			the necessary skills
			to understand and
		CO2.Adequate knowledge of	analyse in a logical
		production functions,	manner all major
		production techniques and	economic
		cost concepts in different time	phenomena. A
		periods.	student will be able
			to analyse
			government
		CO3.Familiarization with	policies and
		theoretical aspects of input	regulations, and
		markets with regard to their	demonstrate their
		pricing and market behaviour	significance.
		in order to facilitate	Knowing how and
		replication in the practical	digital economy
		field.	functions, and how
			decisions are made
			by consumers,
			producers, and
			regulators, the
			student will have
			the necessary skills
			to identify, analyse,
			and solve problems
			in a logical and
			efficient way. The
			students will
			understand
			theoretical aspects
			of economic
			Development and
			Growth and they

can be well familiar with rural Economy. Students can work efficiently in the field of banking, finance, industry, farming, consumer rights, production, environmental issues, sustainable development, research and trade. The programme provides the basic ingredients of economic theory and the opportunity to learn how to process and analyse economic data based on sound statistical principles, in order to arrive at economically meaningful conclusions. The programme also strives to train the students in data collection, presentation, interpretation, and statistical techniques to test the validity of economic modelling.

Students will:

	1. Get an
	understanding of
	basic economic
	theory;
	2. Learn the
	mathematical and
	statistical
	techniques
	necessary for a
	proper
	understanding of
	the discipline;
	3. Get an
	introduction to real
	world economic
	issues and
	problems facing the
	country and the
	world;
	4. Gain an
	understanding of
	proper policy
	responses to
	economic
	problems;
	5. Get trained to
	collect primary data
	and learn sampling
	techniques;
	6. Learn to use
	scientific empirical
	methods to arrive at
	conclusions about
	the
	validity of
	economic theories;
	7.Get trained in the
	field of National

			Income, Business cycle and demographic features. 8. Get trained in the art of economic modelling.
SECOND SEMESTER	Foundations of Macroeconomics	CO1. A comprehensive understanding of the concept of GDP and GNP, enabling them to analyze the status of the economy, its growth over time in a compatible manner.	
		CO2. Introduction to the basics of monetary economics which will enable them to understand the debate between the monetarists and the Keynesians at a higher level.	
		CO3. Understanding of the theories that explain one of the conditions of market economy that comes in the form of inflation. Comprehension of the significance of price stability and the socio-economic costs of its absence.	
Third Semester	Mathematics for Economics	After the successful completion of the course, the student will be able to: CO1. Perform basic operations in Sets and functions and Matrix algebra.	

		CO2. Calculate limits, derivatives of Economic functions and identify the nature of relationship. CO3. Calculate maxima and minima of function	
Third Semester	International Economics(OE)	CO1. Familiarise the students with international economics.	
		CO2. To develop conceptual understanding of the key concepts and practical applications of international trade.	
		CO3. Knowledge on trade theories helps to know its practical relevance in international trade.	
		CO4. Awareness on trade policies provides an insight on conflicting interests within an economy regarding trade liberalization.	
		CO5. Knowledge on MNCs and international capital movements.	
		CO6. To provide insights on the role of WTO and BRICS in liberalising trade and increasing the volume of global trade	
Fourth Semester	Statistics for Economics	After the successful completion of the course, the student will be able to:	
		CO1. Understand the nature of Data and their presentation.	
		CO2. Calculate Descriptive statistics like measures of	

		central tendency and	
		dispersion.	
		CO3. Apply statistical techniques like correlation and regression in Economic anlysis	
Fifth Semester	Public Economics	After the successful completion of the course, the student will be able to: CO1. Understand introductory Public Finance concepts. CO2. Study the causes of market failure and corrective actions.	
		CO3: Understand the impact, incidence and shifting of tax.	
		CO4: Study the economic effects of tax on production, distribution and other effects.	
		CO5: Enable the students to know the principles and effects of public expenditure.	
		CO6: Understand the economic and functional classification of the budget; Balanced and unbalanced budget.	
		CO7. Understand the Burden of Public debt and know the Classical/ Ricardian views, Keynesian and post- Keynesian views	
		CO8. To acquaint with the advantages and disadvantages of Deficit Financing.	

Fifth Semester	Development	After the successful	
	Economics	completion of the course, the	
		student will be able to:	
		CO1. Understand the basic	
		concepts and measurements of	
		Development.	
		CO2. Learn some classical	
		and partial theories of	
		Development economics and identify the difference.	
		CO3. Identify the difference	
		between Developed and	
		Developing Countries.	
		CO4. Analyse and tackle the	
		Development issues	
		effectively.	
Fifth Semester	Indian Banking	After the successful	
	and Finance	completion of the course, the	
		student will be able to:	
		CO1. Understand the structure	
		of Indian banking and the role	
		of banks in monetary policy.	
		CO2. Analyze the functioning	
		of banks and different types of	
		accounts and other services	
		offered by banks.	
		CO3. Evaluate recent	
		developments in the Indian	
		banking sector, including digital banking, payment	
		banks, and non-performing	
		assets.	
		CO4. Describe the overview	
		of the Indian financial system,	
		including financial markets,	
		financial instruments, and	
		financial regulation.	

		CO5. Analyze the challenges faced by Indian banks and the implications of banking reforms for the Indian economy. CO6. Develop critical thinking and analytical skills in evaluating various financial products and services banks and capital markets offer.	
Sixth Semester	International Economics	After the successful completion of the course, the student will be able to:	
		CO1. Understand the international trade theories and their application in international trade	
		CO2. Explain the concept of terms of trade and demonstrate the effect of trade barriers; and display the ability to analyse the stages of economic integration.	
		CO3. Understand the concept of BoP and assess the BoP position and examine the changes in forex rate.	
		CO4. Analyse the role of International trade and financial institutions.	
		CO5. Demonstrate good interpersonal and communication skills through class participation and contributing to critical discussion on trade issues.	

Sixth Semester	Indian Public	After the successful	
	Finance	completion of the course, the student will be able to:	
		CO1. Understand the structure of Indian Public Finance.	
		CO2. Enable the students to know the Source and nature of public revenue and expenditure.	
		CO3. Understand the Budget and different concept of deficits.	
		CO4. Know the Public debt and its management.	
		CO5. Understand the fiscal and monetary policy and their tools and importance.	
		CO7.To enable the students to know the Indian federal financing system and Financial Commissions.	
Sixth Semester	Environmental Economics	After the successful completion of the course, the student will be able to:	
		CO1. Understand how economic methods can be applied to environmental issues facing society.	
		CO2. Examine the linkages between Environmental Degradation and Economic Development.	
		CO3. Develop an informed view regarding the potential of economics to help societies achieve their environmental goals.	

CO4 D 4 4 1
CO4. Demonstrate good
inter-personal and
communication skills through
writing an essay and
contributing to critical
discussion.
CO5. Analyze environmental
problems and to assess
environmental policies.

FOOD NUTRITION AND DIETETICS (UG)

Sem	Course/	Course outcome	Program outcome
ester	Subject		(summary of all six
			semesters)
I	FOOD SCIENC E-I	1.Understand factors to be considered during selection of basic commodities, raw and processed and various aspects of their products and distribution 2.Comprehend the principles underlying changes in overall quality of food characteristic during cooking 3.Evaluate food products based on their quality characteristics 4. Assessment methods and media of cooking, nutritive value and processing, storage, preservation of both plant and animal based food	1. Scientific Knowledge: Apply the knowledge of food science, chemistry, nutrition, physiology and dietetics in a competent manner to innovate in the field of nutrition and dietetics. 2. Design and Development of Solutions: Design nutrition and dietetics strategies as per the Specified requirements of regulatory bodies related to food, health, environment, hospitals, families And communities. 3. Problem Analysis: Identify, formulate, rationalize, and analyze nutrition-related problems in

The community and hospitals so as to reach substantiated diet-based conclusions using the Principles of food nutrition and dietetics. 4. Modern Tool usage: Create, select, and apply modern nutrition and dietetics tools, techniques, And resources of relevance in nutrition and dietetics. 5. Environment and Sustainability: Evolve nutrition and dietetics approaches in the context of Food security and environmentally sustainable development goals. 6.Teamwork: Function objectively as an individual and as a member in diverse teams. 7. Communication: Effectively document and communicate nutrition and dietetics approaches And plans with individuals, patients and communities. 8. Lifelong learning: Independently engage in continuous learning to adapt to newer concepts In nutrition and dietetics.

	HUMAN	1. Understand the homeostatic	
	PHYSIOL	status of the human body	
	OGY-I	2. Comprehend the	
		physiological process and	
		functions of various vital	
		organs as applicable to human	
		nutrition	
		3. Apply the knowledge of	
		physiological states to	
		therapeutic diets	
		Assess malfunctions of vital organs	
		or systems	
	HUMAN	1.Comprehend the nutritional	
	NUTRITI	classification of food and methods of	
	ON-I	assessing nutritional status and	
		energy requirements. 2.Understand the functions and	
		sources of nutrients.	
		3. Apply the knowledge of human	
		nutrition in maintenance of good	
		health for the individual and the	
		community.	
		4. Assess the factors affecting	
		availability and requirements of nutrients.	
II	HUMAN	1.Understand the functions and	
	NUTRIT	sources of nutrients	
		2. Apply the knowledge in	
	ION-II	maintenance of good health for	
		individual and the community.	
		3.Evaluate factors affecting	
		availability and requirements of	
		minerals and vitamins	
		4. Assess the role of water and	
		fibre in nutrition	
	HUMAN	1. Understand the role played by	
	PHYSIOL	hormones in metabolism and	
	OGY-II	associated	
		disorders.	
		2. Comprehend the structure and	
		function of neuromuscular systems	
		and	
		Disorders	

		3.Understand excretory physiology	
		and its importance in nutrient	
		retention	
_	FOOD	.Understand methods used in	
	SCIENCE-	processing	
	II	Of milk and milk products	
		2. Assess the nutritional qualities of	
		egg and changes in characteristics	
		during	
		cooking.	
		3.Evaluate composition of meat,	
		processing and storage	
		4.Enumerate the nutritive value of	
		eggs, fish and the use of major spices	
		in processing	
III	LIFESP	1.Comprehend the concept of a	
	AN	balanced diet	
	NUTRIT	2. Understand the role of	
	ION-I	nutrition in growth and	
	101(1	development processes from	
		birth till adolescence	
		3.Formulate nutritional needs of	
		people at different stages of	
		growth	
		4.Formulate diets for various	
		nutrition-related	
		health conditions	
	DIETETIC	1.Know the principles of diet therapy	
	S-I	2.Understand the modifications of	
		normal diet for therapeutic purposes	
		3.Learn the role of a registered	
		dietician	
		4. Identify the roles of others who	
		collaborate in delivery of food and	
		nutrition services	
	FOOD	Understand the nature of	
	MICROBI	microorganisms involved in food-	
	OLOGY-1	spoilage, food infections and	
		intoxication	
		3. Comprehend the significance of	
		microorganisms and methods	
		used in food industry to sterilize	

		Discourse the relevence of	
		. Discuss the relevance of	
		bacteria in food and understand	
		lifecycle of viruses 4. Appreciate the importance of	
		yeast and the problem of molds	
		in food.	
		5.Understandthe important	
		pathogens and spoilage	
		microorganisms in foods, and	
		the most likely sources of these	
		organisms.	
		6.Evaluatewaterqualitybasedon	
		microbiologicalcontentandappl	
		ytreatmentprocedures.	
		Apply preventive measures	
		based on an understanding of	
		the factors affecting growth of	
		microorganisms in food 8.	
		Describe food contaminants,	
		food poisoning and foodborne	
		infections caused by	
		microorganism	
IV	DIETETI	1. Understand the principles of	
	CS-II	diet therapy for various	
		ailments and diseases	
		2. Workoutthemodificationsofno	
		rmaldietfortherapeuticpurposes	
		3. Assess food allergies,	
		intolerance and nutrient-drug	
		interactions For appropriate	
		dietetics approaches	
		4. Evaluate nutritional	
		requirements for deficiencies	
		and develop suitable dietary	
		treatments	
	LIFESPA	Understand the process of growth	
	N	and development and the concept of	
	NUTRITI	growth promotion	
	ON-II	2.Comprehendnutritionalneeds at different stages of growth.	
		different stages of growth.	

	3. Evaluate nutritional needs during	
	pregnancy and lactation	
	4. Apply nutritional requirements for	
	the aged taking their physiology into	
	account	
QUALITY	. Understand international and	
CONTRO	national food laws, regulations and	
LL-I	standards governing the safety of the	
	food from field to fork	
	2. Able to locate and interpret	
	government regulations regarding the	
	manufacture and sale of food	
	products.	
	3. Describe the use of adulterants	
	added to foods	
	4. Discuss the application of	
	biotechnological techniques and	
	evaluate packaging requirements of	
	diverse foods	

HINDI

Sem ester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
I	HINDI BA/BSW/ BHRD/BVA UASHDL11 HINDI BA/BSW/ BHRD/BVA UASHDL21	1.Understanding society and life through story reading. 2.The ability to write a story will arise. 3.The language skill will be improved by grammar. 4.Students will develop creativity. 1.To generate interest in reading poetry. 2.Increase in imagination ability. 3.Knowledge of Rasa, Chand and Alankar.	1.Students will become sensitive, valuable by understanding the expressions of poetry. 2. Will be familiar with the rich history of Hindi literature. 3. Students will be able to acquire literary words.
I	HINDI	4.Development of translation skills.5.Knowledge of various languages.1.Language accuracy through reading.	4.We can define program outcomes as the skills/knowledge

	BCOM	2.To develop the skill of One act play writing ability.	gained from a program and course learning objectives as skills/knowledge gained from a course.	
	UCMHDL11	3.Understanding of society through One		
		act plays. 4.Helpfull in getting government job.		
		5.Learning office correspondence.	5.We can continue	
II	HINDI	1.Building linguistic capacity.	with module, unit, or weekly learning	
	BCOM	2.Building self-confidence through story reading.	objectives as skills/knowledge	
	UCMHDL21	3. Mutual identity in society and	gained from that module/unit/week.	
		commerce.	6. Learning Hindi	
Ι	HINDI	1.To awaken communication skills towards literature.	opens doors to effective	
	BSC(ALL)	2.Expansion of moral values.	communication with	
	USCHDL11	3. Interest in poetry and linguistics.	millions of people. It allows you to interact	
		4.Different language usage.	with native Hindi speakers in India or	
II	HINDI	1.To generate interest in literature.	diaspora communities worldwide. This can	
	BSC(ALL)	2.Preparing for government jobs.	enhance travel	
	USCHDL21	3.To encourage story writing.	experiences, foster friendships, and	
I	HINDI	1.Understanding the intersection of	facilitate cultural	
	BCA	language and technology	exchanges. 7.	
	UCAHDL11	2.Relation of moral values with science.	-	
		3. Understanding the uniqueness of human life.	Learning outcomes describe the measurable skills,	
II	HINDI	1.To develop moral values through	abilities, knowledge	
	BCA	poetry	or values that students should be able to	
	UCAHDL21	2.To motivate for media writing	demonstrate as a	
Ι	HINDI	1.Knowledge of Hindi story literature	result of a completing a course. They are	
	BBA		student-centered	
	UBBHDL11	2. Development of life values	rather than teacher- centered, in that they	
	****	3.Motivated towards language fluency.	describe what the students will do, not	
II	HINDI	1.To generate interest towards literature	what the instructor	
	BBA	2.Preparing for government job.	will teach.	
	UBBHDL21	3.Tends to be self dependence		

III	HINDI	1.To generate interest in reading prose	8. A Degree
	BA/BSW/	2.To generate awareness	Communication along
	BHRD/BVA		with academic qualification in Hindi
		3.Development of language skills	is an added advantage
	BASHDLN301/		for job seekers. One
	BSWHDLN301/ HRDHDLN301/		can serve the
	BVAHDLN301		mediums of Radio / TV / Cinema as a
13.7		1.1	Script Writer /
IV	HINDI	1.Learning the art of poetry reading	Dialogue Writer /
	BA/BSW/	2.Office tact skills	Lyricist. This field
	BHRD/BVA	3. Awareness of social norms	necessitates a natural
	BASHDLN401/		and artistic mastery of creative writing.
	BSWHDLN401/		
	HRDHDLN401/		9. Meeting people to broaden your
	BVAHDLN401		professional network.
III	HINDI	1.To generate interest in reading the	10.Cognitive
	BCOM	story	development,
		2.Identification of the real and ideal of	creativity, and critical
	BCMHDLN301	the life through prose	thinking.
		3.Building language skills through	11.Career
		prose	opportunities such as,
IV	HINDI	1.Dialogue writing and dialogue skills	employment by international
	BCOM	2. The ability to conduct a conversation	businesses,
	BCMHDLN401	3.To build self confidence	Intercultural business opportunities,
		4. Employment opportunities in Hindi	Personal and
III	HINDI	1.To develop self confidence in students	professional
	BSC(General) BSCHDLN301	2.To develop interest in creativity	advancement.
	BSCHDLN301	3.To increase understanding of dialogue writing	
		4.To inspire towards play writing	
IV	HINDI	1.Awareness of social norms	
	BSC(General)	2.Knowing the importance of language	
	BSCHDLN401	3.Correct use of language	
III	HINDI	1.To develop self confidence in students	
	BSC(Prof)	2.To develop interest in creativity	
	1		I

IV	FNDHDLN302/ BFDHDLN302/ BHSHDLN302/ BSAHDLN302 HINDI BSC(Prof)	3.To increase understanding dialogue writing 4.To inspire towards play writing 1.Awareness of social norms 2.Knowing the importance of language	
	FNDHDLN402/ BFDHDLN402/ BHSHDLN402/ BSAHDLN402	3.Correct use of language	
III	HINDI	1.To gain the ability to compose poetry	
	BCA	2.To develop the habit of reading poetry	
	BCAHDLN301	3. Improvement in reading and writing skills	
IV	HINDI BCA BCAHDLN401	1.Employment of opportunities in Hindi language 2.Application of Hindi 3.Awareness towards social problems	
III	HINDI	1.To gain the ability to compose poetry	
111	BBA	2. To develop the habit of reading poetry	
	BBAHDLN301	3. Improvement in reading and writing skills	
IV	HINDI	1.Bringing social awareness	
	BBA	2.Anti-corruption	
	BBAHDLN401	3. Learning office correspondence	
		4.Proficiency in using language	

HISTORY

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
I semester	India in the early Historical Period (up to 300 AD)	 Understand the historical writing on ancient India, contribution to historical writing began in India, truth established, views and different approaches on writings. Able to understand the indigenous and foreign source materials available for writing history Understand how a man lived in Palaeolithic, Mesolithic and Neolithic periods and important sites and tools of these ages in India Understand the salient features of Indus civilization Evaluate the feature of Buddhism and Jainism Visualize the administration of Maurya's and art and architecture 	we can say that History has surrounded us and waits for the right time to explode. It never lets one to forget past easily. Present has its own need and facilities. Some try to forget History where as some we History as per their necessity. All the sage and saints through their saying portray history is very good. It means that everyone is utilizing history according to their perspective only thing is we don't realize it as it is past and parcel of our life. When it becomes violent and aggressive, then we realize that past is still alive and exists. None of the countries can history of its own and make a new beginning. In this way, History always is alive giving a direction to presents hence history cannot be considered as only a syllabus to study. Countries may be ruled or became independent anytime

II Semester	Indian in the early Medieval Period (A.D 300- 1300)	• Identify the administration of Guptas and their contribution to Nalanda University. • Understand reason for the emergence of feudalism in India • Understand the contribution of the Chalukyas, Rashtrakutas, Pallavas and Cholas to the field of literature, culture, religion, art and architecture	but the feeling of patriotism remains in the hearts of the people. History provers people about going independence whenever they are ruled by. One historical truth is past condition creating present and it can give new birth to future and so it is important to remind it. Students can avail good opportunities to work in the field of archaeology, education and research.
		literature, culture,	
		• Examine the conquest of Sind and its effects on India	
		• Understand the nature of Invasion of Ghazni and Ghor and their impact in terms of politics, culture and religion.	

III Semester	MEDIEVAL INDIA (A.D. 1206-1556)	• Understand the foundation of the Delhi Sultanate and their administration	
		• Recognize the socio, economic and religious conditions under Vijayanagar	
		• Identify the condition of India under the Mughal Empire	
		• Explain the administration, art and architecture of Mughals	
		• Understand the rise of the Marathas and the contribution of Shivaji	
IV SEMESTER	EARLY MODERN INDIA (A.D. 1556- 1856)	• Understand how Mughals consolidated their relations with Gujarat, Rajputana, Deccan and Bengal	
		• Evaluate the religious policy of Akbar	
		• Estimate Mughals contribution to the field of art and architecture	
		• Analyse Mughal nobility- Mansabdari and jaghirdar systems-Army- Revenue system	
		• understand the advent of Europeans and their administration	

	1		
		 Understand the establishment of 	
		British paramountcy	
		-	
V SEMESTER	COLONIAL AND	• To Understand the	
	NATIONALIST	discontent of Indians	
	INDIA (A.D. 1857– 1905)	which got expressed during the middle of	
	1703)	the 19th century	
		• Examine how	
		nationalism	
		developed among Indians during the	
		British rule	
		• To study the	
		colonial system that dominated social life	
		of Indians	
		• Understand the	
		evolution of	
		governmental system and control	
		over princely states	
		– police, civil	
		service, judiciary	
		and economic	
		measures- inter-state	
		and foreign policy	
		• Understanding the	
		service of viceroys	
		to India	
V SMESTER	HISTORY OF	Realize the causes	
	MODERN EUROPE	and results of French	
	(1789-1990)	Revolution and the	
		achievements of	
		Napoleon Bonaparte	
		 Visualise the 	
		importance of revolt	
		of 1830 and 1848 in	
		France and the	
		efforts of Bismarck	
		for the unification of	
		Germany	

VI SEMESTER	FREEDOM MOVEMENT IN INDIA AND ITS LEGACY (A.D. 1905 – 2000)	Understand the causes and results of the first world war Examining the Nazism and Fascism in Germany and Italy Understand the causes and results of second world war and the establishment of UNO Analyse the genesis of cold war between USA and USSR Understanding the factors leading to the end of cold war Understanding the factors leading to the end of cold war Understanding how nationalism in India led to independence Able to understand the main factors that led to the independence of India from British Understanding of some outbursts of discontent of Indians during the freedom struggle Understand the role of moderates and extremist in the freedom movement Evaluate the integration of Indian states and Sardar Vallabai Patel's effort for this	
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		• Able to	
		understand the internal and external policy of Jawaharlal Nehru, Lal Bahadur Shastri and Indira Gandhi	
		• Understand the internal and external polices of Rajiv Gandhi, V.P.Singh and Narasimha Rao	
		• Identify the contemporary challenges like terrorism, liberalization, privatization and globalization	
VI SEMESTER	MODERN KARNATAKA (A.D. 1565-1956)	• Understand about the Nayakas of Keladi that emerged as one of the important splinter states during and after fall of Vijayanagar empire in the south western part of Karnataka and their contribution to Karnataka • Understand the most powerful and famous state political structure that came into existence is the Woodyear of Mysore. • Analyse the rise and fall of Hider Ali and Tippu Sultan and their struggle against British	

• Understand the echoes of 1857 movements and different stages of freedom struggle in	
Karnataka • Understand the colonial rule and	
anti-British struggle in Karnataka.	
 Identify the political division of Karnataka before independence 	
• Examine the role of press, writers, organization and political leaders in the unification of Karnataka	

JOURNALISM - UG

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
I	Journalism - (Introduction to mass communication)	 Understand and appreciate various dimensions of mass communication Develop an understanding of the fundamental concepts of Journalism Analyse the scope and various dimensions in Journalism Discuss the recent trends in Mass Medi 	1. The programme aims to churn out responsible media professionals who would contribute positively to the
II	Journalism - (Media Practices)	 Students will be able to Understand the basic concepts of computer Develop an understanding of the applications of computers in print and electronic journalism Get acquainted with internet applications Apply information technology skills in print and broadcast projects Demonstrate web-based broadcasting skills 	society. 2. The programme aims to facilitate better career opportunities for all those students of this course and get them ready to tackle challenges in the professional setup. 3. The programme aims to strike a balance between the dynamic working environment and professional
III	Journalism (News reporting and analysis)	 Organize and articulate new stories understanding the concepts, structure, and types of news. Evaluate and analyse the importance of sources and types of information that provide the basis for news stories. Formulate skills for news selection, processing, prioritizing and finally, designing the end product, identify the basic ethical issues confronting editors and can practice fair play 	ethics in the field of Journalism

IV	Journalism (News processing and editing)	2.	Understand the role of editors. Edit copy precisely and consistently, using correct grammar and eliminating libellous passages and items in poor taste. Be able to write clear and accurate headlines, decks, and captions. Be able to design basic news pages. Understand the basic ethical issues confronting editors	
V	Journalism (Introduction to Communication)	 1. 2. 3. 5. 	Demonstrate knowledge and understanding of the major communication theories and key concepts Relevant to the field of communication. Demonstrate awareness of the diversity of approaches to understanding communication, media and culture in both historical and contemporary contexts, and of the uses and significance of those approaches. Demonstrate understanding of the dynamics of media discourses in the shaping of culture and Social attitudes. Select and apply arguments and positions related to media theory to examine a contemporary issue Or phenomenon in concerning the mass media Demonstrate knowledge of the regulatory frameworks that affect media and cultural	

		production and
		production and consumption
		Consumption
V	Journalism (Fundamentals of Radio & TV)	 To introduce the concepts, technology and skills behind audio and video production To introduce the students TV as a medium To highlight the techniques of program production in Radio To highlight the
		techniques of program production in TV 5. To discuss the past and present status of these two media
VI	Journalism (Introduction to digital media)	1. The student will discuss the influence of target audience on digital media production with identify deployment strategies for various types of digital media formats. 2. The student will be able to know about the basics of photography and videography The student Will explore a variety of programs used to create digital media along with team teamwork in digital media production. The student will create a simple multimedia presentation.
VI	Journalism (Advertising and corporate communication)	 To introduce students to basic concept of advertising To familiarize the students with the concept of copywriting as selling through writing To learn the process of create in original, strategic, compelling copy for various media

4.	To train students to	
	generate, develop and	
	express ideas effectively.	
5.	Understand the basics of	
	advertising and script	
	writing.	

KANNADA

Seme ster	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
I	B.A Kalagangothri UASKNL11 B.com Vanijyagangot hri 1 UCMKNl11	1.Moral values, truthfulness of Dharmaraya 2. Simple way of Devotion 3.Patriotism 4. Noble values of Duryodhana 1.Creating Interest of Kannada Language and literature to the Student 2.Opportinitis of study Halegannada, Nadugannada and Hosagannada Prose 3.Introduction Of Scientific essays and merits and demerits of onlone market.	after completion of the Course, students will be able to; • Speak fluently and write effectively in Kannada. Gain cultural knowledge • Gain specific knowledge on poetry, prose and grammar of the language and literature.
I	B.Sc Vijhana Gangothri USCKNL11	literature tudent ls, Drama etc.	
I	B.C.A Ganaka Gangothri	Introduction of the History of Kannada literature.	

	UCAKNL11		
		2. Consequence of tWar	
		Creating awareness of the Natur	
I	B.B.A Nirvahana Gangothri UBBKNL11	1 creating human love, harmonious thinking 2. Discernment of the nature of devotion 3. Equality Value Proposition	
II	B.A kalagangothri 2	Students came to know noble values of Duryodhana Imporatance of Ragale Literature Beauty and culture of the village	
II	B.com Vanijya Gangothri 2	Introduction of Halegannada, 2. Introduction of Poornachandra Tejaswi's kiragurina gayyali 3. Introduction of 'lalitha Prabandha'	
II	B.Sc Vijhana Gangothri 2	Introduction of every step of prose Giving knowledge about literature and science, so that create rational thinking Explaining the different types of Dalit thought	
II	B.C.A Ganaka Gangothri 2	Introduction to the ancient poets Ranna and Pamma 2. K 3. Students getting the knowledge of 'Hosagannada Kavya'	
II	B.B.A	1.Awareness of women's sensitivity	

	Nirvahana	2. Awareness of folk heritage	
	Gangothri -2	3. Awareness about the Nature	
		4. Importance of love between male and female.	
III	B.A Kala Mangala	Literature values of Kuvempu	
	-3	Knowledge about Independent Movement	
		3. Possibilities of job opportunities to Kannada Language	
III	B.com Vanijaya	1.knowledge about gender equality	
	Mangala-3	2. Introduction of stories, Novels. And Drama	
		3.Introduction of Market and Media world	
III	B.Sc- Vijhana Mangala-3	Creating the knowledge related to skill, rationality, field visit, humanity, etc.	
		2. preparing the students sociable through poem, prose, story etc	
		3. To instill a critical attitude and make them grow socially oriented	
1			1

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III	B.C.A	1. A curriculum that	
	Ganaka	explores the development of	
	Mangala	Kannada literature.	
		2. An introduction to	
		governance, rebellion,	
		and feminist poets,	
		3. Awareness of freedom	
		of expression	
		or empression	
III	B.B.A	1. Impliments of crative nature	
	Nirvahana	to Students	
	Gangothri-3	2. Awareness of agricultural	
		culture	
		3. Awareness of Enviornment	
		4. Developing Native thought	

IV	B.A Kala Mangala- 4	 Importance of Mother as well as we should consider Nature also our Mother and it is our duty to protect her. Introducing the values of Keerthana Sahitya Noble thinking of Bheeshamcharya Difficulties of the middle class people 	
IV	B.com Vanijya Mangala-4	 The importance of coexistence Introduction of the famous poets like Bendre, Kuvempu, etc Intoduction of Pampa 	

Iv	B.Sc Vijhyana Mangala-4	 Introduction to the lifestyle of a new generation Providing value-based education to students and giving them the opportunity to make a living Inroducing various type of literature to Students. 	
IV	B.C.A Ganaka Mangala-4	Intoduction of the local art Yakshagana Intoduction of the various type of poem The need to develop Kannada as a technical language	

Iv	B.B.A	1. On an anti-war basis	
	Nirvahana	2. Love of Mother land	
	Gangothri-4	3. Applying negotiation skills	

MANIPURI

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
I	MANIPURI UASMNL11	1. To understand the trends of Manipuri short story and its growth and development. 2. To understand the basic Manipuri language including phonology. 3. To develop the skill of writing skill.	1. To produce graduates who can demonstrate comprehensive knowledge of Manipuri Language and literature, effectively communicate both orally and in writing. 2. To apply their knowledge to the society, including interpreting texts, translating between
II	MANIPURI UASMNL21	To comprehend literary knowledge of Manipuri poems with regard to the analysis of rhythm expression and presentation. To familiarize themselves with Manipuri Phonology.	Manipuri and other languages.

		3. To enhance writing skill.	
III	MANIPURI BASMPLN301 BSWMPLN301 BSCMPLN301 BCAMPLN301 FNDMPLN301 BVAMPLN301 HRDMPLN301 BIDMPLN301 BIDMPLN301 BFDMPLN301 BFDMPLN301	1. To enable to understand analysis and critically analyst about different types of prose. 2. To elevate the learners' ability to use able to rectify themselves in the common errors in the day-to-day conversation among themselves. 3. to develop creative writing skill.	1. To produce graduates who can demonstrate comprehensive knowledge of Manipuri Language and literature, effectively communicate both orally and in writing. 2. To apply their knowledge to the society, including interpreting texts, translating between Manipuri and other languages.
III	MANIPURI BBAMPLN301 BCMMPLN301	1. To enable to understand analysis and critically analyst about different types of prose. 2. To elevate the learners' ability to use able to rectify themselves in the common errors in the day-to-day conversation among themselves. 3. to develop creative writing skill.	
IV	MANIPURI BASMPLN401 BSWMPLN401 BSCMPLN401 BCAMPLN401 FNDMPLN401	To understand the trends of Manipuri Novel, its growth and development. To understand the changes of Manipuri society by studying Manipuri Dramatic Literature.	1. To produce graduates who can demonstrate comprehensive knowledge of Manipuri Language and literature, effectively communicate both orally and in writing. 2. To apply their knowledge to the society,

	BVAMPLN401 HRDMPLN401 BIDMPLN401 BFDMPLN401 BHSMPLN401	3. To develop the skill of writing skill.	including interpreting texts, translating between Manipuri and other languages.
IV	MANIPURI BBAMPLN401 BCMMPLN401	1. To understand the trends of Manipuri Novel, its growth and development. 2. To understand the changes of Manipuri society by studying Manipuri Dramatic Literature. 3. To develop the skill of writing skill.	

MATHEMATICS (UG)

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
I	CALCULUS	 Students will be able to understand and apply properties of differentiation, and solve problems involving local extrema and concavity. Students will be able to understand and apply key theorems such as Rolle's Theorem, Mean Value Theorem, and Cauchy's Mean Value Theorem in various contexts. Students will develop the ability to solve applied optimization problems, sketch 	On successful completion of the program, the student will be able to understand the concepts • Verbally communicate mathematical ideas, write logically sound proof, accurately work

		curves, and use asymptotes effectively in analysis.	with formulae and numerical information.
		 Students will be able to evaluate definite and indefinite integrals using techniques such as reduction formulae, partial fractions, etc. Students will gain a solid understanding of the behavior of functions of several variables, and get ability to compute and interpret directional derivatives and gradients. 	• Apply solving techniques of differential equations in Mathematics, Physics, Chemistry and Biology.
		Students will be able to find and classify extreme values and saddle points for functions of two variables, using second derivative tests and other techniques.	• Understand the actual theories behind solving techniques of problems in Algebra.
II	ADVANCED CALCULUS AND DIFFERENTIAL EQUATIONS	Students will be able to convert between polar and Cartesian coordinates, graph equations in polar coordinates, and calculate areas and lengths.	• Connect theoretical and practical aspects of Mathematics.
		 Students will classify and analyze conic sections by eccentricity, and work with their polar equations to sketch and identify various conics. Students will evaluate line integrals over plane and space curves, 	• To solve problems in the post graduate

		understanding their applications and computations.	entrance exams with ease.
		Students will master double and triple integrals, including changing between Cartesian and polar coordinates, and apply these techniques to calculate volumes, areas, and averages.	
		Students will understand and solve first-order differential equations using various methods, including separation of variables and integrating factors.	• Aspire and prepare for Master's in Computer application.
		Students will apply differential equations to model and solve real- world problems in physics, chemistry, and other fields.	
III	MATHEMATICS ORDINARY DIFFERENTIAL EQUATIONS AND REAL ANALYSIS – I	 Understand the fundamental properties of the real numbers that lead to define sequence and Apply these techniques to solve and analyze 	• Acquire mathematical skill set to clear various aptitude tests conducted by multi-national companies.
		various mathematical models. Formulate differential equations for various mathematical models	
		 To model problems in nature using Ordinary Differential Equations. 	Program specific outcomes:
		Solve first-order non- linear differential	

		equations and linear	• The syllabus imparts
		differential equations.	about 30 of technical
		❖ Course Learning Outcomes: This course will enable the students to: Able to handle and understand limits and their use in sequences, series, differentiation, and	skills.
		 Learn the concept of Convergence and Divergence of a sequence. 	• Student will be acquiring knowledge to compete at national and international level.
		series, the formal development of real analysis. Apply the ratio, root, alternating series, and limit comparison tests for convergence and integration.	
		absolute convergence of an infinite series.	 Employability will be improved with the knowledge of Mathematical software's.
IV	Partial Differential Equations and Integral Transforms	Solve the Partial Differential Equations of the first order and second order	soltware s.
		 Formulate, classify and transform partial differential equations into canonical form. 	
		 Solve linear and non- linear partial differential equations using various methods; and apply these 	
		methods to solving some physical problems.	Domain knowledge will be upgraded with the knowledge of applications.
		courses on wave equation, heat	

		equation, and Laplace equation.	
		Solve PDE by Laplace Transforms and Fourier Transforms	• Student will be able to handle the challenges due to upgradation of software's.
V	Mathematics Real Analysis-II and Complex Analysis	 ❖ Carry out computations of upper and lower Riemann sums as well definite integrals. ❖ Describe various criteria for Integrability of functions. ❖ Evaluate some improper integrals and evaluate double integrals by using Beta, Gamma functions. ❖ Exhibit certain properties of mathematical objects such as integrable functions, analytic functions, harmonic functions and so on. ❖ Prove some statements related to Riemann integration as well as in complex analysis. ❖ Carry out the existing algorithms to construct mathematical structures such as analytic functions. ❖ Evaluate complex line integrals using definition and some well-known theorems. ❖ Apply the gained knowledge to solve various other problems. 	

Numerical Analysis	 Compute approximate roots of algebraic and transcendental equations using iterations. 	
	Describe various operators arising in numerical analysis such as difference operators, shift operators and so on.	
	Articulate the rationale behind various techniques of numerical analysis such as in finding roots, integrals and derivatives.	
	Reproduce the existing algorithms for various tasks as mentioned previously in numerical analysis.	
	Apply the rules of calculus and other areas of mathematics in justifying the techniques of numerical analysis.	
	Solve problems using suitable numerical technique.	
	 Obtain approximate solutions to initial value problems using various numerical techniques. 	
	Appreciate the profound applicability of techniques of numerical analysis in solving real life problems and also	
		Analysis roots of algebraic and transcendental equations using iterations. Describe various operators arising in numerical analysis such as difference operators, shift operators and so on. Articulate the rationale behind various techniques of numerical analysis such as in finding roots, integrals and derivatives. Reproduce the existing algorithms for various tasks as mentioned previously in numerical analysis. Apply the rules of calculus and other areas of mathematics in justifying the techniques of numerical analysis. Solve problems using suitable numerical technique. Obtain approximate solutions to initial value problems using various numerical techniques. Appreciate the profound applicability of techniques of numerical analysis in solving real life

	techniques are modified to improve the accuracy	
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MICROBIOLOGY

Semester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
I	Microbiology- Fundamental Microbiology USCMBC11	 Understand the origin and development of microbiology. Understand the major difference and characteristics of prokaryotes and eukaryotes. Students will be able to handle the Microscope. Students will be able to practice sterilization techniques and also staining of microbes. 	 Understand the concepts of microbiology and its application in pharma, food, agriculture, beverages, nutraceutical industries. Understand the distribution, morphology and physiology of microorganisms and demonstrate the skills in aseptic handling of microbes
II	Microbial Taxonomy and Culture techniques USCMBC21	 Students will gain knowledge about microbes and their diversity Study the characteristics, classification and economic importance of Prokaryotic and Eukaryotic microorganisms. Gain knowledge about viruses and their diversity and utilization of energy 	including isolation, identification and maintenance. 3. Competent to apply the knowledge gained for conserving the environment and resolving the environment related issues. 4. Learning and practicing

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		by various pathways in the cell, also the by-products • Students will gain the knowledge of different culture media and culture techniques.	professional skills in handling microbes and contaminants in laboratories and production sectors. 5. Exploring the microbial world
III	Microbial Diversity BSCMBCN301	Students will gain knowledge about microbes and their diversity	and analysing the specific benefits and challenges.
		 Study the characteristics, classification and economic importance of Prokaryotic and Eukaryotic microorganisms. Gain knowledge about viruses and their diversity and utilization of energy by various pathways in the cell, also the by-products. 	 6. Applying the knowledge acquired to undertake studies and identify specific remedial measures for the challenges in health, agriculture, and food sectors. 7. Gain good knowledge and application of good laboratory and good
III	Microbial Entrepreneurship BSCMBEN301	Will be able to demonstrate entrepreneurial skills	manufacturing practices in microbial quality control.
		 Gain knowledge on Industrial entrepreneurship Acquire knowledge on Healthcare Entrepreneurship 	8. Understand the biochemical and physiological aspects of microbes and developing broader
IV	Microbial Enzymology and Metabolism BSCMBCN401	Will learn the concepts of chemoheterotrophic metabolism and chemo lithotrophic metabolism.	perspective to identify innovative solutions for present and future challenges

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		 Describing the 	posed by
		enzyme kinetics,	microbes.
		enzyme activity and	9. Understand the
		regulation.	
		Differentiating	application of microbial
		Differentiating	
		concepts of aerobic	principles in
		and anaerobic	forensic and
		respiration and how	working
		these are manifested	knowledge about
		in the form of	clinical
		different metabolic	microbiology.
		pathways in	10. Will acquire the
		microorganisms.	knowledge of
IV	Human	Articulate a deeper	recombinant
1 V	Microbiome	understanding on	DNA technology,
	BSCMBEN401	biological	GMOs,
	DSCIVIDEIN401		intellectual
		complexities of human micro biome.	property rights,
		numan micro biome.	biosafety and
		 Understand broader 	biohazards.
		goals of biological	bioliazards.
		anthropology.	11. Demonstrate the
			ability to identify
		• Compare and	key questions in
		contrast the micro	microbiological
		biome of different	research,
		human body sites	optimize research
		and impact human	methods, and
		health promotion	analyse outcomes
V	Molecular biology.	Understand concepts	by adopting
•	Moleculal biology.	involved in	scientific
	BSCMBCN 501		methods, thereby
		replication,	improving the
		transcription, translation,	employability.
		,	empio yaomity.
		regulation of gene	12. Enhance and
		expression in	demonstrate
		bacteria and	analytical skills
		Eukaryotes.	and apply basic
		 Differentiate the 	computational
		process of	and statistical
		replication,	techniques in the
		transcription,	field of
		translation,	microbiology
		regulation of gene	
		expression in	
		bacteria and	
		Eukaryotes.	
		Lukai yotes.	
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		 Understand the genetic switch in bacteriophages. 	
		Outline regulatory mechanisms in bacteria to control cellular process.	
		•	
V	Food microbiology BSCMBCN502	 Understand the association of microbes in food and the quality testing of food 	
		 Understand the preservation and food safety protocols 	
		 Understand the methods of spoilage of food and the diseases associated with it 	
		• Learn the properties of milk and the types of preservation of milk.	
		 Learn the types of fermented food and dairy products and its significance 	
VI	Immunology and Medical microbiology BSCMBCN601	Gain a preliminary understanding about various immune mechanisms.	
		 Students will be familiar with Immunological techniques and serodiagnosis of infectious diseases 	
		 To understand pathogenic bacterial infections, symptoms, diagnosis 	

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		and treatment	
		process	
VI	Industrial	Learn the overview	
V I			
	Microbiology	of scope and	
	BSCMBCN602	importance of	
		industrially	
		important microbes	
		Learn the different	
		types of fermentation	
		processes and	
		1	
		equipment.	
		Gain knowledge of	
		the production	
		of value-added	
		products	
		1	
		 Acquire the 	
		knowledge of	
		purification of value-	
		added products	
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PHYSICS(UG)

NSP Syllabus

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
I	PHYSICS BSCPHCN101	1: Will learn fixing units, tabulation of observations, analysis of data (graphical/analytical)	PO-1: Discipline Knowledge: Knowledge of science and ability to apply to relevant areas.
		2: Will learn about accuracy of measurement and sources of errors, importance of significant figures. 3: Will know how g can be determined experimentally and	PO-2: Problem solving: Execute a solution process using first principles of science to solve problems related to respective discipline.

		derive satisfaction. x 4: Will see the difference between simple and torsional pendulum and their use in the determination of various	PO-3: Modern tool usage: Use a modern scientific, engineering and IT tool or technique for solving problems in the areas of their discipline.
		physical parameters. 5: Will come to know how various elastic moduli can be determined.	PO-4: Ethics: Apply the professional ethics and norms in respective discipline.
		6: Will measure surface tension and viscosity and appreciate	PO-5: Individual and teamwork: Work effectively as an
		the methods adopted. 7: Will get hands on experience of different equipment.	individual as a team member in a multidisciplinary team.
II	PHYSICS BSCPHCN201	1. Will demonstrate Gauss law, Coulomb's law for the electric field, and apply it to systems	PO-6: Communication: Communicate effectively with the stake holders, and give and receive clear instructions.
		of point charges as well as line, surface, and volume distributions of charges.	
		2. Will explain and differentiate the vector (electric fields,	
		Coulomb's law) and scalar (electric potential, electric	

potential energy) formalisms of electrostatics. 3. Will be able to apply Gauss's law of electrostatics to solve a variety of problems. 4. Will describe the magnetic field produced by magnetic dipoles and electric currents. 5. Will be able to explain Faraday-Lenz and Maxwell laws. to articulate the relationship between electric and magnetic fields. 6. Will be in position to describe how magnetism is produced and list examples where its effects are observed. 7. Will be able to apply Kirchhoff's rules to analyze AC circuits consisting of parallel and/or series combinations of voltage sources and resistors and to describe the

graphical relationship of

		resistance, capacitor	
		and inductor.	
		8. Will understand	
		and able to apply various network	
		theorems such as Superposition, Thevenin, Norton, Maximum Power Transfer, etc. and their	
		applications in electronics, electrical circuit analysis, and	
		electrical machines.	
III	PHYSICS	1. Identify different types of waves by	
	BSCPHCN301	looking into their characteristics.	
		2. Formulate a wave equation and obtain the expression for different parameters	
		associated with waves.	
		3. Explain and give a mathematical treatment of the superposition of waves under	
		different conditions, such as, when they overlap linearly and perpendicularly with equal	
		or different frequencies and equal or different phases.	
		4. Describe the formation of	

standing waves and how the energy is transferred along the

standing wave in different applications, and mathematically model in the case of

stretched string and vibration of a rod.

5. Give an analytical treatment of resonance in the case of open and closed pipes in

general and Helmholtz resonators in particular.

6. Describe the different parameters that affect the acoustics in a building, measure it and

control it.

7. Give the different models of light propagation and phenomenon associated and

measure the parameters like the wavelength of light using experiments like Michelson

interferometer, interference and thin films.

8. Explain diffraction due to different objects like

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		singles slit, two slits, diffraction of	
		grating, oblique incidence, circular aperture and give the theory and experimental	
		setup for the same.	
		9. Explain the polarization of light and obtain how the polarization occurs due to quarter	
		wave plates, half wave plates, and through the optical activity of a medium.	
IV	PHYSICS BSCPHCN401	1. Apply the laws of thermodynamics and analyze the thermal system.	
		2. Apply the laws of kinetic theory and radiation laws to the ideal and practical	
		thermodynamics systems through derived thermodynamic relations.	
		3. Use the concepts of semiconductors to describe different Semiconductor devices such as	
		diode transistors, BJT, FET etc. and explain their functioning.	
		4. Explain the functioning of OP-AMPS and use them	

		og the building	
		as the building blocks of logic gates.	
		5. Give the use of logic gates using different theorems of Boolean Algebra followed by logic circuits.	
V	PHYSICS	1.Identity the failure	
	BSCPHCN501	of the classical physics at the microscopic level	
		2.find the relationship between the normalization of a wave function and correctly calculate expectation values	
		3.Explaining the minimum uncertainty of measuring both observable on any quantum state	
		4.Describe the time dependent and independent Schrodinger's wave equation for one dimensional well and simple hormonic oscillator	
		4. Apply Hamiltonian operators, their eigen values and eigen vectors to find various commutators and uncertainty relations	
	PHYSICS	1.Describe atomic	
	BSCPHCN502	properties using basic atomic models	

		2.Interpret atomic spectra of elements using vector atom model 3.Interpret molecular spectra of compounds using basics of molecular physics 4.Explain Laser system and their applications in various fields	
VI	PHYSICS BSCPHCN601	1.To Study about X - ray, characteristics of X ray and X ray crystallography 2.Interpret free electron theory of metals 3.Understand the concept magnetic properties of matter, dielectrics and superconductivity. 4.Explain the basic properties of nucleus and their inner information 5.Understand the concept of binding energy and binding energy per nucleon verses mass number graph 6.Describe the process of alpha, beta, gamma decay on the basis of wellestablished theory 4.Explain the basic concept of	

	scintillation detector,	
	photomultiplier tube and semiconductor detector	
PHYSICS BSCPHCN602	1.Identify different types of tests and measuring instruments used in practice and understand their basic working principles	
	2. Have an understanding of the basic electronic instruments like resistor, inductor, capacitors, IC 's and their uses	
	3.Understanding of the measurements of voltage, current, resistor, transistors and IC	
	4.Idendify and understand the different types of Transducers and sensors	
	5.Understand and give a mathematical treatment of working rectifier, filter, data converter and transducers	
	6.Develop basic hands-on skills in the usage of oscilloscope, rectifier, multiplier, generators, oscillators	

		6.Servicing of	
		simple fault in	
		domestic appliances	
Semester	Course/ Subject	Course outcome	Program outcome
			(summary of all six
			semesters)
1	Physics	1. Estimate the	PO-1: Discipline
	USCPHC11	possible error in	Knowledge:
		measurement of a	Knowledge of
		physical quantity, using its	science and ability to apply to relevant
			areas.
		dimensional equation, the least	PO-2: Problem
		counts of	solving: Execute a
		instruments used and	solution process
		by actual	using first principles
		measurements in the	of science to solve
		appropriate system	problems related to respective
		of units.	-
		2. Knowledge of	discipline.
		newton's motion of	PO-3: Modern tool
		bodies and	usage: Use a modern
		gravitation and satellite motion	scientific, engineering and IT
			tool or technique for
		3. Apply laws of	solving problems in
		conservation of momentum and	the areas of their
		associated energy	discipline.
		along with	1
		laws to motion to the	PO-4: Ethics: Apply the professional
		systems of	ethics and norms in
		linear/rotational	respective discipline.
		motion to determine	PO-5: Individual and
		different parameters	teamwork: Work
		associated with	effectively as an
		physically rigid	individual as a team
		bodies.	member in a multidisciplinary
		4. Explain bending	team.
		of beams and use of	
		torsion pendulum in the determination of	PO-6: Communication:
		the determination of	Communication.

		various physical parameters. 5. Measure surface tension and factors affecting surface tension of liquids and hence measurement of viscosity liquids	Communicate effectively with the stake holders, and give and receive clear instructions.
2	Physics	of viscosity liquids. 1: Apply the concept of the relative motion of frame of reference with appropriate postulates of the theory of relative motion to the measurement of length, time, mass, energy and velocity. 2: Apply the laws of thermodynamics and concept of heat engine to various observations.	
		3: Explain fundamental laws of black body spectrum. 4: Explain free, damped and forced oscillations, progressive waves & Fourier analysis of square wave.	

POLITICAL SCIENCE

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
First	Key concepts in Political Science	1. Students will have an understanding of the basic concepts and aspects related to Political Science. 2. Students have an internalisation of the values of responsible and active citizenry. 3. Students will be prepared for constructive involvement with the political system with an awareness of the core values. 4. Students have an understanding of the dimensions of politics - linkages, and the priorities in the society.	Political Science department enables the students to understand the need for Political education and Constitution. It also explains the role of Constitution in a Democratic society. Students can also understand and demonstrate the ideas, themes of political philosophy and ideologies which they examined. Students will able to compare the policies and political systems of various governments around the Globe. It inculcates knowledge of various concepts of International Relations. Students can analyse the significance of the negotiations, agreements and the maintenance of International Peace and Security. Department enables the students to explain the government mechanisms from Gram Panchayath to Central and can suggest solutions over various issues in its functioning and implementation. Students can work as administrator, Political Scientist, Lawyers, Political party advisors,

			researcher scholar or can freelance political thinker and writer. It trains about the politics and Government at local, State, National and Global levels. The subject Knowledge can be utilized for the preparation of competitive examinations
Second	Western Political Thought	Students have an understanding of the distinct features, diverse intellectual and Philosophical traditions of the west Students develop a critical perspective on the western political thought on governance and political order.	
Third	Indian Government and Politics	1. Students have an understanding of the functioning and Philosophy of the Indian Government and Politics. 2 .Students grasp the performance& challenges of both the Union and state governments. 3 Students inculcate the knowledge of the various power structures, response of the political parties and the effects of judicial decisions on policy making and social development in India.	

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	Parliamentary Procedures in India	1. Students have a basic understanding of parliamentary system of governments and the constitutional provisions relating to the Parliamentary procedures in India.	
		2. Students will become familiar with the legislative procedures and practices as well as the working of Parliamentary Committees, budgetary aspects and deliberative mechanism in India.	
		3. Students have an understanding of the institutional mechanism for working of democracy, learn about the privileges of people's representatives and will be able to assess their performance	
Fourth	Ancient Indian Political Ideas and Institutions	1.Students have an understanding of the social and political philosophy of ancient India.	
		2. Students will be able to assess modern notions on socio-political arrangements with an understanding of ancient India and its concepts like Dharma, Rajadharma, Dandannethi, Nyaya etc.	
		3. Students have a critical reflection on the ideas and institutions of ancient India and appreciate the texts and stories that reflect upon our own experience.	
		4. Students will be able to revisit our own socio-political structures through understanding of the textual	

	I		
		and non-textual sources related to early India.	
	Modern Political Analysis	1.Students will have an understanding of the functioning of political institutions.	
		2. Students understand the political process and various influences operating thereupon.	
		3. Students will be able to assess the functioning of the governments and its output.	
Fifth	International Relations- Basic Concepts	1.Students will be in a position to describe National interest, National power.	
		2. The students will get the basic knowledge of the practical political world and operating institutions.	
		3. The students will be in a position to describe the concept of balance of power, collective security and diplomacy and its relevance.	
		4. Students will be in a position to understand the sources of employment in and around the foreign affairs of specific countries.	
	Comparative Government and Politics	 Grasp and understand the working of constitutional systems of these countries. Understand and explain different forms of executive and their functioning 	
		and their functioning	

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		3. Understand and utilize the knowledge for facing the competitive examinations.	
	Karnataka		
	Government and Politics	1. Enables the students to understand the state politics as well as federal relationships in India.	
		2. Understand the social and political conditions of Mysore under colonial rule.	
		3. Develop perspectives on the important persons and organizations involved in the process of unification.	
		4. Analyze the issues related to regionalism, polarization, identity politics, water, language, and border issues.	
Sixth	International Relations- theoretical Aspects	1. Get exposed to theories and identify them with examples by relating them to contemporary events across the globe. 2.Interpret world affairs in the light of theories which will serve as a key intellectual tool.	
	Political Economy of India	1.Students learn about the political dimension of economics and provides them the skills to manage the economy.	
		2. Be exposed to inter disciplinary thinking and helps them to assess the relationship between policy and its impact on various areas like food & agriculture,	

	Industry &labour Infrastructure,	
Modern Indian olitical Thinkers		
	Know the political ideas contributed in making of modern Indian Political System Learn about the role of political thinking in resolving socio-political problems of the country.	

PSYCHOLOGY (UG)

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
Semester I	Dynamics of behaviour. I	1. Have sound knowledge of the roots of Psychology 2. Understand dynamics of human behaviour. 3. Comprehend biological foundation of human behaviour 4. Comprehend the process of sensation ,perception and attention	 ➤ Understand the value of psychology in personal and professional domains. □ ➤ Increased recognition and acceptance of the complexity of human behaviour. □ ➤ Understand the application of statistics and related skills in psychological research. □ ➤ Able to
Semester II	Foundations of behaviour II	Have sound knowledge of	collaborate effectively to

		the roots of Psychology 2. Understand dynamics of human behaviour. 3. Comprehend biological foundation of human behaviour 4. Comprehend the process of sensation ,perception and attention	complete tasks within reasonable time frames. Administer and interpret standardized tools for psychological assessment of diverse dimensions of human behavior. Display competence in sensitive oral
Semester III	Child development III	1. Understand various domains of development 2. Use different research methods in different situations. 3. Understand the stages of development in different areas of development 4. Gain knowledge about the problems of each developmental area and the effect on personality	communication skills and analytical skills.
Semester IV	Life span development IV	 Understand the relationship between physical growth and psychological development. Understand the issues in each stage of 	

		development and the preventive measures 3. Understand the responsibility of youth in familiarizing the causes for adult problems and focus on psychosocial support	
Semester V	Social Psychology V	Understand the importance of inter personal relationships.	
		2. Relate the incidents of Pro social behaviour in everyday life	
		3. Understand how attitudes, prejudice and stereotypes effect relationships	
		4. Relate the concept of aggression to everyday life	
		Understand the difference between normality and abnormality.	
		2. Analyze the facts and myths about abnormality	
	Abnormal Psychology VI	3. Understand the classifications of mental disorders and the basis of	

		these classifications.	
		4. Understand different types of mental disorders, causes and treatment plans	
Semester VI	Health Psychology VII	Understand the Fundamentals of Health Psychology and need for the field of health psychology.	
		Understand and analyze Health Behaviours:	
		3. Evaluate Health- Enhancing and Compromising Behaviors with respect to mental and physical health.	
		4. Understand the lifestyle diseases and apply required coping strategies	
		Understand the concept of organizational behavior.	
		2. Understand qualities of effective leadership	
		3. Understand the uses of psychology at workplace.	

Organizational Behaviour VIII	4. Understand the psychology of buying

SANSKRIT

SEP Syllabus

			I
Semester	Course/ Subject	Course outcome	Program outcome(summary of all two semesters)
I	BA/BSW/BVA/BH RD – UASSKL11	 This course aims to get the students acquainted with classical Sanskrit Prose Literature along with modern Sanskrit Literature. It intends to give an understanding of literature, through which students will be able to understand and interpret the Sanskrit texts. Texts from Ramayana, Mahabharata, Upanishad, Panchatantra, Harshacharita etc, to enrich the imaginative and creative abilities of the students. The study of Ancient Indian Literature would enable students gain moral values and life values which can be incorporated into their daily lives. The course also seeks to help the students negotiate the text independently with the help of proficiency and Sanskrit Language and Grammar. 	1. Students can learn about the structure and rules of Sanskrit, including verb conjugations, noun declensions, and sentence construction. 2. Students can learn to appreciate ancient Indian literature and culture, and gain a deeper understanding of the time's history, philosophy, and religious beliefs. 3. Sanskrit has had a major impact on other Indian languages,

		 6. Grammar is an integral part of a language class, where in students are trained to speek and write in Sanskrit without errors. 7. This semester focuses on Namapada, sarvanama, Kriyapada and Change of Voice. 	such as Hindi, Kannada, and Malayalam. It has also influenced Sino-Tibetan languages. 4. Students can learn to write Devnagari scripts, which can help them read modern languages like Hindi and Marathi. 5. Students can be inspired to undertake a research project that delves deeper into a specific aspect of the literature studied.
II	BA/BSW/BVA/BH RD – UASSKL21	1. This course aims to get the students acquainted with classical Sanskrit Poetry. 2. It intends to give an understanding of literature, through which students will be able to understand the poetic nuances. They develop the ability to use language in a descriptive way. 3. This course helps students to know about Subhashitas, Itihaasa Kavya, Mahakavya etc and the various Chandas used in Sanskrit Poetry. 4. The study of Ancient Indian Literature would enable students gain moral values and life values which can be	1. Students can learn about the structure and rules of Sanskrit, including verb conjugations, noun declensions, and sentence construction. 2. Students can learn to appreciate ancient Indian literature and culture, and gain a deeper understanding of the time's history,

		incorporated into their daily lives. 5. The course also seeks to help the	philosophy, and religious beliefs.
		 5. The course also seeks to help the students negotiate the text independently with the help of proficiency in Sanskrit Language and Grammar. 6. Grammar is an integral part of a language class, where in students are trained to speek and write in Sanskrit without errors. 7. This semester focuses on Krudanta, Karaka, Taddhita and Samasa. 	3. Sanskrit has had a major impact on other Indian languages, such as Hindi, Kannada, and Malayalam. It has also influenced Sino-Tibetan languages.
			4. Students can learn to write Devnagari scripts, which can help them read modern languages like Hindi and Marathi.
			5. Students can be inspired to undertake a research project that delves deeper into a specific aspect of the literature studied.
I	BCOM – UCMSKL11	This course aims to get the students acquainted with classical Sanskrit Prose Literature along with modern Sanskrit Literature. It intends to give an understanding of literature, through which students will be able to understand and interpret the Sanskrit texts. 3. Texts from Ramayana,	1. Students can learn about the structure and rules of Sanskrit, including verb conjugations, noun declensions, and sentence construction.
		Mahabharata, Upanishad,	

- Panchatantra, Harshacharita etc, to enrich the imaginative and creative abilities of the students.
- 4. The study of Ancient Indian
 Literature would enable students
 gain moral values and life
 values which can be
 incorporated into their daily
 lives.
- 5. The course also seeks to help the students negotiate the text independently with the help of proficiency in Sanskrit Language and Grammar.
- 6. Grammar is an integral part of a language class, where in students are trained to speek and write in Sanskrit without errors.
 - 7. This semester focuses on Shabdaparichaya, Namapada, sarvanama, Kriyapada and Change of Voice.

- 2. Students can learn to appreciate ancient Indian literature and culture, and gain a deeper understanding of the time's history, philosophy, and religious beliefs.
- 3. Sanskrit has had a major impact on other Indian languages, such as Hindi, Kannada, and Malayalam. It has also influenced Sino-Tibetan languages.
- 4. Students can learn to write Devnagari scripts, which can help them read modern languages like Hindi and Marathi.
- 5. Students can be inspired to undertake a research project that delves deeper into a specific aspect of the literature studied.

II	BCOM –	1. This course aims to get the	1. Students can
	UCMSKL21	students acquainted with	learn about the
		classical Sanskrit Poetry.	structure and
		2. It intends to give an	rules of
		understanding of literature,	Sanskrit,
		through which students will be	including verb conjugations,
		able to understand the poetic	noun
		nuances. They develop the	declensions,
		ability to use language in a	and sentence
		descriptive way.	construction.
		3. This course helps students to	2. Students can
		know about Subhashitas,	learn to
		Itihaasa Kavya, Mahakavya etc	appreciate
		and the various Chandas used in	ancient Indian
		Sanskrit Poetry.	literature and
		4. The study of Ancient Indian	culture, and
		Literature would enable students	gain a deeper understanding
		gain moral values and life values which can be	of the time's
		incorporated into their daily	history,
		lives.	philosophy,
		5. The course also seeks to help the	and religious
		5. The course also seeks to help the students negotiate the text	beliefs.
		independently with the help of	3. Sanskrit has
		proficiency in Sanskrit	had a major
		Language and Grammar.	impact on
		6. Grammar is an integral part of a	other Indian
		language class, where in	languages, such as Hindi,
		students are trained to speak and	Kannada, and
		write in Sanskrit without errors.	Malayalam. It
		7. This semester focuses on	has also
		Krudanta, Karaka, Taddhita and	influenced
		Samasa.	Sino-Tibetan
			languages.
			4. Students can
			learn to write
			Devnagari scripts, which
			can help them
			read modern
			languages like
			Hindi and
			Marathi.
			5. Students can
			be inspired to

			undertake a research project that delves deeper into a specific aspect of the literature studied.
I	BSc/FND/BHS/BF D/BID/BHM/BSA/ BFT/BCS – USCSKL11	1. This course aims to get the students acquainted with classical Sanskrit Prose Literature along with modern Sanskrit Literature. 2. It intends to give an understanding of literature, through which students will be able to understand and interpret the Sanskrit texts. 3. Texts from Ramayana, Mahabharata, Upanishad, Panchatantra, Harshacharita etc, to enrich the imaginative and creative abilities of the students. 4. The study of Ancient Indian Literature would enable students gain moral values and life values which can be incorporated into their daily lives. 5. The course also seeks to help the students negotiate the text independently with the help of proficiency and Sanskrit Language and Grammar. 6. Grammar is an integral part of a language class, where in students are trained to speak and write in Sanskrit without errors. 7. This semester focuses on Namapada, sarvanama, Kriyapada and Change of Voice.	1. Students can learn about the structure and rules of Sanskrit, including verb conjugations, noun declensions, and sentence construction. 2. Students can learn to appreciate ancient Indian literature and culture, and gain a deeper understanding of the time's history, philosophy, and religious beliefs. 3. Sanskrit has had a major impact on other Indian languages, such as Hindi, Kannada, and Malayalam. It has also influenced Sino-Tibetan languages. 4. Students can learn to write Devnagari

			scripts, which can help them read modern languages like Hindi and Marathi. 5. Students can be inspired to undertake a research project that delves deeper into a specific
II	BSc/FND/BHS/BF	This course aims to get the	aspect of the literature studied. 1. Students can
11	D/BID/BHM/BSA/ BFT/BCS – USCSKL21	students acquainted with classical Sanskrit Poetry. 2. It intends to give an understanding of literature, through which students will be able to understand the poetic nuances. They develop the ability to use language in a descriptive way.	learn about the structure and rules of Sanskrit, including verb conjugations, noun declensions, and sentence construction.
		 3. This course helps students to know about Subhashitas, Itihaasa Kavya, Mahakavya etc and the various Chandas used in Sanskrit Poetry. 4. The study of Ancient Indian Literature would enable students gain moral values and life values which can be incorporated into their daily lives. 	2. Students can learn to appreciate ancient Indian literature and culture, and gain a deeper understanding of the time's history, philosophy, and religious
		 5. The course also seeks to help the students negotiate the text independently with the help of proficiency in Sanskrit Language and Grammar. 6. Grammar is an integral part of a language class, where in 	beliefs. 3. Sanskrit has had a major impact on other Indian languages, such as Hindi, Kannada, and

		students are trained to speak and write in Sanskrit without errors. 7. This semester focuses on Krudanta, Karaka, Taddhita and Samasa.	Malayalam. It has also influenced Sino-Tibetan languages. 4. Students can learn to write Devnagari scripts, which can help them read modern languages like Hindi and Marathi. 5. Students can be inspired to undertake a research project that delves deeper into a specific aspect of the literature
I	BBA – UBASKL11	1. This course aims to get the students acquainted with classical Sanskrit Prose Literature along with modern Sanskrit Literature. 2. It intends to give an understanding of literature, through which students will be able to understand and interpret the Sanskrit texts. 3. Texts from Ramayana, Mahabharata, Upanishad, Panchatantra, Mahakavyam etc., to enrich the imaginative and creative abilities of the students. 4. The study of Ancient Indian Literature would enable students gain moral values and life values which can be incorporated into their daily lives.	studied. 1. Students can learn about the structure and rules of Sanskrit, including verb conjugations, noun declensions, and sentence construction. 2. Students can learn to appreciate ancient Indian literature and culture, and gain a deeper understanding of the time's history, philosophy,

		- m	4 4
		 The course also seeks to help the students negotiate the text independently with the help of proficiency and Sanskrit Language and Grammar. Grammar is an integral part of a language class, where in students are trained to speak and write in Sanskrit without errors. This semester focuses on Shabdaparichaya, Namapada, sarvanama, Lakaaraas, Shabda Parichaya and Change of Voice. 	and religious beliefs. 3. Sanskrit has had a major impact on other Indian languages, such as Hindi, Kannada, and Malayalam. It has also influenced Sino-Tibetan languages. 4. Students can learn to write Devnagari scripts, which can help them read modern languages like Hindi and Marathi. 5. Students can be inspired to undertake a research project that delves deeper into a specific aspect of the literature
II	BBA – UBASKL21	This course aims to get the students acquainted with	studied. 1. Students can learn about the
		classical Sanskrit Poetry. 2. It intends to give an understanding of literature, through which students will be able to understand the poetic nuances. They develop the ability to use language in a descriptive way.	structure and rules of Sanskrit, including verb conjugations, noun declensions, and sentence construction.
		3. This course helps students to know about Subhashitas, Itihaasa Kavya, Mahakavya etc	2. Students can learn to

			T
		and the various Chandas used in Sanskrit Poetry.	appreciate ancient Indian
		4. The study of Ancient Indian Literature would enable students gain moral values and life values which can be incorporated into their daily lives.	literature and culture, and gain a deeper understanding of the time's history, philosophy,
		5. The course also seeks to help the students negotiate the text independently with the help of	and religious beliefs. 3. Sanskrit has
		proficiency in Sanskrit Language and Grammar.	had a major impact on
		6. Grammar is an integral part of a language class, where in students are trained to speak and write in Sanskrit without errors.	other Indian languages, such as Hindi, Kannada, and Malayalam. It
		7. This semester focuses on Krudanta, Karaka, Taddhita and Samasa.	has also influenced Sino-Tibetan languages.
			4. Students can learn to write Devnagari scripts, which can help them read modern languages like Hindi and Marathi.
			5. Students can be inspired to undertake a research project that delves deeper into a specific aspect of the literature studied.
I	BCA – UCASKL11	This course aims to get the students acquainted with classical Sanskrit Prose	1. Students can learn about the structure and rules of Sanskrit,

- Literature along with modern Sanskrit Literature.
- 2. It intends to give an understanding of literature, through which students will be able to understand and interpret the Sanskrit texts.
- 3. Texts from Ramayana, Mahabharata, Upanishad, Panchatantra, kadambari, NeethiShatakam etc, to enrich the imaginative and creative abilities of the students.
- 4. The study of Ancient Indian
 Literature would enable students
 gain moral values and life
 values which can be
 incorporated into their daily
 lives.
- 5. The course also seeks to help the students negotiate the text independently with the help of proficiency and Sanskrit Language and Grammar.
- 6. Grammar is an integral part of a language class, where in students are trained to speek and write in Sanskrit without errors.
 - 7. This semester focuses on Shabdaparichaya, Namapada, sarvanama, Lakaraas and Change of Voice.

- including verb conjugations, noun declensions, and sentence construction.
- 2. Students can learn to appreciate ancient Indian literature and culture, and gain a deeper understanding of the time's history, philosophy, and religious beliefs.
- 3. Sanskrit has had a major impact on other Indian languages, such as Hindi, Kannada, and Malayalam. It has also influenced Sino-Tibetan languages.
- 4. Students can learn to write Devnagari scripts, which can help them read modern languages like Hindi and Marathi.
- 5. Students can be inspired to undertake a research project that delves deeper into a specific

			aspect of the literature studied.
II	BCA – UCASKL21	 This course aims to get the students acquainted with classical Sanskrit Poetry. It intends to give an understanding of literature, through which students will be able to understand the poetic nuances. They develop the ability to use language in a descriptive way. This course helps students to know about Subhashitas, Itihaasa Kavya, Mahakavya etc and the various Chandas used in Sanskrit Poetry. The study of Ancient Indian Literature would enable students gain moral values and life values which can be incorporated into their daily lives. The course also seeks to help the students negotiate the text independently with the help of proficiency in Sanskrit Language and Grammar. Grammar is an integral part of a language class, where in students are trained to speak and write in Sanskrit without errors. This semester focuses on Krudanta, Karaka, Taddhita and Samasa. 	1. Students can learn about the structure and rules of Sanskrit, including verb conjugations, noun declensions, and sentence construction. 2. Students can learn to appreciate ancient Indian literature and culture, and gain a deeper understanding of the time's history, philosophy, and religious beliefs. 3. Sanskrit has had a major impact on other Indian languages, such as Hindi, Kannada, and Malayalam. It has also influenced Sino-Tibetan languages. 4. Students can learn to write
			Devnagari scripts, which can help them read modern languages like

	Hindi and Marathi.
	5. Students can be inspired to undertake a research project that delves deeper into a specific aspect of the literature studied.

NEP Syllabus -

Semester	Course/ Subject	Course outcome	Program outcome(summary of
Schlester	Course, Subject		all two semesters)
***		4 771	,
III	BA-	1. This course aims to	• At the graduation level in
	BASSKLN301	acquaint the students with	Sanskrit, students develop a
	BSW-	Champu Kavyas.	comprehensive
	BSWSKLN301	Champu Kavyas.	understanding of the Sanskrit language, its
	BVA –	2. Champu Kavyas	grammar, literature, and
	BVASKLN301	are the beautiful	cultural heritage.
	DVASICLINSUI	blend of prose and	cultural heritage.
	BHRD –	poetry in Sanskrit	• They acquire proficiency in
	HRDSKLN301	Literature which not	reading, writing, speaking,
		only reflect poetic	and understanding Sanskrit
		excellence but also	texts, including classical
		depicts	works, scriptures, and
		contemporary society and	philosophical treatises.
		highlights human	Graduates gain knowledge
		values, which	of major Sanskrit texts,
		would help students	authors, and literary
		in their daily lives.	traditions, enabling them to
			critically analyze and
		3. The students in this	interpret ancient Indian
		semester are also	literature.
		introduced to	They also develop an
		specific texts in keeping with their	appreciation for the rich cultural
		course of study.	and philosophical traditions
			associated with Sanskrit.
		4. The students of arts	
		study portions of	• Students enhance their
		Bharata's	research skills, enabling
		Natyashastra,	them to delve into original Sanskrit sources and
		Nirvahanashatra as	Sanskin sources and
		depicted in	

		Mahabharata, Ashtangayoga in Yogashastra, Indriyavijaya, Manonigraha from Koutilyas Arthashastra, which would not only helpin their course of study but also allows them imbibe moral values and life skills. 5. Students are introduced to the concepts of Alankarashastra, such as Rasa, Reeti, Guna etc. 6. The semester also focuses on Nyayas which enables students learn certain proverbs which have hidden in depth meaning and explanation. Understanding this would improve the writing and public	contribute to the field of Sanskrit studies. • Graduates of Sanskrit possess valuable skills for careers in academia, research, translation, archaeology, heritage preservation, cultural studies, and various fields that require expertise in Sanskrit language, literature, and ancient Indian wisdom
		would improve the	
IV	BA- BASSKLN401 BSW – BSWSKLN401 BVA – BVASKLN401 BHRD – HRDSKLN401	1. This course aims to acquaint the students with popular Classical Dramas in Sanskrit literature. 2. The course also teaches in detail the origin, development and lakshanas of Sanskrit Drama, which gives in depth knowledge	 At the graduation level in Sanskrit, students develop a comprehensive understanding of the Sanskrit language, its grammar, literature, and cultural heritage. They acquire proficiency in reading, writing, speaking, and understanding Sanskrit texts, including classical works, scriptures, and philosophical treatises.

literature. 3. Sanskrit Dramas not only reflect prose and poetic excellence but also depicts contemporary society and appreciation for	es gain knowledge r Sanskrit texts, rs, and literary, enabling them to ally analyze and et ancient Indian iterature. To develop an for the rich cultural phical traditions
3. Sanskrit Dramas not only reflect prose and poetic excellence but also depicts contemporary society and appreciation for	enabling them to ally analyze and at ancient Indian iterature. To develop an for the rich cultural phical traditions
society and appreciation for	or the rich cultural phical traditions
highlights human and philosop values, which helps associated the students.	with Sanskill.
 4. The students also learn the theoretical aspects related to the production of the play. The concepts like Rasa, Bhava, Abhina ya are blended into the teaching learning of the play. 5. The semester also focuses on Chandassu and Alankara, which Student research them to do Sanskr contribute them to do Sanskr them to do Sanskr contribute them to do Sanskr contribute	ts enhance their a skills, enabling delve into original rit sources and te to the field of skrit studies. Attest of Sanskrit valuable skills for its in academia, ch, translation, ology, heritage vation, cultural and various fields uire expertise in anguage, literature, ent Indian wisdom
BCMSKLN301 acquaint the students with Champu Kavyas. 2. Champu Kavyas are the beautiful blend of prose and poetry in Sanskrit Literature which not only reflect poetic excellence but also depicts contemprory society and highlights human values, which Sanskrit, s com unders Sanskrit grammar culture. They acquaint the students with Champu Kavyas. In the students with Champu Kavyas are the beautiful blend of prose and poetry in Sanskrit grammar culture. They acquaint the students with Champu Kavyas. In the students with Champu Kavyas are the beautiful blend of prose and poetry in Sanskrit grammar culture. They acquaint the students with Champu Kavyas. In the students with Champu Kavyas are the beautiful blend of prose and poetry in Sanskrit grammar culture. They acquaint the students with Champu Kavyas. In the students with Champu Kavyas are the beautiful blend of prose and poetry in Sanskrit grammar culture. They acquaint the students with commanders to students with poetry in Sanskrit, so commanders to students are the beautiful blend of prose and poetry in Sanskrit grammar culture. They acquaint the students with commanders to students with poetry in Sanskrit grammar culture. They acquaint the students with commanders to students	raduation level in students develop a apprehensive standing of the rit language, its ar, literature, and aral heritage. uire proficiency in writing, speaking, restanding Sanskrit cluding classical scriptures, and phical treatises. es gain knowledge or Sanskrit texts, res, and literary

- would help students in their daily lives.
- 3. The students in this semester are also introduced to specific texts in keeping with their course of study.
 - 4. The students of Commerce will study Arthaneeti, Rajaneeti from Kautilyas Arthashastram, Man agment and administration Skills, Manonigraha from Bhagavadgeeta, Tax ation, Rajaneeti, Adhikara Vikendrikarana from Mahabharata, Agriculture from Krishiparasharawhi ch would not only help in their course of study but also allows them imbibe moral valus and life skills.
 - 5. Students are also introduced to the art of Letter Writing and Resume Writing in Sanskrit.
- 6. The semester also focuses on Nyayas, which enables students learn certain proverbs which have hidden in depth meaning and explanation. Understanding this would improve the writing and public

traditions, enabling them to critically analyze and interpret ancient Indian literature.

They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit.

- Students enhance their research skills, enabling them to delve into original Sanskrit sources and contribute to the field of Sanskrit studies.
- Graduates of Sanskrit possess valuable skills for careers in academia, research, translation, archaeology, heritage preservation, cultural studies, and various fields that require expertise in Sanskrit language, literature, and ancient Indian wisdom

		speaking skills of	
		students.	
IV	BCOM – BCMSKLN401	1 This course aims to acquaint the students with popular Classical Dramas in Sanskrit literature. 2 The course also teaches in detail the origin, development and lakshanas of Sanskrit Drama, which gives in depth knowledge on Sanskrit literature. 3 Sanskrit Dramas not only reflect prose and poetic excellence but also depicts contemporary society and highlights human values, which helps the students. 4 The students also learn the theoretical aspects related to the production of the play. The concepts like Rasa, Bhava, Abhina ya are blended into the teaching learning of the play.	 At the graduation level in Sanskrit, students develop a comprehensive understanding of the Sanskrit language, its grammar, literature, and cultural heritage. They acquire proficiency in reading, writing, speaking, and understanding Sanskrit texts, including classical works, scriptures, and philosophical treatises. Graduates gain knowledge of major Sanskrit texts, authors, and literary traditions, enabling them to critically analyze and interpret ancient Indian literature. They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit. Students enhance their research skills, enabling them to delve into original Sanskrit sources and contribute to the field of Sanskrit studies. Graduates of Sanskrit possess valuable skills for careers in academia, research, translation,
		5 The semester also	archaeology, heritage
		focuses on	preservation, cultural
		Chandassu and	studies, and various fields
		Alankara, which	that require expertise in
		enables students	Sanskrit language, literature,
		learn to compose	and ancient Indian wisdom
	1	I	

		Shlokas and recite	
		them.	
III	BSC –	1 This course aims to	At the graduation level in
	BSCSKLN301	acquaint the	Sanskrit, students develop a
	FND –	students with	comprehensive
	FNDSKLN301	Champu Kavyas.	understanding of the
		2 Champu Kavyas	Sanskrit language, its
	BHS – BHSSKLN301	are the beautiful	grammar, literature, and cultural heritage.
		blend of prose and	
	BFD –	poetry in Sanskrit Literature which not	They acquire proficiency in
	BFDSKLN301	only reflect poetic	reading, writing, speaking, and understanding Sanskrit
	BID –	excellence but also	texts, including classical
	BIDSKLN301	depicts contemprory	works, scriptures, and
	BHM –	society and	philosophical treatises.
	BHMSKLN301	highlights human	Graduates gain knowledge
	BSA-	values, which would help students	of major Sanskrit texts,
	BSASKLN301	in their daily lives.	authors, and literary
	BFT –		traditions, enabling them to
	BFTSKLN301	3 The students in this semester are also	critically analyze and
		introduced to	interpret ancient Indian literature.
	BCS –	specific texts in	
	BCSSKLN301	keeping with their	They also develop an
		course of study.	appreciation for the rich cultural and philosophical traditions
		4 The students of	associated with Sanskrit.
		Science study	
		Sasyajeevavaividya	• Students enhance their
		m (Plant diversity)	research skills, enabling them to delve into original
		from Bhagavatha, Personal and	Sanskrit sources and
		Societal Health	contribute to the field of
		from	Sanskrit studies.
		Ashtangahrudayam	Graduates of Sanskrit
		, Ayurveda from	possess valuable skills for
		ancient Sanskrit literature,	careers in academia,
		Chemisrty from	research, translation,
		Mahabharata, Yoga	archaeology, heritage
		from Patanjala	preservation, cultural studies, and various fields
		Yogadarshanam	that require expertise in
		which would not	Sanskrit language, literature,
		only help in their	and ancient Indian wisdom
		course of study but	

		also allows them imbibe moral values and life skills. 5 The semester also focuses on Nyayas, which enables students learn certain proverbs which have hidden in depth meaning and explanation. Understanding this would improve the writing and public speaking skills of students.	
IV	BSC - BSCSKLN401 FND - FNDSKLN401 BHS - BHSSKLN401 BFD - BFDSKLN401 BID - BIDSKLN401 BHM - BHMSKLN401 BSA - BSASKLN401 BFT - BFTSKLN401 BCS - BCSSKLN401	1. This course aims to acquaint the students with popular Classical Dramas in Sanskrit literature. 2. The course also teaches in detail the origin, development and lakshanas of Sanskrit Drama, which gives in depth knowledge on Sanskrit literature. 3. Sanskrit Dramas not only reflect prose and poetic excellence but also depicts contemporary society and highlights human values, which helps the students. 4. The students also learn the theoretical aspects related to the production of the play. The	 At the graduation level in Sanskrit, students develop a comprehensive understanding of the Sanskrit language, its grammar, literature, and cultural heritage. They acquire proficiency in reading, writing, speaking, and understanding Sanskrit texts, including classical works, scriptures, and philosophical treatises. Graduates gain knowledge of major Sanskrit texts, authors, and literary traditions, enabling them to critically analyze and interpret ancient Indian literature. They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit. Students enhance their research skills, enabling them to delve into original Sanskrit sources and

		concepts like Rasa,Bhava,Abhina ya are blended into the teaching learning of the play. 5. The semester also focuses on Chandassu and Alankara, which enables students learn to compose Shlokas and recite them.	contribute to the field of Sanskrit studies. • Graduates of Sanskrit possess valuable skills for careers in academia, research, translation, archaeology, heritage preservation, cultural studies, and various fields that require expertise in Sanskrit language, literature, and ancient Indian wisdom
III	BBA – BBASKLN301	1. This course aims to acquaint the students with Champu Kavyas. 2. Champu Kavyas are the beautiful blend of prose and poetry in Sanskrit Literature which not only reflect poetic excellence but also depicts contemprory society and highlights human values, which would help students in their daily lives. 3. The students in this semester are also introduced to specific texts in keeping with their course of study. 4. The students of Commerce and Management will study the history of Management (Vanijyashastra) according to Sanskrit literature, Arthaneeti, Rajaneeti from	 At the graduation level in Sanskrit, students develop a comprehensive understanding of the Sanskrit language, its grammar, literature, and cultural heritage. They acquire proficiency in reading, writing, speaking, and understanding Sanskrit texts, including classical works, scriptures, and philosophical treatises. Graduates gain knowledge of major Sanskrit texts, authors, and literary traditions, enabling them to critically analyze and interpret ancient Indian literature. They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit. Students enhance their research skills, enabling them to delve into original Sanskrit sources and contribute to the field of Sanskrit studies. Graduates of Sanskrit possess valuable skills for

	Г	T	
		Chanakyaneeti, Taxa tion, Rajaneeti, Adhikara Vikendrikarana from Mahabharata, would not only help in their course of study but also allows them imbibe moral valus and life skills. 5. Students are also introduced to the art of Letter Writing and Resume Writing in Sanskrit. 6. The semester also focuses on Nyayas, which enables students learn certain proverbs which have hidden in depth meaning and explanation. Understanding this	careers in academia, research, translation, archaeology, heritage preservation, cultural studies, and various fields that require expertise in Sanskrit language, literature, and ancient Indian wisdom
		Understanding this would improve the writing and public	
137	DDA	speaking skills of students.	A 44h a sus dissetion level in
IV	BBA – BBASKLN401	This course aims to acquaint the students with popular Classical Dramas in Sanskrit literature. The course also	At the graduation level in Sanskrit, students develop a comprehensive understanding of the Sanskrit language, its grammar, literature, and cultural heritage.
		teaches in detail the origin,development and lakshanas of Sanskrit Drama,which gives in depth knowledge on Sanskrit	They acquire proficiency in reading, writing, speaking, and understanding Sanskrit texts, including classical works, scriptures, and philosophical treatises.
		literature. 3. Sanskrit Dramas not only reflect prose	Graduates gain knowledge of major Sanskrit texts, authors, and literary traditions, enabling them to

They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit. 4. The students also learn the theoretical aspects related to the production of the play. The concepts like Rasa, Bhava, Abhina ya are blended into the teaching learning of the play. 5. The semester also focuses on Chandassu and Alankara, which enables students learn to compose Shlokas and recit them. III BCA— BCASKLN301 III BCA— III This course aims to acquaint the students with Champu Kavyas. 2. Champu Kavyas. 3. At the graduation level in Sanskrit tudents develop a comprehensive understanding of the Sanskrit alaguage, its grammar, literature, and cultural heritage. III This course aims to acquaint the students with Champu Kavyas. III BCA— BCA— BCA— III This course aims to acquaint the students with Champu Kavyas. III BCA— BCA— III This course aims to acquaint the students with Champu Kavyas. III This course aims to acquaint the students with Champu Kavyas. III This course aims to acquaint the students with Champu Kavyas. III This course aims to acquaint the students with Champu Kavyas. III This course aims		and poetic excellence but also depicts	critically analyze and interpret ancient Indian literature.
learn the theoretical aspects related to the production of the play. The concepts like Rasa,Bhava,Abhina ya are blended into the teaching learning of the play. 5. The semester also focuses on Chandassu and Alankara, which enables students learn to compose Shlokas and recite them. III BCA — BCASKLN301 BCASKLN301 1. This course aims to acquaint the students with Champu Kavyas. 2. Champu Kavyas are the beautiful blend of prose and poetry in Sanskrit Literature which not only reflect poetic excellence but also depicts contemprory society and highlights human values, which would help students in their daily lives. 4. Graduates of Sanskrit possess valuable skills for careers in academia, research, translation, archaeology, heritage preservation, cultural studies, and various fields that require expertise in Sanskrit language, literature, and ancient Indian wisdom 4. At the graduation level in Sanskrit students develop a comprehensive understanding of the Sanskrit language, is grammar, literature, and cultural heritage. 5. Thes semester also focuses on Chandassu and Alankara, which enables students with Champu Kavyas. 6. At the graduation level in Sanskrit language, its grammar, literature, and cultural heritage. 7. At the graduation level in Sanskrit language, its grammar, literature, and cultural heritage. 8. At the graduation level in Sanskrit language, its grammar, literature, and cultural heritage. 9. They acquire proficiency in reading, writing, speaking, and understanding Sanskrit texts, including classical works, scriptures, and philosophical treatises. 9. Graduates goin sharit possess valuables willows, and various fields that require expertise in Sanskrit language, literature, and cultural heritage. 9. They acquire proficiency in reading, writing, speaking, and understanding Sanskrit texts, including classical works, scriptures, and philosophical treatises. 9. Graduates goin sanskrit possess valuables wildon.		society and highlights human values, which helps	appreciation for the rich cultural and philosophical traditions
BCASKLN301 to acquaint the students with Champu Kavyas. 2. Champu Kavyas are the beautiful blend of prose and poetry in Sanskrit Literature which not only reflect poetic excellence but also depicts contemprory society and highlights human values, which would help students in their daily lives. Sanskrit, students develop a comprehensive understanding of the Sanskrit language, its grammar, literature, and cultural heritage. They acquire proficiency in reading, writing, speaking, and understanding Sanskrit texts, including classical works, scriptures, and philosophical treatises. Graduates gain knowledge of major Sanskrit texts, authors, and literary traditions, enabling them to critically analyze and interpret ancient Indian		learn the theoretical aspects related to the production of the play. The concepts like Rasa, Bhava, Abhina ya are blended into the teaching learning of the play. 5. The semester also focuses on Chandassu and Alankara, which enables students learn to compose Shlokas and recite them.	research skills, enabling them to delve into original Sanskrit sources and contribute to the field of Sanskrit studies. • Graduates of Sanskrit possess valuable skills for careers in academia, research, translation, archaeology, heritage preservation, cultural studies, and various fields that require expertise in Sanskrit language, literature,
	III	to acquaint the students with Champu Kavyas. 2. Champu Kavyas are the beautiful blend of prose and poetry in Sanskrit Literature which not only reflect poetic excellence but also depicts contemprory society and highlights human values, which would help students in their	Sanskrit, students develop a comprehensive understanding of the Sanskrit language, its grammar, literature, and cultural heritage. • They acquire proficiency in reading, writing, speaking, and understanding Sanskrit texts, including classical works, scriptures, and philosophical treatises. • Graduates gain knowledge of major Sanskrit texts, authors, and literary traditions, enabling them to critically analyze and interpret ancient Indian

- 3. The students in this semester are also introduced to specific texts in keeping with their course of study.
- 4. The students of Science study Science, Maths, Physics, Atomic Science. Chemistry and Ayurveda as depicted in ancient Sanskrit literature, Yoga, Manonigraha from Patanjala Yogadarshanam, Personal and Societal Health from Ashtangahrudaya m,Karmayoga from Bhagavadgeeta, which would not only help in their course of study but also allows them imbibe moral values and life
- 5. The semester also focuses on Nyayas , which enables students learn certain proverbs which have hidden in depth meaning and explanation. Understanding this would improve the writing and public speaking skills of students.

skills.

- They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit.
 - Students enhance their research skills, enabling them to delve into original Sanskrit sources and contribute to the field of Sanskrit studies.
 - Graduates of Sanskrit possess valuable skills for careers in academia, research, translation, archaeology, heritage preservation, cultural studies, and various fields that require expertise in Sanskrit language, literature, and ancient Indian wisdom

IV	BCA-	1. This course aims to	At the graduation level in
	BCASKLN401	acquaint the	Sanskrit, students develop a
		students with	comprehensive
		popular Classical	understanding of the
		Dramas in Sanskrit	Sanskrit language, its
		literature.	grammar, literature, and
		2. The course also	cultural heritage.
		teaches in detail the	They acquire proficiency in
		origin,development	reading, writing, speaking,
		and lakshanas of	and understanding Sanskrit
		Sanskrit	texts, including classical
		Drama, which gives	works, scriptures, and
		in depth knowledge	philosophical treatises.
		on Sanskrit	
		literature.	Graduates gain knowledge
		3. Sanskrit Dramas not	of major Sanskrit texts,
		only reflect prose	authors, and literary
		and poetic	traditions, enabling them to
		excellence but also	critically analyze and
		depicts	interpret ancient Indian literature.
		contemporary	merature.
		society and	They also develop an
		highlights human	appreciation for the rich cultural
		values, which helps	and philosophical traditions
		the students.	associated with Sanskrit.
		4. The students also	Students enhance their
		learn the theoretical	research skills, enabling
		aspects related to	them to delve into original
		the production of	Sanskrit sources and
		the play. The	contribute to the field of
		concepts like	Sanskrit studies.
		Rasa,Bhava,Abhina	Construction of C 1 1
		ya are blended into	Graduates of Sanskrit page 28 yelloble glville for
		the teaching	possess valuable skills for
		learning of the play.	careers in academia, research, translation,
			archaeology, heritage
		5. The semester also focuses on	preservation, cultural
		Chandassu and	studies, and various fields
		Alankara, which	that require expertise in
		enables students	Sanskrit language, literature,
		learn to compose	and ancient Indian wisdom
		Shlokas and recite	
		them.	
		-1101111	

STATISTICS

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
I	Descriptive Statistics	 Acquire knowledge of introductory statistics, its scope and importance in various areas such as Medical, Engineering, Agricultural and Social Sciences etc Learn various types of data, their organization and descriptive statistics such as presentations in tabular form graphs and summary measures such as measures of central tendency and dispersion etc. Learn correlation, curve fitting, regression analysis, regression diagnostics, partial and multiple correlations. 	 Develop and demonstrate an ability to understand major concepts in various disciplines of statistics. Solve analytical problems independently and draw logical conclusions. Analyze, interpret the data and hence help policy makers to take a proper decision. Have a knowledge regarding use of data analytics tools like excel R programming. Use modern statistical techniques an statistical software to understand the
II	Probability and Distributions-I	 Conceptualize the probabilities of events including frequentist and axiomatic approach. Learn concept of discrete and continuous random variables and their probability distributions including 	concepts of statistics. • Think, acquire knowledge and skills through logical reasoning and inculcate the culture of self-learning • Create an awareness about

	<u> </u>	,,• 4 1	.1
		expectation and moments.	the impact of statistics in real life and
		 Learn Standard univariate discrete and continuous distributions and their applications disciplines of science. 	development outside the scientific community.
III	Calculus and Probability Distributions	 Judge continuity of a function, find integrations and solve problems of differentiability Solve problems of various analytical environments using different distributions and their properties. 	
		 Find sampling distributions of functions of random variables and explore their applications 	
IV	Statistical Inference-I	Carryout statistical analysis by identifying families of distributions and the use of order statistics	
		To find estimators using different methods of estimation and compare estimators.	
		• To carryout statistical inference using different tests of hypotheses under different scenarios.	
		Generate random variables and use	

		these generated random variables for illustration of concepts studied in this course.	
V	Design and Analysis of Experiments	 Identity fixed and random effect models and one- way and two-way classified data. 	
		 Choose appropriate designs (CRD, RBD, LSD) and missing plot techniques for a real-life problem. 	
		• Identity appropriate factorial experiments for the real-life problem.	
		Develop complete and partial confounding for factorial experiments.	
V	Matrix algebra and regression analysis	Demonstrate and understanding of basic concepts of matrix algebra, including determinants, inverse and properties of various types of matrices.	
		 Apply matrix algebra and linear algebra techniques to solve systems of linear equations, determine the rank of matrix, 	
		understanding quadratic forms and	

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		their applications in statistics, characteristic roots and vectors.	
		 Understand the various aspects in simple and multiple linear regression models and their interpretation. 	
		 Apply regression analysis techniques to real world data sets. 	
VI	Statistical Inference-II	 Basic aspects of decision theory and apply decision principles and Bayes and minimax decision rule. 	
		 Apply and interpret UMP test, MLR property and Likelihood 	
		 Explore about sequential inference. 	
		 Apply one sample and two sample nonparametric tests. 	
VI	Sampling techniques and Statistics for national development	 Understand the difference between probability and nonprobability sampling. 	
		 Understand different sampling techniques. 	
		Understand official statistical system in India and their functions.	

	Understand the role statistics in national development.	
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ZOOLOGY (UG)

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
I Sem (SEP)	Animal Diversity -I (Non chordates)	To identify the Invertebrates 2. to study the morphology of invertebrates 3. To study the Life cycle and pathogenicity of endoparasites	Analyze complex interaction among various animals of different phyla, their distribution and relationship with Environment
II Sem (SEP)	Animal Diversity -II (Chordates)	To identify the Chordates 2. to study the morphology of vertebrates 3. Classify Phylum Protochordates to Mammalia.	Student gain knowledge and skill in Fundamentals of animal sciences, understand the complex interactions among various living organisms

I Sem (NEP)	Cytology, Genetics and Infectious Diseases	1. The structure and function of the cell organelles. 2. The chromatin structure and its location. 3. The basic principle of life, how a cell divides leading to the growth of an 4. Organism and also reproduces to form a new organism. 5. How a cell communicates with its neighbouring cells. 6. The principles of inheritance, Mendel 's laws and the deviations. 7. How environment plays an important role by interacting with genetic factors. 8. Detect chromosomal aberrations in humans	Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms. Analyze complex interactions among the various animals of different phyla, their distribution and their relationship with the environment. Correlates the physiological processes of animals and relationship of organ systems. Understands the complex evolutionary processes and behavior of animals. Gain knowledge of small-scale industries like sericulture, fish farming, bee keeping, aquaculture, animal husbandry poultry
II Sem (NEP)	Biochemistry and Physiology	aberrations in humans and study of pedigree analysis. 1.To develop a deep understanding of structure of biomolecules like proteins, lipids and carbohydrates. 2. How simple molecules together form complex macromolecules. 3. To understand the thermodynamics of enzyme catalysed reactions.	animal husbandry, poultry farm. Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms. Understands about various concepts of genetics and its importance in human health. Understanding of environmental conservation processes and its importance, pollution control and biodiversity

		 4. Mechanisms of energy production at cellular and molecular levels. 5. To understand various functional components of an organism. 6. To explore the complex network of these functional components. 	and protection of endangered species. Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties. Apply the knowledge and understanding of Zoology to one's own life and work.
		7. To comprehend the regulatory mechanisms for maintenance of function in the body.	Develops empathy and love towards the animals.
III Sem (NEP)	Molecular Biology, Bioinstrumentation & Techniques in Biology	1. After successful accomplishment of the course, the learners will be able to acquire better understanding and comprehensive knowledge regarding most of the essential aspects of Molecular Biology subject which in turn will provide a fantastic opportunity to develop professional skill related to the field of molecular biology. 2. The course will mainly focus on the study of principal molecular events of cell incorporating DNA Replication, Transcription and Translation in prokaryotic as well as eukaryotic organisms. 3. Acquiring knowledge on instrumentation and techniques in biology	

IV Sem (NEP)	Gene Technology, Immunology and Computational Biology	Acquaint knowledge on versatile tools and techniques employed in genetic engineering and recombinant DNA technology.	
		2. An understanding on application of genetic engineering techniques in basic and applied experimental biology.	
		3. To acquire a fundamental working knowledge of the basic principles of immunology.	
		4. To understand how these principles, apply to the process of immune function.	
		5. Use, and interpret results of, the principal methods of statistical inference and design; helps to communicate the results of statistical analyses accurately and effectively; helps in usage of appropriate tool of statistical software.	
V Sem (NEP)	NON-CHORDATES AND ECONOMIC ZOOLOGY	• Group the animals on the basis of their morphological characteristics/ structures.	
		Demonstrate comprehensive identification abilities of Non-Chordate diversity.	
		Explain structural and functional diversity of Non-Chordates.	

		 Develop understanding on the diversity of life with regard to protists, no chordates and chordates. Examine the diversity and evolutionary history of a taxon through the construction of a basic phylogenetic/ cladistics tree 	
V Sem (NEP)	CHORDATES AND COMPARATIVE ANATOMY	Demonstrate comprehensive identification abilities of chordate diversity Explain structural and functional diversity of chordate diversity Understand evolutionary relationship amongst chordates Take up research in biological sciences. Realize that very similar physiological mechanisms are used in very diverse organisms. Get a flavour of research by working on project besides improving their writing skills. It will further enable the students to think and interpret individually	

VI Sem (NEP)	EVOLUTIONARY & DEVELOPMENTAL BIOLOGY	 • Understand that by biological evolution we mean that many of the organisms that inhabit the earth today are different from those that inhabited it in the past. • Understand that natural selection is one of several processes that can bring about evolution although it can also promote stability rather than change. 	
		• Understand how the single cell formed at fertilization forms an embryo and then a full adult organism.	
		Integrate genetics, molecular biology, biochemistry, cell biology, anatomy and physiology during embryonic development.	
		• Understand a variety of interacting processes, which generate an organism's heterogeneous shapes, size, and structural features.	
		• Understand how a cell behaves in response to an autonomous determinant or an external signal, and the scientific reasoning exhibited in experimental Life sciences	

VI Sem (NEP)	ENVIRONMENTAL	• Develop an	
(1,221)	BIOLOGY, WILDLIFE	understanding of how	
	MANAGEMENT &	animals interact with	
	CONSERVATIONS	each other and their	
		natural environment. •	
		Develop the ability to use	
		the fundamental	
		principles of wildlife	
		ecology to solve local,	
		regional and national	
		conservation and	
		management issues.	
		 Develop the ability to 	
		work collaborative team-	
		based projects.	
		• Coin an appropriation for	
		• Gain an appreciation for the modern scope of	
		scientific inquiry in the	
		field of Wildlife	
		conservation and	
		management	
		• Develop an ability to	
		analyse, present and	
		interpret Wildlife	
		conservation and	
		management practices.	

B.SC FASHION DESIGN

Semester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
1 st semester	B.Sc Fashion Design	1.communication improved 2.Skiils of practical's increased 3. Designing Ability Increased 4. Creativity increased	All first semester students creativity and working skills developed
3 rd semester	B.Sc Fashion Design	1. Communication Improved 2. Skills of Sewing practical Knowledge and ability increased 3. Designing skills increased	All third semester students creativity and working skills developed practically
5 th semester	B.Sc Fashion Design	1.Designing ability creating a new collections new designs Creating new designing ability skills 2. Skills of creating new trendy jewelries	All 5 th semester studentas has ability to skills of creating own business

and	D.C. E. 1:	y + 4 +44 A	A 11 C .1
2 nd sem ester	B.Sc Fashion Design	Improving skills of communication Coloring of Fabrics Skills of developing drawing rendering	All 6 th semester students has ability to skills of creating own designs and developing
4 th semester	B.Sc Fashion Design	Skills of developed the Sewing and designing with apparel production Skills of testing of fabrics	All the 4 th semester students has ability to create own business and also ability of working under industry designer, merchandiser
6 th semester	B.Sc Fashion Design	Trained under garment industry as a merchandiser Improved communication in Their field in trainin	All students of six semester are able to work under garment industry as quality controller, Designer, Merchandiser, Visual merchandiser, Jewelries designer Own business like Boutique owner Garment industry

SOCIOLOGY

Sem ester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
I	Sociology Fundamental USSOCBC11	 Student will able Understand the linkage between the social change and \factors. To know the theoretical foundations of Sociology on which edifice of traditional Sociological theories are built. Able to develop critical thinking, analytical To. learn the historical, socio-economic and intellectual forces in the rise of sociological theory. Able to understand the sociological theories of founding fathers 	 Understand the emergence of Sociology. Know the foundations of Sociology. Understand the contributions of early sociologists. Impart critical thinking Inculcate analytical ability to interpret the social scenario. Understand the forces in the rise of sociological theory. Understand the concepts of early sociologists Student will able to understand the nature of inequalities in the society
II	Social Change, Stratification and Social Mobility	Student will able to understand Nature of inequalities in the society	9. The forms of social stratification in India and their dynamics

		 Dynamics of social groupings and discrimination. 	10. The dynamics of social groupings and discrimination
		 Theories behind the social stratification and mobility. 	11. The modes of social improvement people use in their life time.
		• The modes of social improvement people use.	12. The theories behind the social stratification and mobility
		 Reservation policy and implications. Welfare activities for the 	13. To understanding of the prevailing social issues
		Welfare activities for the OBC Nature of social mobility	and problems 14. Focus on the structural
III	Indian Society: Continuity and Change	• To Understand social issues and problems of contemporary India.	linkages and interrelationships. 15. To Sensitize to the
	Change	To know change agents - governmental and non-	emerging social issues of contemporary India.
		governmental organizations	16. Acquire sociological understanding of social issues and problems 5.
		 To know Emerging social issues and problems of contemporary India,. 	Gain a better understanding of their own situation and region.
		 To know Sociological understanding of issues and problems 	17 Analyze the nature and direction of change in Indian society
		 To Empower to deal with issues and problems. 	18 Know the theoretical foundations of Sociology on
		 Better understanding of their own situation and region 	which edifice of modern Sociological
III	Foundations of	To Understand the	theories are built. 19 to Develop critical thinking,
	Sociological Theory	emergence of Sociology.	analytical ability to interpret the social scenario around.
		 To Understand the contributions of early sociologists. 	20 Learn the historical, socio- economic and intellectual forces
		 To Impart critical thinking 	in the rise of sociological
		To Inculcate analytical	theory. 21 ToUnderstand the
		ability to interpret the social scenario.	sociological theories of early

		 To Understand the forces in the rise of sociological theory. To Understand the concepts of early sociologists 	sociologists as Auguste Comte, Herbert Spencer, Karl Marx, Max Weber and Emile Durkheim 22 The nature of inequalities in the society
III	Social Stratification and Mobility	 Understand the nature and role of social stratification nature of social mobility and its type To Critically understand and analyse different theories of social stratification Nature of inequalities in the society Theories behind the social stratification and mobility Reservation policy and implications Welfare activities for the OBC 	23. The forms of social stratification in India and their dynamics 2425 24. The dynamics of social groupings and discrimination 25. The modes of social improvement people use in their life time 26 to understand The theories behind the social stratification and mobility. 27 Able to understand sociological understanding of rural and urban society in India 28 To acquaint students with basic concepts in rural and urban studies
	Sociology of Urban Life in India	 To Define the basic concepts of Urban Sociology and types of city To Analytically understand theoretical issues related to urban society To Critically evaluate urban policies and rural problems To Knowle rural and urban governance and rural reconstruct and development 	29 To analyse rural and urban problems in India 30 To provide knowledge of rural and urban governance. 31 To impart sociological skills to reconstruct rural institutions and rural development programmes to plan, monitor and evaluate rural development programmes. 32 To develop the understanding of students regarding the linkages between urban and rural

		 To know Development programmes to plan, monitor and evaluate. Understanding of the linkages between urban and rural reality
IV	Sociology of Marginalised Groups	 To Know marginalization and marginalized groups in India To Understand the impact of powerlessness in social life To Focus on the neglected segments of the population. To Understand tribal communities and nomadic tribes. To Focus communities in extreme poverty, deprivation and discrimination. To know Nature of social exclusion in India. To Know Nature of social exclusion in India. To Know marginalization and the impact of powerlessness in social life To focus on the segments of population lived on the margins of society. To Analyze the social situation of groups that have not received adequate attention. To sensitize students to the significance of the sociological study on Dalits To study the tribal communities and nomadic castes and tribes.
IV	Population and Society	 To Define the basic concepts of population studies To Understand the dynamics of population from sociological perspectives To Understand problems around India's population To Critically analyze population policies of India To Define the basic communities which have suffered extreme poverty, deprivation and discrimination over a long period of time. To provide sociological understanding of population and society

V	Social Entrepreneurshi p	 To provide knowledge about social entrepreneurship To help to develop social entrepreneurship imagination To help them to start their own social enterprise or not for profit start-up as well as act innovative in the already working organization 	To acquaint students with basic concepts in demographic studies To analyze population problems in India and trends To impart sociological skills to conduct population studies. To develop the understanding regarding the linkages between population and development Understand the theories on population and its policies
V	Tribal Society	 To provide basic knowledge about social organization among tribal To Critically understand the implications of changes occurring To undertake micro research work and communicate effectively 	 Understand the scope and need for social entrepreneurship Plan and implement socially innovative ideas Equipped to start their own social enterprise or non for profit organization. To provide basic knowledge about social organization among tribal To. Critically understand the implications of changes occurring

			To Undertake micro research work and communicate effectively
V	Statistics in Social Research	To introduce statistical techniques for analyzing social science data	To Introduction to sociological research and methods
		To compute these basic statistics as appropriate for the data at hand	To familiarize the students with the process of research
		To Learn techniques for summarizing data, examining relationships among variables, generalizing from samples to populations, and testing statistical hypotheses	To introduce statistical techniques for analyzing social science data
VI	Sociological Perspectives	To introduce major Sociological theoretical approaches	Able to introduce major Sociological theoretical approaches
		To introduce and use fundamental categories of theory	To introduce and use fundamental categories of theory
		Compare and contrast the ways different theorists use the same or	Compare and contrast the ways different theorists use the same or similar
		similar concepts to build or present their ideas	concepts to build or present their ideas
VI	Sociology of Health	To Understand the concept of health, illness and social conditions	Able to Understand the concept of health, illness and social conditions
		To Analyze the relationship between social factors and health status	To Analyse the relationship between social factors and health status
		To Understand the role of medical doctors, paramedics, pharmaceutical industry and social institutions in maintaining and promoting health	To Understand the role of medical doctors, paramedics, pharmaceutical industry and social institutions in

			maintaining and promoting health
VI	Society in Karnataka	 Enhance Sociological knowledge about the Local and Regional context of Karnataka 	To Enhance Sociological knowledge about the Local and Regional context of Karnataka
		 To Acquaint students with the changing trends in Karnataka with special reference to 	To Acquaint students with the changing trends in Karnataka with special reference to
		 To Development processes and politics 	Development processes and politics
		 To Learn about the unique cultures in Karnataka 	To Learn about the unique cultures in Karnataka
VI	Project Dissertation	To Able to conceptualize, formulate and conduct research projects.	conceptualize, formulate and conduct simple research
		 To Assess the research studies and findings. 	projects. Able to learn to assess the research studies and findings.
		 Acquaint skills for library work and documentation. 	To Develop the skills for library work and documentation for research.
		 To develop logical thinking and critical analysis. 	To develop favourable attitudes for the integration of research and theory.
		 To learn Field-work skills and experience. 	To Develop logical thinking and critical analysis.
		• To develop Writing skills, reference skills	
		 To learn Techniques of data collections. Methodologies in social analysis 	

ENGLISH

Semester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
II,IV,V and VI (NEP)	English	 Be able to demonstrate a broad knowledge of major and minor writers, texts and contexts defining issues of canonical and non-canonicalliterature Be enriched by familiarity with other literatures and more importantly with Indian writers, their ethos and tradition of writing and discourse 	PO-01: Be able to demonstrate a broad knowledge of major and minor writers, texts and contexts, defining issues of canonical and non-canonical literature PO-02: Have honed their skills of understanding, applying, analyzing, and evaluating literature
		3. Have honed their skills of remembering, understanding, applying, analyzing, and	PO-03: Be able to write with clarity, creativity and persuasiveness.
		evaluating literature4. Be able to write with clarity, creativity and persuasiveness	PO-04: Develop and demonstrate an awareness of the significance of literature and literary forms.
		5. Develop and demonstrate an awareness of the significance of literature and literary forms	PO-05: Be equipped with advanced literary and linguistic skills.
		6. Be equipped with advanced literary and linguistic skills7. Have competency in the use of	PO-06: Have competency in the use of English from /for a variety of domains.
		English from /for a variety of domains	PO-07: Have a spirit of inquiry and develop critical thinking.
		8. Have a spirit of inquiry and critical thinking9. Be able to articulate thoughts and generate /understand	PO-08: Be able to articulate thoughts and generate /understand multiple interpretations of texts
		multiple interpretations 10.Locate and contextualize texts across theoretical orientations and cultural spaces 11.Possess reading and writing	PO-09: Locate and contextualize texts across theoretical orientations and cultural spaces
		skills catering to academic and other professional disciplines viz. print and electronic media, advertising, content writing etc.	PO-10: Possess reading and writing skills catering to academic and other professional requirements, viz. print and electronic media,

		12. Imbibe a multi-disciplinary approach in higher education and research 13.Be skilled in multiple domains and careers 14. Become adept at the use of English in the current technological climate 15. Have hands-on work experience.	advertising, content writing etc. PO-11: Imbibe a multidisciplinary approach in higher education and research PO-12: Be skilled in multiple domains of knowledge and prepared for multiple careers PO-13: Become adept in the use of English in the current technological climate
I and II SEMISTER (SEP)	ENGLISH	At the end of the course on Reading Literature, the students would: CO-01: Be familiar with terms and concepts in Literature CO-02: Be familiar with the generic construction of texts and the effects they produce in readers. CO-03: Be able to decipher the ways in which texts orient reader expectations. CO-04: Become alert to the ways in which texts reaffirm or critique the prevailing historical commonsense of the text as well as the reader. CO-05: Prepare the student as teachers of language and Literature	PO-01: Be able to demonstrate a broad knowledge of major and minor writers, texts and contexts, defining issues of canonical and non-canonical literature PO-02: Have honed their skills of understanding, applying, analyzing, and evaluating literature PO-03: Be able to write with clarity, creativity and persuasiveness. PO-04: Develop and demonstrate an awareness of the significance of literature and literary forms. PO-05: Be equipped with advanced literary and linguistic skills. PO-06: Have competency in the use of English from /for a variety of domains. PO-07: Have a spirit of inquiry and develop critical thinking.

			PO-08: Be able to articulate thoughts and generate /understand multiple interpretations of texts PO-09: Locate and contextualize texts across theoretical orientations and cultural spaces
			PO-10: Possess reading and writing skills catering to academic and other professional requirements, viz. print and electronic media, advertising, content writing etc.
			PO-11: Imbibe a multi- disciplinary approach in higher education and research
			PO-12: Be skilled in multiple domains of knowledge and prepared for multiple careers
			PO-13: Become adept in the use of English in the current technological climate
I and II	Optional	At the end of the course on Indian	PO-01: Be able to demonstrate
SEMISTER (SEP)	English	Writing in English, the students would: CO-01: Be familiar with the	a broad knowledge of major and minor writers, texts and contexts, defining issues of canonical and non-canonical literature
		history of Indian writing in English and the politics of its colonial origins.	PO-02: Have honed their skills of understanding, applying, analyzing, and evaluating
		CO-02: Be familiar with Indian English writers, and the spectrum of Indian English writings ranging from the eighteenth century to the present.	PO-03: Be able to write with clarity, creativity and persuasiveness.
		CO-03: Learn about the many ways in which, and the many	PO-04: Develop and demonstrate an awareness of

reasons for which, Indians have appropriated a foreign language and made it their own.

CO-04: Have a nuanced understanding of how Indian English writing translated indigenous cultures and life patterns into the English language and the structures of power within which this took place.

CO-05: Be professionally equipped to teach a paper in Indian Writing in English, to become editors in publishing houses and to review the proliferating number of Indian English writings that are being published at present.

the significance of literature and literary forms.

PO-05: Be equipped with advanced literary and linguistic skills.

PO-06: Have competency in the use of English from /for a variety of domains.

PO-07: Have a spirit of inquiry and develop critical thinking.

PO-08: Be able to articulate thoughts and generate /understand multiple interpretations of texts

PO-09: Locate and contextualize texts across theoretical orientations and cultural spaces

PO-10: Possess reading and writing skills catering to academic and other professional requirements, viz. print and electronic media, advertising, content writing etc.

PO-11: Imbibe a multidisciplinary approach in higher education and research

PO-12: Be skilled in multiple domains of knowledge and prepared for multiple careers

PO-13: Become adept in the use of English in the current technological climate

MALAYALAM

Semester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
I	B.A/B.Sc/B.com/B.C.A UASMLL11/USCMLL11 UCMMLL11/UCAMLL11	1.Make awareness language proficiency 2. Giving knowledge about ancient Malayali literature 3. Giving awareness of Kerala culture and tradition	Acquire the ability to apply the basic tenants of logic and science to thoughts, actions and interventions 2 Develop the ability to chart out a progressive direction for actions and interventions by learning to recognize the presence of hegemonic ideology within certain dominant notions 3 Develop self- critical abilities and also the ability to view positions, problems and social issues from plural perspectives PO 2 Effective Citizenship 1 Learn to participate in nation building by adhering to the principles of sovereignty of the nation, socialism, secularism, democracy and the values that guide a republic. 2 Develop and practice gender sensitive attitudes, environmental awareness, the ability to understand and resist various kinds of discriminations and empathetic social awareness about various kinds of marginalisation. 3 Internalise certain

			highlights of the nations and region's history. Especially of the freedom movement, the renaissance within native societies and the project of modernisation of the post-colonial society
II	B.A/B.Sc/B.com/B.C.A UASMLL21/USCMLL21 UCMMLL21/UCAMLL1	Make awareness about Sanskrit drama Make awareness about kathakali Malayalam grammar and composition	
III	BBA BBAMLLN301	 Awareness about modern literature Awareness about romanticism Poems of mahakavi vallathol 	
iv	BBA BBAMLLN401	 Make awareness about post modern poem Awareness about the novels of uroob Awareness about modern drama 	

PG COURSES

M.Sc. Biotechnology

Semester	Core subjects	Course outcome	Program outcome
	3		(summary of all
			semesters)
I	Biochemistry and biophysics		PO 1 To engage and to
		CO 1. Understand	involve the student in a
		chemical bonds,	challenging curriculum of
		thermodynamic	the state-of-theart in
		principles and their	Biotechnology through a
		applications in	systematic study of the
		biological systems,	basics that support
		and importance of	excellence in competitive
		pH and buffers in the	examinations and lend
		cells.	competence to its
		CO 2. Elucidate	application in the medical,
		diversity and	agriculture, industrial,
		function of major	pharmaceutical,
		groups of biomolecules-	environmental sectors
			through value-based education towards
		carbohydrates,	
		proteins, and lipids along with nucleic	sustainable development. PO 2 The student is
		acids.	equipped with the required
		CO 3. Differentiate	soft, transferable and
		catabolic and	technical skills
		anabolic pathways of	through adequate practical
		carbohydrates, amino	sessions, test your learning
		acids, nucleic acids	though periodic tests, self-
		and lipids.	study by means of
		CO 4. Analyze	assignments and
		diverse structures	presentation skills through
		seen in proteins	seminars, all essential for
		including its	careers in the industry,
		secondary, tertiary	academia or
		and quaternary	entrepreneurship.
		structure.	
	N 1 1 111 1	CO 1 II	
	Molecular cell biology	CO 1. Have a primer	
		on cell membrane structure and	
		function, prokaryotic and eukaryotic cells,	
		membrane structure,	
		transport, electrical	
		properties and	
		composition.	
	l	Composition.	

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		CO 2. Learn	
		principles of	
		techniques used to	
		study cellular	
		ultrastructure such as	
		advanced	
		microscopic	
		techniques	
		CO 3. Understand	
		sub-cellular	
		organization	
		CO 4. Unravel	
		chromatin and	
		chromosomes	
		CO 5. Comprehend	
		the fascinating world	
		of cell division,	
		mitosis, meiosis, cell	
		cycle, molecular	
		mechanisms that	
		regulate life and	
		death of a cell.	
		404	
	Microbiology	CO 1. Develop	
		theoretical	
		knowledge about	
		origin and evolution	
		of microorganisms,	
		CO 2. Learn	
		comparative	
		morphology,	
		structure and	
		reproduction in	
		bacteria,	
		Cyanobacteria, yeast,	
		fungi and viruses	
		CO 3. Acquire	
		knowledge on	
		interactions of	
		microorganisms with	
		plants and animals,	
		various diseases	
		caused by	
		microorganisms in	
		humans and the role	
		of antibiotics in	
I			
		controlling the	
		controlling the diseases	

CO 4. Learn about the role of microorganisms in spoilage of food and various methods of food preservation. Molecular Genetics CO 1. Understand Mendelian laws of inheritance, deviations and exceptions to these laws. CO 2. Elucidate various types of recombination in Bacteria including transformation, transduction and conjugation CO 3. Comprehend various types of mutations at the molecular level and types of DNA repair to fix the mutations upon DNA damage. CO 4. Learn about mobile genetic elements—transposable elements, mechanism of translocation and their distribution from prokaryotes to higher organism. CO 5. Understand population genetics, and about genotype and allelotype frequency calculation. CO 6. Differentiate between forward and reverse genetics along with gene silencing techniques and gene knockout			
Mendelian laws of inheritance, deviations and exceptions to these laws. CO 2. Elucidate various types of recombination in Bacteria including transformation, transduction and conjugation CO 3. Comprehend various types of mutations at the molecular level and types of DNA repair to fix the mutations upon DNA damage. CO 4. Learn about mobile genetic elements-transposable elements, mechanism of translocation and their distribution from prokaryotes to higher organism. CO 5. Understand population genetics, and about genotype and allelotype frequency calculation. CO 6. Differentiate between forward and reverse genetics along with gene silencing techniques		microorganisms in spoilage of food and various methods of	
	Molecular Genetics	Mendelian laws of inheritance, deviations and exceptions to these laws. CO 2. Elucidate various types of recombination in Bacteria including transformation, transduction and conjugation CO 3. Comprehend various types of mutations at the molecular level and types of DNA repair to fix the mutations upon DNA damage. CO 4. Learn about mobile genetic elements-transposable elements, mechanism of translocation and their distribution from prokaryotes to higher organism. CO 5. Understand population genetics, and about genotype and allelotype frequency calculation. CO 6. Differentiate between forward and reverse genetics along with gene silencing techniques	

	Enzymology	CO 1. Acquire hands-on training in enzymology practicals CO 2. Understand enzyme kinetics using suitable examples CO 3. Apply enzymes in industry CO 4. Learn advantages of immobilization of enzymes
II	Molecular Biology	CO 1. Understand the processes involved in the central dogma of molecular biology i.e. replication, transcription and translation in both prokaryotic and eukaryotic systems. CO 2. Comprehend translational modifications, transport and inhibition. CO 3. Learn about control and regulation of gene expressions and operon models are discussed. CO 4. Elucidate mechanisms and agents of cancer. CO 5. Acquire knowledge in developmental biology and cell signalling.
	rDNA Technology	CO 1. Use the various tools and strategies utilized in the construction and production of

T	
	recombinant DNA
	molecules in vitro
	and in vivo.
	CO 2. Learn the
	various techniques
	utilized for the
	introduction of
	recombinant DNA
	molecules in
	bacteria, yeast and
	mammalian cells.
	CO 3. Elucidate the
	steps involved in the
	genetic engineering
	from amplification of
	DNA molecules to
	cloning of molecules,
	and screening
	strategies for clone
	identification.
	CO 4. Understand the
	importance of high
	capacity vectors,
	plasmids and the
	various steps
	involved in genomic
	library preparation to
	understand complex
	genomes.
	CO 5. Differentiate
	between different
	gene mapping
	methods, analysis of
	gene expression by
Immunotechnology	CO 1. Understand the
	structure,
	components and
	functioning of the
	immune system,
	including toxins and
	toxin resistance
	CO 2. Understand the
	molecules related to
	immune system such
	as immunoglobulins,
	antigens and the
	genes associated with
	diversity and

	specificity, tissue
	histocompatibility
	CO 3. Differentiate
	reactions and
	concepts and various
	techniques associated
	with
	immunoglobulins
	such as in diagnostics
	and research, vaccine
	development etc.
	CO 4. Use the
	knowledge regarding
	advances in the field
	for application in
Diagnalytical Tasksians	therapeutics
Bioanalytical Techniques	CO 1. Apply the
	principle, instrumentation of
	bio analytical
	techniques such as
	chromatography and
	electrophoresis for
	the separation of
	different
	biomolecules
	CO 2. Learn the
	principle and
	application of
	different
	spectroscopic
	methods for the
	structural analysis of
	biomolecules.
	CO 3. Demonstrate
	the application of
	radioisotope
	techniques for the
	quantification of
	biomolecules based
	on isotope labelling.
	CO 4. Understand the
	types and properties
	of different
	nanostructures and
	nanoparticles for the
	future application of
	nanotechnology in
	nanoteennology in

	different fields of
	science.
Radiation Biotechnology	CO 1. Understand the
Radiation Diotectinology	types, sources and
	measures of radiation
	CO 2. Acquire
	training in laboratory
	practices in
	radiobiology
	laboratory CO 3.
	Understand use of
	radioisotopes and
	radiotechniques
	CO 4. Link living
	cells/tissues with
	radiation including
	radiation including
	damage and use in
	therapeutics
	CO 5. Know about
	research tools and
	techniques using
	radiation and
	radioactive isotopes
Biotechnology in Daily Life (OE)	CO 1. Understand
Biotecimology in Burly Ene (OE)	microbial diversity
	and microflora
	associated with
	humans and animals,
	interaction between
	microbes, plants and
	animals and design
	procedures for the
	production of various
	industrially important
	compounds.
	CO 2. Comprehend
	genetic manipulation
	of plants for the
	production of elite
	plants with superior
	traits such as insect
	resistance, improved
	nutrient content etc.
	and apply plant tissue
	culture methods for
	the propagation of
	plants
	plants

	1	
		CO 3. Compare the
		interaction of
		microbes with plants
		based on benefits and
		harmful effects, and
		application of
		microflora in the
		improvement of
		environment.
		CO 4. Differentiate
		the techniques
		involved in the
		animal biotechnology
		for production of
		superior livestock,
		uses of assisted
		reproductive
		techniques for
		preservation and
		propagation of
		superior germplasm,
		genetically modified
		organisms, uses in
		therapy, cloning etc.
	Food Security (OE)	CO 1. Understand the
	y (-)	composition of food
		and its applications
		in the body
		CO 2. Learn about
		food spoilage and
		application of
		biotechnology in
		food processing. CO
		3. Learn about food
		preservation by
		various methods
		CO 4. Understand
		food processing for
		preparation of
		various products,
		food safety
		standards, laws and
		regulations
III	Industrial Biotechnology	CO 1. Understand
111	industrial Diotectifiology	basic principles of
		bioprocess
		technology and
		advantages of

	bioprocess over
	chemical process.
	CO 2. Learn various
	aspects of up- and
	down-streaming
	processes in pilot
	scale study and
	application to larger
	scale in industry and
	its regulation
	CO 3. Have firm
	knowledge about
	industrial application
	of various fermenters
	and regulation of the
	fermentation process.
	CO 4. Gain
	knowledge on
	recovery of products,
	techniques used for
	separation of cells,
	physical and
	chemical methods of
	cell lysis, filtration,
	centrifugation and
	large-scale separation
	techniques.
	CO 5. Understand
	basic principles of
	primary and
	secondary metabolite
	production by the
	÷
	microorganisms, and
	acquire knowledge of
	their production
	CO 6. Know uses of
	microorganisms as
	probiotics and the
	role of nutraceuticals
	in human health,
	waste utilization to
	generate biofuels and
	biogas.
Agribiotechnology	CO 1. Compare the
	plant genome with
	chloroplast and
	mitochondrial
	genomes, to

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		demonstrate the
		application of plant
		breeding methods, to
		differentiate the
		mechanism involved
		in different biological
		process.
		CO 2. Demonstrate
		different techniques
		involved in the plant
		tissue culture for the
		propagation of plants
		and germplasm
		preservation.
		CO 3. Utilise plant
		tissue culture
		methods for the
		production of
		commercially
		important secondary
		metabolites.
		CO 4. Demonstrate
		the genetic
		manipulation of
		plants for the
		production of elite
		plants with superior
		traits such as insect
		resistance, improved
		nutrient content etc.
		CO 5. Learn
		protection and
		registration of new
		plant varieties and
		plant germplasm
		conservation,
		General agreement
		on trade and tariff,
		use of traditional
		knowledge digital
		library i.eayurvedic
		and unani medicinal
		plants, Farmers rights
		and plant breeder's
		right
	Research methodology and	CO 1. Acquire
	bioinformatics	knowledge about
		basic concepts of

		research, scientific
		· ·
		writing and paper
		publications
		CO 2. Use statistical
		measures such as
		dispersion, normal,
		binominal and
		poisson distribution,
		student's t-test,
		ANOVA, chi-square
		test etc.
		CO 3. Use databases,
		sequence alignment
		programs, BLAST
		and FASTA along
		with algorithms and
		applications.
		CO 4. Construct a
		phylogenetic tree and
		carry out protein
		structure analysis,
		protein prediction
		tools
		CO 5. Perform
		Computer Aided
		Drug Design
		(CADD) and apply it
		to design new drugs
	Nanobiotechnology	CO 1. Compare the
		types and properties
		of different
		nanostructures CO 2.
		Understand structure
		and use of
		nanoparticles
		CO 2. Demonstrate
		the synthesis of
		nanoparticles.
		CO 3. Apply
		nanotechnology in
		different fields of
		science.
	Environmental Management (OE)	CO 1. Know about
		transfer of nutrients
		through
		biogeochemical
L		0

	cycles, toxicity
	induced by pollutants
	and their mobility in
	trophic levels.
	CO 2. Acquire
	knowledge on
	microbial diversity,
	pollution indicator
	organisms,
	bioremediation,
	bioconversion,
	biomagnification etc.
	CO 3. Understand <i>in</i> -
	situ and ex-situ
	bioremediation
	processes, industrial
	pollution and waste
	management
	CO 4. Understand
	sustainable
	development
Advances in Medicine (OE)	CO 1. Have an
Advances in Wedicine (OE)	overview of the
	immune system with
	particular reference
	to malfunctioning in
	disease
	CO 2. Understand the
	genetics behind
	genetic diseases and
	syndromes and
	understand cell
	division and assisted
	reproductive
	techniques
	CO 3. Know about
	cancer biology with
	particular reference
	to carcinogenic
	agents, basis of
	cancer, treatment
	strategies and
	approaches, stem
	cells and applications
	CO 4. Comprehend
	altered disease states
	and its physiological
	implications

IV	Biomedical Engineering	CO 1. Understand
1 V	biomedical Engineering	
		basics and dynamics
		of animal cell
		culture, organ
		culture, stem cells
		and tissue
		engineering,
		techniques used in
		counting of cells, cell
		viability/toxicity
		assays
		CO 2. Differentiate
		methods for gene
		transfer in animal
		cells, tissue-specific
		promoters, gene
		therapy
		CO 3. Comprehend
		transgenic
		technology and use
		of animals as
		bioreactors
		CO 4. Elucidate
		assisted reproductive
		techniques including
		cloning
	Environmental Biotechnology	CO 1. Understand
		transfer of nutrients
		through
		biogeochemical
		cycles
		CO 2. Comprehend
		the toxicity induced
		by pollutants and
		their mobility in
		trophic levels.
		CO 3. Acquired
		knowledge on
		microbial diversity,
		pollution indicator
		organisms,
		bioremediation,
		bioconversion,
		biomagnification etc.
		CO 4. Differentiate
		in-situ and ex-situ
		bioremediation
1		processes, industrial

	pollution and waste	
	management	

MSc Botany

The syllabus covers all aspects of the subject. Syllabus is a good blend of classical topics and recent topics which are applied in nature. This helps the students to know how the subject has developed. The early topics mainly relate to the diversity of different groups of plants and helps in understanding their life cycle and uses. This forms the base of the subject and helps in largely understanding the diversity of plants. The remaining topics deal with the functional aspects and also in manipulating these organisms to our benefit.

Program specific outcome:

- The course includes detailed study on the major groups of life forms from algae to angiosperms
- Paper on morphology and taxonomy is spread over two semesters to give comprehensive coverage particularly of angiosperm families.
- Even in practical's on taxonomy students are trained in the proper identification of plants using relevant Literature. This is done for other plant groups also to the extent possible.
 - The course has a special emphasis on biodiversity and conservation.
 - Students have an advantage of a unique Medicinal garden (Shobhavana) of rare medicinal species of the Western Ghats in our education foundation.
 - Other courses like seed technology, molecular biology & cytogenetics, plant breeding, biotechnology, Microbiology can help them in getting employed and choosing avenues for higher studies.
 - Special emphasis on hands on training will be given in research/ academic institutions.
 - A study tour will be conducted to various research institutions and also for Botanical gardens to know the habitat diversity.

M.Sc. Chemistry

Program Outcomes (POs)

- **PO1:** Core Knowledge: Develop advanced knowledge in organic, inorganic, and physical chemistry, enabling critical understanding and problem-solving skills applicable in both academic and industrial domains.
- **PO2: Research Competence:** Acquire expertise in modern analytical techniques, experimental design, and data interpretation to conduct innovative research and pursue higher studies.
- **PO3: Technical Proficiency:** Enhance proficiency in handling laboratory instruments and computational tools for chemical analysis, synthesis, and modelling.
- **PO4: Professional Readiness:** Prepare for competitive exams such as NET, GATE, SET, and Civil Services, as well as careers in research, teaching, and industries.
- **PO5: Interdisciplinary Approach:** Cultivate the ability to integrate concepts from chemistry with related fields like biology, physics, materials science, and environmental studies.
- **PO6: Ethical and Environmental Awareness:** Promote sustainable practices and ethical responsibility in scientific research and industrial applications.
- **PO7: Communication and Teamwork:** Foster effective communication, teamwork, and leadership skills necessary for collaborative research and industrial roles.

Sem	Course	COs
I	PCHICH11: Inorganic	CO1: Explain ionic and covalent bonding, lattice
	Chemistry	and hydration energy.
	Chemistry	CO2: Apply VSEPR and MOT theory for
		molecular structure prediction
		CO3: Analyze HSAB principles, non-aqueous
		solvents, and ionic liquids.
		CO4: Discuss the chemistry of alkali/alkaline earth metals, boron, carbon, and

		silicon compounds.
		CO5: Utilize organic precipitants, masking/demasking techniques, and error analysis methods.
I	РСНОСН11:	CO1: Describe bonding, aromaticity, electronic
	Organic	effects, acidity, and basicity
	Chemistry	CO2: Analyze reaction mechanisms and identify
		intermediates in reactions
		CO3: Evaluate optical and geometrical isomerism
		in organic compounds.
I	PCHPCH11:	CO1: Explain catalysis, corrosion, and
	Physical	photochemical processes.
	Chemistry	CO2: Apply theoretical concepts to practical
		scenarios involving complex reactions
		CO3: Investigate enzyme-mediated reactions and
		spectroscopy techniques.
Ι	PCHMDS11: Molecular Spectroscopy	CO1: Explain principles of electromagnetic interaction in microwave, infrared, and X-ray regions.
	and	CO2: Utilize characterization techniques for
Diffraction		chemical and physical analysis
	Techniques	CO3: Integrate applications across chemistry, physics, biology, and materials science.
I	PCHICP11:	CO1: Perform qualitative and quantitative analysis
	Inorganic	of ores and alloys.
	Chemistry	CO2: Apply complexometric, gravimetric, and
	Practicals-I	colorimetric techniques
		CO3: Analyze statistical data and interpret
		experimental errors.
I	PCHOCP11:	CO1: Perform organic synthesis using various
	Organic	methods
	Chemistry	CO2: Purify and isolate organic compounds
	Practicals–I	through advanced techniques.
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		CO3: Evaluate reaction mechanisms and principles of organic reactions.
I	PCHPCP11: Physical Chemistry	CO1: Conduct experiments based on electrochemistry, thermodynamics, and surface chemistry.
	Practicals - I	CO2: Analyze data using computational tools and
		instruments CO3: Validate theoretical concepts through
		practical observations.

Sem	Course	COs	
II	PCHAIH21: Advanced	CO1: Predict spectral and structural properties using symmetry operations.	
	Inorganic	CO2: Explain halogen and noble gas chemistry.	
	Chemistry	CO3: Discuss metallurgical and ceramic applications	
		CO4: Analyze reactions in non-aqueous media	
II	PCHAOH21: Advanced Organic	CO1: Understand aromatic substitution and elimination reactions	
	Chemistry	CO2: Analyze ester hydrolysis and addition reactions	
		CO3: Apply reaction mechanisms and synthetic uses of named reactions	
II	PCHAPH21: Advanced Physical	CO1: Apply thermodynamics concepts for industrial process design	
	Chemistry	CO2: Relate statistical thermodynamics to material properties.	
		CO3: Use quantum chemistry in spectroscopy and bonding studies	
		CO4: Analyze reaction kinetics and dynamics	
II	PCHOSS21:	CO1: Understand principles and applications of UV, IR, NMR, and Mass spectroscopy.	
	Organic Spectroscopic Techniques	CO2: Interpret spectral data for structural determination of organic compounds	
	•	CO3: Apply spectroscopic techniques for problem-solving in organic analysis	

		CO4: Develop proficiency in solving complex structural problems using combined spectroscopic methods
II	PCHICP21: Inorganic Chemistry Practicals-II	CO1: Perform qualitative analysis of inorganic mixtures containing multiple cations and anions. CO2: Develop systematic separation techniques for complex samples
II	PCHOCP21: Organic Chemistry Practicals-II	CO1: Separate and analyze binary mixtures of organic compounds. CO2: Purify and characterize compounds using boiling/melting points and Derivatives CO3: Demonstrate advanced synthetic skills for organic preparation.
II	PCHPCP21: Physical Chemistry Practicals-II	CO1: Conduct experiments in thermodynamics, kinetics, and surface chemistry CO2: Solve real-world problems related to metallurgy, wastewater treatment, and industrial applications

M.Sc. in Organic Chemistry

Program Outcomes (POs)

PO1: Core Knowledge: Develop advanced knowledge in organic, inorganic, and physical chemistry, enabling critical understanding and problem-solving skills essential for academic research and industrial applications, particularly in the pharmaceutical sector.

PO2: Research and Analytical Skills: Acquire expertise in modern analytical techniques such as NMR, Mass Spectrometry, IR, and UV-Vis spectroscopy for structure elucidation and compound characterization, enabling innovative research and problem-solving.

PO3: Synthetic and Practical Proficiency: Gain hands-on experience in organic synthesis,

purification, and separation techniques to prepare complex organic molecules relevant to drug development and material science.

PO4: Pharmaceutical Relevance: Build competence in methodologies applicable to pharmaceutical chemistry, including drug design, formulation, and process optimization, aligning with industry standards.

PO5: Professional Preparedness: Prepare for competitive exams like NET, GATE, and SET and establish readiness for roles in pharmaceutical industries, research laboratories, and academic institutions.

PO6: Interdisciplinary Integration: Cultivate the ability to link organic chemistry concepts with fields such as biochemistry, pharmacology, and polymer science for broader applications.

PO7: Ethics and Sustainability: Promote ethical practices and sustainable approaches in chemical research, emphasizing green chemistry principles and minimizing environmental impact.

PO8: Communication and Collaboration: Develop effective communication skills, teamwork abilities, and leadership qualities essential for collaborative research and professional engagements.

Sem Course	COs
I POCICH11: Inorganic Chemistry	CO1: Explain ionic and covalent bonding, lattice and hydration energy CO2: Apply VSEPR and MOT theory for molecular structure prediction CO3: Analyze HSAB principles, non-aqueous solvents, and ionic liquids CO4: Discuss the chemistry of alkali/alkaline earth metals, boron, carbon, and silicon compounds CO5: Utilize organic precipitants, masking/demasking techniques, and error analysis methods.

I	DOCOCIII1.	CO1: Describe bonding, aromaticity, electronic
	POCOCH11: Organic	effects, acidity, and basicity.
	Chemistry	CO2: Analyze reaction mechanisms and identify
		intermediates in reactions.
		CO3: Evaluate optical and geometrical isomerism in
		organic compounds
I	POCPCH11:	CO1: Explain catalysis, corrosion, and
	Physical	photochemical processes
	Chemistry	CO2: Apply theoretical concepts to practical
		scenarios involving complex reactions
		CO3: Investigate enzyme-mediated reactions and
		spectroscopy techniques
I	POCMDS11:	CO1: Explain principles of electromagnetic
	Molecular	interaction in microwave, infrared, and X-ray regions.
	Spectroscopy and Diffraction	CO2: Utilize characterization techniques for
		chemical and physical analysis
	Techniques	CO3: Integrate applications across chemistry,
		physics, biology, and materials science.
I	POCICP11:	CO1: Perform qualitative and quantitative analysis
	Inorganic	of ores and alloys
	Chemistry	CO2: Apply complexometric, gravimetric, and
	Practicals-I	colorimetric techniques
		CO3: Analyze statistical data and interpret
		experimental errors
I	POCOCP11:	CO1: Perform organic synthesis using various
	Organic	methods
	Chemistry	CO2: Purify and isolate organic compounds through
	Practicals–I	advanced techniques
		CO3: Evaluate reaction mechanisms and principles
		of organic reactions
I	DOCDCD11	CO1: Conduct experiments based on
	POCPCP11:	electrochemistry, thermodynamics, and surface chemistry.
		Surface ellerinistry.

	Physical	CO2: Analyze data using computational tools and
	Chemistry	instruments
	Practicals - I	CO3: Validate theoretical concepts through practical
		observations
2	PCHAIH21: Advanced Inorganic Chemistry	 CO1: Predict spectral and structural properties using symmetry operations. CO2: Explain halogen and noble gas chemistry CO3: Discuss metallurgical and ceramic applications. CO4: Analyze reactions in non-aqueous media
2	PCHAOH21: Advanced Organic Chemistry	CO1: Understand aromatic substitution and elimination reactions. CO2: Analyze ester hydrolysis and addition reactions CO3: Apply reaction mechanisms and synthetic uses of named reactions
2	PCHAPH21: Advanced Physical Chemistry	CO1: Apply thermodynamics concepts for industrial process design CO2: Relate statistical thermodynamics to material properties CO3: Use quantum chemistry in spectroscopy and bonding studies CO4: Analyze reaction kinetics and dynamics
2	PCHOSS21: Organic Spectroscopic Techniques	CO1: Understand principles and applications of UV, IR, NMR, and Mass spectroscopy CO2: Interpret spectral data for structural determination of organic compounds CO3: Apply spectroscopic techniques for problem-solving in organic analysis CO4: Develop proficiency in solving complex structural problems using combined spectroscopic methods
2	PCHICP21: Inorganic Chemistry Practicals-II	CO1: Perform qualitative analysis of inorganic mixtures containing multiple cations and anions. CO2: Develop systematic separation techniques for complex samples
2	PCHOCP21: Organic Chemistry Practicals-II	CO1: Separate and analyze binary mixtures of organic compounds CO2: Purify and characterize compounds using boiling/melting points and derivatives. CO3: Demonstrate advanced synthetic skills for organic preparation
2	PCHPCP21: Physical Chemistry	CO1: Conduct experiments in thermodynamics, kinetics, and surface chemistry CO2: Solve real-world problems related to

Practicals-II	metallurgy, wastewater treatment, and
	industrial applications

M.Sc. Course in Analytical Chemistry

Program Outcomes (POs)

- **PO1: Core Knowledge:** Develop advanced knowledge in analytical, organic, inorganic, and physical chemistry, enabling critical understanding and problem-solving skills applicable in both academic and industrial domains.
- **PO2:** Instrumental Proficiency: Gain hands-on experience in handling analytical instruments such as HPLC, GC, AAS, and UV-Vis spectrophotometers used in research and industrial laboratories.
- **PO3:** Quality Assurance and Quality Control (QA/QC): Build competencies in quality management practices, method validation, and regulatory compliance required for industrial and pharmaceutical quality assurance and quality control.
- **PO4: Problem-Solving and Data Analysis:** Apply statistical and chemometric tools for data processing, interpretation, and validation, ensuring accuracy and reliability in analytical results.
- **PO5: Research and Innovation:** Cultivate analytical thinking and problem-solving skills for designing experiments, developing new methodologies, and troubleshooting analytical processes.
- **PO6: Industrial and Pharmaceutical Applications:** Understand the role of analytical chemistry in drug development, formulation analysis, process optimization, and environmental monitoring.
- **PO7: Professional Growth:** Prepare for careers in research and development, industrial testing, regulatory laboratories, and pharmaceutical industries, ensuring adaptability to technological advancements.
- PO8: Ethical and Sustainable Practices: Promote ethical standards, safety protocols,

and sustainable methods in chemical analysis and laboratory practices.

PO9: Communication and Collaboration: Enhance report-writing, documentation, and presentation skills for effective communication of analytical data and findings, facilitating teamwork and professional collaborations.

Sem	Course	COs
I	PACICH11:	CO1: Explain ionic and covalent bonding, lattice
	Inorganic Chemi	and hydration energy
		CO2: Apply VSEPR and MOT theory for
		molecular structure prediction
		CO3: Analyze HSAB principles, non-aqueous
		solvents, and ionic liquids.
		CO4: Discuss the chemistry of alkali/alkaline earth metals, boron, carbon, and silicon compounds
		CO5: Utilize organic precipitants, masking/demasking techniques, and error analysis methods.
I	PACOCH11:	CO1: Describe bonding, aromaticity, electronic
	Organic	effects, acidity, and basicity
	Chemistry	CO2: Analyze reaction mechanisms and identify
		intermediates in reactions
		CO3: Evaluate optical and geometrical isomerism
		in organic compounds.
I	PACPCH11:	CO1: Explain catalysis, corrosion, and
	Physical Chemistry	photochemical processes
		CO2: Apply theoretical concepts to practical
		scenarios involving complex reactions
		CO3: Investigate enzyme-mediated reactions and
		spectroscopy techniques
I	PACMDS11: Molecular Spectroscopy	CO1: Explain principles of electromagnetic interaction in microwave, infrared, and X-ray regions.

	and	CO2: Utilize characterization techniques for	
	Diffraction	chemical and physical analysis	
Techniques		CO3: Integrate applications across chemistry, physics, biology, and materials Science	
Ι	PACISS11:	CO1: Explain principles and applications of ESR	
	Inorganic	and Mossbauer spectroscopy	
	Spectroscopy and	CO2: Interpret data using NQR and Photoelectron	
	Analytical	spectroscopy	
	Techniques	CO3: Analyze Atomic Absorption, Emission, Molecular Luminescence, and Light- Scattering techniques for metal and particle	
		detection	
I	PACICP11:	CO4: Solve analytical problems related to these	
	Inorganic	techniques.	
	Chemistry Practicals-I	CO1: Perform qualitative and quantitative analysis	
		of ores and alloys	
		CO2: Apply complexometric, gravimetric, and	
		colorimetric techniques	
		CO3: Analyze statistical data and interpret	
		experimental errors	
I	PACOCP11:	CO1: Perform organic synthesis using various	
	Organic	methods.	
	Chemistry	CO2: Purify and isolate organic compounds	
	Practicals-I	through advanced techniques	
		CO3: Evaluate reaction mechanisms and principles	
		of organic reactions	
2	PACAIH21:	CO1: Predict spectral and structural properties	
	Advanced	using symmetry operations	
	Inorganic	CO2: Explain halogen and noble gas chemistry	
	Chemistry	CO3: Discuss metallurgical and ceramic	
		applications	
		CO4: Analyze reactions in non-aqueous media	

2	PACAOH21:	CO1: Understand aromatic substitution and	
	Advanced Organic	elimination reactions	
	Chemistry	CO2: Analyze ester hydrolysis and addition	
		reactions	
		CO3: Apply reaction mechanisms and synthetic	
		uses of named reactions	
2	PACAPH21:	CO1: Apply thermodynamics concepts for	
	Advanced Physical	industrial process design	
	Chemistry	CO2: Relate statistical thermodynamics to material	
		properties	
		CO3: Use quantum chemistry in spectroscopy and	
		bonding studies	
		CO4: Analyze reaction kinetics and dynamics	
2	P. COCCA	CO1: Understand principles and applications of	
	PACOSS21: Organic	UV, IR, NMR, and Mass spectroscopy	
	Spectroscopic	CO2: Interpret spectral data for structural	
	Techniques	determination of organic compounds	
	•	CO3: Apply spectroscopic techniques for problem-	
		solving in organic analysis	
2	PACOCP21:	CO1: Separate and analyze binary mixtures of	
	Organic	organic compounds	
	Chemistry	CO2: Purify and characterize compounds	
	Practicals-II	using boiling/melting points and derivatives.	
		CO3: Demonstrate advanced synthetic skills for	
		organic preparation	
2	PACPCP21:	CO1: Conduct experiments in thermodynamics,	
	Physical Chamistry	kinetics, and surface chemistry	
	Chemistry Practicals-II	CO2: Solve real-world problems related to metallurgy, wastewater treatment, and industrial applications.	

MA ENGLISH LITERATURE

Semester	Course/ Subject	Course outcome	Program outcome (summary of all four semesters)
I	The Romantic Poetry	 The concept and ideologies of Romanticism An in-depth understanding of different phases of Romanticism An intimate understanding of Blake, Coleridge, Wordsworth, Shelly and Keats 	1. Critical Engagement with Cultural Discourses: Focus on literature, drama, and films across historical and cultural contexts. 2. Core Focus on British
		4. Exposure to the forms of poetry such as lyric, ode and sonnet5. Issues relating to the	Literature: Study of texts from Chaucer to the Modern period (Elizabethan,
		language usage in literature 6. The skill of understanding lyric, ode and sonnets by close reading.	Victorian, Romantic, etc.). 3. Global Literary Exploration: Includes American,
	The Nineteenth-century Novels	 The major novels of the Nineteenth Century through a study of selected texts. The development in 	European, African- American, Canadian, and Indian literature from classical to contemporary
		form and content in the novels of this period. 3. The interconnection between the novel form and the major social experience of the period and how a	periods. 4. Theoretical Frameworks: Courses on literary criticism, gender studies, postcolonialism,

					Manyima
			novelist creatively responds to these.		Marxism, modernism, postmodernism,
		4.	A comparative sense of literary value in terms of the texts studied.	5	structuralism, and post- structuralism.
	Indian writing in English	1.	The student will be able to read the texts closely and within the tradition	3.	Courses: Includes Dalit literature, women's
		2.	The student will develop the resources to critically assess the	6.	writing, and film studies. Teacher
		3.	The student will be able to critique the nationalist ideologies of writers		Preparation: Courses on language teaching, English language
	Reading Women Writing		Familiarity with gender concepts and its reflection in literature		structure, phonetics, and grammar, supported by a language lab.
		2.	Acquaintance with some important Indian women writers	7.	Research Opportunities: Focus on
		3.	Ability to analyse women's texts with a critical and gendered perspective.		doctoral research in areas like literary
	Shakespeare	1.	A knowledge of the problems regarding the Shakespearean canon.		criticism, translation studies, gender studies, and comparative
		2.	The ability to read Shakespeare against the grain of gender and race.	8.	literature. Goal: Develop critical thinkers, scholars, and
		3.	A familiarity with the adaptations of Shakespearean plays into different times,		future educators with a global literary perspective and expertise in

		cultures and mediums. 4. An insight into the institutional sites within which and for which Shakespeare wrote his plays and sonnets. 5. A knowledge of the literary and theatrical antecedents of Shakespeare's plays 6. The ability to read Elizabethan English in its cultural context	cultural analysis.
Semester	Course/ Subject	Course outcome	Program outcome (summary of all four semesters)
III	Twentieth Century Poetry	 The concept and ideologies of modernity and modernism The transition from the Victorian to the modern (W. B. Yeats and T. S. Eliot) Phases and varieties of modernity such as represented by Yeats, Eliot and Auden An intimate understanding of poetry of Yeats, Eliot and Auden Change in the poetic language in changed cultural contexts The skill of understanding a 	1. Critical Engagement with Cultural Discourses: Focus on literature, drama, and films across historical and cultural contexts. 2. Core Focus on British Literature: Study of texts from Chaucer to the Modern period (Elizabethan, Victorian, Romantic, etc.). 3. Global Literary Exploration: Includes American,

	7.	modern poem by analytical means Familiarisation with modern style of writing poetry especially the use of images, symbols etc.	1	European, African- American, Canadian, and Indian literature from classical to contemporary periods. Theoretical
Literary Criticism – Part I	1.	Students will learn to recognize the various periods, movements, thinkers and schools from Plato down to T.S. Eliot.	4.	Frameworks: Courses on literary criticism, gender studies, postcolonialism, Marxism, modernism,
	2.	Students will identify each school with its concepts and major debates and its linkages to the previous and subsequent schools	5.	postmodernism, structuralism, and post- structuralism. Specialized Courses:
	3.	Students will learn to apply some of these concepts to the texts they have already studied.		Includes Dalit literature, women's writing, and film studies.
	4.	Students will learn to analyse texts in accordance to the arguments of the major schools of thought they have studied.	6.	Teacher Preparation: Courses on language teaching, English language structure,
	5.	Students will learn t formulate critical statements on new texts based on what they have done in 1-4.	7.	phonetics, and grammar, supported by a language lab. Research
	6.	Students will learn to make a comparative valuation of the		Opportunities: Focus on doctoral research in areas like

					4.
			critical statements that can be made on a text based on two or more critical schools.	8.	literary criticism, translation studies, gender studies, and comparative literature. Goal: Develop critical thinkers, scholars, and future educators with a global literary perspective and expertise in cultural analysis.
	Gender Studies	1.	The ability to interrogate common sensical and oppressive constructions and practices of gender.		
		2.	The capacity to decouple sex from gender and look at the performance of gender in a self-reflexive manner.		
		3.	Have a critical insight into the intersections of gender, religion, region and caste.		
		4.	Have a knowledge of the evolving terms and concepts within gender studies which try to articulate the nuances and complexities of gender as a lived experience.		
		5.	Have the capacity to intelligently participate in and respond to contemporary debates and legislations on gender.		
		6.	Be critically sensitive to social practices of gender discrimination.		

Twentieth century American Literature	 comprehend the complexities that determined twentieth century American life interpret the prescribed texts in keeping with the cultural and ideological issues of the time 	
	3. Draw parallels between the American and the Indian contexts from the points of view from the margins	
Introduction to Indian Cinema	 Appreciate the ground of Indian cinema Understand Indian cinema as a pan-Indian phenomenon. 	
	3. Shoot videos at an amateur level and apply these learnings to the appreciation of cinema.	
	4. Become familiar with the essential glossary of cinema	

M.Sc. Food Science and Nutrition

Program Outcomes (PO):

PO 1. Interdisciplinary Knowledge Base:

The program imparts a comprehensive understanding of interdisciplinary subjects, including food science, nutrition, dietetics, food microbiology, food biochemistry, food preservation and processing, human physiology, and their interconnections to health and wellness.

PO 2. Advanced Understanding of Food and Health Correlation:

Students gain an in-depth understanding of the relationship between food and health, exploring how nutrition impacts specific disease conditions. The program also addresses the application of food science in food processing industries, enhancing knowledge of the practical aspects of food science in health contexts.

PO 3. Practical and Communication Skills Development:

Through hands-on laboratory training, students acquire essential practical skills in food science and nutrition. Additionally, they are trained to effectively communicate technical information through presentations to professionals in the food science and nutrition fields, as well as to the general public.

Program Specific Outcomes (PSO):

PSO 1. Analytical Application in Diet Formulation:

Students will be able to apply analytical principles of food science and nutrition to formulate balanced and effective diets, considering nutritional requirements and food composition.

PSO 2. Development of Industry-Relevant Skills:

Graduates will develop advanced analytical and technical skills, preparing them to work as highly skilled professionals in food industries, health sectors, and related domains.

PSO 3. Public Health Nutrition Expertise:

The program prepares students for roles in public health nutrition, equipping them to serve as food safety officers, as well as professionals in governmental bodies such as FCI, FSSAI, and others.

PSO 4. Specialized Knowledge in Personalized Nutrition:

Students will acquire specialized knowledge in the emerging fields of nutrigenetics and nutrigenomics, applying this knowledge to create personalized nutrition plans and interventions.

PSO 5. Nutritional Assessment and Diet Planning Competency:

Graduates will gain expertise in assessing human nutritional requirements and conducting nutritional assessments to plan appropriate diets tailored to individual or group needs.

PSO 6. Clinical Nutrition and Health Promotion Applications:

Students will understand the practical applications of nutritional science in clinical interventions, focusing on effective communication strategies for health promotion and disease prevention.

PSO 7. Research Skills in Food Science and Nutrition:

The program will equip students with research skills to work in R&D units within food

processing, food product development, and nutraceutical industries, fostering innovation in the food science field.

PSO 8. Community Health Promotion and Empowerment:

Students will develop strategies for conducting research and implementing initiatives that promote healthy living and community health, aiming to empower individuals toward better nutritional choices and overall well-being.

PSO 9. Entrepreneurial and Innovation Skills in Food Science:

Graduates will acquire entrepreneurial skills in the areas of food science, processed foods, and nutrition, enabling them to explore opportunities for business ventures and innovations in the food and nutrition sectors.

This redefined version aligns with the autonomous status and the updated goals of the program, reflecting both the academic depth and practical application in the field.

I SEMESTER

Hard Core Courses

FOOD SCIENCE

Course Outcomes (CO):

By the end of the course, students will have acquired knowledge and skills in the following areas:

1. Nutritional Classification of Food:

Students will gain an understanding of various food classification systems based on nutritional content, enabling them to categorize foods and assess their nutritional value.

2. Cereal Grains: Structure, Nutrition, and Processing:

Students will learn about the structure of cereal grains, their nutritional significance, and the technologies used in their processing and baking, with a focus on their role in human nutrition.

3. Fruits and Vegetables: Classification, Nutritional Value, and Preservation:

Students will be able to classify fruits and vegetables, understand their nutritional importance, and explore methods of preservation. They will also study the effects of cooking on the nutritional composition of these foods.

4. Milk Processing and Quality Assessment:

Students will gain an understanding of milk processing techniques, its chemical composition, and the methods used to assess the quality parameters of milk.

5. Meat and Egg Composition, Processing, and Quality Evaluation:

Students will explore the composition of meat and eggs, the regulations surrounding meat processing in slaughtering operations, and methods for evaluating the quality of eggs.

PRINCIPLES OF NUTRITION

Course Outcomes (CO):

By the end of the course, students will have gained the following knowledge and skills:

1. Energy Requirements and Balance:

Students will acquire knowledge about total energy requirements and energy balance, with a focus on how these concepts vary based on individual needs and specific life stages.

2. Body Composition and Measurement Techniques:

Students will understand body composition and its changes throughout the human life cycle, along with various techniques used to measure body composition accurately.

3. Carbohydrate Chemistry and Energy Metabolism:

Students will gain an in-depth understanding of carbohydrate chemistry and its essential role in energy metabolism, including how carbohydrates contribute to overall metabolic functions.

4. Protein Metabolism and Physiological Importance:

Students will learn about the metabolism of proteins and their crucial role in maintaining normal physiological functions within the body.

5. Lipid Requirements, Metabolism, and Deficiencies:

Students will develop a basic understanding of the requirements, metabolism, and functions of lipids, as well as the potential deficiencies and their impact on health.

HUMAN PHYSIOLOGY

Course Outcomes (CO):

By the end of the course, students will be able to:

- 1. Deepen their understanding of human physiology.
- 2. Comprehend the functions of key physiological systems, including the cardiovascular, excretory, reproductive, and digestive systems.
- 3. Identify the mechanisms of movement and coordination within the human body, the structure and function of various muscle systems, and the role of hormones in regulation.
- 4. Understand the interconnections between various physiological and metabolic processes.

Soft Core Courses

NUTRITIONAL BIOCHEMISTRY

Course Outcomes (CO):

By the end of this course, students will be able to:

- 1. Describe the role of macronutrients, energy metabolism, their utilization, and overall functions in the body.
- 2. Understand the structure and properties of nucleotides.
- 3. Identify biological oxidation processes and the functioning of the electron transport chain in organisms.
- 4. Explain the classification, nomenclature, and fundamental concepts related to enzymes and hormones.

PRACTICALS

FOOD SCIENCE

Course Outcomes (CO):

By the end of this course, students will be skilled in:

- 1. Applying cereal and pulse cookery techniques in food science.
- 2. Detecting chemical reactions in fruits and vegetables and utilizing various preservation methods.
- 3. Assessing milk quality using various parameters.
- 4. Evaluating eggs and egg cookery techniques.

PRINCIPLES OF NUTRITION

Course Outcomes (CO):

- 1. Mastering laboratory techniques commonly used in basic food chemistry.
- 2. Understanding analytical techniques for evaluating food products.
- 3. Evaluating chemical properties and estimating carbohydrates and proteins both quantitatively and qualitatively.
- 4. Estimating lipid quantities in various food samples using different methods.

HUMAN PHYSIOLOGY

Course Outcomes (CO):

- 1. Identify various blood groups.
- 2. Handle a hemocytometer and perform blood cell counting.
- 3. Estimate hemoglobin content in blood.
- 4. Identify other key hematological parameters.

NUTRITIONAL BIOCHEMISTRY

Course Outcomes (CO):

- 1. Utilize techniques and instruments for biochemical analysis of different biological samples.
- 2. Employ colorimetric techniques.
- 3. Analyze blood parameters.

4. Analyze urine samples using both qualitative and quantitative methods.

II SEMESTER

Hard Core Courses

Vitamins in Human Nutrition

Course Outcomes:

By the end of this course, students will be able to:

- 1. Describe the role and importance of vitamins in human metabolism.
- 2. Classify vitamins based on their solubility in food and their effects on the human system.
- 3. Elucidate the chemical properties of both fat-soluble and water-soluble vitamins.
- 4. Understand the sources, digestion, absorption, and functions of both fat- and water-soluble vitamins.
- 5. Describe the effects of dietary deficiencies and complications associated with each vitamin.
- 6. Explain how certain vitamins interact with specific drugs.

Minerals in Human Nutrition

Course Outcomes:

By the end of this course, students will acquire knowledge of:

- 1. The role and significance of minerals in human metabolism.
- 2. The classification of minerals based on their required amounts in the human body.
- 3. The chemical properties of major minerals.
- 4. The sources, digestion, absorption, and functions of major, minor, and trace minerals.
- 5. The effects of dietary deficiencies and associated complications of each mineral.
- 6. The impact of mineral toxicity and their interaction with specific drugs.

Soft Core Courses

Life Span Nutrition

Course Outcomes:

By the end of this course, students will be able to:

1. Describe the principles and methods involved in menu planning using food group systems and food exchange lists.

- 2. Understand the nutritional requirements and challenges of different age groups throughout the life cycle.
- 3. Explain the role of nutrition during pregnancy and lactation.
- 4. Describe the physiological changes that occur throughout the life cycle.

Food Microbiology

Course Outcomes:

By the end of this course, students will be able to:

- 1. Identify microorganisms associated with food.
- 2. Describe the different types of microbes and their beneficial and harmful effects on food
- 3. Understand foodborne pathogens, food spoilage, and the toxins they produce, along with their health effects.
- 4. Assess the importance of microorganisms in the food industry, including their roles in baking, fermentation, and the production of various traditional foods.

Practicals

Vitamins in Human Nutrition

Course Outcomes:

By the end of this course, students will acquire the skills to:

- 1. Use various techniques to estimate different vitamins from their natural sources.
- 2. Study the effects of processing on vitamin losses during food preparation.
- 3. Understand the importance of food fortification.
- 4. Prepare vitamin-rich foods based on nutritional demands.

Minerals in Human Nutrition

Course Outcomes:

By the end of this course, students will be able to:

- 1. Describe techniques for estimating different minerals from their natural sources.
- 2. Identify qualitative changes when analyzing various minerals.
- 3. Raise awareness of recent advances in food fortification and its significance.
- 4. Prepare mineral-rich foods based on nutritional demands.
 - Conduct qualitative analysis of minerals.
 - Estimate iron, phosphorus, and calcium content using three different foodstuffs.
 - Prepare foods rich in iron, calcium, and phosphorus.
 - Fortify mineral-rich foods and test food samples for fortificants.

Life Span Nutrition

Course Outcomes:

By the end of this course, students will be able to:

- 1. Prepare meals using food exchange lists.
- 2. Plan and prepare weaning foods.
- 3. Promote awareness of low-cost, nutritionally rich foods for children.
- 4. Prepare balanced diets for individuals across different age groups.

Food Microbiology

Course Outcomes:

By the end of this course, students will be able to:

- 1. Practice basic microbiological laboratory techniques, including culturing and handling of microbes.
- 2. Isolate microorganisms from water and food samples.
- 3. Identify microorganisms using various staining techniques.
- 4. Estimate total microbial counts in various food samples.

Open Elective Paper: Food Preservation

Course Outcomes:

By the end of this course, students will be able to:

- 1. Explain various processing and food preservation techniques tailored to different food materials.
- 2. Understand the principles of food processing, the methods used for food preservation, and the factors that affect the shelf-life of food products.
- 3. Identify different packaging techniques used in food packaging.
- 4. Describe the impact of different processing techniques on the palatability and nutritional value of food.

III Semester Hard Core Courses

Clinical Nutrition and Dietetics - I

Course Outcomes:

By the end of this course, students will have a comprehensive understanding of:

- 1. The basic concepts and interrelationships between food, health, and nutrition, including the significance of special therapeutic diets.
- 2. Pre- and postoperative diets and the role of a team approach in patient care.
- 3. Special feeding methods, the role of the dietitian in hospitals, and the objectives of diet therapy.
- 4. The etiology and pathophysiology of common digestive and respiratory diseases, as well as conditions such as obesity and diabetes.
- 5. The concept of principle diets and dietary management for various diseases.

Community Nutrition and Statistics

Course Outcomes:

By the end of this course, students will be able to:

- 1. Describe the public health implications of malnutrition.
- 2. Identify the causes of malnutrition and effective preventive measures.
- 3. Understand the healthcare services provided by the government and various health programs in India.
- 4. Grasp the role of international and national organizations in public health and the management of diseases.
- 5. Apply various statistical methods and interpret results effectively.

Soft Core Courses

Principles of Food Processing

Course Outcomes:

By the end of this course, students will gain knowledge about:

- 1. The basic operations involved in food processing.
- 2. The principles behind cold processing of foods and irradiation.
- 3. The basic principles of thermal food processing.
- 4. The concept of controlled atmosphere packaging.
- 5. The interactions between packaging materials and food products.

Functional Foods

Course Outcomes:

By the end of this course, students will understand:

- 1. The composition of nutraceuticals.
- 2. Regulatory issues related to nutraceuticals.
- 3. The role and impact of functional foods on health.
- 4. The benefits and contributions of nutraceuticals in treating various diseases.

Practicals

Clinical Nutrition and Dietetics - I

Course Outcomes:

By the end of this course, students will acquire skills in:

- 1. Estimating the constituents of urine through quantitative and qualitative analysis.
- 2. Calculating the nutritional requirements for various diseases and abnormalities.
- 3. Planning and preparing therapeutic diets for different conditions.

Community Nutrition and Statistics

Course Outcomes:

By the end of this course, students will be able to:

- 1. Outline the different methods for assessing nutritional status.
- 2. Plan and conduct diet surveys in communities.
- 3. Organize nutrition education programs for the community.
- 4. Plan and prepare low-cost, nutritious menus for community groups.
- 5. Apply statistical methods to interpret survey results effectively.

Principles of Food Processing

Course Outcomes:

By the end of this course, students will be skilled in:

- 1. Understanding various food processing techniques and the physical, chemical, and nutritional changes during freezing.
- 2. Knowing the processes of freezing and thawing, along with the associated changes.
- 3. Comprehending the effects of physical and chemical changes during processing and the resulting nutritional losses.
- 4. Identifying losses that occur during food processing and learning techniques to minimize them.

Functional Foods

Course Outcomes:

By the end of this course, students will be able to:

- 1. Describe functional foods and their role in treating diseases.
- 2. Estimate the secondary metabolites produced by plant sources using laboratory techniques.
- 3. Understand the process of developing probiotic and prebiotic food products.
- 4. Identify naturally occurring phytochemicals and quantify them in foods.

Open Elective: Nutrition for Health

Course Outcomes:

By the end of this course, students will be able to:

- 1. Explain the importance of macronutrients and micronutrients and their role in the human body.
- 2. Understand the nutritional requirements and challenges faced by different age groups throughout the life cycle.
- 3. Describe the role of nutrition during pregnancy and lactation.
- 4. Outline the physiological changes that occur throughout the life cycle.

IV Semester

Hard Core Courses

Clinical Nutrition and Dietetics – II

Course Outcomes:

By the end of this course, students will acquire knowledge about:

- 1. The basic concepts and the interrelationship between food and liver health.
- 2. Various types of renal diseases and their dietary treatments.
- 3. The process of dialysis and its role in managing renal disease.
- 4. The etiology and pathophysiology of cardiovascular diseases.
- 5. The concept of dietary management in cancer and inborn errors of metabolism.

Food Preservation

Course Outcomes:

By the end of this course, students will be able to:

- 1. Describe various food processing and preservation techniques, including low-temperature processing, high-temperature processing, irradiation, chemical preservation, and high concentration methods.
- 2. List different food processing techniques, preservation methods, and the factors that influence the shelf life of food products.
- 3. Understand different packaging techniques for food and their effects on the palatability and nutritional value of food.
- 4. Grasp the basic principles behind various food preservation methods.
- 5. Identify chemicals used in food preservation and understand their limitations.

Soft Core Courses

Sports Nutrition

Course Outcomes:

By the end of this course, students will be able to:

- 1. Describe the interrelationship between nutrition, exercise, and physical fitness.
- 2. Understand the importance of nutrition and diet for different sports.
- 3. Explain the role of macro- and micronutrients in pre- and post-exercise nutrition.
- 4. Discuss the nutrition requirements for exercise, ideal body composition for various sports, and the role of dietary supplements and ergogenic aids.

Practicals

Clinical Nutrition and Dietetics - II

Course Outcomes:

By the end of this course, students will acquire the skills to:

- 1. Explain dietary management for various chronic disorders based on biochemical parameters and activity levels (mild, moderate, and sedentary).
- 2. Plan diets for various diseases while considering biochemical parameters.
- 3. Prepare planned diets and evaluate them sensorially.
- 4. Provide patient counseling based on disease conditions.

Food Preservation

Course Outcomes:

By the end of this course, students will acquire:

- 1. The skills to use various food preservation techniques, including product formulation and quality analysis to assess shelf-life.
- 2. A fundamental understanding of food preservation and shelf-life studies.
- 3. Practical knowledge to solve problems and work effectively in the food industry.
- 4. Skills to prepare different food products (e.g., jams, jellies, pickles, tomato ketchup) using various preservation techniques like drying, sugar, salt, oil, and chemical preservation.

Project Work/Internship Course Outcomes:

After successful completion of the course, students will be able to:

- 1. Conduct research or data-based studies, including problem selection, framing objectives, literature review, tabulation, and interpretation of results.
- 2. Collect samples or data and carry out questionnaire-based surveys in clinics, hospitals, or communities.
- 3. Apply research methodologies, techniques, and tools to conduct lab or industry-based work.
- 4. Write a dissertation, present, and scientifically interpret data.
- 5. Demonstrate the capacity to carry out an independent research project.
- 6. Acquire skills for potential employment based on the research or work carried

Mass Communication & Journalism

Semester	Course/ Subject	Course outcome	Program Outcome
1	Communication Theory	1. Comprehend the basics of communication process	Effective Communication: Practice various aspects of communication in
		2. Built capacity to analyze the formulation of different narratives and its aftermath	terms of expressions, levels, and models resulting in demonstrating the process of communication in general, human communication in particular.
		3. Analytical capability to understand the constructive and destructive narratives	Critical Thinking: Demonstrate analytical skills with thorough understating of communication process, function, and scope. Develop
			knowledge, skills, and judgment around human communication that facilitate their ability to work collaboratively with others.
			Social Interaction: Know the importance of effective communication in
			the society which helps in building and maintaining healthy and effective
			relationships. The understanding of contexts such as interpersonal,

1	News reporting and writing	 Defining News and understanding its elements, news sources and different types of news. Identifying the role of a reporter and his/her duties and responsibilities. 	intrapersonal, group, public, mass communication is applicable in their day-to-day life. Communication skills which include competencies such as managing conflict, understanding small group processes, active listening, appropriate self-disclosure, etc helps in social interaction.
		3. Analyzing crime and legal reporting, science and financial reporting.	Effective Citizenship: Exhibit various dimensions of communication for national development, political
1	Editing Practice	Demonstrate basic knowledge of the history of publishing, including print, digital, and other media	communication, development communication, environment communication, corporate communication, business communication.
		2. Assess the quality and fit of submissions in a range of genres for publication in a variety of media. 3. Employ editing skills—developmental, line, and copy—to improve submissions at the levels of both form and content.	Ethics: Discern the Indian Constitution in detail. Understand Indian Constitution and other laws pertaining to mass media and journalism. Understand defamation, copyright, Official secret Act, Law of sedition and the Freedom of Information Act.
		3. Collaborate with teams of editors and designers to create a quality publication that aligns with a discrete aesthetic mission.	Environment and Sustainability: Understand the issues of environmental consciousness, environmental movements around the world and the debate of environment and development sustainable development.

1	Development of Media	1.A thorough understanding of global development of media & mp; media ecology	
		2. A thorough understanding of media legacy in India	
		3. Well informed about the veteran journalists of yester years	
1	Advertising	Analyze the expanding environment of media and communication techniques.	
		2. Assess the strengths, weaknesses, opportunities and threats (SWOT) of different kinds of promotional campaigns.	
		3. Examine the importance of market segmentation, position and action objectives to the development of an	
		advertising and promotion program.	
2	Media Law and Ethics	Media Laws and Privileges within the Constitution of India and other derived Sources	

		2. Recognize best contemporary ethical and professional practices both in	
		conventional and in the digital space.	
		3. Awareness about the schism between the defamation and invasion of privacy.	
2	Feature Writing	1. Demonstrate the skills required to conceive of, research, write, edit and	
		critically analyze their own high quality news reports.	
		2.Understand the process of successful journalistic interviewing.	
		3. Understand how to pursue a career as a freelance journalist and to understand	
		the key points around journalistic health and safety issues.	
2	Photography and Photo Journalism	1.To understand concepts and apply theories in the use and presentation of images and information	
		2. To think critically, creatively and independently	

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		3. To write correctly and clearly in forms and styles appropriate for the communications professions, audiences and purposes they serve.
2	Development Communication	1. Have an appreciation of the role of information, communication and the media in development and social change.
		2. Be conversant with the dimensions of development and the development policy frameworks.
		3. Have an understanding of key issues in sustainable development as a basis for engaging in effective development communication
2	Magazine Journalism	1.Critical ability analyse the magazine journalism and different kinds of Magazines
		2. An in-depth understanding of the history and evolution of magazine Journalism

	T	I
		3. Empowered to operate the different design tools
2	Communication Skills (Open Elective)	1.Understand the process of communication and its effect on giving and receiving information
		2. Learn about historical and theoretical developments in the field of
		Communication
		3. Apply effective communication skills in a variety of public and interpersonal
		Settings
3	Media Research Methods	1.Demonstrate knowledge of research literacy
		2.Demonstrate a sound knowledge of basic research methods
		3.Demonstrate an understanding of the significant risk and ethical issues raised by the conduct of media research
3	Media Management	1.Examining newspaper as a business enterprise and its public service role with reference to the Indian experience.
		Various factors associated with ownership of newspapers, the different types of ownership and

		source of revenue of a	
		newspaper.	
		2.Understanding circulation of newspapers and the various factors involved with circulation of newspapers, newspaper's policy, role of the Circulation department, circulation manager.	
		3.Audit Bureau of Circulation (ABC), advertisement department of a newspaper, role of the advertisement manager, different types of advertisement in newspapers and newspaper as a medium of advertisement.	
3	Corporate Communication & PR	1.Identify various communications roles within an organization	
		2.Develop key messages according to a specific context and set of objectives	
		3.Understand and use effectively certain communications and public relations processes	
3	Radio Broadcasting	1.Evaluate and critique broadcast and production practices both holistically	

		and in terms of their component parts, namely: audio, video, scripting, production, and editing.	
		2. Write effectively for broadcast media as well as other forms and styles appropriate for the communications professions and audiences they serve.	
		3.Demonstrate proficiency in planning, recording and editing for audio productions.	
3	International Communication	1.Enabling to analyze and explain the role of international communication in a global society	
		2. Critically analyze the impact of various social and political philosophies on the media	
		3. Demonstrate an ability to apply communication to the solution of global problems	
3	Advertising and PR (Open Elective)	1.Analyze the expanding environment of media and communication techniques.	
		2.Assess the strengths, weaknesses, opportunities	

		and threats (SWOT) of different kinds of promotional campaigns.	
		3.Examine the importance of market segmentation, position and action objectives to the development of an advertising and promotion program.	
4	Television Program Production	1. Able to identify and describe key terms, concepts, major trends and periods related to various modes of production (narrative, documentary, experimental, and/or animation), film history, and theory.	
		2.Able to demonstrate skills necessary to collaborate and communicate effectively on audio-visual productions including working in groups and engaging with peers and professors.	
		3.Able to demonstrate skills required to create quality media productions including skills in story development, producing, cinematography, editing, and audio production/post production.	

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4	New Media Technology	1.Examining newspaper as a business enterprise and its public service role with reference to the Indian experience. Various factors associated with ownership of newspapers, the different types of ownership and source of revenue of a newspaper.	
		2. Understanding circulation of newspapers and the various factors involved with circulation of newspapers, newspaper 's policy, role of the Circulation department, circulation manager.	
		3.Audit Bureau of Circulation (ABC), advertisement department of a newspaper, role of the advertisement manager, different types of advertisement in newspapers and newspaper as a medium of advertisement	
4	Environmental Communication	1.Identify ways in which public discourses socially construct relationships between nature and humans	
		2.Demonstrate an understanding of critical and cultural approaches to environmental communication	

		3.Identify and implement communication skills relevant to disseminating environmental information in organizational, political, and international contexts	
4	Film Studies	1.Empowered to analyze the films through the theoretical, historical, and critical approaches.	
		2.Empowered to explore the narrative, artistic, cultural, economic, and political implications of the cinema to juxtapose the social-ideological values.	
		3. Enabling to take a series of critical approaches for the analysis of production, theoretical framework, context, and creation. 4. Enabling to understand the Film theory which includes the study of conflicts between the aesthetics of visual and the textual analysis of screenplay.	

MCOM

Semeste	Course/ Subject	Course outcome	Program
r	Course, Buoject	Course outcome	outcome(summary of
-			all four semesters)
1	Management theory	1. Integrate core	1. To acquire
	and practice	management	strong subject-
	(PCMMTS11)	functions (planning,	matter expertise
		organizing, leading,	in fianance,
		and controlling) in a	financial
		cohesive and	instruments and
		strategic manner to	markets.
		drive organizational	2. To develop
		success.	advanced
		2. Analyze and apply	theoretical
		management theories	knowledge and
		and frameworks to	research
		real-world	capabilities in
		organizational	their preparation
		challenges,	for academic
		particularly in	and research
		decision-making,	focused career.
		leadership, and	0 5 1
		motivation.	3. To equip the students for
		3. Develop and	seeking suitable
		implement strategic	careers in
		initiatives that align	management
		with organizational	and
		goals and respond to	entrepreneurshi
		dynamic business	p.
		environments.	4. To facilitate the
		4. Evaluate the	students to
		effectiveness of	apply financial
		management	and taxation
		practices in	knowledge in
		improving	taking business
		organizational	decisions.
		performance and	
		quality, using	
		modern tools and	
		technologies such as	
		TQM, Six Sigma,	
		and strategic analysis	
		frameworks.	
		5. Adapt to emerging	
		trends in	

		
	management, including digital transformation, sustainability, and agile methodologies.	
Business Economics (PCMBES11)	Apply economic theories to explain real-world business situations	
	2. Explore different market structures and understand their implications for pricing, output decisions, and competitive strategies.	
	3. Understand the business cycle and describe its key phases and method used to alter the phases.	
Business Statistics(PCMBSH11	1. Understand and Apply Key Mathematical Concepts	
	2. Analyze and Solve Problems Involving Progressions	
	3. Interpret and Analyze Time Series Data	
	4. Apply Probability and Statistical Methods to Real-World Problems	
Management Science (PCMMSH11)	Use quantitative methods such as Linear Programming, Transportation, and Assignment	

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	Problems to solve real-world business and management challenges.	
	2. Formulate, solve, and interpret models to optimize resources, minimize costs, and improve decisionmaking in various business scenarios.	
	3. Understand and apply project scheduling techniques like Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT) for effective project time and cost optimization.	
	4. Analyse business situations, identify issues, and apply appropriate management science methods for informed, datadriven decisions.	
Advanced financial accounting (PCMAFH11)	1. Valuation Skills: Apply various methods to value goodwill and shares, and analyze the factors influencing their valuation.	
	2. Understand and compute purchase consideration, liquidation expenses, and accounting treatments for business reorganizations.	

		 3. Prepare consolidated financial statements for holding companies, including the treatment of intercompany transactions and goodwill. 4. Adjust financial statements for inflation using techniques like CPP and CCA to reflect real economic conditions. 5. Implement updated 	
		accounting standards	
		(Companies Act 2013), and	
		incorporate human	
		resource, social responsibility, and	
		environmental	
		accounting in	
		financial reporting.	
2	Personality development (PCMPDE11)	1. Enhance students' personal and professional growth, helping them develop the skills, attributes, and attitudes necessary for success in both their personal lives and career	
		2. Enhance the ability to assess one's own strengths, weaknesses, values, and beliefs through self-reflection.	
		3. Develop strong verbal and non-verbal communication skills, including	
ĺ		active listening, body	

	language, tone, and clarity.	
Entrepreneurial startup eco system CMS 452	1. Understanding Entrepreneurial Ecosystems	
	2. Analyzing Start-Up and Unicorn Landscapes	
	3. Evaluating Institutions and Policies Supporting Entrepreneurship	
	4. Enhancing Entrepreneurial Competency and Inclusivity	
Strategic marketing management CMS 453	1. Understand and Apply Strategic Marketing Concepts	
	2. Analyze and Evaluate Marketing Environments and Strategies	
	3. Evaluate Global Marketing Strategies and Ethical Issues	
	4. Evaluate Global Marketing Strategies and Ethical Issues	
Business research methods CMH 455	1. Understand the Fundamentals of Business Research and the Research Process	
	2. Apply Statistical Techniques for Data Analysis and Interpretation	

		3. Implement Sampling and Statistical Inference Techniques	
		4. Prepare and Present Research Findings Effectively	
	International business	1. A holistic	
	CMH 456	understanding of the global business environment, including the economic, political, and cultural factors influencing international trade and business decisions.	
		2. The ability to analyze and navigate the complexities of international trade policies, foreign exchange markets, and global regulations.	
		3. A critical perspective on the impact of globalization, both positive and negative, on businesses and societies, particularly in the context of developing countries.	
		4. A deep understanding of the role of multinational corporations and the key challenges in managing global operations.	
	Advanced cost accounting	1. Understand and Apply Inventory	
	CMH 457		
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		Management	
		Techniques	
		2. Differentiate and	
		Apply Process	
		Costing Methods	
		Costing Methods	
		3. Analyze Cost	
		Behavior Using	
		Marginal Costing	
		and Break-Even	
		Analysis	
		4	
		4. Make Managerial	
		Decisions Based on	
		Cost Accounting	
		Information	
III	Personal savings and	1. Understand the	
	investment	fundamental	
	management	concepts of	
	CME 501	investments,	
	CME 501	including the	
		distinction between	
		savings, investment,	
		speculation, and	
		gambling, and be	
		able to identify	
		investment goals and	
		risk tolerance.	
		2. Gain insight into	
		precautionary	
		investments like	
		health insurance, life	
		insurance, and	
		pension funds, and	
		learn how to select	
		suitable policies.	
		3. Learn about various	
		tax-saving schemes	
		and savings	
		instruments, such as	
		bank deposits, post-	
		office savings, and	
		Provident Funds, for	
		financial planning.	
		4. Understand the	
		basics of mutual	

		funds, stocks, and bonds, including their selection criteria, performance metrics, and stock market operations regulated by SEBI.	
intel	and business ligence TH 502	1. Gain a comprehensive understanding of AI, its scope, nature, and its role in business problem-solving, cognitive science, and knowledge acquisition techniques.	
		2. Learn the importance of knowledge mapping, machine and robotic knowledge, and how AI aids in knowledge creation, re-skilling, and human capital analytics.	
		3. Understand the 307 odelling of AI, its various applications in business, including psychological 307 odelling, business model analysis, and the use of appreciative intelligence to improve efficiency.	
		4. Develop expertise in business intelligence (BI), including its role in decision-making, interpreting big data, business analytics, and data mining, while exploring recent	

	trends in BI for business solutions.	
Business ethics and CSR CMH 503	1. Grasp key ethical theories and identify and manage ethical challenges in areas like marketing, financial services	
	2. Understand the importance of Corporate Social Responsibility (CSR) and its impact on corporate sustainability.	
	3. Learn corporate governance practices, including addressing fraud, corruption, and ensuring sustainable business practices.	
	4. Develop skills to manage cross-cultural diversity and adopt effective global business strategies	
E-Commerce CMH 504	Develop a solid understanding of electronic commerce, its business models.	
	2. Be able to evaluate and implement electronic payment systems and understand the security challenges associated with it.	
	3. Gain skills in identifying and resolving conflicts in e-commerce, and learn effective communication	

	strategies for conflict resolution.	
	4. Have a deep	
	understanding of the	
	legal and policy	
	frameworks affecting	
	e-commerce,	
	including national	
	and international	
	cyber laws and	
	privacy concerns.	
Indian accounting	1. Understand and	
standard and practice	Analyze IFRS and	
CMS 505	Ind AS Standards	
	2. Apply Accounting	
	Standards to Balance	
	Sheet Items	
	3. Interpret Income	
	Statement Standards	
	and Their	
	Applications	
	4. Understand	
	Presentation,	
	Disclosure, and	
	Financial	
	Instruments	
	Standards	
Capital market	1. Evaluate and	
operation	understand the	
CMS 506	structure and	
21.120 0 0 0	functioning of the	
	Indian financial	
	system, including	
	financial markets,	
	financial institutions,	
	and investment	
	avenues such as	
	mutual funds.	
	2. Analyze the primary	
	and secondary	
	financial markets,	
	including the	
	methods for raising	
	capital, stock market	

	operations, and the regulatory framework, with an emphasis on insider trading and SEBI regulations.
	3. Apply fundamental and technical analysis to evaluate securities, and develop an understanding of market behavior, valuation techniques, and investment decision-making processes.
	4. Critically assess the Efficient Market Hypothesis and its various forms, along with market anomalies and implications for technical and fundamental analysis.
	5. Understand the intricacies of bonds, including types, risks, and valuation methods, and be able to assess duration and convexity in managing bond investments.
Direct taxes	1. Understandin
CMS 511	g Fundamental Tax Concepts
	2. Computation of Income Under

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		Various Heads	
		3. Tax Planning and Compliance	
		4. Knowledge of Tax Administratio n and Audit	
	GST CMS 512	1. Comprehend the evolution and structure of GST, including CGST, SGST, UTGST, and IGST.	
		2. Learn key concepts such as types of supply, GST rates, and classification of income and Manage GST registration procedures and understand composition levy and filing requirements.	
		3. Accurately compute GST liability and understand valuation rules, including special cases like exports and SEZs.	
		4. Gain proficiency in claiming, managing, and distributing ITC using e-ledgers.	
IV	Dissertation CMS 552	1. Research and Analytical Skills	
		2. Application of Theoretical Knowledge	
		3. Critical Thinking and Problem-Solving	

	4. Effective Communication and Documentation	
Risk and insurance management CMH 553	1. Gain a comprehensive understanding of the insurance industry, its products, and services, and the regulatory frameworks governing it.	
	2. Deep understanding of both the theoretical and practical aspects of insurance management, risk management, and disaster management	
	3. Gain a comprehensive understanding of the insurance industry, its products, and services, and the regulatory frameworks governing it.	
	4. Acquire critical knowledge on managing claims, understanding legal aspects of insurance, and applying risk management strategies	
International financial management CMH 554	1. Understanding the Evolution of the Global Financial Environment 2. Analyzing Balance	
	of Payments	

	3. Comprehending International Financial Markets	
	4. Exchange Rate Dynamics and Risk Management	
Financial derivative market CMS 555	1. Understanding Derivatives and Their Markets	
	2. Application of Futures and Hedging Techniques	
	3. Mastering Option Contracts and Strategies	
	4. Valuation, Trading, and Regulatory Framework of Derivatives	
Portfolio management CMS 556	Portfolio Construction and Optimization	
	2. Understanding Capital Market Theories	
	3. Mastering Factor Models and Arbitrage Pricing Theory	
	4. Evaluating and Revising Portfolios	
Corporate tax planning CMS 561	1. Understanding Corporate Taxation and Planning	
	2. Evaluating Tax Concessions and Incentives	
	3. Tax Management in Financial and	

	Managerial Decisions 4. Strategic Tax Planning and International Taxation	
Customs duty analysis CMS	1. Chacistanania	

MSW

Semester	Course/ Subject	Course outcome	Program outcome (summary of all four semesters)
I Semester	PSWDHS11 DYNAMICS OF HUMAN BEHAVIOUR	 To understand the fundamental components of human behavior To gain insight into factors contributing to the development of personality To understand the social bias of behaviour and adjustment To understand the processes of adjustment and non-adjustment and learn the various coping mechanisms. 	The students are expected to practice the social work profession either specializing in human resource management, medical and psychiatry or in community development field by attaining competencies having the knowledge of applying all methods of social work along with

I Semester	PSWPSH11	1. To understand the	professional ethics
	INTRODUCTION TO PROFESSIONAL SOCIAL WORK	methods, history and evolution of social work education in India	and compliance.
		2. To develop insights into the origin and development of ideologies, approaches to social change	
		3. Understand rationale, goals, religious ideologies and ethics for social change	
		4. To develop skills to understand social work values, ethics and professional associations	
I Semester	PSWWGH11 WORKING WITH INDIVIDUALS AND GROUPS	1. To understand case work and group work as a method of social work and appreciate its place in social work practice.	
		 To understand the values and principles of working with individuals and groups 	
		3. To develop an ability to critically analyze the problems of individual and groups and factors affecting to them	
		4. To enhance the understanding of basic concepts, tools and techniques in working with individuals and groups, in problem solving and in developmental work	
I Semester	PSWISH11 UNDERSTANDING OF INDIAN SOCIETY	To introduce the various perspectives on understanding caste,	

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		class, associations and institutions	
		2. To introduce the student to the nature, extent, causes and control of various social problems in India	
		3. To understand the status of women in India.	
		4. To understand the sociological perspective for social work	
I Semester	PSWSWP11 SOCIAL WORK PRACTICUM-I & ORIENTATION TO	To develop the skill of introducing to the agency and rapport building	
	SOCIAL WORK PRACTICE	2. To develop the skill of doing home visits	
		 To gain the skills in case work and group work 	
		4. To develop the skill in planning and organizing the need-based programme	
II Semester	PSWSPH12 SOCIAL POLICY AND WELFARE ADMINISTARTION	To develop an understanding of social policy for effective social work practice	
		2. To develop the capacity to develop personnel financial administration of human welfare organization	
		3. To understand the procedures and policies involved in establishing and maintaining social welfare organizations	
II Semester	PSWCOH12 COMMUNITY ORGANIZATION	To develop the competence to undertake critical and holistic analysis of	

	AND SOCIAL	social issues and	
	ACTION	community dynamics.	
		2. To understand the principles and elements of community work process with focus on subaltern groups	
		3. To enhance the understanding of the models and strategies of community work practice	
		4. To develop the attitude and skills required to facilitate the process of people's participation in changing their situation	
		5. To gain the knowledge on the process of social action and social movement	
II Semester	PSWSRH12 SOCIAL WORK RESEARCH AND STATISTICS	To understand research as a method of social work profession To acquire research work knowledge and skills to undertake independent research projects To become femiliar.	
		3. To become familiar with basic statistical techniques and their application in the field of social work practice	
II Semester	PSWIPS12 INDUSTRIAL PSYCHOLOGY	To understand the role of industrial psychology as a tool of industrial social work	
		2. To acquire psychological knowledge and skills	
		3. To become familiar with basic psychological	

		techniques and their application in the field of social work practice as applicable to organizational/industrial setting	
II Semester	PSWCSE12 CONTEMPORARY SOCIAL WORK PERSPECTIVES AND CONCERNS	 To understand the basic concepts of social work To understand the various methods of social work To know about various avenues of social work To study the emerging areas of social work practice 	
II Semester	PSWSWP12 SOCIAL WORK PRACTICUM-II & SOCIAL WORK RURAL CAMP	 To enhance the skills building rapport in the agency To enhance the skill of doing home visits with specific purpose To strengthen the skills of case work and group work practice To build the ability of community profiling To develop the skill in planning and organizing the need-based programmes along with rural camp 	
III Semester	SWH 501 PROJECT PLANNING AND MANAGEMENT	To gain the knowledge on concept, components and various types of project planning To understand the process of project planning	

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		3. To acquire the knowledge of designing the project proposal	
III Semester	SWS 503 MEDICAL SOCIAL WORK	To develop a holistic and integrated concept of health	
		2. To understand the nature and development of medical social work profession	
		3. To develop the ability to assess and analyze health problems and related issues	
		4. To develop skills to handle psycho social problems associated with health	
III Semester	SWS 504 MANAGEMENT CONCEPTS AND CORPORATE	To understand the concept of Management and Corporate Social Responsibility	
	SOCIAL RESPONSIBILITIES	2. To gain the knowledge of evolution and functions of Management	
		3. To gain the ability to design and implement CSR policy	
		4. To understand the role of HR professionals in CSR	
III Semester	SWS 508 THERAPEUTIC COUNSELLING	1. To develop an understanding of the need and the relevance of counselling as a social work approach	
		 To acquire an understanding of the various theories and skills of counselling and 	

III Semester	SWS 509 HUMAN RESOURCE MANAGEMENT AND OCCUPATIONAL SOCIAL WORK	their practical application 3. To understand the ethical issues in counselling practice. 1. To understand the concept of Human Resource Management and Occupational Social Work 2. To gain the knowledge of various roles and functions of Human Resource Management Department 3. To analyze the different emerging issues and
III	SWS 513	emerging issues and concerns related to Occupational Social Work 1. To understand the
Semester	HUMAN RESOURCE TRAINING AND DEVELOPMENT	concept of Human Resource Training and Development 2. To gain the knowledge of assessment of training needs and training evaluation 3. To know the concept of learning and motivation, principles
		 and stages of learning 4. To know the various types of instructional approaches and methods of on-the-job and off-the-job training 5. To know the concept, need and methods of career planning and
III Semester	SWE 514	development 1. To understand key concepts, theories,

	DIGAGEE	1 1	<u> </u>
	DISASTER MANAGEMNT	process and approaches of disaster management with specific reference to Indian context	
		2. To develop skills to analyze factors contributing to disaster	
		3. To develop an understanding of the social worker's role in the team for disaster management	
III semester	SWH 516 SOCIAL WORK PRACTICUM III AND STUDY TOUR	To understand the structure and functions of the organization concerned	
		2. To gain the hands-on skills by applying the theoretical knowledge into practice	
		3. To initiate the activities based on the needs	
		4. To gain the knowledge of organizing study tour and able to understand the different settings of social work practice with real time learning experience along with enhancing the ability of living together and learning each other in a controlled situation	
IV	SWS 551	1. To know and	
Semester	COMMUNICATION SKILLS FOR SOCIAL WORK	understand the concept and methods of communication	
	PRACTICE	2. To acquire the competence to apply the various methods and skills of communication in the field of social work practice	

		3. To understand and appreciate the role of communication in development	
		4. To acquire the knowledge of different forms of communication skills and their use in the process of development and social change	
IV Semester	SWS 554 PSYCHIATRIC SOCIAL WORK	To gain knowledge about the concepts of mental health and psychiatric disorders	
		2. To develop an understanding of psychiatric social work and its practice	
		3. To develop appropriate skills and attitudes required for the practice of social work in mental health setting	
IV Semester	SWS 555 LABOUR WELFARE AND INDUSTRIAL	1. To gain knowledge about labour legislations and labour welfare	
	LEGISLATIONS	2. To understand the legal provisions relating to labour welfare in different industries	
		3. To gain the knowledge about concept, philosophy and evolution of labour welfare	
		4. To understand the components of labour welfare	
		5. To acquire the knowledge of modern trends in labour welfare	

IV	SWS 559	1. To gain the basic	
Semester	COMMUNITY HEALTH	knowledge of community health	
		2. To understand the various health provisions in India	
		3. To familiarize the concept of health education	
		4. To develop the necessary knowledge and skills for practice of social work in community health	
IV	SWS 560	1. To understand the	
Semester	INDUSTRIAL RELATIONS AND TRADE UNION	concept, approaches and factors of industrial relations	
		2. To develop the knowledge on various statutory aspects of industrial relations	
		3. To understand the concept of trade union	
		4. To acquire interpersonal relationship and negotiation skills	
IV Semester	SWS 563 RESEARCH PROJECT	To develop the ability to conceptualize, formulate and conduct simple research project	
		2. Learn to make informal assessment and judicious use of research studies and findings on a particular subject/area	
		3. Develop skills for use of library and documentation services for research	
		4. Develop attitudes favourable to the	

		judicious integration of research, theory and practice 5. To develop the ability of logical reasoning and critical analysis	
IV Semester	SWH 516 SOCIAL WORK PRACTICUM IV AND BLOCK PLACEMENT	1. To implement the specialization subject specific knowledge into practice 2. To gain the hands-on skills on each and every course specific matters of concerned specialization 3. To gain real time experience by working with agencies concerned by involving with direct practice with the client system and with the on going operations of the setting	

MSc Mathematics

Semester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
I	Algebra-I	To introduce the concepts and to develop working knowledge on fundamentals of algebra. Students will have the knowledge and skills to apply the concepts of the course in pattern recognition in the field of computer science and also for diverse situations in physics, chemistry and other streams. This course is a foundation for next course in Algebra	Provide a strong foundation in different areas of Mathematics, so that the students can compete with their contemporaries and excel in the various careers in Mathematics. Develop abstract mathematical thinking. Motivate and prepare the students to pursue higher studies and research, thus contributing to the ever increasing academic demands of the country. Enrich the students with strong communication and interpersonal skills, broad knowledge and an understanding of multicultural and global perspectives, to work effectively in multidisciplinary teams, both as leaders and team members. Facilitate integral development of the personality of the student

I Linear A	Students will have the knowledge and skills to explain the fundamental concepts of Matrix Operations, vector spaces, Linear Operators, Eigenvectors, The characteristic polynomial, Jordan form, the concepts Orthogonal matrices and Rotations, The matrix exponential, which is use to solve differential equations arsing in the fields like physics, chemistry, economics and also in biology. This course is foundation for next course in Linear algebra.	to deal with ethical and professional issues, and also to develop ability for independent and lifelong learning.
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I Real	Students will have the knowledge and skills to explain the fundamental concepts of the real number system, Perfect sets, Connected sets, explain the concepts of convergent sequences, subsequences, Cauchy sequences, Series, the derivative of a real function, Mean value theorems, L'Hospital's rule, Taylor's theorem and its applications, differential equations and more generally in mathematical analysis.
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I	Numerical Analysis	Students will have the knowledge and skills to explain the fundamental concepts of Numerical analysis, area of mathematics and computer science that creates, analyzes, and implements algorithms for obtaining numerical solutions to problems involving continuous variables. Such problems arise throughout the natural sciences, social sciences, engineering, medicine and business.	
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		Students will have the knowledge and skills to develop techniques for constructing mathematical proofs, different counting techniques using generating function, recurrence relations and group theory concepts.	
I	Theory of Combinatorics		

		I	
		Students will have the knowledge and skills to implement the programmes listed below in the Python programming language. They can be expected to apply these programming skills of computation in Science and Engineering. 1) Program to accept an array of numbers and print the largest/smallest among them (using 'if' – statement, 'elif'-statement and for loop). 2) Program to calculate factorial of a number and program to print Fibonacci numbers using 'for loop'. Program to convert binary/octal number to decimal	
		number and decimal number to binary/octal number using user defined functions.	
I	Practical-I	Program to search an element in the array using linear and binary search.	
		Program to arrange a set of given integers in an ascending/descending order and print them.	
		Program to find roots of a quadratic equation.	
		Program to find a real root of an Algebraic/Transcendental equation using Newton Raphson Method/Chebyshev Method.	
		Program to find a real root of an Algebraic/Transcendental equation using Secant Method/RegulaFalsi Method.	
		Program to find a real root of a polynomial equation using Birge-Vieta Method.	
		Program to illustrate Lagrange interpolation. 11) Program to	

	illustrate Newton Gregory Forward/Backward Difference interpolation methods. Program to find the value of a function by using Hermite interpolation method.	

II	Algebra-II	Students will have the knowledge and skills to Apply the advanced topics viz., Unique factorization domains, Field theory and Galois Theory in Coding theory and Cryptography, and also in diverse situations in physics, chemistry and engineering etc	

II	Real Analysis-II	Students will have the knowledge and skills to demonstrate a competence in formulating, analysing and solving problems in several core areas of higher level Real Analysis, Develop skills to work with Riemann Integrals, sequences and series of functions and their convergence, approximation theory like Weierstrass Theorem, differentiation of several variable functions.	
II	Topology	To study topological spaces, continuous functions, connectedness, compactness, countability and separation axioms.	

II	Linear Algebra- II	Students will have the knowledge and skills to demonstrate a competence in formulating, analysing and solving problems in several core areas of higher level of Linear Algebra concepts-Bilinear, Symmetric forms, orthogonal basis, spectral theorems, theory of modules in solving integer system, Hilbert basis theorem, Structure theorem which have plenty of applications in Fourier analysis, Wavelet Theory, Mathematical Physics and Chemistry.	

II	Ordinary Differential Equations	Students will have the knowledge and skills of solving ordinary differential equations, boundary value problems, finding power series solutions of ordinary differential equations.	
II	Practical-II	Students will have the knowledge and skills to implement the programmes listed below in the Python programming language. They can be expected to apply these programming skills of computation in science and Engineering. Program to plot a neat labeled graph of elementary functions on the same plane. Program to obtain the graph of plane curves - cycloid and astroid in separate figure on a single run. Program to obtain a neat labeled graph of space curves - elliptical helix and circular helix in separate figure on a single run. Program to obtain a neat labeled graph of surfaces - elliptic paraboloid and hyperbolic paraboloid in separate figure on a single run. Program to find the Transpose, Trace, Determinant and Norm of a matrix.	

Program to find sum, difference and product and inverse (if exists) of matrices.	
Program to check whether the given system of linear equations are consistent.	
Program to find solution to a system of linear equations by matrix inversion method (check for all conditions on input matrix).	
Program to find solution to a system of linear equations by Cramer's rule (check for all conditions on input matrix).	
Program to solve a system of equations using Gauss Elimination Method and Gauss Jordan Method.	
Program to find the solution of a system of equations using Jacobi Iterative Method/Gauss Seidal Method.	
Program to find the numerically largest/smallest eigenvalue and corresponding eigenvector of a matrix by using Power Method.	

MSc Physics

Semester	Course/ Subject	Course outcome	Program outcome (summary of all four semesters)
1	Physics	PHH401: Gain proficiency in various mathematical techniques that are foundational for understanding and solving complex problems in physics, including	Semester1: Competence in translating physical situations into mathematical models and solving these models using appropriate

differential equations, vector calculus, complex analysis, linear algebra, and Fourier analysis.

Apply mathematical techniques to classical mechanics, electromagnetism, thermodynamics, and quantum mechanics.

PHH402:

Gain a foundational understanding of key quantum concepts such as wave-particle duality, superposition, entanglement, and quantum interference.

Learn to solve problems using the Schrödinger equation and other mathematical tools, such as linear algebra, differential equations, and Fourier transforms.

c) Use quantum mechanics to model physical systems like atoms, molecules, and subatomic particles, predicting their behaviour under various conditions.

PHH403:

Apply classical mechanics to solve problems involving interactions between two or more bodies, such as the motion of planets, satellites, or particles in a potential.

Develop the ability to formulate and solve equations of motion for particles and systems using techniques such as differential equations, vector analytical and numerical methods.

The ability to think critically and analytically, applying core principles of physics to solve problems.

Semester2:

Students will start gaining practical knowledge in electronics and instrumentation, particularly focusing on circuits, sensors, and measurement devices used in experimental physics.

Introduction to the fundamentals of solidstate physics, including crystal structures, band theory, and properties of semiconductors, which are essential for students pursuing careers in condensed matter physics, material science, and nanotechnology.

Semester3:

students will explore more advanced concepts in statistical mechanics, including thermodynamic potentials, critical phenomena, phase transitions, and nonequilibrium systems.

Students will delve into the properties of atomic nuclei, nuclear reactions, decay processes, and the standard model of particle physics. Concepts like nuclear structure models, nuclear calculus, and numerical methods.

PHH404:

Gain understanding of Maxwell's equations, which form the foundation of classical electrodynamics. These equations describe how electric and magnetic fields evolve and interact with matter and charge.

Develop physical intuition regarding the behavior of electric and magnetic fields, and how they interact with matter, particularly in dynamic or time-varying situations.

PHH501:

Understand how quantum numbers (n, l, m, s) describe the states of electrons in atoms and how these states determine the electronic structure and chemical properties of elements.

Understand the principles behind the absorption and emission of light by atoms and how these processes are described by the Einstein coefficients and selection rules.

Analyse the energy levels associated with the vibrational and rotational modes of molecules, and understand how these modes are quantized and detected through spectroscopy.

PHH502:

Study the stability of thermodynamic systems

forces, and applications of nuclear physics in energy and medicine are included.

Semester4:

Students will begin to engage in research projects or more intensive group work, which allows them to apply theoretical knowledge to unexplored or specific problems.

Students will develop the ability to critically assess their research, identify limitations, and suggest future directions for their work.

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using concepts such as the Gibbs free energy and how stability relates to phase transitions and equilibrium states.

Learn about probability distributions (e.g., Boltzmann distribution) and their application to describe the behaviour of large systems of particles.

PHH505:

Understand the fundamental principles behind particle acceleration, including the relationship between electric fields, magnetic fields, and the motion of charged particles.

Learn the distinction between linear accelerators (linacs) and circular accelerators (cyclotrons, synchrotrons), and how each type works to increase the energy of particles.

PHH508:

Understand how the energy levels of nuclei are quantized and how transitions between these levels emit or absorb radiation, resulting in characteristic spectra.

Learn about the decay processes that occur when nuclei are in excited states, including the emission of gamma radiation, internal conversion, and the process of nuclear isomerism.

MSc Psychology

	Program outcome (summary of all four semesters)
Cognitive Psychology 1. The organization of basic cognitive functions from an information processing perspective. 2. The relevance of higher cognitive processes for understanding people's behavior in selected areas 3. Describing basic processes from central aspects of cognition such as language, imagery etc. 4. Evaluating the theories of word recognition neuropsychological evidence. 5. Reflecting how the cognitive perspective helps our understanding of human behavior	1. To equip the students with Qualitative and Quantitative Research method used in Psychology. 2. To enhance the student's counselling skills. 3. To expertise the students in developing psychological tests. 4. To orient the students regarding biological basis of Human behaviour. 5. To orient students regarding psychopathology among children, Adolescents and Adults. 6. To enable the students, understand different perspectives of personality. 7. To learn the principles of cognitive abilities among human behaviour. 8. To equip the students with the skills of Human resource management and development.

			9. To enable the students in understanding dynamics of Psychotherapeutic techniques.
1	PPSPPH11	The students will be able to,	10. In-depth Knowledge of Psychological Principles
	Physiological Psychology	 Identify the structures and functions of neurons Describe the processes involved in the generation and propagation neural impulse Describe, analyze and evaluate the modes of inheritance. Integrate knowledge on Structural and chemical correlates of Emotion and motivation Explain the physiological processes underpinning various psychological processes. 	Develop a thorough understanding of key psychological domains, including physiological, cognitive, educational, and social psychology, to analyze human behavior and mental processes comprehensively. 11. Application of Psychological Testing and Measurement Gain expertise in psychometric tools and assessments for individuals across
1	PPSEPS11 Educational Psychology	 The student will be able to, Evidence an understanding of the role of an educational psychologist in different levels like individual, school, group etc. Have an understanding of Effective teaching-learning and evaluation methods Identify the implications of psychological theories of learning in teaching 	different age groups, including children and adults, through practical exposure to cognitive processes, psychophysics, and child and personality testing. 12. Skill Development in Counselling and Therapy

		 4. Demonstrate Effective teaching strategies, technology-based teaching strategies 5. Integrate the knowledge and to analyze, methods and technical issues the assessment in the field of education 	Master core counselling skills, group counselling techniques, and psychotherapy approaches to provide effective psychological support across
1	PPSPMS11 Psychometry	 Students will be able to understand many facts of psychological tests and measurement principles used in assessing human behaviour. Students will be familiarized with various the various psychological assessment Methods and with the evaluation of psychological tests. Students will be able to identify quality of a good psychological test Students will be familiar with test construction, test development, standardization, validity, reliability. Students will know the importance of standardized test with relevant, psychometric properties. 	various areas of need, such as childhood pathology, adult pathology, and behavioral modification. 13. Research Proficiency and Statistical Analysis Cultivate the ability to design, conduct, and evaluate psychological research using advanced statistical methods, enabling evidence-based practice and contributions to psychological science. 14. Expertise in Behavioral Interventions Understand and apply principles of behavior modification to
2	Basics of Research &Statistics	 The students will be acquainted with basics of research understand its purpose and method of conducting research The students will be informed about the 	design and implement therapeutic interventions that promote positive psychological outcomes in

			basics of scientific research in psychology.	individuals and groups.
		3.	The students will be familiarized with the statistical methods and tools used in psychological research.	15. Ethical Practice and Professionalism Foster a deep sense of ethical responsibility,
		4.	The students will be acquainted with ideas and methods used in the statistical treatment of data obtained from various experiments, surveys, and observations.	cultural sensitivity, and professionalism to uphold the integrity of psychological practices and research. 16. Positive
		5.	The students will be learn the statistical rigors in designing research and processing data	Psychology and Well-being Integrate concepts from positive
2	Counselling Skills	1.	Students will be able to get in depth understanding of Counseling through theoretical concepts Students will be well acquainted with the roles, functions and qualities of an effective counsellor.	psychology to promote mental health and well- being, emphasizing strengths, resilience, and growth-oriented interventions.
		2.	Students will be familiar with the various approaches, procedures and techniques of counselling.	
		3.	Students will be able to understand the various stages involved in the process of counselling.	
		4.	Students will be able to understand the meaning, need, and advantage of group counselling.	
2	Group Counselling		ize group counselling nniques.	

		To effectively conduct group counselling among various groups. To guide a group with cross-cultural perspective. To effectively use psychodrama in group setting. To effectively use behavioral techniques in group.
2	Positive Psychology	 Demonstrate an understanding of positive psychology and implications to wellbeing and flourishing Measure and build individual ,workplace and community flourishing Demonstrate an understanding of resiliency in relation to wellbeing Develop a tool kit of mindfulness and spirituality. Utilize their own strengths and virtues and employ strategies to increase their happiness
2	Dynamics of Human Behaviour – Open Elective	 Students will be able to understand the basic concepts of the field of psychology Students will be able to understand normal mental processes and their relationship to brain, mind and behavior.

		 3. Students will be oriented about different approaches to understanding human behavior 4. Students will be able to understand the forces and factors that shape personality 5. Students will be able to apply psychology in everyday life to some extent. 	
3	PYH 501: Personality Theories	Students will be familiar with significant theories of personality Will be able to understand the forces and factors shaping personality Will be able to understand the different perspectives of personality	
		3. Will be able to differentiate between different approaches4. Will be able to understand individual differences which helps in	
		self-reflection and understanding of self and others	
3	PYS 506: Psychotherapy	Students will be acquainted with several contemporary and classical individual intervention approaches	
		2. Students will know Intervention approaches based on different frameworks.	
		3. Students will gain an understanding of the applications of each	

		approach in different	
		therapeutic settings	
		4. Students will get an understanding of the different techniques of psychological intervention.	
		5. Students will be able understand the need, method and effectiveness of different techniques in different cases.	
3	PYS 507: Adult Psychopathology	1. Students will be able to understand the principles and models of bio psychosocial assessment, concept of normalcy and psychopathology leading to diagnoses and appropriate counselling plans.	
		2. Students will be able to develop knowledge of the principles of diagnosis and the use of ICD & DSM.	
		3. Students will be able to explore the various situational and environmental factors that affect abnormal behaviour.	
		4. Students will be acquainted with various manifestations of Psychopathology.	
		5. Students will be able to oriented about the psychological, biological and social influence in the etiology and treatment of mental disorders.	
3	PYS 508: Psychological Disorders of Childhood and Adolescence	1. Students will be acquainted with various manifestations of Psychopathology in children	

		 Students will be oriented about psychological, biological and social influence in the etiology and treatment of mental disorders. Students will be able to explore the various situational and environmental factors that affect abnormal behaviors in childhood. Students will be to understand and how to deal with special issues pertaining to psychological disorders of childhood and adolescence compared to that of adult. Students will be sensitized to children's mental health problems. 	
3	PYS 512: Man, and Mental Health	 The students will gain insight about the diversity of field of Psychology The students will be able to understand group behaviour The students will be able understand and effectively handle simple psychological distress The students will be well acquainted to identify and classify problems and to methods of seeking help to self or others The students will be able to understand and manage themselves better 	
4	PYH 551: Behaviour Modification	1. Students will be able to get well acquainted with theory behind behaviour modification	

		2. Students will gain	
		knowledge and develop skills needed for applying behaviour modification techniques.	
		3. Students will understand different behavioural modification techniques and its process	
		4. Students will understand the need, effectiveness and choice of techniques based on the conditions	
		5. Students will gain knowledge and develop skills towards self-development.	
4	PYS 557: Areas of Counselling	1. Orienting the Students about the need for and importance of vocational counseling	
		2. Orienting students about issues and techniques of marital and family counseling	
		3. To create awareness about needs of the aged and terminally	
4	PYS 558: Social Psychology	1. Students will be able to understand and explain social behaviour and thought	
		2. Students will be able to understand and differentiate different perspectives of social psychology	
		3. Students will be able to understand different concepts of social psychology	
		4. Students will be familiarized with research in social psychology	
		5. Students will be familiar with applications of social psychology	

Department of Postgraduate Studies in Zoology

Semester	Course/ Subject	Course outcomes
	PZOATH11: Animal Taxonomy and Evolution	After completion of the course the student would be able to apply the theoretical knowledge of taxonomy in field work.
		2. The student will be developing an insight about the evolutional process
		3. The student who completes the course would be developing skills in identification and classification of animals.
	PZOBCH11: Biological Chemistry	1. Students would be able to gain knowledge of basic principles of carbohydrates, lipids, protein and nucleic acids and their role in basic metabolic pathways.
		2. Understanding the chemistry behind biological processes and the synthesis of biologically active molecules
		3. Estimation of enzymes and other bio molecules help in the diagnosis of various diseases.
I		4. Student would be able to clinically assess the laboratory indicators of physiologic conditions and diseases.
	PZOCAS11: Comparative Anatomy	1. Students will be able to acquire the skill of systematic dissection.
		2. Students acquire knowledge base and learning skills for perusing further educational and career goals.
		3. Students will be able to appreciate the importance of comparative anatomy I day today life
	PZOTTS11: Tools and Techniques in Biology	1. After completion of the course the student would be able to design experiments and understand the instrumentation.
		2. The students will able to handle biotechnological and microbiological tools.
		3. Students will be able to work in industries based on biotechnology, pharmacology, microbiology etc.
	PZOABH21: Animal Cell Biotechnology	1. Students will be familiar with the theoretical and practical aspects of culturing cells.
II		2. Students acquire the necessary practical skills for the isolation of animal cells for in vitro studies, maintenance of animal cells in vitro and application of molecular techniques to in vitro situation
		3. Students will be able to understand the significance of animal biotechnology for the betterment of society

	PZOTCH21: Toxicology and Cancer Biology	1. Acquire broad knowledge of the field of environmental toxicology and chemistry including basic principles, target organ toxicity and the toxicity of a select group of chemical compounds
		2. Students acquire basic knowledge of applications of animal models to study cancer.
		3. Students will be able to understand the acute toxic effects of chemicals on the skin and the effects of hormone disrupting compounds.
	PZOCPS21: Comparative Physiology	1. After completing the course, the student would be able to acquire the knowledge of various life supporting properties, functions and processes of animals or their parts.
		2. The student would be able to describe how different kinds of animals meet their needs.
		3. The students would learn to elucidate how physiology mediate interactions between organisms and their environments.
	PZOMBS21: Molecular Cell Biology	1. Students will be able to understand, apply and use appropriate laboratory procedures for biological studies.
		2. Students develop basic knowledge of molecular events occurring within human body.
		3. After completion of course students will be able to get employment in molecular biology related disciplines.
	PZOHGE21: Human Genetics	1. Students acquire the knowledge of pattern of inheritance in human traits.
		2. Students would be able to understand the basis of autosomal dominant and recessive traits and sex-linked inheritance in humans.
		3. Students who complete the course will be able to get in dept knowledge of genetic counselling and its significance.
	PZOGBH31: Genetics and Quantitative Biology	1. After completion of the course the student would be well grounded in the basics of molecular genetics.
		2. The student will be able to acquire skills including how to elici comprehensive family history and construct a pedigree.
III		3. The student will be able to describe genetics in medical practic including recognizing congenital anomalies and syndromes.
	PZONMH31: Nutrition and Metabolism	1. Students will be able to describe the physiological function and metabolism of the micro and macronutrients.
		2. Student acquire the knowledge of nutrition of domestic, zoo ar wild animals.

		3. Students get in depth understanding of evaluation of chemical and nutritional value of feeds, feed supplements, grass and forage for commercial animals and pets.
		4. Students will be carryout animal diet formulation to maximize growth, reproduction, health and performance.
	PZOFBS31: Fisheries and Aquatic Biology	1. Students will be able to understand aquatic environment for different animals.
		2. Students will get knowledge of fish diversity in India.
		3. Students will be able to understand different culturing practice of fishes.
	PZOEBS31: Environmental Biology	1. After the end of the course the students obtain an in dept knowledge of surrounding environment.
		2. Students will be able to carry out impact assessment pollutants on environment.
		3. Students will be able to develop strategies for maintenance of sustainable ecosystems.
	PZOVTE31: Vermitechnology	1. Students will be able to compost in a limited space and will tur towards organic farming.
		2. Student will get the knowledge of biodiversity of local earthworms.
		3. Student will get the knowledge of bio-management of environmental waste through vermicomposting.
		4. Students with the knowledge of composting can generate employment.
	PZOBIH41: Biology of Immune System	1. Student will be able to understand how the immune system works and acquire general knowledge about basis of infectious diseases and vaccination and transplantation.
		2. Acquire practical skills in undertaking simple immunological experiments that mimic those undertaken in diagnostic laboratori and research laboratories.
IV		3. Students can have post-doctoral career in biomedical research, healthcare and as teaching faculty.
	PZOPWH41: Project work	1. Students would be able to learn on their own, reflect on their learning and take appropriate actions to improve it.
		2. Acquire the skills to communicate effectively and to present ideas clearly and logically in both the written and oral forms.
		3. Students will be able to acquire research temperament.

	PZOWMS41: Wildlife Conservation and Management	 Students would be able to understand biodiversity concept and management, mainly conservation of wild animals. Students are able to understand need of conserving the wild animals.
	PZOSBS41: Statistics and Bioinformatics	1. After the completion of the course students will be able to acquire the knowledge of applying statistics in the field of agriculture, business, industry, health sciences, scientific and other disciplines.
		2. Students will be able to understand the collection, presentation and analysis of scientific data.
		3. Students acquire in depth understanding of basic methods of biological sequence analysis and able to perform simple sequence analysis using existing tools.