



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 tools, 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.

COURSE 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:

- 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 the underlying 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 and deliver quality software.
- ☐ 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 trade-offs 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 techniques
CO3. 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 video-based 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

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

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

		<p>2. Demonstrate an ability to understand individual and group behavior in an organization.</p> <p>3. Be able to explain the effectiveness of organizational change and development of organisation.</p> <p>4. Demonstrate an understanding of the process of organizational development and OD Interventions.</p>	
	Statistics for Business Decisions	<p>1. To understand the basic concepts in statistics.</p> <p>2. To classify and construct statistical tables.</p> <p>3. To understand and construct various measures of central tendency, dispersion and skewness.</p> <p>4. To apply correlation and regression for data analysis</p>	
	Social Media Marketing	<p>1. Understand social media marketing goals for successful online campaigns.</p> <p>2. Analyze the effective social media marketing strategies for various types of industries and businesses.</p> <p>3. Design social media content and create strategies to optimize the content's reach to the target audience.</p> <p>4. Appraise the reach and track progress in achieving social media objectives with a variety of measurement tools and metrics.</p> <p>5. Design a suitable social media campaign for the business goals</p>	
IV	Management Accounting	<p>1. Explain the application of management accounting and various tool used</p> <p>2. Make inter – firm and inter- period comparison of financial statements</p>	

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

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

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

	Logistic and Supply Chain Management Freight Transport Management	1.Understand the different functions of Commercial transport. 2.Analyse pricing and pricing strategy. 3.Understand transport administration. 4.Understand of transport and export documentations	
	Vocational Information Technology for Business	1.Understand the fundamentals of information technology 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	<p>1.Understand the procedure for computation of income from business and other Profession.</p> <p>2.the provisions for determining the capital gains.</p> <p>3.Compute the income from other sources.</p> <p>4.Demonstrate the computation of total income of an Individual.</p> <p>5.Comprehend the assessment procedure and to know the power of income tax authorities.</p>	
	International Business	<p>1.Understand the concept of International Business.</p> <p>2. Differentiate the Internal and External International Business Environment.</p> <p>3. Understand the difference MNC and TNC</p> <p>4.Understand the role of International Organisations in International Business.</p> <p>5. Understand International Operations Management</p>	
	Finance Elective Security Analysis and Portfolio Management	<p>1. Understand the concept of basics of Investment.</p> <p>2.Evaluate the different types of alternatives.</p> <p>3.Evaluate the portfolio and portfolio management.</p> <p>4.Understand the concept of risk and returns</p> <p>5. Gain the knowledge of fundamental and technical analysis</p>	
	Marketing Elective Advertising and Media Management	<p>1. Understand the nature, role, and importance of IMC in marketing strategy</p> <p>2. Understand effective design and implementation of advertising strategies</p> <p>3. Present a general understanding of</p>	

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

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

Bachelor of Commerce

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

	FOUNDATION OF COMMERCE-I	<ol style="list-style-type: none"> 1. Students understand the Concept of HRM, & Changing role of the HR Manager in a dynamic business environment. 2. Students learnt 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. 	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 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.
	INDIVIDUAL AND TEAM MANAGEMENT	<ol style="list-style-type: none"> 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. 	

II	QUANTITATIVE TECHNIQUES-II	<p>Learned to establish relationships between variables in real world situations by using correlation and regression analysis.</p> <ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. Students gained recent developments in the accounting field. 2. Students will convert a single entry into a double entry system of bookkeeping of a sole proprietor or firm. 3. Will prepare ledger accounts in the book of hire purchaser 4. Will analyse the net result and financial position of various departments of an organisation. 5. Will prepare a royalty chart and ledger accounts in the book of lessee. 	

	FOUNDATION OF COMMERCE- II	<ol style="list-style-type: none"> 1. Understand the concept of Insurance, Banking and Finance. 2. 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 Insurance 4. Evaluate the Investment opportunities using risk and return 5. Students understand Various innovative and Digital banking concepts. 	
	FUNDAMENTAL S OF ORGANISATION AL BEHAVIOUR	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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 ACCOUNTING	<ol style="list-style-type: none"> 1. Students can learn the basic 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 can prepare reconciliation statements. 	
	CYBER SECURITY	<ol style="list-style-type: none"> 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 	

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

	COSTING METHODS AND TECHNIQUES	<ol style="list-style-type: none"> 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 AND INVESTMENT AWARENESS	<ol style="list-style-type: none"> 1. Students Understand the Different Modes of Investment. 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	<p>1. Understand the role of financial managers effectively in an organization.</p> <p>2. Learnt to apply the compounding & discounting techniques for time value of money.</p> <p>3. Learned to take investment decisions with appropriate capital budgeting techniques for investment proposals.</p> <p>4. Understand the factors influencing the capital structure of an organization.</p> <p>5. Understand & estimate the working capital requirement for the smooth running of the business</p>	
	INCOME TAX LAW AND PRACTICE-I	<p>1. Students understand the provisions of direct Tax Laws in India.</p> <p>2. Students are able to determine the residential status of an individual</p> <p>3. Students are able to calculate Taxable HRA, Gratuity, Pension, leave cash encashment and VRS</p> <p>4. Students are able to compute the income from Salary and House property under different situations.</p> <p>5. Students learnt TDS & Advance tax ruling and identify the various deductions under section 80.</p>	

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

	RETAIL MANAGEMENT	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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 	
	EMPLOYABILITY SKILLS	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. Understand and determine the overall cost of capital. 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. 	
	INCOME TAX LAW AND PRACTICE-II	<ol style="list-style-type: none"> 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	<p>1. Students understand the basic concepts of management accounting.</p> <p>2 Students can analyse and interpret financial statements to inform business decisions.</p> <p>3 Students can solve problems on ratio analysis and prepare financial statements using accounting ratios.</p> <p>4 Students can prepare cash flow statements according to accounting standards.</p> <p>5 Students understand the procedure of management audit and report on management audit.</p>	
	INVESTMENT MANAGEMENT	<p>1. Students understand the basic concepts of investment.</p> <p>2. Students can perform fundamental analysis to evaluate investment opportunities.</p> <p>3. Students understand the concept of risk and return and can calculate Alpha and Beta.</p> <p>4. Students can perform technical analysis to identify trends and patterns in investment markets.</p> <p>5. Students understand the concept of portfolio management and can construct an optimum portfolio to achieve goals.</p>	

	CUSTOMER RELATIONSHIP MANAGEMENT	<ol style="list-style-type: none"> 1. Students Aware of the concept of customer Relationship. 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 AND ITR FILING	<ol style="list-style-type: none"> 1. Students understood conditions for allowing depreciation and computation of allowable depreciation. 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	<p>1. Students Study concerning metrics of dispersion, mean, median, and mode.</p> <p>2. Students Connect a formal quantitative approach to problem solving and decision-making.</p> <p>3. Students Utilize the idea of index numbers to comprehend current market conditions</p> <p>4. Students Compute the ratios, proportions, discounts, and percentages that are utilized in business.</p>	<p>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 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 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</p>
	FINANCIAL ACCOUNTING -I	<p>1.The students understood the concept of accounting, it's usages, importance and limitations, systems and preparation of journal and ledger accounts</p> <p>2.They learnt the practical aspects of depreciation accounting and also change in method of depreciation and its calculations.</p> <p>3.They understood the preparation and theoretical aspect of non trading concerns.</p> <p>4.They understood the treatment of cash book and pass book and also overdraft problems from BRS.</p> <p>5.They understood the preparation of trading and profit and loss accounts and also</p>	

		Balance sheet of Sole trading concerns and its 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	<p>1.Students Establish relationships between variables in real-world situations by using methods like regression and correlation.</p> <p>2.Students Use the ideas from probability distributions to solve practical issues.</p> <p>3.Students Predict future results using time series</p> <p>4.Students Recognise the relationship between two variables and how to use ratios and proportions to express it.</p>	
	FINANCIAL ACCOUNTING -II	<p>1.Students will be able to understand the recent trends in accounting.</p> <p>2.Students understood the concept and practicality of conversation of single entry in to double entry system</p> <p>3.The students can focus on accounting treatment for hire</p>	

		<p>purchase systems and the different methods calculation of Interest.</p> <p>4.Students will learn about royalty accounts.</p> <p>5.Students will study about inter departmental transfer, invoice price etc.,</p>	
III	CORPORATE ACCOUNTING - I	<p>1) Students understand the underwriting of shares and SEBI regulations</p> <p>2)They understand the different types of Ratios under pre and post incorporation concepts</p> <p>3) They learnt about methods of valuation of Goodwill</p> <p>4)They understand the factors affecting valuation of shares, right issues, valuation of warrants</p> <p>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</p>	
	CYBER SECURITY	<p>1)Students would be able to understand the concept of cyber security and issues and challenges associated with it.</p> <p>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</p>	

		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	
	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.	
	COMPUTERIZED ACCOUNTING	1.Understanding of basics concepts of accounting in respects of revenue, expenses, assets, liability and equity	

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

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

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

B.COM(TAX PROCEDURE)

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

	GST-I	<p>1.The study familiarises the students with the provisions of Indirect Tax Laws in India.</p> <p>2.The students can understand supply or not to charge GST under the Act</p> <p>3.The students can understand Procedure of Registration for liable person n provision of compulsory Registration.</p> <p>4.The students can understand that eligible for Composition levy.</p>	<p>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, 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.</p>
	INDIVIDUAL AND TEAM MANAGEMEN	<p>1.Students can become effective in their day to day transactions.</p> <p>2. Students can develop strategies to manage conflicts.</p> <p>3. Students can learn various Interpersonal skills.</p> <p>4. Can communicate effectively in teams with team members.</p> <p>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.</p>	

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

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

III	CORPORATE ACCOUNTING -I	<p>) Students understand the underwriting of shares and SEBI regulations</p> <p>2) They understand the different types of Ratios under pre and post incorporation concepts</p> <p>3) They learnt about methods of valuation of Goodwill</p> <p>4) They understand the factors affecting valuation of shares, right issues, valuation of warrants</p> <p>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</p>	
	GST- III	<p>1. The Students can understand how to calculate Input tax and set off</p> <p>2. The students can know about different provisions of ITC</p> <p>3. The students can know about various books of accounts and documents for business</p> <p>4. The students can identify various forms to file the GST Returns.</p> <p>5. The students can know the procedure of Registration of CTP and NRTP</p>	

	ITL-III	<p>1.The students can understands how to calculate tax liability of Individual.</p> <p>2.The students can understand the provisions of TDS</p> <p>3. The students can understands the provisions of TCS</p> <p>4.The students can understands the computation of payment of Advance tax.</p> <p>5. The students can get the knowledge of income tax Authorities.</p>	
	CYBER SECURITY	<p>1)Students would be able to understand the concept of cyber security and issues and challenges associated with it.</p> <p>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</p> <p>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</p>	

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

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

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

	RETAIL MANAGEMENT	<ol style="list-style-type: none"> 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. 	
	COST ACCOUNTING	<ol style="list-style-type: none"> 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. 	

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

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

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

B.COM (ACCOUNTING AND FINANCE)

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

	FUNDAMENTALS OF FINANCIAL MANAGEMENT - I	1. Students understand the basic concept of financial management 2. Apply the concept of time value of money in assessing investment 3. Apply the concept of risk and return in investment 4. Know the concept of capital structure 5. 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 MANAGEMENT	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	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	<p>1.Understand the procedure of rectifying the errors committed and to set right the accounting records.</p> <p>2.Understand and compute the amount of claim for loss of stock and loss of profit.</p> <p>3.Understanding preparation of final accounts of Sole proprietor</p> <p>4.Know the features and accounting treatment of Joint Ventures.</p> <p>5.Prepare Final Accounts of Professionals.</p>	
	FUNDAMENTALS OF FINANCIAL MANAGEMENT - I	<p>1.Students can estimate the working capital requirement of the firm</p> <p>2. Understand the significance of cost of capital</p> <p>3.Apply the concept of capital budgeting</p> <p>4.Analyse risk in capital budgeting.</p> <p>5.Know the determinants of dividend policy</p>	

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

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

	COST ACCOUNTING	<p>1.Students learned the basic concepts of cost accounting.</p> <p>2.Students can prepare stores ledger accounts using different methods .</p> <p>3.Students learned to solve problems on Halsey, Rowan, Taylor's piece rate system.</p> <p>4.Students can solve problems on primary and secondary distribution.</p> <p>5.Students are able to prepare reconciliation statement.</p>	
	CYBER SECURITY	<p>1)Students would be able to understand the concept of cyber security and issues and challenges associated with it.</p> <p>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</p> <p>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</p>	

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

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

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

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

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

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

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

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

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 (CORE COURSES)	Principles and Practices of Management	Understand the basic concepts of principles of management. Understand the different activities performed by middle level and lower-level managers in the organization. Plan, prepare and execute the right decisions.
	Business and Society	Students will be able to analyze how external environment factors such as market trends, regulatory changes, and environmental sustainability impact business strategies. To increase awareness of Social Ethical Responsibilities.
	Personal Development and Interpersonal Skills	Plan for personal development. Develop interpersonal skill. Focus on self-management helping in overall development of the personality
	Employee Engagement (Elective)	Students will be able to identify the concepts and practices of employee engagement. Recognize and sustain the focus of employee engagement in the organization. Create the strategies for employee engagement.
	Dynamics of Human Behavior (Elective)	Identify and evaluate the role of psychology in HRD, focusing on learning process, their nature, types, and factors influencing them. Analyze the types and functions of human senses, sensation and sensitivity. Apply knowledge of psychology to analyze human behavior in educational, social and professional environment.
II SEMESTER		
GROUP-1 (CORE COURSES)	Human Resource Management	Develop necessary skill set for application of various HR practices. Equip with the knowledge on modern HR techniques. Acquire knowledge on modern trends in HRM
	Basics of marketing	Apply the working knowledge of the field of marketing in their respective business. Develop the cognitive and 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 Economics	Gain specialized knowledge of economic 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 skills and acquire career opportunities.

	Talent Management	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 and identify high-potential, high-performance employees.
	Professional Skill Development (Elective)	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 SEMESTER		
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 SEMESTER		
GROUP-1 (CORE COURSES)	Organizational Development and Management of Change	Understand the framework of organizational development. Acquire knowledge of interventions designed for organizational development. Acquire knowledge on managing change and resistance to change. Gain insight into organization development as learning system.

	Human Resource Research Methodology	Understand the philosophy of Research. Learn various research techniques and methods. Use statistical values in Human research. Handle Quantitative and Qualitative data in research. Understand the Research Ethics.
	Entrepreneurship Development	Equip the knowledge of defining basic terms of entrepreneurship. Identify the elements for success of entrepreneurial ventures. Interpret their own business plan.
	Human Resource Development	Understand relevance of HRD techniques in all fields of work. Apply new practices of HRD to keep pace with changes.
V SEMESTER		
GROUP-1 (CORE COURSES)	Global Human Resource Management	Effectively manage key global human resource functions. Examine current trends and practices in HRM. Contribute to global employee performance management Problem-solve in global human resource challenges.
	Financial Analysis for Human Resource Manager	Understand the basic concepts of accounting and financial management. Understand the different types of financial statements and financial analysis Plan, prepare and execute the right decisions.
	Corporate Communication And Public Relation	Able to use and draft a business correspondent needed. Develop skills and techniques for Public Relation
	Corporate communication and public relation	Students understood the importance of business communication and its channels, theories of public relations and its changes, skills of public relations and its challenges in the global market.
	Dynamics Of Human Behavior	Demonstrate the applicability the concept of 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 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 institutions which regulate Indian Labour law.
VI SEMESTER		
GROUP-1 (CORE-COURSES)	Trends In Human Resources Development	Understanding of key terms, concepts and practices within the field of HRM and HRD. Understanding competence in development and problem-solving in the area of HRD. Understanding innovative solutions to problems in the fields of HRD

	Business Ethics and Corporate Governance	Evaluate the range of ethical issues that arises in business and the theories that are used to 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 Resource Information System	Discuss issues related to HRIS. Develop an understanding about application of HRIS.
	Stress Management	student will be able to Identify the types of 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 Salary administration	Analyse the wage structure in an organization. Understand and calculate incentive packages offered in an organisation. Recognize legal and ethical considerations in compensation management.
	Social And Workforce Psychology	Learn the basic concepts of the field of psychology with an emphasis on application of 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	<p>CO: 1- To understand the basic principles of biochemistry.</p> <p>CO: 2- To understand water as solvent of life, importance of buffers in biological systems, atoms and chemical bonding.</p> <p>CO: 3- To understand fundamentals of physical phenomena associated with adsorption, viscosity, osmotic pressure etc.</p> <p>CO: 4- To acquire and consolidate the fundamental concepts of kinetics and reaction mechanism</p> <p>CO: 5- To understand the concepts of colloids and explore its importance in everyday life.</p>	<p>PO: 1-To create interest in Biochemistry and appreciation for chemical basis of biological processes.</p> <p>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.</p> <p>PO: 3- To provide an in-depth understanding of chemical reaction mechanism in biological processes.</p> <p>PO: 4-To provide a flavor of historical developments of enzymes and their applications in research, diagnostics and various industries.</p> <p>PO: 5- To gain proficiency in basic laboratory techniques and be able to apply the scientific method to the processes of</p>
II	Bio-Organic chemistry	CO1: To understand the fundamentals of organic chemistry and their importance in understanding	

		Biochemical reactions CO2:To acquire knowledge of organic reactions, isomerism and Stereochemistry of molecules	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.
III	Bio-Organic chemistry	<ul style="list-style-type: none"> These topics will enable students to understand the fundamentals of organic chemistry pertinent to their importance in understanding biochemical reactions. 	PO: 7-To appreciate biochemical mechanistic basis of physiological processes, metabolism under normal and pathological conditions importance and levels of metabolic regulations.
IV	Analytical chemistry	<ul style="list-style-type: none"> 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.

		<p>i.e.,proteins, electrolytes, hormones etc.</p> <ul style="list-style-type: none"> • Have basic knowledge of clinical and forensic analytical methods and their principles. 	<p>PO: 10- To give students experience in conducting independent, hypothesis-driven, biological research, project planning and management</p> <p>PO:11-To provides skills to publish research findings,and awareness of IP rights,and scientific publication ethics and problems of plagiarism.</p> <p>PO: 12- To prepare competent human resource with better knowledge, hands-on-experience</p>
V	BIOCHEMISTRY OF MACROMOLECULES	<ul style="list-style-type: none"> • The course provides fundamental insights on the types of macromolecules; and unique structural features, chemical properties and biological importance of each. 	
V	HUMAN PHYSIOLOGY AND ENZYMOLOGY	<p>Describe cell structure and functions, how cells form and divide, and how they differentiate and specialize.</p> <ul style="list-style-type: none"> • 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 	

		<p>cellaging will enhance to its core.</p> <ul style="list-style-type: none"> • 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. <p>Learning kinetics of enzyme catalyzed reactions and enzyme inhibitions and regulatory process, Enzyme activity, Enzyme Units, Specific activity.</p>	
VI	BIOENERGETICS AND METABOLISM	<p>At the end of the course the students will be able to:</p> <ul style="list-style-type: none"> • Understand the concepts of metabolism, characteristics of metabolic pathways and strategies used to study these pathways. 	

		<ul style="list-style-type: none"> • 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 carbohydrate and lipid metabolism 	
VI	MOLECULAR BIOLOGY AND IMMUNOLOGY	<ul style="list-style-type: none"> • Defines the concept of immunology, concepts of antigen and antibody 	

		<ul style="list-style-type: none"> • 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 Genetics	<p>CO 1. Understand concepts of Biotechnology and demonstrate knowledge acquired in interdisciplinary skills in cell biology, genetics, biochemistry, microbiology, and molecular biology</p> <p>CO 2. Describe the ultra-structure of cells, structure and function of organelles, cytosol and cytoskeleton</p> <p>CO 3. Understand phases of cell cycle, cell division, reductional division in gametes, molecular mechanisms that regulate life and death of a cell including programmed cell</p>	<p>1. Acquire knowledge pertaining to biotechnology and its applications</p> <p>2. Studying various aspects in each semester with practical approaches and various tools to solve the biology related problems.</p> <p>3. Outcomes of biotechnology for industrial applications and novel product development protocol preparations.</p>

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

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

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

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

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

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

		<p>CO 5. Learn about germplasm conservation techniques and the establishment of gene banks, along with large-scale culture methods for cell lines.</p> <p>CO 6. Explore methods of introducing foreign genes into animals through transformation techniques.</p> <p>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</p> <p>CO 8. Apply knowledge to real-world challenges in veterinary medicine, conservation, and biomedical research</p> <p>CO 9. Understand the need for animal biotechnology for human welfare.</p>	
VI	Bioprocess and Environment Biotechnology	CO1. Exploitation of microorganisms for industrial use and their improvement, and formulation of	

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

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

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

BOTANY (UG)

SEP SYLLABUS

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

I SEMESTER	Diversity of Microbes, Algae and Fungi	<ol style="list-style-type: none"> 1. Understand the diversity of microbes in nature. 2. Know the diversity of algae, fungi, lichens and their uses. 3. Identify and classify algae and fungi. 4. Develop practical skills in staining techniques and slide preparation. 5. Identify plant disease symptoms and management techniques. 	<ul style="list-style-type: none"> • Students will be proficient to comprehend classification, morphology, anatomy, and physiology of various groups of plants. • Students will be able to understand the contribution of botany for human welfare with potential uses of plants along with their conservation and sustainable development.
II SEMESTER	Diversity of non- flowering plants and Plant anatomy	<ol style="list-style-type: none"> 1. To identify and classify non-flowering plants. 2. Will gain basic knowledge of GTS and plant fossils. 3. Observation of variations that exist in the internal structure of various parts of a plant and among different plant groups in support of the evolutionary concept. 4. Skill development for the proper description of internal structure using botanical terms, their identification and further classification. 5. Induction of the enthusiasm towards the internal structure of locally available plants. 	<ul style="list-style-type: none"> • Students will be enriched by various skills related to Gardening and Floriculture, preparation of biofertilizers, mushroom cultivation and ethnobotanical knowledge. • Students will be able to understand and relate physical features of the environment to the structure of population, community, ecosystem, and sustainable conservation strategies.

NEP 2020 SYLLABUS

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
I Semester	MICROBIAL DIVERSITY AND TECHNOLOGY	<ol style="list-style-type: none"> 1. Understand the fascinating diversity, evolution, and significance of microorganisms. 2. Comprehend the systematic position, structure, physiology and life cycles of microbes and their impact on humans and environment. 3. Gain laboratory skills such as microscopy, microbial cultures, staining, identification, preservation of microbes for their applications in research and industry. 	<ol style="list-style-type: none"> 1. Skill development for the proper description using botanical terms, identification, naming and classification of plants and microbes. 2. Acquisition of knowledge on structure, life cycle and life processes that exist among plant and microbial diversity through certain model organism studies. 3. Understanding of various interactions that exist among plants and microbes; to develop the curiosity on the dynamicity of nature. 4. Understanding of the major elements of variation that exist in the living world through comparative morphological and anatomical study.
II Semester	DIVERSITY OF NON-FLOWERING PLANTS	<ol style="list-style-type: none"> 1. Understand the diversity and affinities among Algae, Bryophytes, Pteridophytes and Gymnosperms. 2. Understand the morphology, anatomy, reproduction and life cycle across Algae, Bryophytes, Pteridophytes and Gymnosperms, and their ecological and evolutionary significance. 3. Obtain laboratory skills/explore non-flowering plants for their commercial applications. 	
III Semester	PLANT ANATOMY AND DEVELOPMENT BIOLOGY	<ol style="list-style-type: none"> 1. Observation of variations that exist in internal structure of various parts of a plant and among different plant groups in support of the evolutionary concept. 2. Skill development for the proper description of internal structure using 	

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

		<p>emphasizes the importance of biodiversity</p> <p>6. Also, there is a detailed study on the use of remote sensing in monitoring various aspects of diversity</p> <p>7. With the tremendous human impact on biodiversity the course becomes very relevant</p>	<p>the channel of spirit of inquiry.</p> <p>9. To enable the graduates to prepare for national as well as international level competitive examinations like UGC-CSIR, UPSC, KPSC etc.</p>
V Semester	PAPER V - PLANT MORPHOLOGY AND TAXONOMY	<ol style="list-style-type: none"> 1. Understand the main features in Angiosperm evolution 2. Identify, classify and describe a plant in scientific terms, thereby, Identification of plants using dichotomous keys. Skill development in identification and classification of flowering plants. 3. Interpret the rules of ICN in botanical nomenclature. 4. Classify Plant Systematic and recognize the importance of herbarium and Virtual Herbarium, Evaluate the important herbaria and botanical gardens. 5. Recognize locally available angiosperm families, economically important plants. Appreciation of human activities in conservation of useful plants from the past to the present. 	<p>10. To enable the students for practicing the best teaching pedagogy as a biology teacher including the latest digital modules.</p> <p>11. The graduates should be knowledgeable and competent enough to appropriately deliver on aspects of global importance like climate change, SDGs, green technologies etc at the right opportunity.</p>
	PAPER VI - GENETICS AND PLANT BREEDING	<ol style="list-style-type: none"> 1. Understand the basics of genetics and plant breeding 2. Identify, calculate and describe crossing over, allelic generations and frequencies of recombination. 	<p>12. The graduate should be able to demonstrate sufficient proficiency in the hands-on experimental techniques for</p>

		<ol style="list-style-type: none"> 3. Interpret the results of mating and pollinations. 4. Classify Plant pollination methods 5. Recognise modes of inheritance of traits/phenotypes and Phenotype-genotype correlation. 	<p>their area of specialization within biology during research and in the professional career.</p>
VI Semester	PAPER VII - CELL BIOLOGY	<ol style="list-style-type: none"> 1. Understand of Cell metabolism, chemical composition, physiochemical and functional organization of organelle 2. 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	<ol style="list-style-type: none"> 1. As certain the Importance of water and the mechanism of transport. 2. Explain the biosynthesis and breakdown of biomolecules. 	

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

BSc Animation and Visual Effects

Scheme: SEP

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

			<p>Strong understanding of color theory, composition, and visual storytelling.</p> <p>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:</p> <p>Concept development and visualization.</p> <p>Problem-solving and troubleshooting technical challenges.</p> <p>Analyzing and evaluating the effectiveness of visual communication.</p> <p>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:</p> <p>Optimizing workflows and pipelines for efficient production.</p> <p>Utilizing advanced techniques and</p>
--	--	--	---

			<p>technologies in CGI and animation.</p> <p>Maintaining up-to-date knowledge of industry trends and advancements.</p> <p>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:</p> <p>Working effectively in diverse teams with varying roles and responsibilities.</p> <p>Communicating technical information to both technical and non-technical audiences.</p> <p>Providing and receiving constructive feedback.</p> <p>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:</p>
--	--	--	---

			<p>Understanding industry standards, practices, and ethics.</p> <p>Building a professional portfolio and demo reel.</p> <p>Developing career planning and job search strategies.</p>
	Traditional and Stop Motion Animation	<p>To gain a comprehensive understanding of the principles and techniques of traditional and stop-motion animation.</p> <ul style="list-style-type: none"> □ To develop skills in storyboarding, character design, and animation production processes. □ To explore various animation styles and techniques, including cell animation, stop-motion, and experimental methods. 	
	Basics of Graphic Design	<p>To gain a comprehensive understanding of raster graphics and their applications.</p> <ul style="list-style-type: none"> □ To develop proficiency in using Adobe Photoshop for image editing, 	

		<p>manipulation, and creation.</p> <ul style="list-style-type: none"> <input type="checkbox"/> To explore various creative applications of Photoshop, including digital painting, photo manipulation, and animation. <input type="checkbox"/> To develop a strong foundation in digital imaging principles and techniques. 	
	Storyboard and Advanced Drawing	<ul style="list-style-type: none"> <input type="checkbox"/> To develop a strong foundation in visual storytelling and character design through the creation of effective storyboards. <input type="checkbox"/> To enhance observational and drawing skills through the exploration of various drawing techniques and mediums. <input type="checkbox"/> To foster creativity and visual communication abilities by translating ideas into compelling visual narratives. 	
	Advances in Graphic Design	To gain a comprehensive understanding of contemporary graphic design trends and technologies.	

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

		<p>communication through animation.</p> <ul style="list-style-type: none"> □ To foster creativity, problem-solving, and teamwork skills within the context of 2D animation. 	
III	3D Modelling	<ul style="list-style-type: none"> □ To gain a comprehensive understanding of 3D modeling principles and techniques. □ To develop proficiency in using industry-standard 3D modeling software. □ To create high-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. <ul style="list-style-type: none"> □ To foster creativity, problem-solving, and spatial reasoning skills through 3D modeling. 	
	Rigging & Animation	<p>To gain a comprehensive understanding of 3D character rigging and animation principles and techniques.</p> <ul style="list-style-type: none"> □ To develop proficiency in using industry-standard 3D animation software 	

		<p>for character rigging and animation.</p> <ul style="list-style-type: none"> □ 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 animation. 	
	Introduction To Blender	<p>To gain a comprehensive understanding of Blender's interface and core functionalities.</p> <ul style="list-style-type: none"> □ 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. □ To explore the creative possibilities of Blender and develop a foundational understanding of 3D graphics principles. 	

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

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

BSW

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
I Semester	SW 1.1 Fundamentals of Social Work	<ol style="list-style-type: none"> 1. To understand the fundamental concepts of Social Work, differentiate between social work and 2. other related concepts and brief overview on methods of social work 3. To trace the historical evolution of social work, key milestones and movements that shaped social work in Western countries and India 4. To familiarise with the concept of Social Work Profession, Values, Principles, Ethical Guidelines and professional organisations, social work practicum components, innovative approaches, current status and challenges related to social work practice 	<p>Students are expected to Understand the concepts and needs of school social work</p> <p>Understanding the roles of social work and social workers in enhancing educational opportunity and performance</p> <p>Understanding intervention approaches in school settings</p> <p>Locating social work in the realm of social sciences</p> <p>Appreciating the foundational pillars of social work</p> <p>Appreciating the basics and necessity for communication skills</p> <p>Developing a basic understanding of field work and its components</p>

			<p>Fostering an evolved understanding of the individual, family, ecology, and their problems</p> <p>Imparting knowledge and skills in social casework and group work</p>
I Semester	SW 1.2 Social Science Concepts for Social Work Practice	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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 work Practicum-I	<ol style="list-style-type: none"> 1. To obtain conceptual clarity of different 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 Case Work	<ol style="list-style-type: none"> 6. To understand Social 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 Group Work	<ol style="list-style-type: none"> 1. To understand Social 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	1. To develop an understanding of the characteristics and developmental stages of human life 2. Identify common developmental challenges and risks 3. To understand Social Work Intervention during stages of human life	
II Semester	SW 2.4 Social Work Practicum – II	1. Have an understanding of different approaches to providing help to people in need; 2. Be acquainted with the professional role of social workers; 3. Develop self-awareness and orientation to teamwork; 4. Acquire introductory skills in the use of programme media; and 5. Develop skills in report writing and use of supervision	

III Semester	BSWBWCN 301: Community Organization and Social Action	<ol style="list-style-type: none"> 1. Able to demonstrate 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	<ol style="list-style-type: none"> 1. Able to understand psychological concepts and its relevance to Social Work 2. 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 Field Work Practice 3	1. Able to understand Programmes and projects of governmental 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 & INDIAN CONSTITUTION (OE - AECC)	1. Able to understand the philosophy and the structure of the Constitution. 2. Measure the powers, functions and limitations	

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

		<ol style="list-style-type: none"> 3. Able to form small groups with different age and gender groups 4. Able to apply programme media skills in social work interventions 5. Able to write process oriented reports and engage in meaningful discussions during supervisory conferences 6. Able to develop the ability to link theoretical learning with practical realities 	
V Semester	BSWBWCN 501 Social Policy, Planning and Development	<ol style="list-style-type: none"> 1. CO1. Develop understanding of concept of social policy and social planning; and 2. CO2. Understand Concept and nature of Development and Human Development. 	
V Semester	BSWBWVN 501 NGO and Project Formulation	<ol style="list-style-type: none"> 1. CO1. Know concept and basic features of NGO and project formulation 2. CO2. Develop legal understanding about the organization 3. CO3. Understand how knowledge of project formulation is helpful for Social Workers 	
V Semester	BSWBWEN 501 Environmental Social Work	<ol style="list-style-type: none"> 1. Understand various environmental issues 	

		<ol style="list-style-type: none"> 2. Understand strategies of managing environmental degradation 3. Apply knowledge of Social Work to protect environment 	
V Semester	BSWBWCN 502 Areas of Social Work Practice- 1	<ol style="list-style-type: none"> 1. Gain opportunity in understanding contemporary fields of social work profession 2. Influence to practice, analyse and evaluate social work interventions 	
V Semester	BSWBWCN 503 Social Work Perspectives in Health Care	<ol style="list-style-type: none"> 1. Develop an understanding of the Holistic concept of Health 2. Develop an understanding of the health situation in India. 3. Promote healthy lifestyle 	
V Semester	BSWBWPN 504 Social Work Practice -V (Practical)	<ol style="list-style-type: none"> 1. Familiarization with agency, its objectives and Programmes. 2. Familiarization with target group and prepare its profile. 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 population groups. 	

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

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

		<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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. 	

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

		4. Understand different steps in conducting research and associated limitations 5. Do data analysis and report writing CO6. Understand ethics involved in Research	
	BSWBWEN 602 Corporate Social Responsibility	1. Understand the conceptual framework of CSR 2. Understand the legal framework of CSR 3. Understand the CSR practices and role of Social Workers	

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 Semester	Introduction to Basic drawing -1	1.Students Can Explore Creative Ideas Through the Basic lines.	Students are eligible to convey the Social and Reality Harmony on their work.
III and IV Semester	Design/Painting	1.Students can compose well Design/composition with Basic Fundamentals and Ethics.	Students are eligible to do their own commercial works.

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

Chemistry (UG)

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

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

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

ECONOMICS

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

			<p>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.</p> <p>Students will:</p>
--	--	--	--

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

			<p>Income, Business cycle and demographic features.</p> <p>8. Get trained in the art of economic modelling.</p>
SECOND SEMESTER	Foundations of Macroeconomics	<p>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.</p> <p>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.</p> <p>CO3. Understanding of the theories that explain one of the conditions of market economy that comes in the form of inflation.</p> <p>Comprehension of the significance of price stability and the socio-economic costs of its absence.</p>	
Third Semester	Mathematics for Economics	<p>After the successful completion of the course, the student will be able to:</p> <p>CO1. Perform basic operations in Sets and functions and Matrix algebra.</p>	

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

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

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

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

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

		<p>CO4. Demonstrate good inter-personal and communication skills through writing an essay and contributing to critical discussion.</p> <p>CO5. Analyze environmental problems and to assess environmental policies.</p>	
--	--	---	--

FOOD NUTRITION AND DIETETICS (UG)

Sem ester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
I	FOOD SCIENC E-I	<p>1. Understand factors to be considered during selection of basic commodities, raw and processed and various aspects of their products and distribution</p> <p>2. Comprehend the principles underlying changes in overall quality of food characteristic during cooking</p> <p>3. Evaluate food products based on their quality characteristics</p> <p>4. Assessment methods and media of cooking, nutritive value and processing, storage, preservation of both plant and animal based food</p>	<p>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.</p> <p>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.</p> <p>3. Problem Analysis: Identify, formulate, rationalize, and analyze nutrition-related problems in</p>

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

	HUMAN PHYSIOLOGY-I	<ol style="list-style-type: none"> 1. Understand the homeostatic status of the human body 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 <p>Assess malfunctions of vital organs or systems</p>	
	HUMAN NUTRITION-I	<ol style="list-style-type: none"> 1. Comprehend the nutritional classification of food and methods of 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 NUTRITION-II	<ol style="list-style-type: none"> 1. Understand the functions and sources of nutrients 2. Apply the knowledge in 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 PHYSIOLOGY-II	<ol style="list-style-type: none"> 1. Understand the role played by hormones in metabolism and associated disorders. 2. Comprehend the structure and function of neuromuscular systems and Disorders 	

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

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

		3. Evaluate nutritional needs during pregnancy and lactation 4. Apply nutritional requirements for the aged taking their physiology into account	
	QUALITY CONTROL-I	. Understand international and national food laws, regulations and 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	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. 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. 4. We can define program outcomes as the skills/knowledge
II	HINDI BA/BSW/ BHRD/BVA UASHDL21	1. To generate interest in reading poetry. 2. Increase in imagination ability. 3. Knowledge of Rasa, Chand and Alankar. 4. Development of translation skills. 5. Knowledge of various languages.	
I	HINDI	1. Language accuracy through reading.	

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

III	HINDI BA/BSW/ BHRD/BVA BASHDLN301/ BSWHDLN301/ HRDHDLN301/ BVAHDLN301	1.To generate interest in reading prose 2.To generate awareness 3.Development of language skills	8. A Degree Communication along with academic qualification in Hindi is an added advantage for job seekers. One can serve the mediums of Radio / TV / Cinema as a Script Writer / Dialogue Writer / Lyricist. This field necessitates a natural and artistic mastery of creative writing. 9. Meeting people to broaden your professional network. 10.Cognitive development, creativity, and critical thinking. 11.Career opportunities such as, employment by international businesses, Intercultural business opportunities, Personal and professional advancement.
IV	HINDI BA/BSW/ BHRD/BVA BASHDLN401/ BSWHDLN401/ HRDHDLN401/ BVAHDLN401	1.Learning the art of poetry reading 2.Office tact skills 3.Awareness of social norms	
III	HINDI BCOM BCMHDNL301	1.To generate interest in reading the story 2.Identification of the real and ideal of the life through prose 3.Building language skills through prose	
IV	HINDI BCOM BCMHDNL401	1.Dialogue writing and dialogue skills 2.The ability to conduct a conversation 3.To build self confidence 4. Employment opportunities in Hindi	
III	HINDI BSC(General) BSCHDLN301	1.To develop self confidence in students 2.To develop interest in creativity 3.To increase understanding of dialogue writing 4.To inspire towards play writing	
IV	HINDI BSC(General) BSCHDLN401	1.Awareness of social norms 2.Knowing the importance of language 3.Correct use of language	
III	HINDI BSC(Prof)	1.To develop self confidence in students 2.To develop interest in creativity	

	FNDHDLN302/ BFDHDLN302/ BSHDLN302/ BSAHDLN302	3.To increase understanding dialogue writing 4.To inspire towards play writing	
IV	HINDI BSC(Prof) FNDHDLN402/ BFDHDLN402/ BSHDLN402/ BSAHDLN402	1.Awareness of social norms 2.Knowing the importance of language 3.Correct use of language	
III	HINDI BCA BCAHDLN301	1.To gain the ability to compose poetry 2.To develop the habit of reading poetry 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 BBA BBAHDLN301	1.To gain the ability to compose poetry 2.To develop the habit of reading poetry 3. Improvement in reading and writing skills	
IV	HINDI BBA BBAHDLN401	1.Bringing social awareness 2.Anti-corruption 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)	<ul style="list-style-type: none"> • 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 	<p>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</p>

			<p>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.</p>
II Semester	Indian in the early Medieval Period (A.D 300- 1300)	<ul style="list-style-type: none"> • 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 • 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)	<ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • 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 	

		<ul style="list-style-type: none"> • Understand the establishment of British paramountcy 	
V SEMESTER	COLONIAL AND NATIONALIST INDIA (A.D. 1857–1905)	<ul style="list-style-type: none"> • To Understand the discontent of Indians which got expressed during the middle of 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 MODERN EUROPE (1789-1990)	<ul style="list-style-type: none"> • Realize the causes and results of French 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 	

		<ul style="list-style-type: none"> • 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 	
VI SEMESTER	FREEDOM MOVEMENT IN INDIA AND ITS LEGACY (A.D. 1905 – 2000)	<ul style="list-style-type: none"> • 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 	

		<ul style="list-style-type: none"> • Able to understand the internal and external policy of Jawaharlal Nehru, Lal Bahadur Shastri and Indira Gandhi • Understand the internal and external policies 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)	<ul style="list-style-type: none"> • 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 Wodeyar of Mysore. • Analyse the rise and fall of Hider Ali and Tippu Sultan and their struggle against British 	

		<ul style="list-style-type: none"> • 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)	<ol style="list-style-type: none"> 1. Understand and appreciate various dimensions of mass communication 2. Develop an understanding of the fundamental concepts of Journalism 3. Analyse the scope and various dimensions in Journalism 4. Discuss the recent trends in Mass Medi 	<ol style="list-style-type: none"> 1. The programme aims to churn out responsible media professionals who would contribute positively to the 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 ethics in the field of Journalism
II	Journalism - (Media Practices)	<ol style="list-style-type: none"> 1. Students will be able to 2. Understand the basic concepts of computer 3. Develop an understanding of the applications of computers in print and electronic journalism 4. Get acquainted with internet applications 5. Apply information technology skills in print and broadcast projects 6. Demonstrate web-based broadcasting skills 	
III	Journalism (News reporting and analysis)	<ol style="list-style-type: none"> 1. Organize and articulate new stories understanding the concepts, structure, and types of news. 2. Evaluate and analyse the importance of sources and types of information that provide the basis for news stories. 3. 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 	

IV	Journalism (News processing and editing)	<ol style="list-style-type: none"> 1. Understand the role of editors. Edit copy precisely and consistently, using correct grammar and eliminating libellous passages and items in poor taste. 2. Be able to write clear and accurate headlines, decks, and captions. 3. Be able to design basic news pages. Understand the basic ethical issues confronting editors 	
V	Journalism (Introduction to Communication)	<ol style="list-style-type: none"> 1. Demonstrate knowledge and understanding of the major communication theories and key concepts Relevant to the field of communication. 2. 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. 3. Demonstrate understanding of the dynamics of media discourses in the shaping of culture and Social attitudes. 4. Select and apply arguments and positions related to media theory to examine a contemporary issue Or phenomenon in concerning the mass media 5. Demonstrate knowledge of the regulatory frameworks that affect media and cultural 	

		production and consumption	
V	Journalism (Fundamentals of Radio & TV)	<ol style="list-style-type: none"> 1. To introduce the concepts, technology and skills behind audio and video production 2. To introduce the students TV as a medium 3. To highlight the techniques of program production in Radio 4. 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)	<ol style="list-style-type: none"> 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. <p>The student will create a simple multimedia presentation.</p>	
VI	Journalism (Advertising and corporate communication)	<ol style="list-style-type: none"> 1. To introduce students to basic concept of advertising 2. To familiarize the students with the concept of copywriting as selling through writing 3. 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	1.Moral values , truthfulness of Dharmaraya 2. Simple way of Devotion 3.Patriotism 4. Noble values of Duryodhana	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.com Vanijyagangot hri 1 UCMKN111	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.	
I	B.Sc Vijhana Gangothri USCKNL11	literature tudent ls, Drama etc.	
I	B.C.A Ganaka Gangothri	1. Introduction of the History of Kannada literature.	

	UCAKNL11		
		2. Consequence of tWar	
		3. 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	1. Students came to know noble values of Duryodhana 2. Imporatance of Ragale Literature 3. Beauty and culture of the village	
II	B.com Vanijya Gangothri 2	1. Introduction of Halegannada, 2. Introduction of Poornachandra Tejaswi's kiragurina gayyali 3. Introduction of 'lalitha Prabandha'	
II	B.Sc Vijhana Gangothri 2	1. Introduction of every step of prose 2. Giving knowledge about literature and science, so that create rational thinking 3. Explaining the different types of Dalit thought	
II	B.C.A Ganaka Gangothri 2	1. 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 Gangothri -2	2. Awareness of folk heritage 3. Awareness about the Nature 4. Importance of love between male and female.	
III	B.A Kala Mangala -3	1. Literature values of Kuvempu 2. Knowledge about Independent Movement 3. Possibilities of job opportunities to Kannada Language	
III	B.com Vanijaya Mangala-3	1.knowledge about gender equality 2. Introduction of stories, Novels. And Drama 3.Introduction of Market and Media world	
III	B.Sc- Vijnana Mangala-3	1. 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	

III	B.C.A Ganaka Mangala	<ol style="list-style-type: none"> 1. A curriculum that explores the development of Kannada literature. 2. An introduction to governance, rebellion, and feminist poets, 3. Awareness of freedom of expression 	
III	B.B.A Nirvahana Gangothri-3	<ol style="list-style-type: none"> 1. Impliments of crative nature to Students 2. Awareness of agricultural culture 3. Awareness of Enviornment 4. Developing Native thought 	

IV	B.A Kala Mangala-4	<ol style="list-style-type: none"> 1. Importance of Mother as well as we should consider Nature also our Mother and it is our duty to protect her. 2. Introducing the values of Keerthana Sahitya 3. Noble thinking of Bheeshamcharya 4. Difficulties of the middle class people 	
IV	B.com Vanijya Mangala-4	<ol style="list-style-type: none"> 1. The importance of coexistence 2. Introduction of the famous poets like Bendre, Kuvempu, etc 3. Introduction of Pampa 	

Iv	B.Sc Vijhyana Mangala-4	<ol style="list-style-type: none"> 1. Introduction to the lifestyle of a new generation 2. Providing value-based education to students and giving them the opportunity to make a living 3. Inroducing various type of literature to Students. 	
IV	B.C.A Ganaka Mangala-4	<ol style="list-style-type: none"> 1. Intoduction of the local art Yakshagana 2. Intoduction of the various type of poem 3. The need to develop Kannada as a technical language 	

Iv	B.B.A Nirvahana Gangothri-4	<ol style="list-style-type: none"> 1. On an anti-war basis 2. Love of Mother land 3. Applying negotiation skills 	
----	-----------------------------------	---	--

MANIPURI

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
I	MANIPURI UASMNL11	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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.
II	MANIPURI UASMNL21	<ol style="list-style-type: none"> 1. To comprehend literary knowledge of Manipuri poems with regard to the analysis of rhythm expression and presentation. 2. To familiarize themselves with Manipuri Phonology. 	

		3. To enhance writing skill.	
III	<p>MANIPURI</p> <p>BASMPLN301</p> <p>BSWMPLN301</p> <p>BSCMPLN301</p> <p>BCAMPLN301</p> <p>FNDMPLN301</p> <p>BVAMPLN301</p> <p>HRDMPLN301</p> <p>BIDMPLN301</p> <p>BFDMPLN301</p> <p>BHSMPLN301</p>	<p>1. To enable to understand analysis and critically analyst about different types of prose.</p> <p>2. To elevate the learners' ability to use able to rectify themselves in the common errors in the day-to-day conversation among themselves.</p> <p>3. to develop creative writing skill.</p>	<p>1. To produce graduates who can demonstrate comprehensive knowledge of Manipuri Language and literature, effectively communicate both orally and in writing.</p> <p>2. To apply their knowledge to the society, including interpreting texts, translating between Manipuri and other languages.</p>
III	<p>MANIPURI</p> <p>BBAMPLN301</p> <p>BCMMPLN301</p>	<p>1. To enable to understand analysis and critically analyst about different types of prose.</p> <p>2. To elevate the learners' ability to use able to rectify themselves in the common errors in the day-to-day conversation among themselves.</p> <p>3. to develop creative writing skill.</p>	
IV	<p>MANIPURI</p> <p>BASMPLN401</p> <p>BSWMPLN401</p> <p>BSCMPLN401</p> <p>BCAMPLN401</p> <p>FNDMPLN401</p>	<p>1. To understand the trends of Manipuri Novel, its growth and development.</p> <p>2. To understand the changes of Manipuri society by studying Manipuri Dramatic Literature.</p>	<p>1. To produce graduates who can demonstrate comprehensive knowledge of Manipuri Language and literature, effectively communicate both orally and in writing.</p> <p>2. To apply their knowledge to the society,</p>

	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	<ul style="list-style-type: none"> ❖ 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 	<p>On successful completion of the program, the student will be able to understand the concepts</p> <ul style="list-style-type: none"> • Verbally communicate mathematical ideas, write logically sound proof, accurately work

		<p>curves, and use asymptotes effectively in analysis.</p> <ul style="list-style-type: none"> ❖ 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. ❖ 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. 	<p>with formulae and numerical information.</p> <ul style="list-style-type: none"> • Apply solving techniques of differential equations in Mathematics, Physics, Chemistry and Biology. • Understand the actual theories behind solving techniques of problems in Algebra.
II	ADVANCED CALCULUS AND DIFFERENTIAL EQUATIONS	<ul style="list-style-type: none"> ❖ Students will be able to convert between polar and Cartesian coordinates, graph equations in polar coordinates, and calculate areas and lengths. ❖ 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, 	<ul style="list-style-type: none"> • Connect theoretical and practical aspects of Mathematics. • To solve problems in the post graduate

		<p>understanding their applications and computations.</p> <ul style="list-style-type: none"> ❖ 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. ❖ Students will apply differential equations to model and solve real-world problems in physics, chemistry, and other fields. 	<p>entrance exams with ease.</p> <ul style="list-style-type: none"> • Aspire and prepare for Master's in Computer application.
III	MATHEMATICS ORDINARY DIFFERENTIAL EQUATIONS AND REAL ANALYSIS – I	<ul style="list-style-type: none"> ❖ Understand the fundamental properties of the real numbers that lead to define sequence and ❖ Apply these techniques to solve and analyze various mathematical models. ❖ Formulate differential equations for various mathematical models ❖ To model problems in nature using Ordinary Differential Equations. ❖ Solve first-order non-linear differential 	<ul style="list-style-type: none"> • Acquire mathematical skill set to clear various aptitude tests conducted by multi-national companies. <p>Program specific outcomes:</p>

		<p>equations and linear differential equations.</p> <ul style="list-style-type: none"> ❖ Course Learning Outcomes: This course will enable the students to: Able to handle and understand limits and their use in sequences, series, differentiation, and ❖ Learn the concept of Convergence and Divergence of a sequence. ❖ 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. 	<ul style="list-style-type: none"> • The syllabus imparts about 30 of technical skills. • Student will be acquiring knowledge to compete at national and international level. • Employability will be improved with the knowledge of Mathematical software's.
IV	Partial Differential Equations and Integral Transforms	<ul style="list-style-type: none"> ❖ Solve the Partial Differential Equations of the first order and second order ❖ 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. ❖ Able to take more courses on wave equation, heat 	<ul style="list-style-type: none"> • Domain knowledge will be upgraded with the knowledge of applications.

		<p>equation, and Laplace equation.</p> <ul style="list-style-type: none"> ❖ Solve PDE by Laplace Transforms and Fourier Transforms 	<ul style="list-style-type: none"> • Student will be able to handle the challenges due to upgradation of software's.
V	<p>Mathematics</p> <p>Real Analysis-II and Complex Analysis</p>	<ul style="list-style-type: none"> ❖ 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. 	

VI	Numerical Analysis	<ul style="list-style-type: none"> ❖ 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 appreciate the way the 	

		techniques are modified to improve the accuracy	
--	--	---	--

MICROBIOLOGY

Semester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
I	Microbiology- Fundamental Microbiology USCMBC11	<ul style="list-style-type: none"> 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. <p>Students will be able to practice sterilization techniques and also staining of microbes.</p>	<ol style="list-style-type: none"> 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 including isolation, identification and maintenance.
II	Microbial Taxonomy and Culture techniques USCMBC21	<ul style="list-style-type: none"> 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 	<ol style="list-style-type: none"> Competent to apply the knowledge gained for conserving the environment and resolving the environment related issues. Learning and practicing

		<p>by various pathways in the cell, also the by-products</p> <ul style="list-style-type: none"> Students will gain the knowledge of different culture media and culture techniques. 	<p>professional skills in handling microbes and contaminants in laboratories and production sectors.</p>
III	Microbial Diversity BSCMBCN301	<ul style="list-style-type: none"> Students will gain knowledge about microbes and their diversity <ul style="list-style-type: none"> 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. 	<p>5. Exploring the microbial world and analysing the specific benefits and challenges.</p> <p>6. Applying the knowledge acquired to undertake studies and identify specific remedial measures for the challenges in health, agriculture, and food sectors.</p> <p>7. Gain good knowledge and application of good laboratory and good manufacturing practices in microbial quality control.</p>
III	Microbial Entrepreneurship BSCMBEN301	<ul style="list-style-type: none"> Will be able to demonstrate entrepreneurial skills Gain knowledge on Industrial entrepreneurship Acquire knowledge on Healthcare Entrepreneurship 	<p>8. Understand the biochemical and physiological aspects of microbes and developing broader perspective to identify innovative solutions for present and future challenges</p>
IV	Microbial Enzymology and Metabolism BSCMBCN401	<ul style="list-style-type: none"> Will learn the concepts of chemoheterotrophic metabolism and chemo lithotrophic metabolism. 	

		<ul style="list-style-type: none"> • Describing the enzyme kinetics, enzyme activity and regulation. • Differentiating concepts of aerobic and anaerobic respiration and how these are manifested in the form of different metabolic pathways in microorganisms. 	<p>posed by microbes.</p> <p>9. Understand the application of microbial principles in forensic and working knowledge about clinical microbiology.</p> <p>10. Will acquire the knowledge of recombinant DNA technology, GMOs, intellectual property rights, biosafety and biohazards.</p> <p>11. Demonstrate the ability to identify key questions in microbiological research, optimize research methods, and analyse outcomes by adopting scientific methods, thereby improving the employability.</p> <p>12. Enhance and demonstrate analytical skills and apply basic computational and statistical techniques in the field of microbiology</p>
IV	Human Microbiome BSCMBEN401	<ul style="list-style-type: none"> • Articulate a deeper understanding on biological complexities of human micro biome. • Understand broader goals of biological anthropology. • Compare and contrast the micro biome of different human body sites and impact human health promotion 	
V	Molecular biology. BSCMBCN 501	<ul style="list-style-type: none"> • Understand concepts involved in replication, transcription, translation, regulation of gene expression in bacteria and Eukaryotes. • Differentiate the process of replication, transcription, translation, regulation of gene expression in bacteria and Eukaryotes. 	

		<ul style="list-style-type: none"> • Understand the genetic switch in bacteriophages. • Outline regulatory mechanisms in bacteria to control cellular process. • 	
V	Food microbiology BSCMBCN502	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 	

		and treatment process	
VI	Industrial Microbiology BSCMBCN602	<ul style="list-style-type: none"> • Learn the overview of scope and importance of industrially important microbes • Learn the different types of fermentation processes and equipment. • Gain knowledge of the production of value-added products • Acquire the knowledge of purification of value-added products 	

PHYSICS(UG)

NSP Syllabus

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

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

		<p>potential energy) formalisms of electrostatics.</p> <p>3. Will be able to apply Gauss's law of electrostatics to solve a variety of problems.</p> <p>4. Will describe the magnetic field produced by magnetic dipoles and electric currents.</p> <p>5. Will be able to explain Faraday-Lenz and Maxwell laws to articulate the relationship between electric and magnetic fields.</p> <p>6. Will be in position to describe how magnetism is produced and list examples where its effects are observed.</p> <p>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</p>	
--	--	--	--

		<p>resistance, capacitor and inductor.</p> <p>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.</p>	
III	<p>PHYSICS</p> <p>BSCPHCN301</p>	<p>1. Identify different types of waves by looking into their characteristics.</p> <p>2. Formulate a wave equation and obtain the expression for different parameters associated with waves.</p> <p>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.</p> <p>4. Describe the formation of</p>	

		<p>standing waves and how the energy is transferred along the</p> <p>standing wave in different applications, and mathematically model in the case of stretched string and vibration of a rod.</p> <p>5. Give an analytical treatment of resonance in the case of open and closed pipes in general and Helmholtz resonators in particular.</p> <p>6. Describe the different parameters that affect the acoustics in a building, measure it and control it.</p> <p>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.</p> <p>8. Explain diffraction due to different objects like</p>	
--	--	---	--

		<p>singles slit, two slits, diffraction of</p> <p>grating, oblique incidence, circular aperture and give the theory and experimental setup for the same.</p> <p>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.</p>	
IV	PHYSICS BSCPHCN401	<p>1. Apply the laws of thermodynamics and analyze the thermal system.</p> <p>2. Apply the laws of kinetic theory and radiation laws to the ideal and practical thermodynamics systems through derived thermodynamic relations.</p> <p>3. Use the concepts of semiconductors to describe different Semiconductor devices such as diode transistors, BJT, FET etc. and explain their functioning.</p> <p>4. Explain the functioning of OP-AMPS and use them</p>	

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

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

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

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

		<p>various physical parameters.</p> <p>5. Measure surface tension and factors affecting surface tension of liquids and hence measurement of viscosity liquids.</p>	Communicate effectively with the stake holders, and give and receive clear instructions.
2	Physics	<p>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.</p> <p>2: Apply the laws of thermodynamics and concept of heat engine to various observations.</p> <p>3: Explain fundamental laws of black body spectrum.</p> <p>4: Explain free, damped and forced oscillations, progressive waves & Fourier analysis of square wave.</p>	

POLITICAL SCIENCE

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
First	Key concepts in Political Science	<p>1. Students will have an understanding of the basic concepts and aspects related to Political Science.</p> <p>2. Students have an internalisation of the values of responsible and active citizenry.</p> <p>3. Students will be prepared for constructive involvement with the political system with an awareness of the core values.</p> <p>4. Students have an understanding of the dimensions of politics - linkages, and the priorities in the society.</p>	<p>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 be 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,</p>

			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	<p>1. Students have an understanding of the distinct features, diverse intellectual and Philosophical traditions of the west</p> <p>2 Students develop a critical perspective on the western political thought on governance and political order.</p>	
Third	Indian Government and Politics	<p>1. Students have an understanding of the functioning and Philosophy of the Indian Government and Politics.</p> <p>2 .Students grasp the performance& challenges of both the Union and state governments.</p> <p>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.</p>	

	Parliamentary Procedures in India	<p>1. Students have a basic understanding of parliamentary system of governments and the constitutional provisions relating to the Parliamentary procedures in India.</p> <p>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.</p> <p>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</p>	
Fourth	Ancient Indian Political Ideas and Institutions	<p>1. Students have an understanding of the social and political philosophy of ancient India.</p> <p>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.</p> <p>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.</p> <p>4. Students will be able to revisit our own socio-political structures through understanding of the textual</p>	

	Modern Political Analysis	<p>and non-textual sources related to early India.</p> <ol style="list-style-type: none"> 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	<p>International Relations- Basic Concepts</p> <p>Comparative Government and Politics</p>	<ol style="list-style-type: none"> 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. <ol style="list-style-type: none"> 1. Grasp and understand the working of constitutional systems of these countries. 2. Understand and explain different forms of executive and their functioning 	

	Karnataka Government and Politics	<p>3. Understand and utilize the knowledge for facing the competitive examinations.</p> <p>1. Enables the students to understand the state politics as well as federal relationships in India.</p> <p>2. Understand the social and political conditions of Mysore under colonial rule.</p> <p>3. Develop perspectives on the important persons and organizations involved in the process of unification.</p> <p>4. Analyze the issues related to regionalism, polarization, identity politics, water, language, and border issues.</p>	
Sixth	<p>International Relations-theoretical Aspects</p> <p>Political Economy of India</p>	<p>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.</p> <p>1. Students learn about the political dimension of economics and provides them the skills to manage the economy.</p> <p>2. Be exposed to interdisciplinary thinking and helps them to assess the relationship between policy and its impact on various areas like food & agriculture,</p>	

	Modern Indian Political Thinkers	<p>Industry &labour Infrastructure,</p> <p>1. Know the political ideas contributed in making of modern Indian Political System..</p> <p>2. Learn about the role of political thinking in resolving socio-political problems of the country.</p>	
--	----------------------------------	---	--

PSYCHOLOGY (UG)

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
Semester I	Dynamics of behaviour. I	<ol style="list-style-type: none"> 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 	<ul style="list-style-type: none"> ➤ 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 collaborate effectively to
Semester II	Foundations of behaviour II	<ol style="list-style-type: none"> 1. Have sound knowledge of 	

		<p>the roots of Psychology</p> <ol style="list-style-type: none"> 2. Understand dynamics of human behaviour. 3. Comprehend biological foundation of human behaviour 4. Comprehend the process of sensation ,perception and attention 	<p>complete tasks within reasonable time frames. □</p> <p>➤ Administer and interpret standardized tools for psychological assessment of diverse dimensions of human behavior. □</p> <p>➤ Display competence in sensitive oral communication skills and analytical skills.</p>
Semester III	Child development III	<ol style="list-style-type: none"> 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 	
Semester IV	Life span development IV	<ol style="list-style-type: none"> 1. Understand the relationship between physical growth and psychological development. 2. Understand the issues in each stage of 	

		<p>these classifications.</p> <p>4. Understand different types of mental disorders, causes and treatment plans</p>	
Semester VI	Health Psychology VII	<p>1. Understand the Fundamentals of Health Psychology and need for the field of health psychology.</p> <p>2. Understand and analyze Health Behaviours:</p> <p>3. Evaluate Health-Enhancing and Compromising Behaviors with respect to mental and physical health.</p> <p>4. Understand the lifestyle diseases and apply required coping strategies</p> <p>1. Understand the concept of organizational behavior.</p> <p>2. Understand qualities of effective leadership</p> <p>3. Understand the uses of psychology at workplace.</p>	

	Organizational Behaviour VIII	4. Understand the psychology of buying	
--	-------------------------------	--	--

SANSKRIT

SEP Syllabus

Semester	Course/ Subject	Course outcome	Program outcome(summary of all two semesters)
I	BA/BSW/BVA/BH RD – UASSKL11	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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,

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

		<p>incorporated into their daily lives.</p> <p>5. The course also seeks to help the students negotiate the text independently with the help of proficiency in Sanskrit Language and Grammar.</p> <p>6. Grammar is an integral part of a language class, where in students are trained to speak and write in Sanskrit without errors.</p> <p>7. This semester focuses on Krudanta, Karaka, Taddhita and Samasa.</p>	<p>philosophy, and religious beliefs.</p> <p>3. Sanskrit has had a major impact on other Indian languages, such as Hindi, Kannada, and Malayalam. It has also influenced Sino-Tibetan languages.</p> <p>4. Students can learn to write Devnagari scripts, which can help them read modern languages like Hindi and Marathi.</p> <p>5. Students can be inspired to undertake a research project that delves deeper into a specific aspect of the literature studied.</p>
I	BCOM – UCMSKL11	<p>1. This course aims to get the students acquainted with classical Sanskrit Prose Literature along with modern Sanskrit Literature.</p> <p>2. It intends to give an understanding of literature, through which students will be able to understand and interpret the Sanskrit texts.</p> <p>3. Texts from Ramayana, Mahabharata, Upanishad,</p>	<p>1. Students can learn about the structure and rules of Sanskrit, including verb conjugations, noun declensions, and sentence construction.</p>

		<p>Panchatantra, Harshacharita etc, to enrich the imaginative and creative abilities of the students.</p> <p>4. The study of Ancient Indian Literature would enable students gain moral values and life values which can be incorporated into their daily lives.</p> <p>5. The course also seeks to help the students negotiate the text independently with the help of proficiency in Sanskrit Language and Grammar.</p> <p>6. Grammar is an integral part of a language class, where in students are trained to speak and write in Sanskrit without errors.</p> <p>7. This semester focuses on Shabdaparichaya, Namapada, sarvanama, Kriyapada and Change of Voice.</p>	<p>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.</p> <p>3. Sanskrit has had a major impact on other Indian languages, such as Hindi, Kannada, and Malayalam. It has also influenced Sino-Tibetan languages.</p> <p>4. Students can learn to write Devnagari scripts, which can help them read modern languages like Hindi and Marathi.</p> <p>5. Students can be inspired to undertake a research project that delves deeper into a specific aspect of the literature studied.</p>
--	--	---	---

II	BCOM – UCMSKL21	<ol style="list-style-type: none"> 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 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 speak and write in Sanskrit without errors. 7. This semester focuses on Krudanta, Karaka, Taddhita and Samasa. 	<ol style="list-style-type: none"> 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.
I	BSc/FND/BHS/BFD/BID/BHM/BSA/BFT/BCS – USCSKL11	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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

			<p>scripts, which can help them read modern languages like Hindi and Marathi.</p> <p>5. Students can be inspired to undertake a research project that delves deeper into a specific aspect of the literature studied.</p>
II	BSc/FND/BHS/BFD/BID/BHM/BSA/BFT/BCS – USCSKL21	<ol style="list-style-type: none"> 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 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 	<ol style="list-style-type: none"> 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

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

		<p>5. The course also seeks to help the students negotiate the text independently with the help of proficiency and Sanskrit Language and Grammar.</p> <p>6. Grammar is an integral part of a language class, where in students are trained to speak and write in Sanskrit without errors.</p> <p>7. This semester focuses on Shabdaparichaya, Namapada, sarvanama, Lakaaraas, Shabda Parichaya and Change of Voice.</p>	<p>and religious beliefs.</p> <p>3. Sanskrit has had a major impact on other Indian languages, such as Hindi, Kannada, and Malayalam. It has also influenced Sino-Tibetan languages.</p> <p>4. Students can learn to write Devnagari scripts, which can help them read modern languages like Hindi and Marathi.</p> <p>5. Students can be inspired to undertake a research project that delves deeper into a specific aspect of the literature studied.</p>
II	BBA – UBASKL21	<p>1. This course aims to get the students acquainted with classical Sanskrit Poetry.</p> <p>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.</p> <p>3. This course helps students to know about Subhashitas, Itihaasa Kavya, Mahakavya etc</p>	<p>1. Students can learn about the structure and rules of Sanskrit, including verb conjugations, noun declensions, and sentence construction.</p> <p>2. Students can learn to</p>

		<p>and the various Chandas used in Sanskrit Poetry.</p> <p>4. The study of Ancient Indian Literature would enable students gain moral values and life values which can be incorporated into their daily lives.</p> <p>5. The course also seeks to help the students negotiate the text independently with the help of proficiency in Sanskrit Language and Grammar.</p> <p>6. Grammar is an integral part of a language class, where in students are trained to speak and write in Sanskrit without errors.</p> <p>7. This semester focuses on Krudanta, Karaka, Taddhita and Samasa.</p>	<p>appreciate ancient Indian literature and culture, and gain a deeper understanding of the time's history, philosophy, and religious beliefs.</p> <p>3. Sanskrit has had a major impact on other Indian languages, such as Hindi, Kannada, and Malayalam. It has also influenced Sino-Tibetan languages.</p> <p>4. Students can learn to write Devnagari scripts, which can help them read modern languages like Hindi and Marathi.</p> <p>5. Students can be inspired to undertake a research project that delves deeper into a specific aspect of the literature studied.</p>
I	BCA – UCASKL11	<p>1. This course aims to get the students acquainted with classical Sanskrit Prose</p>	<p>1. Students can learn about the structure and rules of Sanskrit,</p>

		<p>Literature along with modern Sanskrit Literature.</p> <ol style="list-style-type: none"> 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 speak and write in Sanskrit without errors. 7. This semester focuses on Shabdaparichaya, Namapada, sarvanama, Lakaraas and Change of Voice. 	<p>including verb conjugations, noun declensions, and sentence construction.</p> <ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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 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 speak and write in Sanskrit without errors. 7. This semester focuses on Krudanta, Karaka, Taddhita and Samasa. 	<ol style="list-style-type: none"> 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

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

NEP Syllabus -

Semester	Course/ Subject	Course outcome	Program outcome(summary of all two semesters)
III	<p>BA- BASSKLN301</p> <p>BSW – BSWSKLN301</p> <p>BVA – BVASKLN301</p> <p>BHRD – HRDSKLN301</p>	<ol style="list-style-type: none"> 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 contemporary 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 arts study portions of Bharata's Natyashastra, Nirvahanashatra as depicted in 	<ul style="list-style-type: none"> • 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. <p>They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit.</p> <ul style="list-style-type: none"> • Students enhance their research skills, enabling them to delve into original Sanskrit sources and

		<p>Mahabharata, Ashtangayoga in Yogashastra, Indriyavijaya, Manonigraha from Koutilyas Arthashastra, which would not only help in their course of study but also allows them imbibe moral values and life skills.</p> <p>5. Students are introduced to the concepts of Alankarashastra, such as Rasa, Reeti, Guna etc.</p> <p>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 speaking skills of students.</p>	<p>contribute to the field of Sanskrit studies.</p> <ul style="list-style-type: none"> 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	<p>BA- BASSKLN401</p> <p>BSW – BSWSKLN401</p> <p>BVA – BVASKLN401</p> <p>BHRD – HRDSKLN401</p>	<p>1. This course aims to acquaint the students with popular Classical Dramas in Sanskrit literature.</p> <p>2. The course also teaches in detail the origin, development and lakshanas of Sanskrit Drama, which gives in depth knowledge</p>	<ul style="list-style-type: none"> 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.

		<p>on Sanskrit literature.</p> <p>3. Sanskrit Dramas not only reflect prose and poetic excellence but also depicts contemporary society and highlights human values, which helps the students.</p> <p>4. The students also learn the theoretical aspects related to the production of the play. The concepts like Rasa, Bhava, Abhinaya are blended into the teaching learning of the play.</p> <p>5. The semester also focuses on Chandassu and Alankara, which enables students learn to compose Shlokas and recite them.</p>	<ul style="list-style-type: none"> • Graduates gain knowledge of major Sanskrit texts, authors, and literary traditions, enabling them to critically analyze and interpret ancient Indian literature. <p>They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit.</p> <ul style="list-style-type: none"> • 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
III	BCOM – BCMSKLN301	<p>1. This course aims to acquaint the students with Champu Kavyas.</p> <p>2. Champu Kavyas are the beautiful blend of prose and poetry in Sanskrit Literature which not only reflect poetic excellence but also depicts contemporary society and highlights human values, which</p>	<ul style="list-style-type: none"> • 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

		<p>would help students in their daily lives.</p> <p>3. The students in this semester are also introduced to specific texts in keeping with their course of study.</p> <p>4. The students of Commerce will study Arthaneeti, Rajaneeti from Kautilyas Arthashastram, Management and administration Skills, Manonigraha from Bhagavadgeeta, Taxation, Rajaneeti, Adhikara Vikendrikarana from Mahabharata, Agriculture from Krishiparasharawhi ch would not only help in their course of study but also allows them imbibe moral values and life skills.</p> <p>5. Students are also introduced to the art of Letter Writing and Resume Writing in Sanskrit.</p> <p>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</p>	<p>traditions, enabling them to critically analyze and interpret ancient Indian literature.</p> <p>They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit.</p> <ul style="list-style-type: none"> • 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	<p>1 This course aims to acquaint the students with popular Classical Dramas in Sanskrit literature.</p> <p>2 The course also teaches in detail the origin, development and lakshanas of Sanskrit Drama, which gives in depth knowledge on Sanskrit literature.</p> <p>3 Sanskrit Dramas not only reflect prose and poetic excellence but also depicts contemporary society and highlights human values, which helps the students.</p> <p>4 The students also learn the theoretical aspects related to the production of the play. The concepts like Rasa, Bhava, Abhinaya are blended into the teaching learning of the play.</p> <p>5 The semester also focuses on Chandassu and Alankara, which enables students learn to compose</p>	<ul style="list-style-type: none"> 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. <p>They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit.</p> <ul style="list-style-type: none"> 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

		Shlokas and recite them.	
III	BSC – BSCSKLN301 FND – FNDSKLN301 BHS – BHSSKLN301 BFD – BFDSKLN301 BID – BIDSCLN301 BHM – BHMSKLN301 BSA – BSASKLN301 BFT – BFTSKLN301 BCS – BCSSKLN301	<ol style="list-style-type: none"> 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 contemporary 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 Science study Sasyajeevavaividya m (Plant diversity) from Bhagavatha, Personal and Societal Health from Ashtangahrudayam , Ayurveda from ancient Sanskrit literature, Chemistry from Mahabharata, Yoga from Patanjala Yogadarshanam which would not only help in their course of study but 	<ul style="list-style-type: none"> • 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. <p>They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit.</p> <ul style="list-style-type: none"> • 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

		<p>also allows them imbibe moral values and life skills.</p> <p>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.</p>	
IV	<p>BSC – BSCSKLN401</p> <p>FND – FNDSKLN401</p> <p>BHS – BHSSKLN401</p> <p>BFD – BFDSKLN401</p> <p>BID – BIDSKLN401</p> <p>BHM – BHMSKLN401</p> <p>BSA – BSASKLN401</p> <p>BFT – BFTSKLN401</p> <p>BCS – BCSSKLN401</p>	<p>1. This course aims to acquaint the students with popular Classical Dramas in Sanskrit literature.</p> <p>2. The course also teaches in detail the origin, development and lakshanas of Sanskrit Drama, which gives in depth knowledge on Sanskrit literature.</p> <p>3. Sanskrit Dramas not only reflect prose and poetic excellence but also depicts contemporary society and highlights human values, which helps the students.</p> <p>4. The students also learn the theoretical aspects related to the production of the play. The</p>	<ul style="list-style-type: none"> 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. <p>They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit.</p> <ul style="list-style-type: none"> Students enhance their research skills, enabling them to delve into original Sanskrit sources and

		<p>concepts like Rasa, Bhava, Abhinaya are blended into the teaching learning of the play.</p> <p>5. The semester also focuses on Chandassu and Alankara, which enables students learn to compose Shlokas and recite them.</p>	<p>contribute to the field of Sanskrit studies.</p> <ul style="list-style-type: none"> • 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	<p>1. This course aims to acquaint the students with Champu Kavyas.</p> <p>2. Champu Kavyas are the beautiful blend of prose and poetry in Sanskrit Literature which not only reflect poetic excellence but also depicts contemporary society and highlights human values, which would help students in their daily lives.</p> <p>3. The students in this semester are also introduced to specific texts in keeping with their course of study.</p> <p>4. The students of Commerce and Management will study the history of Management (Vanijyashastra) according to Sanskrit literature , Arthaneeti, Rajaneeti from</p>	<ul style="list-style-type: none"> • 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. <p>They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit.</p> <ul style="list-style-type: none"> • 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

		<p>Chanakya neeti, Taxation, Rajaneeti, Adhikara Vikendrikarana from Mahabharata, would not only help in their course of study but also allows them imbibe moral values and life skills.</p> <p>5. Students are also introduced to the art of Letter Writing and Resume Writing in Sanskrit.</p> <p>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 speaking skills of students.</p>	<p>careers in academia, research, translation, archaeology, heritage preservation, cultural studies, and various fields that require expertise in Sanskrit language, literature, and ancient Indian wisdom</p>
IV	BBA – BBASKLN401	<p>1. This course aims to acquaint the students with popular Classical Dramas in Sanskrit literature.</p> <p>2. The course also teaches in detail the origin, development and lakshanas of Sanskrit Drama, which gives in depth knowledge on Sanskrit literature.</p> <p>3. Sanskrit Dramas not only reflect prose</p>	<ul style="list-style-type: none"> 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

		<p>and poetic excellence but also depicts contemporary society and highlights human values, which helps the students.</p> <p>4. The students also learn the theoretical aspects related to the production of the play. The concepts like Rasa, Bhava, Abhinaya are blended into the teaching learning of the play.</p> <p>5. The semester also focuses on Chandassu and Alankara, which enables students learn to compose Shlokas and recite them.</p>	<p>critically analyze and interpret ancient Indian literature.</p> <p>They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit.</p> <ul style="list-style-type: none"> • 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
III	BCA – BCASKLN301	<p>1. This course aims to acquaint the students with Champu Kavyas.</p> <p>2. Champu Kavyas are the beautiful blend of prose and poetry in Sanskrit Literature which not only reflect poetic excellence but also depicts contemporary society and highlights human values, which would help students in their daily lives.</p>	<ul style="list-style-type: none"> • 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.

		<p>3. The students in this semester are also introduced to specific texts in keeping with their course of study.</p> <p>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 skills.</p> <p>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.</p>	<p>They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit.</p> <ul style="list-style-type: none"> • 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 – BCASKLN401	<ol style="list-style-type: none"> 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, Abhinaya 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. 	<ul style="list-style-type: none"> • 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. <p>They also develop an appreciation for the rich cultural and philosophical traditions associated with Sanskrit.</p> <ul style="list-style-type: none"> • 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.
----	---------------------	---	---

STATISTICS

Semester	Course/ Subject	Course outcome	Program outcome (summary of all six semesters)
I	Descriptive Statistics	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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 and statistical software to understand the concepts of statistics.
II	Probability and Distributions-I	<ul style="list-style-type: none"> Conceptualize the probabilities of events including frequentist and axiomatic approach. Learn concept of discrete and continuous random variables and their probability distributions including 	<ul style="list-style-type: none"> Think, acquire knowledge and skills through logical reasoning and inculcate the culture of self-learning Create an awareness about

		<p>expectation and moments.</p> <ul style="list-style-type: none"> • Learn Standard univariate discrete and continuous distributions and their applications disciplines of science. 	<p>the impact of statistics in real life and development outside the scientific community.</p>
III	Calculus and Probability Distributions	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 	

		<p>their applications in statistics, characteristic roots and vectors.</p> <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Understand the difference between probability and nonprobability sampling. • Understand different sampling techniques. • Understand official statistical system in India and their functions. 	

		<ul style="list-style-type: none"> Understand the role statistics in national development. 	
--	--	---	--

ZOOLOGY (UG)

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

		<p>4. Mechanisms of energy production at cellular and molecular levels.</p> <p>5. To understand various functional components of an organism.</p> <p>6. To explore the complex network of these functional components.</p> <p>7. To comprehend the regulatory mechanisms for maintenance of function in the body.</p>	<p>and protection of endangered species.</p> <p>Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties.</p> <p>Apply the knowledge and understanding of Zoology to one's own life and work.</p> <p>Develops empathy and love towards the animals.</p>
III Sem (NEP)	Molecular Biology, Bioinstrumentation & Techniques in Biology	<p>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.</p> <p>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.</p> <p>3. Acquiring knowledge on instrumentation and techniques in biology</p>	

IV Sem (NEP)	Gene Technology, Immunology and Computational Biology	<ol style="list-style-type: none"> 1. 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	<ul style="list-style-type: none"> • 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. 	

		<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Demonstrate comprehensive identification abilities of chordate diversity • Explain structural and functional diversity of chordate diversity <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 BIOLOGY, WILDLIFE MANAGEMENT & CONSERVATIONS	<ul style="list-style-type: none"> • Develop an understanding of how animals interact with 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. • 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.Skills 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

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	1. Trained under garment industry as a merchandiser 2. 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	<ul style="list-style-type: none"> • 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 	<ol style="list-style-type: none"> 1. Understand the emergence of Sociology. 2. Know the foundations of Sociology. 3. Understand the contributions of early sociologists. 4. Impart critical thinking 5. Inculcate analytical ability to interpret the social scenario. 6. Understand the forces in the rise of sociological theory. 7. Understand the concepts of early sociologists 8. Student will able to understand the nature of inequalities in the society
II	Social Change, Stratification and Social Mobility	<ul style="list-style-type: none"> • Student will able to understand Nature of inequalities in the society 	<ol style="list-style-type: none"> 9. The forms of social stratification in India and their dynamics

		<ul style="list-style-type: none"> • Dynamics of social groupings and discrimination. • Theories behind the social stratification and mobility. • The modes of social improvement people use. • Reservation policy and implications. • Welfare activities for the OBC Nature of social mobility 	<p>10. The dynamics of social groupings and discrimination</p> <p>11. The modes of social improvement people use in their life time.</p> <p>12. The theories behind the social stratification and mobility</p> <p>13. To understanding of the prevailing social issues and problems</p> <p>14. Focus on the structural linkages and interrelationships.</p> <p>15. To Sensitize to the emerging social issues of contemporary India.</p> <p>16. Acquire sociological understanding of social issues and problems 5. Gain a better understanding of their own situation and region.</p>
III	Indian Society: Continuity and Change	<ul style="list-style-type: none"> • To Understand social issues and problems of contemporary India. • To know change agents - governmental and non-governmental organizations.. • To know Emerging social issues and problems of contemporary India,. • To know Sociological understanding of issues and problems • To Empower to deal with issues and problems. • Better understanding of their own situation and region.. 	<p>17 Analyze the nature and direction of change in Indian society</p> <p>18 Know the theoretical foundations of Sociology on which edifice of modern Sociological theories are built.</p>
III	Foundations of Sociological Theory	<ul style="list-style-type: none"> • To Understand the emergence of Sociology. • To Understand the contributions of early sociologists. • To Impart critical thinking • To Inculcate analytical ability to interpret the social scenario. 	<p>. 19 to Develop critical thinking, analytical ability to interpret the social scenario around.</p> <p>20 Learn the historical, socio-economic and intellectual forces in the rise of sociological theory.</p> <p>21 To Understand the sociological theories of early</p>

		<ul style="list-style-type: none"> • To Understand the forces in the rise of sociological theory. • To Understand the concepts of early sociologists • 	<p>sociologists as Auguste Comte, Herbert Spencer, Karl Marx, Max Weber and Emile Durkheim</p> <p>22 The nature of inequalities in the society</p>
III	Social Stratification and Mobility	<ul style="list-style-type: none"> • 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 	<p>23. The forms of social stratification in India and their dynamics 2425</p> <p>24. The dynamics of social groupings and discrimination</p> <p>25. The modes of social improvement people use in their life time</p> <p>26 to understand The theories behind the social stratification and mobility.</p> <p>27 Able to understand sociological understanding of rural and urban society in India</p> <p>28 To acquaint students with basic concepts in rural and urban studies</p> <p>29 To analyse rural and urban problems in India</p> <p>30 To provide knowledge of rural and urban governance.</p> <p>31 To impart sociological skills to reconstruct rural institutions and rural development programmes to plan, monitor and evaluate rural development programmes.</p> <p>32 To develop the understanding of students regarding the linkages between urban and rural</p>
	Sociology of Urban Life in India	<ul style="list-style-type: none"> • 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 	

		<ul style="list-style-type: none"> • To know Development programmes to plan, monitor and evaluate. • Understanding of the linkages between urban and rural reality 	
IV	Sociology of Marginalised Groups	<ul style="list-style-type: none"> • 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. • 	<p>To focus on the segments of population lived on the margins of society.</p> <p>To Analyze the social situation of groups that have not received adequate attention.</p> <p>To sensitize students to the significance of the sociological study on Dalits.. To study the tribal communities and nomadic castes and tribes.</p>
IV	Population and Society	<ul style="list-style-type: none"> • 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 	<p>To focus on groups and communities which have suffered extreme poverty, deprivation and discrimination over a long period of time.</p> <p>To provide sociological understanding of population and society</p>

V	Social Entrepreneurship	<ul style="list-style-type: none"> • 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 	<p>To acquaint students with basic concepts in demographic studies</p> <p>To analyze population problems in India and trends</p> <p>To impart sociological skills to conduct population studies.</p> <p>To develop the understanding regarding the linkages between population and development</p> <p>Understand the theories on population and its policies</p>
V	Tribal Society	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> • To provide basic knowledge about social organization among tribal • To. Critically understand the implications of changes occurring

			<ul style="list-style-type: none"> To Undertake micro research work and communicate effectively
V	Statistics in Social Research	<p>To introduce statistical techniques for analyzing social science data</p> <p>To compute these basic statistics as appropriate for the data at hand</p> <ul style="list-style-type: none"> To Learn techniques for summarizing data, examining relationships among variables, generalizing from samples to populations, and testing statistical hypotheses 	<ul style="list-style-type: none"> To Introduction to sociological research and methods To familiarize the students with the process of research To introduce statistical techniques for analyzing social science data
VI	Sociological Perspectives	<ul style="list-style-type: none"> To introduce major Sociological theoretical approaches . To introduce and use fundamental categories of theory . Compare and contrast the ways different theorists use the same or similar concepts to build or present their ideas 	<ul style="list-style-type: none"> Able to introduce major Sociological theoretical approaches To introduce and use fundamental categories of theory Compare and contrast the ways different theorists use the same or similar concepts to build or present their ideas
VI	Sociology of Health	<ul style="list-style-type: none"> To Understand the concept of health, illness and social conditions <p>To Analyze the relationship between social factors and health status</p> <ul style="list-style-type: none"> To Understand the role of medical doctors, paramedics, pharmaceutical industry and social institutions in maintaining and promoting health 	<ul style="list-style-type: none"> Able to Understand the concept of health, illness and social conditions 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
VI	Society in Karnataka	<ul style="list-style-type: none"> • 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 Development processes and politics • To Learn about the unique cultures in Karnataka 	<ul style="list-style-type: none"> • 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 • Development processes and politics • To Learn about the unique cultures in Karnataka
VI	Project Dissertation	<ul style="list-style-type: none"> • To Able to conceptualize, formulate and conduct research projects. • To Assess the research studies and findings. • Acquaint skills for library work and documentation. • To develop logical thinking and critical analysis. • To learn Field-work skills and experience. • To develop Writing skills, reference skills • To learn Techniques of data collections. Methodologies in social analysis 	<p>To develop the ability to conceptualize, formulate and conduct simple research projects. Able to learn to assess the research studies and findings.</p> <p>To Develop the skills for library work and documentation for research.</p> <p>To develop favourable attitudes for the integration of research and theory.</p> <p>To Develop logical thinking and critical analysis.</p>

ENGLISH

Semester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
II,IV,V and VI (NEP)	English	<ol style="list-style-type: none"> 1. Be able to demonstrate a broad knowledge of major and minor writers, texts and contexts defining issues of canonical and non-canonical literature 2. Be enriched by familiarity with other literatures and more importantly with Indian writers, their ethos and tradition of writing and discourse 3. Have honed their skills of remembering, understanding, applying, analyzing, and evaluating literature 4. Be able to write with clarity, creativity and persuasiveness 5. Develop and demonstrate an awareness of the significance of literature and literary forms 6. Be equipped with advanced literary and linguistic skills 7. Have competency in the use of English from /for a variety of domains 8. Have a spirit of inquiry and critical thinking 9. Be able to articulate thoughts and generate /understand multiple interpretations 10. Locate and contextualize texts across theoretical orientations and cultural spaces 11. Possess reading and writing skills catering to academic and other professional disciplines viz. print and electronic media, advertising, content writing etc. 	<p>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</p> <p>PO-02: Have honed their skills of understanding, applying, analyzing, and evaluating literature</p> <p>PO-03: Be able to write with clarity, creativity and persuasiveness.</p> <p>PO-04: Develop and demonstrate an awareness of the significance of literature and literary forms.</p> <p>PO-05: Be equipped with advanced literary and linguistic skills.</p> <p>PO-06: Have competency in the use of English from /for a variety of domains.</p> <p>PO-07: Have a spirit of inquiry and develop critical thinking.</p> <p>PO-08: Be able to articulate thoughts and generate /understand multiple interpretations of texts</p> <p>PO-09: Locate and contextualize texts across theoretical orientations and cultural spaces</p> <p>PO-10: Possess reading and writing skills catering to academic and other professional requirements, viz. print and electronic media,</p>

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

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

		<p>reasons for which, Indians have appropriated a foreign language and made it their own.</p> <p>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.</p> <p>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.</p>	<p>the significance of literature and literary forms.</p> <p>PO-05: Be equipped with advanced literary and linguistic skills.</p> <p>PO-06: Have competency in the use of English from /for a variety of domains.</p> <p>PO-07: Have a spirit of inquiry and develop critical thinking.</p> <p>PO-08: Be able to articulate thoughts and generate /understand multiple interpretations of texts</p> <p>PO-09: Locate and contextualize texts across theoretical orientations and cultural spaces</p> <p>PO-10: Possess reading and writing skills catering to academic and other professional requirements, viz. print and electronic media, advertising, content writing etc.</p> <p>PO-11: Imbibe a multi-disciplinary approach in higher education and research</p> <p>PO-12: Be skilled in multiple domains of knowledge and prepared for multiple careers</p> <p>PO-13: Become adept in the use of English in the current technological climate</p>
--	--	---	---

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	<ol style="list-style-type: none"> 1. Make awareness about Sanskrit drama 2. Make awareness about kathakali 3. Malayalam grammar and composition 	
III	BBA BBAMLLN301	<ol style="list-style-type: none"> 1. Awareness about modern literature 2. Awareness about romanticism 3. Poems of mahakavi vallathol 	
iv	BBA BBAMLLN401	<ol style="list-style-type: none"> 1. Make awareness about post modern poem 2. Awareness about the novels of uroob 3. Awareness about modern drama 	

PG COURSES

M.Sc. Biotechnology

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

		<p>CO 2. Learn principles of techniques used to study cellular ultrastructure such as advanced microscopic techniques</p> <p>CO 3. Understand sub-cellular organization</p> <p>CO 4. Unravel chromatin and chromosomes</p> <p>CO 5. Comprehend the fascinating world of cell division, mitosis, meiosis, cell cycle, molecular mechanisms that regulate life and death of a cell.</p>	
	Microbiology	<p>CO 1. Develop theoretical knowledge about origin and evolution of microorganisms,</p> <p>CO 2. Learn comparative morphology, structure and reproduction in bacteria, Cyanobacteria, yeast, fungi and viruses</p> <p>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 controlling the diseases</p>	

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

	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	

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

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

		different fields of science.	
	Radiation Biotechnology	CO 1. Understand the 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-related 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 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	

		<p>CO 3. Compare the interaction of microbes with plants based on benefits and harmful effects, and application of microflora in the improvement of environment.</p> <p>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.</p>	
	Food Security (OE)	<p>CO 1. Understand the composition of food and its applications in the body</p> <p>CO 2. Learn about food spoilage and application of biotechnology in food processing.</p> <p>CO 3. Learn about food preservation by various methods</p> <p>CO 4. Understand food processing for preparation of various products, food safety standards, laws and regulations</p>	
III	Industrial Biotechnology	<p>CO 1. Understand basic principles of bioprocess technology and advantages of</p>	

		<p>bioprocess over chemical process.</p> <p>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</p> <p>CO 3. Have firm knowledge about industrial application of various fermenters and regulation of the fermentation process.</p> <p>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.</p> <p>CO 5. Understand basic principles of primary and secondary metabolite production by the microorganisms, and acquire knowledge of their production</p> <p>CO 6. Know uses of microorganisms as probiotics and the role of nutraceuticals in human health, waste utilization to generate biofuels and biogas.</p>	
	Agribiotechnology	<p>CO 1. Compare the plant genome with chloroplast and mitochondrial genomes, to</p>	

		<p>demonstrate the application of plant breeding methods, to differentiate the mechanism involved in different biological process.</p> <p>CO 2. Demonstrate different techniques involved in the plant tissue culture for the propagation of plants and germplasm preservation.</p> <p>CO 3. Utilise plant tissue culture methods for the production of commercially important secondary metabolites.</p> <p>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.</p> <p>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.e. ayurvedic and unani medicinal plants, Farmers rights and plant breeder's right</p>	
	Research methodology and bioinformatics	CO 1. Acquire knowledge about basic concepts of	

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

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

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

		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 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

		<p>silicon compounds.</p> <p>CO5: Utilize organic precipitants, masking/demasking techniques, and error analysis methods.</p>
I	PCHOCH11: Organic Chemistry	<p>CO1: Describe bonding, aromaticity, electronic effects, acidity, and basicity</p> <p>CO2: Analyze reaction mechanisms and identify intermediates in reactions</p> <p>CO3: Evaluate optical and geometrical isomerism in organic compounds.</p>
I	PCHPCH11: Physical Chemistry	<p>CO1: Explain catalysis, corrosion, and photochemical processes.</p> <p>CO2: Apply theoretical concepts to practical scenarios involving complex reactions</p> <p>CO3: Investigate enzyme-mediated reactions and spectroscopy techniques.</p>
I	PCHMDS11: Molecular Spectroscopy and Diffraction Techniques	<p>CO1: Explain principles of electromagnetic interaction in microwave, infrared, and X-ray regions.</p> <p>CO2: Utilize characterization techniques for chemical and physical analysis</p> <p>CO3: Integrate applications across chemistry, physics, biology, and materials science.</p>
I	PCHICP11: Inorganic Chemistry Practicals-I	<p>CO1: Perform qualitative and quantitative analysis of ores and alloys.</p> <p>CO2: Apply complexometric, gravimetric, and colorimetric techniques</p> <p>CO3: Analyze statistical data and interpret experimental errors.</p>
I	PCHOCP11: Organic Chemistry Practicals-I	<p>CO1: Perform organic synthesis using various methods</p> <p>CO2: Purify and isolate organic compounds through advanced techniques.</p>

		CO3: Evaluate reaction mechanisms and principles of organic reactions.
I	PCHPCP11: Physical Chemistry Practicals - I	CO1: Conduct experiments based on electrochemistry, thermodynamics, and surface chemistry. CO2: Analyze data using computational tools and instruments CO3: Validate theoretical concepts through practical observations.

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

	Physical Chemistry Practicals - I	CO2: Analyze data using computational tools and instruments 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: Inorganic Chemi	<p>CO1: Explain ionic and covalent bonding, lattice and hydration energy</p> <p>CO2: Apply VSEPR and MOT theory for molecular structure prediction</p> <p>CO3: Analyze HSAB principles, non-aqueous solvents, and ionic liquids.</p> <p>CO4: Discuss the chemistry of alkali/alkaline earth metals, boron, carbon, and silicon compounds</p> <p>CO5: Utilize organic precipitants, masking/demasking techniques, and error analysis methods.</p>
I	PACUCH11: Organic Chemistry	<p>CO1: Describe bonding, aromaticity, electronic effects, acidity, and basicity</p> <p>CO2: Analyze reaction mechanisms and identify intermediates in reactions</p> <p>CO3: Evaluate optical and geometrical isomerism in organic compounds.</p>
I	PACPCH11: Physical Chemistry	<p>CO1: Explain catalysis, corrosion, and photochemical processes</p> <p>CO2: Apply theoretical concepts to practical scenarios involving complex reactions</p> <p>CO3: Investigate enzyme-mediated reactions and spectroscopy techniques</p>
I	PACMDS11: Molecular Spectroscopy	<p>CO1: Explain principles of electromagnetic interaction in microwave, infrared, and X-ray regions.</p>

	and Diffraction Techniques	<p>CO2: Utilize characterization techniques for chemical and physical analysis</p> <p>CO3: Integrate applications across chemistry, physics, biology, and materials Science</p>
I	PACISS11: Inorganic Spectroscopy and Analytical Techniques	<p>CO1: Explain principles and applications of ESR and Mossbauer spectroscopy</p> <p>CO2: Interpret data using NQR and Photoelectron spectroscopy</p> <p>CO3: Analyze Atomic Absorption, Emission, Molecular Luminescence, and Light-Scattering techniques for metal and particle detection</p>
I	PACICP11: Inorganic Chemistry Practicals-I	<p>CO4: Solve analytical problems related to these techniques.</p> <p>CO1: Perform qualitative and quantitative analysis of ores and alloys</p> <p>CO2: Apply complexometric, gravimetric, and colorimetric techniques</p> <p>CO3: Analyze statistical data and interpret experimental errors</p>
I	PACOC11: Organic Chemistry Practicals-I	<p>CO1: Perform organic synthesis using various methods.</p> <p>CO2: Purify and isolate organic compounds through advanced techniques</p> <p>CO3: Evaluate reaction mechanisms and principles of organic reactions</p>
2	PACAIH21: Advanced Inorganic Chemistry	<p>CO1: Predict spectral and structural properties using symmetry operations</p> <p>CO2: Explain halogen and noble gas chemistry</p> <p>CO3: Discuss metallurgical and ceramic applications</p> <p>CO4: Analyze reactions in non-aqueous media</p>

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

MA ENGLISH LITERATURE

Semester	Course/ Subject	Course outcome	Program outcome (summary of all four semesters)
I	The Romantic Poetry	<ol style="list-style-type: none"> 1. The concept and ideologies of Romanticism 2. An in-depth understanding of different phases of Romanticism 3. An intimate understanding of Blake, Coleridge, Wordsworth, Shelly and Keats 4. Exposure to the forms of poetry such as lyric, ode and sonnet 5. Issues relating to the language usage in literature 6. The skill of understanding lyric, ode and sonnets by close reading. 	<ol style="list-style-type: none"> 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, European, African-American, Canadian, and Indian literature from classical to contemporary periods. 4. Theoretical Frameworks: Courses on literary criticism, gender studies, postcolonialism,
	The Nineteenth-century Novels	<ol style="list-style-type: none"> 1. The major novels of the Nineteenth Century through a study of selected texts. 2. The development in 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 	

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

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

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

		critical statements that can be made on a text based on two or more critical schools.	literary criticism, translation studies, gender studies, and comparative literature.
	Gender Studies	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 8. Goal: Develop critical thinkers, scholars, and future educators with a global literary perspective and expertise in cultural analysis.

	Twentieth century American Literature	<ol style="list-style-type: none"> 1. comprehend the complexities that determined twentieth century American life 2. 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	<ol style="list-style-type: none"> 1. Appreciate the ground of Indian cinema 2. 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	<p>1. Comprehend the basics of communication process</p> <p>2. Built capacity to analyze the formulation of different narratives and its aftermath</p> <p>3. Analytical capability to understand the constructive and destructive narratives</p>	<p>Effective Communication: Practice various aspects of communication in</p> <p>terms of expressions, levels, and models resulting in demonstrating the process of communication in general, human communication in particular.</p> <p>Critical Thinking: Demonstrate analytical skills with thorough understating of communication process, function, and scope. Develop</p> <p>knowledge, skills, and judgment around human communication that facilitate their ability to work collaboratively with others.</p> <p>Social Interaction: Know the importance of effective communication in</p> <p>the society which helps in building and maintaining healthy and effective</p> <p>relationships. The understanding of contexts such as interpersonal,</p>

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

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

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

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

		3. Empowered to operate the different design tools	
2	Communication Skills (Open Elective)	<p>1. Understand the process of communication and its effect on giving and receiving information</p> <p>2. Learn about historical and theoretical developments in the field of Communication</p> <p>3. Apply effective communication skills in a variety of public and interpersonal Settings</p>	
3	Media Research Methods	<p>1. Demonstrate knowledge of research literacy</p> <p>2. Demonstrate a sound knowledge of basic research methods</p> <p>3. Demonstrate an understanding of the significant risk and ethical issues raised by the conduct of media research</p>	
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	

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

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

		<p>and threats (SWOT) of different kinds of promotional campaigns.</p> <p>3.Examine the importance of market segmentation, position and action objectives to the development of an advertising and promotion program.</p>	
4	Television Program Production	<p>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.</p> <p>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.</p> <p>3.Able to demonstrate skills required to create quality media productions including skills in story development, producing, cinematography, editing, and audio production/post production.</p>	

4	New Media Technology	<p>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.</p> <p>2. Understanding circulation of newspapers and the various factors involved with circulation of newspapers, newspaper 's policy, role of the Circulation department, circulation manager.</p> <p>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</p>	
4	Environmental Communication	<p>1.Identify ways in which public discourses socially construct relationships between nature and humans</p> <p>2.Demonstrate an understanding of critical and cultural approaches to environmental communication</p>	

		3. Identify and implement communication skills relevant to disseminating environmental information in organizational, political, and international contexts	
4	Film Studies	<p>1. Empowered to analyze the films through the theoretical, historical, and critical approaches.</p> <p>2. Empowered to explore the narrative, artistic, cultural, economic, and political implications of the cinema to juxtapose the social-ideological values.</p> <p>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.</p>	

MCOM

Semester	Course/ Subject	Course outcome	Program outcome(summary of all four semesters)
1	Management theory and practice (PCMMTS11)	<ol style="list-style-type: none"> 1. Integrate core management functions (planning, organizing, leading, and controlling) in a cohesive and strategic manner to drive organizational success. 2. Analyze and apply management theories and frameworks to real-world organizational challenges, particularly in decision-making, leadership, and motivation. 3. Develop and implement strategic initiatives that align with organizational goals and respond to dynamic business environments. 4. Evaluate the effectiveness of management practices in improving organizational performance and quality, using modern tools and technologies such as TQM, Six Sigma, and strategic analysis frameworks. 5. Adapt to emerging trends in 	<ol style="list-style-type: none"> 1. To acquire strong subject-matter expertise in finance, financial instruments and markets. 2. To develop advanced theoretical knowledge and research capabilities in their preparation for academic and research focused career. 3. To equip the students for seeking suitable careers in management and entrepreneurship. 4. To facilitate the students to apply financial and taxation knowledge in taking business decisions.

		management, including digital transformation, sustainability, and agile methodologies.	
	Business Economics (PCMBES11)	<ol style="list-style-type: none"> 1. 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)	<ol style="list-style-type: none"> 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)	<ol style="list-style-type: none"> 1. Use quantitative methods such as Linear Programming, Transportation, and Assignment 	

		<p>Problems to solve real-world business and management challenges.</p> <ol style="list-style-type: none"> 2. Formulate, solve, and interpret models to optimize resources, minimize costs, and improve decision-making 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, data-driven decisions. 	
	Advanced financial accounting (PCMAFH11)	<ol style="list-style-type: none"> 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. 	

		<ol style="list-style-type: none"> 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)	<ol style="list-style-type: none"> 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 active listening, body 	

		language, tone, and clarity.	
	Entrepreneurial startup eco system CMS 452	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. Understand the Fundamentals of Business Research and the Research Process 2. Apply Statistical Techniques for Data Analysis and Interpretation 	

		<p>3. Implement Sampling and Statistical Inference Techniques</p> <p>4. Prepare and Present Research Findings Effectively</p>	
	<p>International business</p> <p>CMH 456</p>	<p>1. A holistic understanding of the global business environment, including the economic, political, and cultural factors influencing international trade and business decisions.</p> <p>2. The ability to analyze and navigate the complexities of international trade policies, foreign exchange markets, and global regulations.</p> <p>3. A critical perspective on the impact of globalization, both positive and negative, on businesses and societies, particularly in the context of developing countries.</p> <p>4. A deep understanding of the role of multinational corporations and the key challenges in managing global operations.</p>	
	<p>Advanced cost accounting</p> <p>CMH 457</p>	<p>1. Understand and Apply Inventory</p>	

		<p>Management Techniques</p> <ol style="list-style-type: none"> 2. Differentiate and Apply Process Costing Methods 3. Analyze Cost Behavior Using Marginal Costing and Break-Even Analysis 4. Make Managerial Decisions Based on Cost Accounting Information 	
III	<p>Personal savings and investment management</p> <p>CME 501</p>	<ol style="list-style-type: none"> 1. Understand the fundamental concepts of investments, 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.	
	Artificial and business intelligence CMH 502	<ol style="list-style-type: none"> 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 modelling of AI, its various applications in business, including psychological modelling, 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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. 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 	

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

		<p>operations, and the regulatory framework, with an emphasis on insider trading and SEBI regulations.</p> <ol style="list-style-type: none"> 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. 	
	<p>Direct taxes</p> <p>CMS 511</p>	<ol style="list-style-type: none"> 1. Understanding Fundamental Tax Concepts 2. Computation of Income Under 	

		<p>Various Heads</p> <p>3. Tax Planning and Compliance</p> <p>4. Knowledge of Tax Administration and Audit</p>	
	GST CMS 512	<p>1. Comprehend the evolution and structure of GST, including CGST, SGST, UTGST, and IGST.</p> <p>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.</p> <p>3. Accurately compute GST liability and understand valuation rules, including special cases like exports and SEZs.</p> <p>4. Gain proficiency in claiming, managing, and distributing ITC using e-ledgers.</p>	
IV	Dissertation CMS 552	<p>1. Research and Analytical Skills</p> <p>2. Application of Theoretical Knowledge</p> <p>3. Critical Thinking and Problem-Solving</p>	

		4. Effective Communication and Documentation	
	Risk and insurance management CMH 553	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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	1. 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	

		<p>Managerial Decisions</p> <p>4. Strategic Tax Planning and International Taxation</p>	
	Customs duty GST analysis CMS 562	<p>1. Understanding Customs Duty and Procedures</p> <p>2. Analyzing the GST Framework and Economic Impact</p> <p>3. Mastering GST Accounts, Records, and Compliance</p> <p>4. Exploring Global GST Models and IT Integration</p>	

MSW

Semester	Course/ Subject	Course outcome	Program outcome (summary of all four semesters)
I Semester	PSWDHS11 DYNAMICS OF HUMAN BEHAVIOUR	<p>1. To understand the fundamental components of human behavior</p> <p>2. To gain insight into factors contributing to the development of personality</p> <p>3. To understand the social bias of behaviour and adjustment</p> <p>4. To understand the processes of adjustment and non-adjustment and learn the various coping mechanisms.</p>	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 INTRODUCTION TO PROFESSIONAL SOCIAL WORK	<ol style="list-style-type: none"> 1. To understand the methods, history and evolution of social work education in India 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 	professional ethics and compliance.
I Semester	PSWWGH11 WORKING WITH INDIVIDUALS AND GROUPS	<ol style="list-style-type: none"> 1. To understand case work and group work as a method of social work and appreciate its place in social work practice. 2. 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	<ol style="list-style-type: none"> 1. To introduce the various perspectives on understanding caste, 	

		<p>class, associations and institutions</p> <ol style="list-style-type: none"> 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	<p>PSWSWP11</p> <p>SOCIAL WORK PRACTICUM-I & ORIENTATION TO SOCIAL WORK PRACTICE</p>	<ol style="list-style-type: none"> 1. To develop the skill of introducing to the agency and rapport building 2. To develop the skill of doing home visits 3. 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	<p>PSWSPH12</p> <p>SOCIAL POLICY AND WELFARE ADMINISTRATION</p>	<ol style="list-style-type: none"> 1. 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	<p>PSWCOH12</p> <p>COMMUNITY ORGANIZATION</p>	<ol style="list-style-type: none"> 1. To develop the competence to undertake critical and holistic analysis of 	

	AND SOCIAL ACTION	<p>social issues and community dynamics.</p> <ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. To understand research as a method of social work profession 2. To acquire research work knowledge and skills to undertake independent research projects 3. To become familiar with basic statistical techniques and their application in the field of social work practice 	
II Semester	PSWIPS12 INDUSTRIAL PSYCHOLOGY	<ol style="list-style-type: none"> 1. 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	<ol style="list-style-type: none"> 1. To understand the basic concepts of social work 2. To understand the various methods of social work 3. To know about various avenues of social work 4. To study the emerging areas of social work practice 	
II Semester	PSWSWP12 SOCIAL WORK PRACTICUM-II & SOCIAL WORK RURAL CAMP	<ol style="list-style-type: none"> 1. To enhance the skills building rapport in the agency 2. To enhance the skill of doing home visits with specific purpose 3. To strengthen the skills of case work and group work practice 4. To build the ability of community profiling 5. To develop the skill in planning and organizing the need-based programmes along with rural camp 	
III Semester	SWH 501 PROJECT PLANNING AND MANAGEMENT	<ol style="list-style-type: none"> 1. To gain the knowledge on concept, components and various types of project planning 2. To understand the process of project planning 	

		3. To acquire the knowledge of designing the project proposal	
III Semester	SWS 503 MEDICAL SOCIAL WORK	<ol style="list-style-type: none"> 1. 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 SOCIAL RESPONSIBILITIES	<ol style="list-style-type: none"> 1. To understand the concept of Management and Corporate Social Responsibility 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	<ol style="list-style-type: none"> 1. To develop an understanding of the need and the relevance of counselling as a social work approach 2. To acquire an understanding of the various theories and skills of counselling and 	

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

	DISASTER MANAGEMNT	<p>process and approaches of disaster management with specific reference to Indian context</p> <ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. 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 Semester	SWS 551 COMMUNICATION SKILLS FOR SOCIAL WORK PRACTICE	<ol style="list-style-type: none"> 1. To know and understand the concept and methods of communication 2. To acquire the competence to apply the various methods and skills of communication in the field of social work practice 	

		<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. 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 LEGISLATIONS	<ol style="list-style-type: none"> 1. To gain knowledge about labour legislations and labour welfare 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 Semester	SWS 559 COMMUNITY HEALTH	<ol style="list-style-type: none"> 1. To gain the basic 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 Semester	SWS 560 INDUSTRIAL RELATIONS AND TRADE UNION	<ol style="list-style-type: none"> 1. To understand the 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	<ol style="list-style-type: none"> 1. 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 	

		<p>judicious integration of research, theory and practice</p> <p>5. To develop the ability of logical reasoning and critical analysis</p>	
IV Semester	<p>SWH 516</p> <p>SOCIAL WORK PRACTICUM IV AND BLOCK PLACEMENT</p>	<p>1. To implement the specialization subject specific knowledge into practice</p> <p>2. To gain the hands-on skills on each and every course specific matters of concerned specialization</p> <p>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</p>	

MSc Mathematics

Semester	Course/ Subject	Course outcome	Program outcome(summary of all six semesters)
I	Algebra-I	<p>To introduce the concepts and to develop working knowledge on fundamentals of algebra.</p> <p>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.</p> <p>This course is a foundation for next course in Algebra</p>	<p>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.</p> <p>Develop abstract mathematical thinking.</p> <p>Motivate and prepare the students to pursue higher studies and research, thus contributing to the ever increasing academic demands of the country.</p> <p>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.</p> <p>Facilitate integral development of the personality of the student</p>

I	Linear Algebra-I	<p>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.</p> <p>This course is foundation for next course in Linear algebra.</p>	to deal with ethical and professional issues, and also to develop ability for independent and lifelong learning.
---	------------------	---	--

I	Real Analysis- I	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.	
---	------------------	--	--

I	Numerical Analysis	<p>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.</p> <p>Such problems arise throughout the natural sciences, social sciences, engineering, medicine and business.</p>	
---	--------------------	---	--

I	Theory of Combinatorics	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	Practical-I	<p>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'.</p> <p>Program to convert binary/octal number to decimal number and decimal number to binary/octal number using user defined functions.</p> <p>Program to search an element in the array using linear and binary search.</p> <p>Program to arrange a set of given integers in an ascending/descending order and print them.</p> <p>Program to find roots of a quadratic equation.</p> <p>Program to find a real root of an Algebraic/Transcendental equation using Newton Raphson Method/Chebyshev Method.</p> <p>Program to find a real root of an Algebraic/Transcendental equation using Secant Method/RegulaFalsi Method.</p> <p>Program to find a real root of a polynomial equation using Birge-Vieta Method.</p> <p>Program to illustrate Lagrange interpolation. 11) Program to</p>	
---	-------------	--	--

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

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	<p>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.</p> <p>Program to plot a neat labeled graph of elementary functions on the same plane.</p> <p>Program to obtain the graph of plane curves - cycloid and astroid in separate figure on a single run.</p> <p>Program to obtain a neat labeled graph of space curves - elliptical helix and circular helix in separate figure on a single run.</p> <p>Program to obtain a neat labeled graph of surfaces - elliptic paraboloid and hyperbolic paraboloid in separate figure on a single run.</p> <p>Program to find the Transpose, Trace, Determinant and Norm of a matrix.</p>	

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

MSc Physics

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

		<p>differential equations, vector calculus, complex analysis, linear algebra, and Fourier analysis.</p> <p>Apply mathematical techniques to classical mechanics, electromagnetism, thermodynamics, and quantum mechanics.</p> <p><u>PHH402:</u></p> <p>Gain a foundational understanding of key quantum concepts such as wave-particle duality, superposition, entanglement, and quantum interference.</p> <p>Learn to solve problems using the Schrödinger equation and other mathematical tools, such as linear algebra, differential equations, and Fourier transforms.</p> <p>c) Use quantum mechanics to model physical systems like atoms, molecules, and subatomic particles, predicting their behaviour under various conditions.</p> <p><u>PHH403:</u></p> <p>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.</p> <p>Develop the ability to formulate and solve equations of motion for particles and systems using techniques such as differential equations, vector</p>	<p>analytical and numerical methods.</p> <p>The ability to think critically and analytically, applying core principles of physics to solve problems.</p> <p><u>Semester2:</u></p> <p>Students will start gaining practical knowledge in electronics and instrumentation, particularly focusing on circuits, sensors, and measurement devices used in experimental physics.</p> <p>Introduction to the fundamentals of solid-state 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.</p> <p><u>Semester3:</u></p> <p>students will explore more advanced concepts in statistical mechanics, including thermodynamic potentials, critical phenomena, phase transitions, and non-equilibrium systems.</p> <p>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</p>
--	--	---	--

3		<p>calculus, and numerical methods.</p> <p><u>PHH404:</u></p> <p>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.</p> <p>Develop physical intuition regarding the behavior of electric and magnetic fields, and how they interact with matter, particularly in dynamic or time-varying situations.</p> <p><u>PHH501:</u></p> <p>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.</p> <p>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.</p> <p>Analyse the energy levels associated with the vibrational and rotational modes of molecules, and understand how these modes are quantized and detected through spectroscopy.</p> <p><u>PHH502:</u></p> <p>Study the stability of thermodynamic systems</p>	<p>forces, and applications of nuclear physics in energy and medicine are included.</p> <p><u>Semester4:</u></p> <p>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.</p> <p>Students will develop the ability to critically assess their research, identify limitations, and suggest future directions for their work.</p>
---	--	---	--

		<p>using concepts such as the Gibbs free energy and how stability relates to phase transitions and equilibrium states.</p> <p>Learn about probability distributions (e.g., Boltzmann distribution) and their application to describe the behaviour of large systems of particles.</p> <p><u>PHH505:</u></p> <p>Understand the fundamental principles behind particle acceleration, including the relationship between electric fields, magnetic fields, and the motion of charged particles.</p> <p>Learn the distinction between linear accelerators (linacs) and circular accelerators (cyclotrons, synchrotrons), and how each type works to increase the energy of particles.</p> <p><u>PHH508:</u></p> <p>Understand how the energy levels of nuclei are quantized and how transitions between these levels emit or absorb radiation, resulting in characteristic spectra.</p> <p>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.</p>	
--	--	--	--

MSc Psychology

Semester	Course/ Subject	Course outcome	Program outcome (summary of all four semesters)
1	PPSCPH11 Cognitive Psychology	The student will have the knowledge of, <ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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.

			<p>9. To enable the students in understanding dynamics of Psychotherapeutic techniques.</p> <p>10. In-depth Knowledge of Psychological Principles</p>
1	PPSPPH11 Physiological Psychology	<p>The students will be able to,</p> <ol style="list-style-type: none"> 1. Identify the structures and functions of neurons 2. Describe the processes involved in the generation and propagation neural impulse 3. Describe, analyze and evaluate the modes of inheritance. 4. Integrate knowledge on Structural and chemical correlates of Emotion and motivation 5. Explain the physiological processes underpinning various psychological processes. 	<p>Develop a thorough understanding of key psychological domains, including physiological, cognitive, educational, and social psychology, to analyze human behavior and mental processes comprehensively.</p> <p>11. Application of Psychological Testing and Measurement</p> <p>Gain expertise in psychometric tools and assessments for individuals across different age groups, including children and adults, through practical exposure to cognitive processes, psychophysics, and child and personality testing.</p>
1	PPSEPS11 Educational Psychology	<ol style="list-style-type: none"> 1. The student will be able to, Evidence an understanding of the role of an educational psychologist in different levels like individual, school, group etc. 2. Have an understanding of Effective teaching-learning and evaluation methods 3. Identify the implications of psychological theories of learning in teaching 	<p>12. Skill Development in Counselling and Therapy</p>

		<ol style="list-style-type: none"> 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 	<p>Master core counselling skills, group counselling techniques, and psychotherapy approaches to provide effective psychological support across various areas of need, such as childhood pathology, adult pathology, and behavioral modification.</p> <p>13. Research Proficiency and Statistical Analysis</p> <p>Cultivate the ability to design, conduct, and evaluate psychological research using advanced statistical methods, enabling evidence-based practice and contributions to psychological science.</p> <p>14. Expertise in Behavioral Interventions</p> <p>Understand and apply principles of behavior modification to design and implement therapeutic interventions that promote positive psychological outcomes in</p>
1	PPSPMS11 Psychometry	<ol style="list-style-type: none"> 1. Students will be able to understand many facts of psychological tests and measurement principles used in assessing human behaviour. 2. Students will be familiarized with various the various psychological assessment Methods and with the evaluation of psychological tests. 3. Students will be able to identify quality of a good psychological test 4. Students will be familiar with test construction, test development, standardization, validity, reliability. 5. Students will know the importance of standardized test with relevant, psychometric properties. 	
2	Basics of Research & Statistics	<ol style="list-style-type: none"> 1. The students will be acquainted with basics of research understand its purpose and method of conducting research 2. The students will be informed about the 	

		<p>basics of scientific research in psychology.</p> <ol style="list-style-type: none"> The students will be familiarized with the statistical methods and tools used in psychological research. The students will be acquainted with ideas and methods used in the statistical treatment of data obtained from various experiments, surveys, and observations. The students will be learn the statistical rigors in designing research and processing data 	<p>individuals and groups.</p> <p>15. Ethical Practice and Professionalism</p> <p>Foster a deep sense of ethical responsibility, cultural sensitivity, and professionalism to uphold the integrity of psychological practices and research.</p> <p>16. Positive Psychology and Well-being</p> <p>Integrate concepts from positive psychology to promote mental health and well-being, emphasizing strengths, resilience, and growth-oriented interventions.</p>
2	Counselling Skills	<ol style="list-style-type: none"> 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. Students will be familiar with the various approaches, procedures and techniques of counselling. Students will be able to understand the various stages involved in the process of counselling. Students will be able to understand the meaning, need, and advantage of group counselling. 	
2	Group Counselling	Utilize group counselling techniques.	

		<p>To effectively conduct group counselling among various groups.</p> <p>To guide a group with cross-cultural perspective.</p> <p>To effectively use psychodrama in group setting.</p> <p>To effectively use behavioral techniques in group.</p>	
2	Positive Psychology	<ol style="list-style-type: none"> 1. Demonstrate an understanding of positive psychology and implications to well-being and flourishing 2. Measure and build individual, workplace and community flourishing 3. Demonstrate an understanding of resiliency in relation to wellbeing 4. Develop a tool kit of mindfulness and spirituality. 5. Utilize their own strengths and virtues and employ strategies to increase their happiness 	
2	Dynamics of Human Behaviour – Open Elective	<ol style="list-style-type: none"> 1. Students will be able to understand the basic concepts of the field of psychology 2. Students will be able to understand normal mental processes and their relationship to brain, mind and behavior. 	

		<ol style="list-style-type: none"> Students will be oriented about different approaches to understanding human behavior Students will be able to understand the forces and factors that shape personality Students will be able to apply psychology in everyday life to some extent. 	
3	PYH 501: Personality Theories	<ol style="list-style-type: none"> 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 Will be able to differentiate between different approaches Will be able to understand individual differences which helps in self-reflection and understanding of self and others 	
3	PYS 506: Psychotherapy	<ol style="list-style-type: none"> Students will be acquainted with several contemporary and classical individual intervention approaches Students will know Intervention approaches based on different frameworks. Students will gain an understanding of the applications of each 	

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

		<p>2. Students will be oriented about psychological, biological and social influence in the etiology and treatment of mental disorders.</p> <p>3. Students will be able to explore the various situational and environmental factors that affect abnormal behaviors in childhood.</p> <p>4. 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.</p> <p>5. Students will be sensitized to children's mental health problems.</p>	
3	PYS 512: Man, and Mental Health	<p>1. The students will gain insight about the diversity of field of Psychology</p> <p>2. The students will be able to understand group behaviour</p> <p>3. The students will be able understand and effectively handle simple psychological distress</p> <p>4. The students will be well acquainted to identify and classify problems and to methods of seeking help to self or others</p> <p>5. The students will be able to understand and manage themselves better</p>	
4	PYH 551: Behaviour Modification	<p>1. Students will be able to get well acquainted with theory behind behaviour modification</p>	

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

Department of Postgraduate Studies in Zoology

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

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

		<p>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.</p> <p>4. Students will be carryout animal diet formulation to maximize growth, reproduction, health and performance.</p>
	PZOFBS31: Fisheries and Aquatic Biology	<p>1. Students will be able to understand aquatic environment for different animals.</p> <p>2. Students will get knowledge of fish diversity in India.</p> <p>3. Students will be able to understand different culturing practices of fishes.</p>
	PZOEBS31: Environmental Biology	<p>1. After the end of the course the students obtain an in dept knowledge of surrounding environment.</p> <p>2. Students will be able to carry out impact assessment pollutants on environment.</p> <p>3. Students will be able to develop strategies for maintenance of sustainable ecosystems.</p>
	PZOVTE31: Vermitechnology	<p>1. Students will be able to compost in a limited space and will turn towards organic farming.</p> <p>2. Student will get the knowledge of biodiversity of local earthworms.</p> <p>3. Student will get the knowledge of bio-management of environmental waste through vermicomposting.</p> <p>4. Students with the knowledge of composting can generate employment.</p>
IV	PZOBH41: Biology of Immune System	<p>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.</p> <p>2. Acquire practical skills in undertaking simple immunological experiments that mimic those undertaken in diagnostic laboratories and research laboratories.</p> <p>3. Students can have post-doctoral career in biomedical research, healthcare and as teaching faculty.</p>
	PZOPWH41: Project work	<p>1. Students would be able to learn on their own, reflect on their learning and take appropriate actions to improve it.</p> <p>2. Acquire the skills to communicate effectively and to present ideas clearly and logically in both the written and oral forms.</p> <p>3. Students will be able to acquire research temperament.</p>

	PZOWMS41: Wildlife Conservation and Management	<p>1. Students would be able to understand biodiversity concept and management, mainly conservation of wild animals.</p> <p>2. Students are able to understand need of conserving the wild animals.</p>
	PZOSBS41: Statistics and Bioinformatics	<p>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.</p> <p>2. Students will be able to understand the collection, presentation and analysis of scientific data.</p> <p>3. Students acquire in depth understanding of basic methods of biological sequence analysis and able to perform simple sequence analysis using existing tools.</p>