Society : 1907
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Department of Physics

Program Outcome: BSc.(Hons. with Physics) NEP-I sem

PO1- Discipline Knowledge: Knowledge of science and ability to apply to relevant areas.

PO2 - Problem solving: Execute a solution process using first principles of science to solve problems related to respective discipline.

PO3- Modern tool usage: Use a modern scientific, engineering and IT tool or technique for solving problems in the areas of their discipline.

PO4- Ethics: Apply the professional ethics and norms in respective discipline.

PO5- Individual and team work: Work effectively as an individual as a team member in a multidisciplinary team.

PO6- Communication: Communicate effectively with the stake holders, and give and receive clear instructions.

DSC-1: MECHANICS AND PROPERTIES OF MATTER

Course outcomes(Cos) (UGC Guidelines)	Program outcomes(Pos)					
	1	2	3	4	5	6
CO1- Will learn fixing units, tabulation of observations, analysis of data(graphical/analytical)	X	X				X
CO2- Will learn about accuracy of measurement and sources of errors, importance of significant figures.	X	X				
CO3- Will know how g can be determined experimentally and derive satisfaction.	X					
CO4- Will see the difference between simple and torsional pendulum and their use in the determination of various physical parameters.	X			X	X	X
CO5- Will come to know how various elastic moduli can be determined.	X				X	X
CO6- Will measure surface tension and viscosity and appreciate the methods adapted.	X	X				
CO7- Will get hands on experience of different equipment.	X	X	X		X	X

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Department of Physics

Program Outcome: BSc.(Hons. with Physics) NEP-II sem

PO1- Discipline Knowledge: Knowledge of science and ability to apply to relevant areas.

PO2 - Problem solving: Execute a solution process using first principles of science to solve problems related to respective discipline.

PO3- Modern tool usage: Use a modern scientific, engineering and IT tool or technique for solving problems in the areas of their discipline.

PO4- Ethics: Apply the professional ethics and norms in respective discipline.

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DSC-2: ELECTRICITY AND MAGNETISM

Course outcomes(Cos) (UGC Guidelines)	Program outcomes(Pos)					
	1	2	3	4	5	6
CO1-Demonstrate Gauss law, Coulombs law for the electric field, and apply it to systems of point charges as well as line, surface, and volume distributions of charges.	X	X				
CO2- Explain and differentiate the vector (electric fields, Coulomb's law) and scalar (electric potential, electric potential energy) formalisms of electrostatics.	X					
CO3- Apply gauss's law of electrostatics to solve a variety of problems.	X	X			X	
CO4- Describe the magnetic field produced by magnetic dipoles and electric currents.	X					
CO5- Explain Farady- lenz and Maxwell laws to articulate the relationship between electric and magnetic fields.	X					
CO6- Describe how magnetism is produced and list examples where its effects are observed.	X				X	X
CO7- Apply Kirchhoff's rules to analyze AC circuits consisting of parallel and/or series combinations of voltage sources and resistors and to describe the graphical relationship of resistance, capacitor and inductor.	X	X			X	X

CO8- Apply various network theorems such as superposition, Thevenin, Norton, Reciprocity, Maximum power transfer, etc.and their applications in electronics, electrical circuit analysis, and electrical machines.	X	X			X	X

Department of Physics

Program Outcome: BSc.(Hons. with Physics) NEP-III sem

PO1- Discipline Knowledge: Knowledge of science and ability to apply to relevant areas.

PO2 - Problem solving: Execute a solution process using first principles of science to solve problems related to respective discipline.

PO3- Modern tool usage: Use a modern scientific, engineering and IT tool or technique for solving problems in the areas of their discipline.

PO4- Ethics: Apply the professional ethics and norms in respective discipline.

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DSC-3: WAVE MOTION AND OPTICS

Course outcomes(Cos) (UGC Guidelines)	Program outcomes(Pos)					
	1	2	3	4	5	6
CO1- Identify different types of waves by looking into their characteristics	X	X	X	X	X	X
CO2- Formulate a Wave equation and obtain the expression for different parameters associated with the waves.	X	X	X	X	X	X
CO3-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.	X	X	X	X	X	X
CO4- Describe the formation of standing waves and	X	X	X	X	X	X

how the energy is transferred along the standing wave in different applications, and mathematically model in the case of stretched sting and vibration of rod.						
CO5-Give an analytical treatment of resonance in the case of open and closed pipes in general and Helmholtz resonators.	**X**	**X**	**X**	**X**	**X**	**X**
CO6- Describe the different parameters that affect the acoustics in a building, measure it and control it.	**X**	**X**	**X**	**X**	**X**	**X**
CO7- Give the different modes of light propagation and phenomenon associated and measure the parameters like the wavelength of light using experiments like interference and thin films.	**X**	**X**	**X**	**X**	**X**	**X**
CO8- Explain the diffraction due to different objects like single slits, two slits, diffraction grating, oblique incidence, circular aperture and give the theory and experimental setup for the same.	**X**	**X**	**X**	**X**	**X**	**X**
CO9-Explain the polarization of light and obtain how the polarization occurs due to quarter wave plates and through the optical activity of a medium.	**X**	**X**	**X**	**X**	**X**	**X**

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Department of Physics

Program Outcome: BSc.(Hons. with Physics) NEP-IV sem

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DSC-4: THERMAL PHYSICS AND ELECTRONICS

Course outcomes(Cos) (UGC Guidelines)	Program outcomes(Pos)					
	1	2	3	4	5	6
CO1- Apply the laws of thermodynamics and analyze the thermal system.	X	X	X	X	X	X
CO2- Apply the laws of kinetic theory and radiation laws to the ideal and practical thermodynamics systems through derived thermodynamic relations.	X	X	X	X	X	X
CO3-Use the concept of semiconductors to describe different semiconductor devices like diode transistors, BJT, FET etc and explain their functioning.	X	X	X	X	X	X
CO4- Explain the functioning of OP-AMPs and them as the building	X	X	X	X	X	X

blocks of logic gates.						
CO5- Give the use of logic gates using different theorems of Boolean algebra followed by logic circuits.	X	X	X	X	X	X

Department of Physics

Program Outcome: BSc.(Hons. with Physics) NEP-V sem

PO1- Discipline Knowledge: Knowledge of science and ability to apply to relevant areas.

PO2 - Problem solving: Execute a solution process using first principles of science to solve problems related to respective discipline.

PO3- Modern tool usage: Use a modern scientific, engineering and IT tool or technique for solving problems in the areas of their discipline.

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DSC-5.1: CLASSICAL MECHANICS AND QUANTUM MECHANICS

Course outcomes(Cos) (UGC Guidelines)	Program outcomes(Pos)					
	1	2	3	4	5	6
CO1-Identify the failures of classical physics at the microscopic level.	X	X	X	X	X	X
CO2-Find the relationship between the normalization of a wave function and the ability to correctly calculate the expectation values or probability density.	X	X	X	X	X	X
CO3-Explain the concept of Newtonian of relatively and differentiate between inertial and non inertial frames of reference.	X	X	X	X	X	X
CO4- Apply the Lorentz transformations to transform velocities, frequencies and wave numbers in special relativity.	X	X	X	X	X	X
CO5-Calculate the relativistic Doppler effect.	X	X	X	X	X	X
CO6-Explain the minimum uncertainty of measuring both observables on any quantum state.	X	X	X	X	X	X

CO7-Describe the time -dependent and time- independent Schrodinger equation for simple potentials like for instance one –dimensional potential well and harmonic oscillators.	X	X	X	X	X	X
CO8-Apply hermitian operators, their eigenvalues and eigenvectors to find various communication and uncertainty relations.	X	X	X	X	X	X

Department of Physics

Program Outcome: BSc.(Hons. with Physics) NEP-V sem

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DSC-5.2: ELEMENTS OF ATOMIC, MOLECULAR AND LASER PHYSICS

Course outcomes(Cos) (UGC Guidelines)	Program outcomes(Pos)					
	1	2	3	4	5	6
CO1-Decribe atomic properties using basic atomic models.	X	X	X	X	X	X
CO2-Interpret atomic spectra of elements using vector atom model.	X	X	X	X	X	X
CO3-Interpret molecular spectra of compounds using basics of molecular physics.	X	X	X	X	X	X
CO4-Explain laser systems and their applications in various fields.	X	X	X	X	X	X

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Department of Physics

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DSC-6.1: ELEMENTS OF CONDENSED MATTER AND NUCLEAR PHYSICS

Course outcomes(Cos) (UGC Guidelines)	Program outcomes(Pos)					
	1	2	3	4	5	6
CO1-Explain the basic properties of nucleus and get the idea of its inner information.	X	X	X	X	X	X
CO2-Understand the concepts of binding energy and binding energy per nucleon v/s mass number graph.	X	X	X	X	X	X
CO3-Describe the process of alpha, beta and gamma decays based on well established theories.	X	X	X	X	X	X

CO4-Explain the basic aspects of interaction of gamma radiation with matter by photo electric effect, Compton scattering and pair production.	X	X	X	X	X	X
CO5-Explain the different nuclear radiation detectors such as ionization chamber, GM counter Etc	X	X	X	X	X	X
CO6-Explain the basic concept of scintillation detectors, photo multiplier tube and semi conductor detectors.	X	X	X	X	X	X

Department of Physics

Program Outcome: BSc.(Hons. with Physics) NEP-VI sem

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PO2 - Problem solving: Execute a solution process using first principles of science to solve problems related to respective discipline.

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DSC-6.2: ELECTRONIC INSTRUMENTATION AND SENSORS

Course outcomes(Cos) (UGC Guidelines)	Program outcomes(Pos)					
	1	2	3	4	5	6
CO1-Identify different types of tests and measuring instruments used in practice and understand their basic working principles.	X	X	X	X	X	X
CO2-et hands on training in wiring a circuit, soldering, making a measurement	X	X	X	X	X	X

using an electronic circuit used in instrumentation.						
CO3-Have an understanding of the basic electronic components viz resistors, capacitors, inductors, discrete and ICs, color codes, values and pin diagram, their practical use.	X	X	X	X	X	X
CO4-Understanding of the measurement of voltage, current, resistance value, identification of the terminals of a transistor and ICs.	X	X	X	X	X	X
CO5-Identify and understand the different types of transducers and sensors used in robots and hand held instruments.	X	X	X	X	X	X
CO6-Understand and give a mathematical treatment of the working of rectifiers, filters, data converters and different types of transducers.	X	X	X	X	X	X
CO7-Connect the concepts learnt in the course to their practical use in daily life.	X	X	X	X	X	X
CO8-Develop basic hands-on skills in the usage of oscilloscopes, multimeters, rectifiers, amplifiers, oscillators and high voltage probes, generators and digital meters.	X	X	X	X	X	X
CO9-Servicing of simple faults of domestic appliances.	X	X	X	X	X	X

N.V Society's

N.V Degree College ,Kalaburagi
Department of Computer Science

VISION:

Through Intellectual , Physical and Moral based education,which enables students to excel their talents and become the most responsible citizens to meet the technical need of the society.

MISSION:

- To develop and implement appropriate and relevant educational programs through quality teaching and learning methods
- To evaluate the students performance through suitable benchmarks
- To explore the skills of the students through student centric activities based on Hands on training
- To create a learning environment for enhancing their innovational ideas, problem solving skills, leadership qualities and team spirit
- To establish Industry Institute Interaction program to enhance the Entrepreneurship skills

The Department of Computer Science stamped its print in Science fraternity from 1990 with the aim to develop core competence in Computer Science and prepare the students to take up challenges in higher education. It has a dedicated team of Threeteaching faculty and student strength of 85. The department is equipped with excellent laboratory facilities since its inception. The growth of the department is very drastic. On the whole, the Department of Computer Science produced around 1500UG Students.

EDUCATIONAL OBJECTIVES

- The Department is started with the scope of producing highly skilled graduates in the Technological field.
- IT industry is rapidly developing all over the world. Candidates who have completed this course can find a lot of job opportunities in the IT field.
- Both private and public sector companies are providing IT jobs for these graduates such as Web Development, Software Development, Database Administration, Hardware and Networking, System integrator, Hardware Designer, Logic Designer, Systems Analyst, System Administrator, Computer programmer, Computer Scientist, etc.

SPECIFIC OUTCOMES

- Able to apply the knowledge gained during the course of the program from fundamentals of computers in general and all computer science core subjects in particular to identify, formulate and solve real life computer problems faced in industries and apply innovative technical tools to develop solutions in an ever changing world.

- Graduates will have sufficient depth of knowledge, technical skills, communication skills and leadership skills so as to sustain oneself working in multidisciplinary team and its management, entrepreneurship outlook and in lifelong learning.
- Able to comprehend and write effective project reports in multidisciplinary environment in the context of changing technologies.

IMPORTANT THEORY SUBJECTS

- **Programming in C**
- **Object Oriented Programming with Java**
- **Data Structures and Computer Algorithms**
- **Relational Database Management Systems**
- **Web Technology**
- **Python Programming**
- **Computer Networks**
- **R Programming**
- **Digital Fluency**
- **Artificial Intelligence**
- **Employability Skills**

IMPORTANT PRACTICAL SUBJECTS

- **Programming in C**
- **Office Automation**
- **Data Structures**
- **OOP Java Programming**
- **Relational DBMS**
- **Web Technology**
- **Python Programming**
- **Computer Networks**
- **R Programming**

ELIGIBILITY CRITERIA

- A Candidate should have studied +2 level Mathematics with Physics as one of the subject in the 10 + 2 stream.

APPROVED INTAKE 40

COURSEDURATION : 3 Years

STUDY MODE : **Full-Time**

COURSE LEVEL : **Under Graduate NEP(2020)**

RELATED BRANCH : **B.Sc.(Physics , Statistics, Electronics and Mathematics)**

COURSE APPROVED BY : **Govt. of Karnataka**

COURSE AFFILIATED BY : **Gulbarga University Kalaburagi**

Programme Specific Outcomes

PSO1	**Apply fundamental principles and methods of Computer Science to a wide range of applications.**
PSO2.	**Design, correctly implement and document solutions to significant Computational problems.**
PSO3	**Impart an understanding of the basics of our discipline.**
PSO4.	**Prepare for continued professional development.**
PSO5.	**Develop proficiency in the practice of computing.**

Course Outcome for B.Sc. (Computer Science)

Computer Fundamentals and C Programming DSC-1

COs	**Confidently operate desktop computers to carry out computational tasks.**
COs	**Understand working of hardware and software and the importance of operating system.**
COs	**Understand programming languages , number systems, peripheral devices, networking, multimedia and internet concepts.**
COs	**Read understand and trace the execution of programs written in C language.**
COs	**Write the C code for given problem.**
COs	**Perform input and output operations using program in C.**
COs	**Write programs that perform operations on arrays.**

Digital Fluency Paper Code SEC1

COs	**To perform and get knowledge about application, virtual learning and internet fundamentals**
COs	**Develop holistically by learning essential skill such as effective communication, problem-solving, design thinking, and teamwork.**

Data Structures using C DSC-2

COs	**Describe how arrays, records, linked list , structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms.**
COs	**Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs**
COs	**Write programs that use arrays, records, linked structures, stacks, queues, trees and graphs.**
COs	**Demonstrate different methods for traversing trees.**
COs	**Compare alternative implementations of data structures with respect to performance.**
COs	**Describe the concepts of recursion, give examples of its use.**
COs	**Discuss the computational efficiency of the principal algorithms for sorting and searching.**

E-Commerce OE-2

COs	**To become familiar with the mechanism for conducting business transactions through electronic means**

Object Oriented Programming using Java DSC3T

COs	**Explain the object – oriented concepts and Java.**
COs	**Write Java programs using OOP concepts like Abstraction, Encapuslation, Inheritance and Polymorphism.**
COs	**Implement Classes and multithreading using Java.**
COs	**Demonstrate the basic principles of creating Java applications with GUI.**

C Programming conceptsOE3

COs	**Confidently operate desktop computers to carry out computational tasks.**
COs	**Understand working of hardware and software and the importance of operating system.**
COs	**Understand programming languages , number systems, peripheral devices, networking, multimedia and internet concepts.**
COs	**Read understand and trace the execution of programs written in C language.**
COs	**Write the C code for given problem.**
COs	**Perform input and output operations using program in C.**
COs	**Write programs that perform operations on arrays.**

Database Management System DSC4

COs	**Explain the various database concepts and the need for database systems.**
COs	**Identify and define database objects, enforce integrity constraints on a database using DBMS.**
COs	**Demonstrate a Data model and Schemas in RDBMS.**
COs	**Identify entities and relationships and draw ER diagram for a given real-world problem.**
COs	**Convert an ER diagram to a database schema and deduce it to the desired normal form.**
COs	**Formulate queries in Relational Algebra, Structured Query Langugae for database manipulation.**
COs	**Explain the transaction processing and concurrency control techniques.**

Python Programming Concepts OE4

COs	**Explain the fundamentals of computers.**
COs	**Explain the basic concepts of Python Programming.**
COs	**Demonstrate proficiency in the handling of loops and the creation of functions.**
COs	**Identify the methods to create and store strings.**

Artificial Intelligence SEC2

COs	**Appraise the theory of Artificial intelligence and list the significance of AI.**
COs	**Discuss the various components that are involved in solving an AI problem.**
COs	**Illustrate the working of AI Algorithms in the given contrast.**
COs	**Analyze the various knowledge representation schemes, Reasoning and Learning techniques of AI.**
COs	**Apply the AI concepts to build an expert system to solve the real-world problems.**

B.Sc V sem Programming in Python DSC5

COs	**Setup python to develop simple applications**
COs	**Understand the basic concepts in Python Programming**
COs	**Learn how to write , debug and execute Python Progams.**
COs	**Understand and demonstrate the use o advanced data types such as tuples, Dictionaries and lists, tuples and sets.**
COs	**Design solutions for problem using object oriented concepts in Python.**
COs	**Use and apply the different Python Libraies for GUI Interface, Data Analysis and Data Visualization.**
COs	**Extend the knowledge of python programming to build successful career in software development.**

B.Sc V sem Computer Networks DSC6

COs	**Identify the different types of neetwork topologies and Switching methods.**
COs	**Describe various Data link Layer Protocols.**
COs	**Identify the different types of network devices and their functions within a network.**
COs	**Analyze and interpret various Data link layer and Transport Layer Protocols.**
COs	**Explain different application layer protocols.**

Employability skills SEC4

COs	**Develop systematic problem solving abilities.**
COs	**Enhance verbal and non-verbal reasoning skills.**
COs	**Improve numerical and analytical abilities.**
COs	**Enhance English language and communication skills.**

WEB DESIGN TECHNOLOGY

CO1	**Describe the concepts of markup languages, un order list, table, formatting, liking and frames.**
CO2.	**Discuss about the creation of cascading style sheets, backgrounds, media types and building a dropdown menu.**
CO3	**Explain the JavaScript, control structure, if structure, switch, do-while and logical operators.**
CO4.	**Describe the javascript functions, javascript arrays and javascript objects.**
CO5.	**Discuss the DOM, javascript events and XML.**

B.Sc VI sem Web Technologies DSC7

COs	**Understand basics of web technology.**
COs	**Recognize the different Client-side Technologies and tools like, HTML, CSS, JavaScript.**
COs	**Learn Java Servlets and JDBC.**
COs	**Web Technology for Mobiles and Understand web security.**

B.Sc VI sem Statistical Computing and R Programming DSC8

COs	**Explore fundamentals of statistical analysis in R environment.**
COs	**Describe key terminologies, concepts and techniques employed in Statistical Analysis.**
COs	**Define calculate , Implement Probability and Probability Distributions to solve a wide variety problems.**
COs	**Conduct and interpret a variety of Hypothesis Tests to aid Decision making.**
COs	**Understand, Analyze, and Interpret Correlation Probability and Regression to analyze**
COs	**Underlying relationships between different variables.**

Programming in C LAB

CO1	**Explanation of design and algorithmic solution for a given problem.**
CO2.	**Construction of flowchart for the computer programs.**
CO3	**Explains the program using Control Statements**
CO4.	**Explains the program using Arrays and Functions.**
CO5.	**Explain the program using file handling with structure.**

Data Structure Lab Using C

CO1	**Explain the features of C using object oriented programming.**
CO2.	**Describe the relative merits of C as an object oriented programming language.**
CO3	**Describe the major object-oriented concepts to implement object oriented programs in C++ Using encapsulation and inheritance.**
CO4.	**Describe the major object-oriented concepts to implement object oriented programs in C++ Using polymorphism.**
CO5.	**Explain the advanced features of C++ specifically stream I/O, templates and operator overloading.**

Java Programming Lab

CO1	**Implement Object oriented programming concept using basic syntaxes of control Structures.**
CO2	**Identify classes, objects, members of a class and the relationships among them needed for a finding the solution to specific problem.**
CO3	**Demonstrate how to achieve reusability using inheritance**
CO4	**Demonstrate understanding and use of interfaces, packages, different execption handling mechanisms and concept of multi-threading for robust faster and efficient application development.**
CO5	**Identify and describe common user interface components to design GUI in Java using Applet and AWT along with response events**

Database Management System Lab

CO1	**Student would be able to create tables.**
CO2	**Executes queries**
CO3	**Working on PL/SQL programs**

Computer Networks Lab

CO1	**Identify and use various networking components Understand different transmission media and design cables for establishing a network**
CO2	**Implement any topology using network devices**
CO3	**Analyze performance of various communication protocols.**
CO4	**Implement device sharing on network**
CO5	**Learn the major software and hardware technologies used on computer networks**

Python Programming Lab

CO1	**Write ,Test and debug python programs**
CO2	**Implement Conditionals and Loops for python programs.**
CO3	**Use functions and lists, dictionaries**
CO4	**Object oriented programming use of inheritance, polymorphism and Encapsulation.**
CO5	**Developing applications using Modules like Tkinter.**
CO6	**Study and Analyze Data Visualisation.**

Web Technology Lab

CO1	**Students are able to develop dynamic web pages using Html, CSS and JavaScript**
CO2	**Students can create responsive webpage using JavaScript**
CO3	**Handling Data using Servlets (Server)**

R Programming Lab

POs	**Understanding the types, classes and functions of R Programming.**
POs	**Accessing and Processing of Data.**
POs	**Use of I/O interfaces programming.**
POs	**Study and Analyze Data Visualization.**

Internship/Project CSINT

COs	**The student will be able to analyze, specify, design, implement and test application software.**
COs	**Allows a student to demonstrate their capabilities while working independently.**
COs	**Design a project through technical knowledge to meet customer/End user needs.**
COs	**Acquire a deeper understanding of software industry trends, best practices, and current Developments.**
COs	**Apply process of project Development to analyze and design the real-world problem.**
COs	**Document the project report of various phases for future scope of the project development.**

NV SOCIETY'S

N.VDEGREECOLLEGEOFARTS,SCIENCE&COMMERCEKALABURAGI,DEPARTMENT OF SOCIOLOGY

2023-24 Batch

PROGRAMME OUTCOMES (PO)

PROGRAMMESPECIFICOUTCOMES(PSO)

COURSEOUTCOMES(CO)

INTRODUCTION:

For every stream, broad expectations listed by the university as well as Institution. The goal of creating an academic program assessment plan is to facilitate continuous program level improvement. A program assessment plan should be developed collaboratively among faculty who teach the program. A program level outcome assessment plan provide faculty with a clear understanding of how their program is assessed.

Program Outcomes (POs) is a systematic method for collecting, analysing, and using information to answer questions about projects, policies and programs particularly about their effectiveness and efficiency. In both the public and private sectors, stakeholders often want to know whether the programs they are funding, implementing, voting for, receiving or objecting to are producing the intended effect. While program evaluation first focuses around this definition, important considerations often include how much the program costs per participant, how the program could be improved, whether the program is worthwhile, whether there are better alternatives, if there are unintended outcomes, and whether the program goals are appropriate and useful. Evaluators help to answer these questions, but the best way to answer the questions is for the evaluation to be a joint project between evaluators and stakeholders

Programme Specific Outcomes (PSOs) are narrow statements that describe what the students are expected to know and would be able to do upon the graduation. Program outcomes represent broad statements that incorporate many areas of inter-related knowledge and skills developed over the duration of the program through a wide range of courses and experiences. Theyrepresent the big picture, describe broad aspects of behaviour, and encompass multiple learning experiences.

Course outcomes (Cos) also referred as learning outcomes are measurable statements that concretely formally state what students are expected to learn in a course. While goals or objectives can be written more broadly, learning outcomes describe specifically how learners will achieve the goals.

ProgramOutcomesB.A

PO1.Thestudentsacquireknowledgeinthefieldofsocialsciences,literatureandhumanitieswhich make them sensitive and sensible enough.

PO2.TheB.A.graduateswillbeacquaintedwiththesocial,economical,historical,geographical, political, ideological and philosophical tradition and thinking.

PO3.Theprogramalsoempowersthegraduatestoappearforvariouscompetitiveexaminationsor choose the post graduate programme of their choice.

PO4.TheB.A.program enablesthestudentstoaquiretheknowledgewithhumanvaluesframingthe base to deal with various problems in life with courage and humanity

PO5.Thestudentswillbeignited enoughtothinkandactoverforthesolutionofvarious issues Prevailed in the human life to make this world better than ever.

PO6.Programmeprovidesthebase tobe theresponsiblecitizen.

ProgramSpecificOutcomes(PSO)forB.A. Sociology

ProgrammeSpecificOutcomes:Sociologydegreeholdersare:

PSO1.Knowingthesignificanceofsocialinstitution,castesystem,religion,nationalism, integrity, equality and justice.

PSO2.GettingtheKnowledgeoftheworksofsocialreformersall overthe nation. PSO3.Ability to follow new stream of thoughts and theories of social thinkers.

PSO4.Gettingthedeep Knowledgeaboutvarious social groups liketribal community, women bulk etc.

CourseOutcomes(CO)forB.A.Sociology

CO1.Understandingthebasicconcept ofSociology,subjectmatter &importanceofSociologyand Origin and Development of sociology.

CO2.Understandingthe Knowledgeof humanSocietyand Sociology.

CO3.Studyingandclarifyingthebasic concepts insociologylikesocialinteraction,socialstructure, Society and culture etc.

CO4.Developunderstandingofthevarietyofideasanddebatesabout Indiaandsocialmovements in India and major reforms.

CO5.Gettingintroductionofmajorsocialproblems andcontemporarychallengesbeforethe problem ofThe Indiansociety.

COURSE OUTCOME

Semester,CourseCode,CourseNameandCourseOutcomesDEPARTMENT OF SOCIOLOGY

B.A(CourseOutcome)2023-24 Batch

Semester	Course Code	CourseName	CourseOutcomes (Cos)
I	DSC-1	Understanding Sociology	Attheendofthecoursethestudentshouldbeableto: • Understandthesociologyasastudyofsocial Interaction. • Understanding.ThesocialInstitutions.Andsocial Inequality. • Describetostudentswhatisexpectedofthem culture. • Learnformandmakechangestocurriculumto improve student learning... • Assesshowtheoutcomes foran entireprogram civilization... • Know in advance how they will be assessed. The cultural contact. • Planaappropriateteachingplanandseminar

I	**DSC-2**	**Changing Social institutionsinIndia**	Attheendofthecoursethestudentshouldbeableto: • Identifythenewformstakenbyinstitutionsof family and marriage. • Understand the role played by religion in modem world. • Sensitize the students to the conflicting norms of secularism and living by one's religious beliefs. • Appreciatetheroleofeducationandchallenges in making education accessible to all. • Recognizethesocialnatureofeconomyandwork. • Grasptheopportunitiesofferedbydemocracy and the threats it faces. • Undertakemicroresearchworkandcommunicate effectively
I	**OE -1**	**Indian society Continuityand change**	Attheendofthecoursethestudentshouldbeableto: • Analyse the nature and direction of change in India society , Basically from traditional to modernity of social institution. • Understand the Indicators of change and participation in democratic process. • Examine the changing conditions of socially excluded groups through movement for social justice. • To critically look at the two way street of globalization and it impacts on Indian Societyand communicate in clear terms • Communicatecriticalobservationwith clarity.
II	**DSC-3**	**Foundations of Sociologicaltheory**	Attheendofthecoursethestudentshouldbeableto: • Contextualizethesocialandintellectuallyback ground of classical sociologist • AppreciatetheContemporanietyofclassical sociological thought

			• AppreciatetheneedforthinkinginTheoretical terms and concepts • Demonstratebasicunderstandingoftheoryand Research
II	**DSC-4**	**SociologyofRural life Indians**	Attheendofthecoursethestudentshouldbeableto: • Understandthemythsandrealitiesofvillage India constructedby Western Scholars. • Understandthechangesinlandtenuresystems and consequences. • Appreciate the role of tradition social institutions andhowtheyhaverespondedtoforcesofchange. • Make an informed analysis of various development programmers and challenges encountered.
II	**OE -2**	**Socialdevelopment in India**	Attheendofthecoursethestudentshouldbeableto: • Distinguishbetweengrowthanddevelopment. • Appreciatetheimportanceofsocialcomponent of development • Appreciatetheneedforsustainableandinclusive human development • Recognizethenecessityforfocusonchanging social values to realize the full potential of growth
III	**DSC-5**	**Socialstratification and Mobility**	Attheendofthecoursethestudentshouldbeableto: • UnderstandthenatureandRoleofSocialStratificatio n • RecognizedifferenttypesofStratificationand Mobility • DescribedifferenttypesofsocialStratification and mobility • Critically understand and analyze different theories of social Stratification

III	**DSC-6**	**SociologyofUrban life in India**	Attheendofthecoursethestudentshouldbeableto: • DefinetheBasicconceptsofUrbanSociology • Identifyanddescribedifferenttypeofcity • Analyticallyunderstandtheoreticalissuesrelated to urban society • Criticallyevaluateurban policies.
III	**OE-3**	**SociologyofYouth**	Attheendofthecoursethestudentshouldbeableto: • Recognize and explain how sociologists conceptualizeandstudyyouthandyouthhood • Understandhowyouthevolveinthecontextof social , Economic and cultural settings • Understandconcernsandproblemsof youth.
IV	**DSC-7**	**Sociology of marginalizedgroups**	Attheendofthecoursethestudentshouldbeableto: • Knowledgeofmarginalizationandmarginalized groups in India • UnderstandtheimpactofPowerlessnessinSocial Life • Abilitytoparticipatedandcriticallyviewefforts undertaken to address inequalities.
IV	**DSC-8**	**Populationand Society**	Attheendofthecoursethestudentshouldbeableto: • Definethebasicconceptsofpopulationstudies • Understandthedynamicofpopulationfrom sociological perspectives. • UnderstandproblemsaroundIndia'sPopulation • Criticallyanalyzepopulationpoliciesof India
IV	**OE 4.2**	**SociologyofFood culture**	Attheendofthecoursethestudentshouldbeableto: • Appreciatethecomplexrelationsbetweenfood, individual and society • Understandtheevolutionoffoodproductionand consumption from household to industry

			• Criticallyunderstandtherelationshipbetween food and risk society
V	**DSC-9**	**Social Entrepreneurship**	Attheendofthecoursethestudentshouldbeableto: • Understandthescopeandneedforsocial entrepreneurship • Planandimplementsocially innovative ideas • Equippedtostarttheirownsocial entrepreneurshipornonforprofit • Organization
V	**DSC-10**	**SocietyandTribes**	Attheendofthecoursethestudentshouldbeableto: • Understandandappreciatethesocial organisation among the tribals. • Assesstheimpactofsocialchangesontribal Social life. • Handlemicroresearchworkand communicate effectively.
V	**DSC-11**	**Statisticsin Sociological Research**	• Usetheappropriateresearch method. • Usetheappropriatestatisticaltechniques. • Summarisedata,examinerelationships among variables.
VI	**DSC-12**	**Sociological Perspectives**	Attheendofthecoursethestudentshouldbeableto: 1. AppreciatethesignificanceofmajorSociological Theories. 2. Abletousefundamentaltheoreticalcategories. 3. Understandthedifferentnuancesofconceptsand Terms.
VI	**DSC-13**	**Sociologyof Health**	Attheendofthecoursethestudentshouldbeableto: 1. Appreciatethesignificantrelationshipbetween society and culture

			2. Distinguishbetweenhealth,wellbeingillnessand disease 3. Critiquetheroleofmedicaldoctors,paramedics, pharmaceuticalindustryand social 4. Institutionsinmaintainingandpromotinghealth.
VI	**DSC-14**	**Society in Karnataka**	Attheendofthecoursethestudentshouldbeableto: 1Acquaintandappreciatetheculturalitemsof Karnataka 2. Critiquethe socialchangesoccurringin Karnataka 3. UsefulnessofSociologicalstudyinthe contemporary society TV

Society : 1907
ನೂತನ ವಿದ್ಯಾಲಯ ಸಂಸ್ಥೆಯ
ನೂ.ವಿ.ಕಲಾ.
ಶ್ರೀ ಕನ್ಹಯ್ಯಲಾಲ ಮಾಲು ವಿಜ್ಞಾನ ಹಾಗೂ
ಡಾ.ಪಾಂಡುರಂಗರಾವ ಪತ್ತಿ ವಾಣಿಜ್ಯ ಪದವಿ ಮಹಾವಿದ್ಯಾಲಯ
ಕಲಬುರಗಿ – 585103 (ಕರ್ನಾಟಕ)

N.V.Society's College : 1979
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Kalaburagi - 585 103 (Karnataka)

Mobile : 9611266489 - email : principal_nvdc@nutanvidyalaya.org - Website : www.nutanvidyalaya.org

PROGRAM OUT COME

(B.Sc With one of the subject Chemistry)
At the end of UG program, students will be able to

PO1: Identify and analyze current issues and trends in higher education and come-up with intellectual, organizational, Critical thinking, personal ideas and decisions from different perspectives.

PO2: To give need based education in Science of the highest quality at the Undergraduate level.

PO3:To communicate clearly and effectively using the professional standards of their fields.

PO4: To perform experiments and interpret the results of Observation.

PO5: To provide an intellectually stimulating environment to develop skills and enthusiasms of student

PO6: To impart skills required to Gather information from Resources and use them.

PO7: To gain knowledge in field of research and development

PO8: To engage in independent and life-long learning with socio-technological changes.

UG Program

Program Specific Outcome (PSO):

Upon completion of the B.Sc. Degree (with Chemistry), the students would be able:

PSO1: To have a firm foundation in the fundamentals/concepts/theories and its applications in various branches of chemistry.

PSO2: To explain/compare the various aspects and present the concepts of chemistry effectively.

PSO3: To understand the structure and properties of atoms/molecules/compounds and characteristics/ mechanisms of chemical reactions.

PSO4: To analyze problems and apply the principles/concepts in finding their solutions.

PSO5: To acquaint with safety measures in laboratory and develop skills in proper handling of chemicals and apparatus/instruments.

PSO6: To carry out experiments, record the observations and present the inference/results.

B.Sc. I Sem DSC-1 Analytical and organic chemistry-1

After studying this course, students would be able:

CO-1: To have knowledge of basics of Anaytical chemistry

CO-2: To understand about Titrations .

CO-3: To explain about how titrimetric analysis can be done

CO-4: To gain insight into basics of organic chemistry

CO-5: To describe the properties organic compounds

CO-6: To understand electronic displacement effects, reactive intermediates

CO7: To Basics of stereochemistry and chemistry of Simple aliphatic hydrocarbons.

DSC-1 Analytical and organic chemistry- Practicals

After studying this course, students would be able:

1. Practical knowledge of titrations

2. Also synthesis of some organic compounds i the laboratory

OE-1 Chemistry in daily life

After studying this course, students would be able:

CO-1 To get knowledge of composition of milk, coffee and other bewerages.

CO-2 Understand adulterants in foods and oils.

CO-3 Get the knowledge of polymers and Plastic polymers.

B.Sc. II Sem: DSC-2 CHEM-1B

Inorganic Chemistry & Physical Chemistry-I

After studying this course students would be able:

CO-1: To have knowledge of atomic structure, wave mechanical concept of atom and electronicconfiguration of elements.

CO-2: To understand about periodic properties and their variations along periods and groups.

CO-3: To describe the properties of s, p block elements and noble gases

CO-4: To gain insight into the states of matter properties of gases, liquids and solids

OE-2 Molecules of life

After studying this course students would be able:

CO-1 Undestand the structure and properties of carbohydrates, proteins and nucleic acids.

CO 2- Get the knowledge bout Enzymes hormones Lipids and also how drugs metabolism occurs in our body.

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

DSC-3 Practical

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 an 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'

DSC-4: Inorganic and Physical Chemistry-Il

Course specific 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

PRACTICALS

Course outcomes:

At the end of the course student would be able to

1.Understand the chemical reactions involved in the detection of cations and anions.

2. Explain basic principles involved in classification of ions into groups in semi-micro qualitative analysis of salt mixture

3. Carryout the separation of cations into groups and understand the concept of common ion effect.

4. Understand the choice of group reagents used in the analysis.

5. Analyse a simple inorganic salt mixture containing two anions and cations

6. Use instruments like conductivity meter to obtain various physicochemical parameters.

7. Apply the theory about chemical kinetics and determine the velocity constants of various reactions.

8. Learn about the reaction mechanisms.

9. Interpret the behaviour of interfaces, the phenomena of physisorption and chemisorptions and their applications in chemical and industrial processes. 10. Learn to fit experimental data with theoretical models and interpret the data

OE-4 : Electrochemistry, Corrosion and Metallurgy

Course Outcomes

Upon completion of the course students will be able to

1. Understand the concept of conductance in electrolytic solutions, electrolysis and redox reactions involved in electrode reactions.

DSC-9: Inorganic Chemistry-III:

Course Outcomes :

At the end *of* the *course* students *will* be able *to*

1: Explain theory of coordination compounds, IUPAC system of nomenclature, calculation of EAN, Isomerism in coordination compounds and Valence bond theory

2: Understand Metal carbonyls: Types, nomenclature, preparation, and properties. 18 electron rule, Structure of mononuclear and binuclear carbonyls using VBT, Preparation and structure of methyl lithium, Zeiss salt and ferrocene and industrial applications of organometallic compounds.

3: Understand Crystal field theory, crystal field splitting, calculation and comparison of CFSE in octahedral, tetragonal, tetrahedral and square planar complexes.

4: Study the Stability of metal complexes (thermodynamic and kinetic), stepwise and overall stability constant and their relationship. Factors affecting the stability of metal complexes.

DSC-10 Course Title: Inorganic Chemistry Practical:

Course Outcomes : At the end of the course, students will be able to: 1: Perform the various steps involved in Gravimetric Analysis of metal ions.

1. Gravimetric Analysis:

1. Determination of barium as BaSO,.

2. Determination of iron as Fe,O,

3. Determination of aluminum as Al,O,

4. Determination of aluminum (III) using oxine.

5. Separation of Fe (11) and Ni (11) from the solution. Determination of Fe (11) gravimetrically and Ni(II) volumetrically.

6. Separation of Fe (II) and Ni (II) from the solution. Determination of Ni (11) gravimetrically and Fe(II) volumetrically.

2. To Learn the skills of Preparation of Coordination complexes

DSC-11 Course Title: Organic Chemistry (Theory): III

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

1: Study aromaticity of 5-membered and six member rings containing one hetero atom, synthesis of pyrrole, furan, pyridine, mechanism of electrophilic substitution reactions of furan, pyrrole and pyridine. Indole, quinoline and isoquinoline.

2: Describe constitution of hygrine, coniine and nicotine. Classification and biological significance, source and structure of Vitamin A, Vit-B1, B2, B6, K1 and C and functions and diseases by the deficiency of hormones

3: Learn the structure and constitution of Carbohydrates, Ring Size determination and properties, Structures of Disccharides and polysaccharides and Biological importance.

4: Study the classification of amino acids, stereochemistry of amino acids. Zwitter ion and explanation to isoelectric point, Synthesis of amino acids and diptides, biological importance, primary, secondary structure of proteins (a-helical, ß-sheet), classification, isoprene rule, special isoprene rule constitution and synthesis of citral and a-terpinol.

DSC-12 Practical: Inorganic chemistry

Course Outcomes : At the end of the course, students will be able to: 1: Perform the various steps involved in Gravimetric Analysis of metal ions.

1. Gravimetric Analysis:

1. Determination of barium as BaSO,.

2. Determination of iron as Fe,O,

3. Determination of aluminum as Al,O,

4. Determination of aluminum (III) using oxine.

5. Separation of Fe (11) and Ni (11) from the solution. Determination of Fe (11) gravimetrically and Ni (II) volumetrically.

6. Separation of Fe (II) and Ni (II) from the solution. Determination of Ni (11) gravimetrically and Fe(II) volumetrically.

2. To Learn the skills of Preparation of Coordination complexes

DSC-13 Course Title: Physical Chemistry (Theory): III

Course Outcomes : At the end of the course students will be able to:

1: Explain the ionization of electrolyte, migration and transport number of ions and its determinations. Enable to explain the conductivity of ions, variation with dilution, differentiating specific, equivalent and molar conductivity. Describe the application of conductivity measurement for concentration, dissociation of weak electrolyte.

2: Explain the degree of dissociation for strong and weak electrolytes and their conductivity with concentrated and dilute solution.

3: Aware about the importance of energy sources, alternative energy from various sources. Explain about the working principle and applications of different batteries and fuel cells. Distinguish between reversible and irreversible cells. Concept of EMF and its measurement. Describing the electrode potential, types, applications for pH and EMF determinations.

6: Explain the spectral distribution of block body radiation, Plank's radiation law, Photoelectric effect, Compton effect.

7: Describing Schrödinger's wave equation, wave functions, Eigen function and Eigen values, normalization and orthogonality Interpretation of equations of motion, elementary wave motion and operators.

09: Derive expression of Solutions of Schrödinger equations of a free particle, particle in a box.
10: Explain the dimensions, degeneracy, reflection and penetration of a particle in a one dimensional box of semi-infinite barrier, a particle in a box of finite walls

DSC-14 Course Title: Physical Chemistry Practicals

Course Outcomes :

At the end of the course students will be able to:
1: Understand to apply the knowledge of conductivity, emf and absorbance to performing the experiments.

2: Acquire skills for handling analytical instruments like potentiometer, conducto meter, pH meter & colorimeter.

DSC-15 Course Title: SPECTROSCOPY (Theory)

Course Outcomes : At the end of the course, students will be able to:
1: To understand the basic concepts of Spectroscopy techniques.

2: Define spectroscopy and different regions of electromagnetic spectrum.Basics of UV/visible spectroscopy. Different kind of transitions that can take place within molecule

3: Explain the origin of IR spectrum. Describe different types of vibrational modes of simple molecules. Explain the principles of different types of IR instruments. Outline different applications of UV, IR.

4: Understand basic principles of PMR, molecular structure signals, interpretation of PMR

structure of simple organic molecules, principle, instrumentation, definitions of parent peak and base peak.

5: Application of Spectroscopy techniques for different applications.

DSC-16 Course Title: Analytical and Organic Chemistry Practicals

Course Outcomes :

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

1: Understand the types, theory, technique and applications of separation techniques like solvent extraction and chromatography, dyes and colors used in day-to-day life.

2: To understand to apply the knowledge of analytical Techniques for performing the Experiments

Society : 1907
ನೂತನ ವಿದ್ಯಾಲಯ ಸಂಸ್ಥೆಯ
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Accredited at 'A' Grade with 3.09 CGPA by NAAC

BA I SEM

DSC -1 POLITICAL HISTORY OF KARNATAKA (BCE-3 TO 10 CE) PART-1

Course Outcomes (COs):

At the end of the course the student should be able to:

1. Understand the continuity of Political developments and strategies.
2. Analysis the importance of causes for the rise of regional political dynasties.
3. Understand contextual necessities which influenced the era of political supremacy.
4. Understand and describe the contemporary political history.
5. Appreciate the confluence of diverse political elements.

DSC- 2 CULTURAL HERITAGE OF INDIA

Course Outcomes (COs):

At the end of the course the student should be able to:

1. Provide an insight about an extensive survey of heritage of India
2. Familiarize Indian history and culture
3. Expertise to analyze further development of culture of India
4. Analyze the factor responsible for origin and decline of culture
5. Provide the opportunity to understand the process of cultural development

BA II SEM

DSC-3 POLITICAL HISTORY OF KARNATAKA (C11-1799 AD)

Course Outcomes (COs):

At the end of the course the student should be able to:

1. Understand the rise and fall of Political dynasties in karnataka.
2. Familiarize with the patterns of administration.
3. Analyze the traditional values and ethos of political development.
4. Understand the rise and fall of regional variations.
5. Study the complexities involved in polity of the time.

DSC-4 CULTURAL HERITAGE OF KARNATAKA

Course Outcomes (COs):

At the end of the course the student should be able to:

1. Understand the concept of cultural heritage of Karnataka
2. Familiarize the factors which influenced in influencing culture and society

3. Study various cultural factors which influence the flow of culture
4. Analyze the factors responsible for formation of pluralistic society Understand the concept "Unity in diversity.

BA III SEM

DSC-5 POLITICAL HISTORY OF INDIA (FROM INDUS CULTURE TO 1206)

Course Outcomes (Cos):

At the end of the course the students should be able to:

1. Understand the culture and Political History of Indian region.
2. Analyses the importance of causes for backwardness of this region.
3. Understand political influence on the people and culture of this region.
4. Understand the political, Social, Religious and Cultural history of the region.
5. Appreciate the divergent cultural and communal harmony of this region.

DSC-6 HISTORY AND CULTURE OF KALYANA

Course Outcomes (COs):

At the end of the course the student should be able to:

1. Understand the concept of cultural heritage of Kalyana
2. Familiarize the factors which influenced in influencing culture and society
3. Study various cultural factors which influence the flow of culture
4. Analyze the factors responsible for formation of pluralistic society Understand the concept "Unity in diversity.

BA IV SEM

DSC-7 HISTORY OF MEDIEVAL INDIA

Course Outcomes (Cos):

At the end of the course the students should be able to:

1. Understand the Political History Medieval India (from 1206 to 1761). Analyze the importance of causes for backwardness of this region. Understand the influence of
2. Understand the political, Social, Religious and Cultural history of the region.
3. Appreciate the divergent cultural and communal harmony of this region.

DSC-8 CULTURAL HISTORY OF INDIA (FROM SARASWATI - INDUS CULTURE TO 1206 CE).

Course Outcomes (Cos):

At the end of the course the students should be able to:

1. Understand the History of Cultural History of India (From Saraswati - Indus Culture to 1206 CE). Analyse the importance of causes for backwardness of this region.

2. Understand the influence of History of Cultural History of India (From Saraswati - Indus Culture to 1206 CE).
3. Understand the political, Social, Religious and Cultural history of the region.
4. Appreciate the divergent cultural and communal harmony of this region.

BA-V SEM

DSC-9 HISTORY OF WESTERN CIVILISATION - (6BC-1200 AD)

Course Outcomes (Cos):

At the end of the Course the students shall -

1. Students will relate the History of Western civilization to that of other regions of the world.
2. Students will compare the evolution of intellectual, cultural and technological exchange of different regions.
3. Students will understand the diffusion of ideas and culture of western civilization.

DSC-11 HISTORY OF EUROPEAN 1789 TO 1945 AD

Course Outcomes (Cos):

After studying this course, students will be able to

1. Evaluate the contributions of great philosophers and leaders to the transformation of Society and economy of Europe.
2. To appreciate Europe of today this occupies a place of vital importance in world affairs**.**
3. To examine the impact of dictatorships on the events of Europe and the World.

DSC-12 CONTEMPORARY HISTORY OF INDIA FROM 1947-1990S

Course Outcomes (Cos):

After studying this course, students will be able to

1. Analyze the main theories and interpretations on Contemporary History of India from 1947-1990s
2. Analyze the dynamics and dimensions in the Contemporary History of India from 1947-1990s

BA VI SEM

DSC -13 HISTORY OF FREEDOM MOVEMENT AND UNIFICATION OF KARNATAKA

Course Outcomes (Cos):

1. To get familiarized with impact of the rebellion of 1857 on Karnataka

2. To get acquainted with National Movement in Karnataka
3. To know about Belgaum Congress Session
4. To understand about Origin and development of unification movement in Karnataka.
5. To know about Contributions of Various Kannada Organizations

DSC- 14 HISTORY OF INDIA. (CE1761-CE 1857)

Course Outcomes (Cos):

At the end of the course, the students shall –

1. Be in a position to understand the Dynamics of expansion, with special reference to Bengal, Mysore, Awadh, and Punjab.
2. Be familiar with Land revenue systems- Permanent, Ryotwari and Mahalwari systems, Commercialization of Agriculture- Consequences.
3. Be in a position to understand the Drain of Wealth-causes and consequences, Growth of modern industry.

DSC-15 History of United States of America - I (c.1776-

Course Outcomes (Cos):

1. Students will be able to interpret the political parties the role of judiciary in the making of the republic in USA.
2. They will understand the spirit of American revolution and its ideology.

N.V.Degree College Kalaburagi

DEPARTMENT OF BOTANY

Learning Outcomes based Curriculum Framework (LOCF)

2023-2024

For UndergraduateProgramme

ProgramLearningOutcomes

Thestudentgraduating with the DegreeB.ScwithBotany shouldbeableto acquire.

PO 1	Skill development for proper description using botanical terms, identification naming and classification of life forms especially plants and microbes.
PO 2	Acquisition of knowledge on structure, life cycle and life process that exist among plant and microbial diversity through certain model organism studies.
PO 3	Understanding of various interaction that exist among plants and microbes, to develop the curiosity on a dynamic nature.
PO 4	Understanding the major elements of variation that exist in the living world through comparative morphological and anatomical study.
PO 5	Ability to explain the diversity and evolution based on empiricalevidences in morphology,anatomy,embryology,biochemistry, molecular biology and the life history.
PO 6	Skill development of the collection, preservation and recording of information after observation analysis, from simple illustration to molecular data base developmental information
PO 7	Make aware of the scientific and technological information and communication. Biotechnology and Molecular biology for further learning and research in all branches of botany
PO 8	Internalization of the concept of conservation and evolution through the channel of spirit Of inquiry spirit.
PO 9	To enable the graduates to prepare for national as well as international level competitive examination like UGC-CSIR, UPSC, and KPSCetc.
PO 10	To enable the students for practicing the best teaching pedagogy as a biology teacher including the latest digital modules.
PO 11	The graduate should be knowledgeable and competent enough to appropriately deliver on aspects of global importance like climate change, SDGs, green technology etc. at the right opportunity.
PO 12	The graduate should be able to demonstrate sufficient prophecy in the hands on experimental techniques for their area of specialization within biology during research in professional carrier.

Teaching Learning Outcomes

The learning outcomes based course curriculum framework of botany is designed to persuade the subject specific knowledge as well as relevant understanding of the course. The academic and professional skills required for botany-based professions and jobs are also offered by same course in an extraordinary

Learning outcomes based curriculum framework for B Sc. Botany

There are 6 courses. All courses are compulsory. These courses have the following Outcomes (CO)
Semester I (N E P)
COURSE DSC 1B (THEORY): MICROBIAL DIVERSITY AND TECHNOLOGY
Learning out comes (CO)
On completion of this course, the student will be able to:

CO 1	Students will be able to study the microbes in laboratory and understand their importance.
CO 2	The students will understand the history and methodology involved in microbial studies.
CO 3	Students will understand the structure of viruses and bacteria and their role in agriculture and industry.
CO 4	The students will understand the structure and reproduction in fungi and they will be able to use the fungi in industries for valuable products.
CO 5	The students will be able to identify different plant diseases and apply suitable control measures.

Semester I(N E P)

OPEN ELECTIVE COURSE O. E 1.1B (THEORY): PLANT AND HUMAN WELFARE

Learning out comes (CO)

On completion of this course, the student will be able to:

CO 1	To make the students familiar with economic importance of diverse plants that offer resources to human life
CO 2	To make the students known about the plants used as food ,medicinal value and also source of different economic value
CO 3	To generate interest amongst the students on plants importance in day today life, conservation ecosystem and sustainability

Semester I (N E P)

OPEN ELECTIVE COURSE O. E 1.2B (THEORY): BOTANY FOR THE BEGINERS

Learning out comes (CO)

On completion of this course, the student will be able to:

CO 1	To make the students familiar with importance of botany: plants as a natural resource
CO 2	To make the students known about the plants used as food, medicinal value and economic value for sustainable development
CO 3	To generate interest amongst the students on plants importance in day today life, ecosystem restoration

Semester I (N E P)

OPEN ELECTIVE COURSE O. E 1.3B (THEORY): MUSHROOM CULTIVATION

Learning out comes (CO)

On completion of this course, the student will be able to:

CO 1	To make the students familiar with mushroom cultivation for commercial exploitation
CO 2	To make the students known about the Agaricus (mashroom)used as food ,medicine and economic value for sustainable development
CO 3	To generate interest amongst the students to know the importancemushroom in day today life.

Semester II (N E P)

COURSE DSC 2B (THEORY): DIVERSITY OF NON-FLOWERING PLANTS

Learning out comes (CO)

On completion of this course, the student will be able to:

CO 1	Demonstrate and understanding of archegoniatae, Bryophytes, Pteridophytes and Gymnosperms.
CO 2	Develop critical understanding on morphology, anatomy, lifecycle and reproduction of Bryophytes, Pteridophytes and Gymnosperms Understanding of plant evolution and their transition to land habitat.
CO 3	Demonstrate proficiency in the experimental techniques and methods of appropriate analysis of Bryophytes, Pteridophytes, and Gymnosperm.
CO 4	Increase the awareness and appreciation of human friendly, algae Bryophytes, Pteridophytes, and Gymnosperm and their economic importance.

Semester II (N E P)

OPEN ELECTIVE COURSE O. E 2.1B (THEORY): PLANT PROPOGATION, NURSERY MANAGEMENT AND GARDENING

Learning out comes (CO)

On completion of this course, the student will be able to:

CO 1	To gain knowledge of gardening, cultivation ,multiplication, raising of seedlings of garden plants
CO 2	To get knowledge of new and modern techniques of plant propagation
CO 3	To develop interest in nature and plants.

Semester II (N E P)

OPEN ELECTIVE COURSE O. E 2.2B (THEORY): BIO-FUEL

Learning out comes (CO)

On completion of this course, the student will be able to:

CO 1	To make the students familiar with bio-fuel plant species cultivation of commercial exploitation
CO 2	To make the students known about the bio-fuel used in automobiles and industries and solving fuel problem in future.
CO 3	To generate interest amongst the students to know the importance bio-fuel day today life and economic wellbeing.

Semester II (N E P)

OPEN ELECTIVE COURSE O. E 2.3B (THEORY): BIOFERTILISERS

Learning out comes (CO)

On completion of this course, the student will be able to:

CO 1	To make the students familiar with bio-fertilizer plant species cultivation of commercial exploitation
CO 2	To make the students known about the bio-fertilizers used in agriculture farming and industries and solving problem erupted by synthetic fertilizers.
CO 3	To generate interest amongst the students to know the importance bio-fertilizers day today agricultural practices and economic wellbeing.

Semester III (N E P)

COURSE DSC 3B (THEORY): PLANT ANATOMY AND DEVELOPMENTAL BIOLOGY

Learning out comes (CO)

On completion of this course, the student will be able to:

CO 1	Develop an understanding of concepts and fundamentals of plant anatomy.
CO 2	Examine the internal anatomy of plant systems and organs.
CO 3	Develop critical understanding on the evolution of concept of organization of shoot and root apex.
CO 4	Analyze the composition of different parts of plants and their relationships.
CO 5	Differentiate anabolic and catabolic pathways of metabolism, Recognize the importance of Carbon assimilation in photorespiration, Explain the ATP-Synthesis, Interpret the process of Biological nitrogen fixation in Plants.

Semester IV (N E P)
COURSE DSC 4B (THEORY): ECOLOGY AND CONSERVATION BIOLOGY
Learning out comes (CO)
On completion of this course, the student will be able to:

CO 1	The concepts of basic theories and principles of ecology
CO 2	Critical understanding of the concepts like population dynamics, community ,structure and abundance species interactions, energy flow, productivity, succession, biological invasions etc.
CO 3	Critical understanding of the human influence on environment.
CO 4	The practical aspects based on research /field trainings.
CO 5	Understand core concepts of biotic and abiotic and classify the soils on the basis of physical, chemical and biological components
CO 6	Evaluate energy sources of ecological system assess the adaptation of plants in relation to light, temperature, water, wind and fire.

Semester V (N E P)
COURSE DSC 5.1B (THEORY): PLANT MORPHOLOGY AND TAXONOMY
Learning out comes (CO)
On completion of this course, the student will be able to:

CO 1	Understanding the main features Angiosperm evolution.
CO 2	Ability to identify,classify and described a plant in scientific terms, there by identification of plants using dichotomous keys, skill development in identification flowering plants.
CO 3	Interpret the rules of ICN in botanical nomenclature.
CO 4	Classify plants systematic and recognize the importance of herbarium Evaluate the important herbaria and botanical gardens.
CO 5	Recognition of locally available Angiosperm families and plants and economically important plants appreciation of human activities in conservation of useful plants from the past to the present.

Semester V (N E P)

COURSE DSC 5.2B (THEORY): GENETIC AND PLANT BREEDING

Learning out comes (CO)

On completion of this course, the student will be able to:

CO 1	Understanding the basics of genetics and plant breeding.
CO 2	Ability to identify, calculate and describe crossing over allelic generations frequencies of recombination.
CO 3	Interpret their result of matting and pollinations.
CO 4	Classify plant pollination methods.
CO 5	Recognition of modes of inheritance of traits /phenotypes and phenotypes-genotype correlation.

Semester VI (N E P)

COURSE DSC 6.1B (THEORY): CELL BIOLOGY

Learning out comes (CO)

On completion of this course, the student will be able to:

CO 1	Understanding of cell metabolism,chemical composition and functional organization of organelles.
CO 2	Contemporary approachesin modern cell and molecular biology.
CO 3	To study the organization of cell,cell organelles and biochemical (i.e.Proteins, carbohydrate,lipid and nucleic acid).
CO 4	To gain the knowledge on the activities in which the diverse macromolecules and microscopic structures inhibiting the cellular world of life are engaged.
CO 5	To understand various metabolic processes such as respiration photosynthesis etc.which are important for life.

Semester VI (N E P)

COURSE DSC 6.2B (THEORY): PLANT PHYSIOLOGY AND BIOCHEMISTRY

Learning out comes (CO)

On completion of this course, the student will be able to:

CO 1	Importance of water and the mechanism of transport.
CO 2	To understand biosynthesis and break down of biomolecule.
CO 3	Role of plant hormones in plant development and about secondary metabolites.
CO 4	Preliminary understanding of the basic functions and metabolism in a plant body.
CO 5	To understand the importance of nutrient in plant metabolism and crop yield.

COURSE ARTICULATION MATRIX: MAPPING OF COURSE OUTCOMES (COs) WITH PROGRAMM OUTCOMES (POs 1-12)

SEMINAR	COURSE OUTCOMES (COs) / PROGRAMM OUTCOMES POs	1	2	3	4	5	6	7	8	9	10	11	12
1	A-1	X	X	X			X			X			X
2	A-2	X	X	X			X		X	X			X
3	A-3		X	X	X	X		X		X			X
4	A-4			X		X	X	X	X	X	X	X	X
5	A-5, A6	X	X	X	X	X		X	X	X	X	X	X
6	A-7, A8					X		X		X		X	X
7	A-9, A10, A11					X	X	X		X	X	X	X
8	A-12, A13, A14					X	X	X	X	X	X	X	X

Course articulation matrix course outcomes of course with corresponding programme outcomes whose attainment is attempted in the course Matrix X in the intersection cell if course outcomes address a particular program outcome.

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B.Sc MATHEMATICS

SEMESTER –I

MATDSCT 1.1 : Algebra-I and Calculus-I

Course Learning Outcomes: This course will enable the students to

CO-1: Learn to solve system of linear equations.

CO-2: solve the system of homogeneous and non homogeneous linear of m equations in n variables by using concept of rank of matrix, finding eigen values and eigen vectors.

CO-3: Sketch curves in cartesian , polar and pedal equations.

CO-4: Students will be familier with the techniques of integration and differentiation function with real variables.

Open Elective Course

MATOET 1.1 : Mathematics-I

Course Learning Outcomes: This course will enable the students to

CO-1: Learn to solve system of linear equations.

CO-2: solve the system of homogeneous and non homogeneous linear of m equations in n variables by using concept of rank of matrix, finding eigen values and eigen vectors.

CO-3: Identify and apply the intermediate value theorem and L'Hospital rule.

CO-4: Learn to trace some standard curves.

SEMESTER-II

MATDSCT 2.1: Algebra-II and Calculus-II

Course Learning Outcomes: This Course will enable the students to

CO-1: Recognise the mathematical objects called Groups.

CO-2: Explain the significance of the notions of cosets ,normal subgroups and factor groups.

CO-3: understand the concepts of differentiation and fundamental theorems in differentiation and various rules.

CO-4: Find the extreme values of functions of two variables.

Open Elective Course
MATOET 2.1(A) : Mathematics-II

Course Learning Outcomes: This Course will enable the students to

CO-1: Recognise the mathematical objects called Groups.

CO-2: Explain the significance of the notions of cosets ,normal subgroups and factor groups.

CO-3: understand the concepts of differentiation and fundamental theorems in differentiation and various rules.

CO-4: Find the extreme values of functions of two variables.

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SEMESTER – III

MATDSCT 3.1: Ordinary Differential Equations and Real Analysis –I

Course Learning Outcomes: This course will enable the students to:

CO-1: Solve first-order non-linear differential equations and linear differential equations.

CO-2:To model problems in nature using Ordinary Differential Equations.

CO-3:Formulate differential equations for various mathematical models

CO-4:Apply these techniques to solve and analyze various mathematical models.

CO-5:Understand the fundamental properties of the real numbers that lead to define sequence andseries, the formal development of real analysis.

CO-6:Learn the concept of Convergence and Divergence of a sequence.

SEMESTER – IV

MATDSCT 4.1: Partial Differential Equations and Integral Transforms

Course Learning Outcomes: This course will enable the students to

CO-1: Solve the Partial Differential Equations of the first order and second order

CO-2: Formulate, classify and transform partial differential equations into canonical form.

CO-3: Solve linear and non-linear partial differential equations using various methods; and applythese methods to solving some physical problems.

CO-4: Able to take more courses on wave equation, heat equation, and Laplace equation.

CO-5: Solve PDE by Laplace Transforms and Fourier Transforms

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Name of the Degree Program : B.A./B.Sc.
Discipline Course : Mathematics

Starting Year of Implementation : 2023-24 (V & VI Semesters)

Programme Outcomes (PO): By the end of the program the students will be able to :

PO 1	**Disciplinary Knowledge** : Bachelor degree in Mathematics is the culmination of in-depth knowledge of Algebra, Calculus, Geometry, differential equations and several other branches of pure and applied mathematics. This also leads to study the related areas such as computer science and other allied subjects
PO 2	**Communication Skills**: Ability to communicate various mathematical concepts effectively using examples and their geometrical visualization. The skills and knowledge gained in this program will lead to the proficiency in analytical reasoning which can be used for modeling and solving of real life problems.
PO 3	**Critical thinking and analytical reasoning:** The students undergoing this programme acquire ability of critical thinking and logical reasoning and capability of recognizing and distinguishing the various aspects of real life problems.
PO 4	**Problem Solving** : The Mathematical knowledge gained by the students through this programme develop an ability to analyze the problems, identify and define appropriate computing requirements for its solutions. This programme enhances students overall development and also equip them with mathematical modelling ability, problem solving skills.
PO 5	**Research related skills:** The completing this programme develop the capability of inquiring about appropriate questions relating to the Mathematical concepts in different areas of Mathematics.
PO 6	**Information/digital Literacy**: The completion of this programme will enable the learner to use appropriate software's to solve system of algebraic equation and differential equations.
PO 7	**Self – directed learning**: The student completing this program will develop an ability of working independently and to make an in-depth study of various notions of Mathematics.
PO 8	**Moral and ethical awareness/reasoning:** : The student completing this program will develop an ability to identify unethical behavior such as fabrication, falsification or misinterpretation of data and adopting objectives, unbiased and truthful actions in all aspects of life in general and Mathematical studies in particular.

SEMESTER – V

MATDSCT 5.1 :Real Analysis-II and Complex Analysis

Course Learning Outcomes:

The overall expectation from this course is that the student builds a basic understanding on Riemann integration and elementary complex analysis. The broader course outcomes are listed as follow. At the end of this course, the student will be able to:

CO-1: Carry out certain computations such as computing upper and lower Riemann sums as well integrals

CO-2: Describe various criteria for Integrability of functions.

CO-3: Exhibit certain properties of mathematical objects such as integrable functions, analytic functions, harmonic functions and so on.

CO-4: Prove some statements related to Riemann integration as well as in complex analysis

CO-5: Carry out the existing algorithms to construct mathematical structures such as analytic functions

CO-6: Applies the gained knowledge to solve various other problems.

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MATDSCT5.2: Vector Calculus and Analytical Geometry

Course Learning Outcomes: This course will enable the students to

CO-1: Get introduced to the fundamentals of vector differential and integral calculus.

CO-2: Get familiar with the various differential operators and their properties.

CO-3: Get acquainted with the various techniques of vector integration.

CO-4: Learn the applications of vector calculus.

CO-5: Recollect the fundamentals of Analytical Geometry in 3D.

CO-6: Interpret the geometrical aspects of planes and lines in 3D.

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SEMESTER – VI

MATDSC 6.1: Linear Algebra

Course Learning Outcomes:

The overall expectation from this course is that the student will build a basic understanding in few areas of linear algebra such as vector spaces, linear transformations and inner product spaces. Some broader course outcomes are listed as follows. At the end of this course, the student will be able to

CO-1: Understand the concepts of Vector spaces, subspaces, bases dimension and their properties.

CO-2: Become familiar with the concepts Eigen values and eigen vectors, minimal polynomials, linear transformations etc.

CO-3: Learn properties of inner product spaces and determine orthogonality in inner product spaces.

CO-4: Prove various statements in the context of vectors spaces.

CO-5: Realise importance of adjoint of a linear transformation and its canonical form.

MATDSCT 6.2: Numerical Analysis

Course Learning Outcomes:

The overall expectation from this course is that the student will get equipped with certain numerical techniques for various computations such as finding roots, finding the integrals and derivatives, and finding solutions to differential equations. Some broader course outcomes are listed as follows. At the end of this course, the student will be able to

CO-1: Describe various operators arising in numerical analysis such as difference operators, shift operators and so on.

CO-2: Articulate the rationale behind various techniques of numerical analysis such as in finding roots, integrals and derivatives.

CO-3: Reproduce the existing algorithms for various tasks as mentioned previously in numerical analysis.

CO-4: Apply the rules of calculus and other areas of mathematics in justifying the techniques of numerical analysis.

MATDSINT 6.1: Internship/Project Work

Course Learning Outcomes:

On the completion of this course, students will be able

CO-1:Apply the acquired Mathematical knowledge to study, interpret and solve some of the real life problems.

CO-2: Analyze the outcomes of the study both qualitatively and quantitatively.

CO-3: Apply the programming skills to solve the problems.

CO-4: Write the Reports in the structured format.

CO-5: Make presentations by using PPT's.

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Department of Commerce
Name of the Program: Bachelor of Commerce (B.Com.)
Programme outcomes (as per NEP syllabus)
For the year 2023-24

PO NO.	Upon completion of B.Com Degree Programme the graduates will be able to:
PO-1	Understand the role of business and its implications on society
PO-2	Understand the conceptual knowledge of accounting and acquire skills of maintaining accounts
PO-3	Acquire entrepreneurial, legal and managerial skills
PO-4	Identify the avenues of marketing and banking both traditional and modern
PO-5	Develop the skills and techniques of communication to be successful in business and personal life
PO-6	Improve competency to make eligible and employable in the job market
PO-7	recognize different value systems and ethics, understand the moral dimensions and accept responsibility

Programme Specific Outcomes (PSOs)

PSO No.	Upon completion of B.Com Degree Programme the graduates will be able to	PO Number
PSO 1	apply different concepts in starting and managing business and realize the social responsibilities, social realities and inculcate an essential value system	PO 1
PSO 2	solve problems related to employer, employee, investors and consumers with legal protection	PO 3
PSO 3	prepare financial statements of business using accounting principles, concepts ,conventions and provisions	PO 7
PSO 4	develop necessary professional knowledge and skills in finance and taxation	PO 4
PSO 5	implement traditional and modern strategies and practices of costing, banking, economics, marketing, management, auditing and taxation	PO 2
PSO 6	practice different techniques of communication and apply it in business and profession	PO 5
PSO 7	use mathematical and statistical tools in academics, business and research	PO 2
PSO 8	develop competency in students to make them employable in the global market	PO 6
PSO 9	develop the skills of students to equip themselves as successful entrepreneurs	PO 3
PSO 10	enhance practical knowledge to prepare various accounts in order to meet the national requirements	PO 6

Course Outcome (COs): On successful completion of the course, the Students will be able to

Semester I
Course code B.Com 1.1

Name of the course: Financial Accounting

CO - 1	Understand the theoretical framework of accounting as well accounting standards.
CO - 2	Demonstrate the preparation of financial statement of manufacturing and non-manufacturing entities of sole proprietors.
CO - 3	Exercise the accounting treatments for consignment transactions & events in the books of consignor and consignee.
CO - 4	Understand the accounting treatment for royalty transactions & articulate the Royalty agreements.
CO - 5	Outline the emerging trends in the field of accounting.

Semester I
Course code B.Com 1.2

Name of the course: Management Principles and Applications

CO - 1	Understand and identify the different theories of organisations, which are relevant in the present context.
CO - 2	Design and demonstrate the strategic plan for the attainment of organisational goals.
CO - 3	Differentiate the different types of authority and chose the best one in the present context.
CO - 4	Compare and chose the different types of motivation factors and leadership styles.
CO - 5	Choose the best controlling techniques for better productivity of an organisation.

Semester I
Course code B.Com 1.3

Name of the course: Principles of Marketing

CO - 1	Understand the basic concepts of marketing and asses the marketing environment.
CO - 2	Analyse the consumer behaviour in the present scenario and marketing segmentation.
CO - 3	Discover the new product development & identify the factors affecting the price of a product in the present context.
CO - 4	Judge the impact of promotional techniques on the customers & importance of channels of distribution.
CO - 5	Outline the recent developments in the field of marketing.

Semester	II
Course code	B.Com 2.1

Name of the course: Advanced Financial Accounting

CO - 1	Understand & compute the amount of claims for loss of stock & loss of Profit.
CO - 2	Learn various methods of accounting for hire purchase transactions.
CO - 3	Deal with the inter-departmental transfers and their accounting treatment.
CO - 4	Demonstrate various accounting treatments for dependent & independent branches.
CO - 5	Prepare financial statements from incomplete records.

Semester	II
Course code	B.Com 2.2

Name of the course: Business Mathematics

CO - 1	Understand the number system and indices applications in solving basic business problems.
CO - 2	Apply concept of commercial arithmetic concepts to solve business problems.
CO - 3	Make use of theory of equation in solving the business problems in the present context.
CO - 4	Understand and apply the concepts of Set Theory, Permutations & Combinations and Matrices solving business problems.
CO - 5	Apply measurement of solids in solving simple business problems.

Semester	II
Course code	B.Com 2.2

Name of the course: Corporate Administration

CO - 1	Understand the framework of Companies Act of 2013 and different kind of companies.
CO - 2	Identify the stages and documents involved in the formation of companies in India.
CO - 3	Analyse the role, responsibilities and functions of Key management Personnel in Corporate Administration.
CO - 4	Examine the procedure involved in the corporate meeting and the role of company secretary in the meeting.
CO - 5	Evaluate the role of liquidator in the process of winding up of the company.

Semester	II
Course code	B.Com 2.3

Name of the course: Law and Practice of Banking

CO - 1	Summarize the relationship between Banker & customer and different types of functions of banker.
CO - 2	Analyse the role, functions and duties of paying and collecting banker.
CO - 3	Make use of the procedure involved in opening and operating different accounts.
CO - 4	Examine the different types of negotiable instrument & their relevance in the present context.
CO - 5	Estimate possible developments in the banking sector in the upcoming days.

Semester III
Course code B.Com 3.1

Name of the course: Corporate Accounting

CO - 1	Understand the treatment of underwriting of shares.
CO - 2	Comprehend the computation of profit prior to incorporation.
CO - 3	Know the valuation of intangible assets.
CO - 4	Know the valuation of shares.
CO - 5	Prepare the company financial statements as per IND AS.

Semester III
Course code B.Com 3.2

Name of the course: Business Statistics

CO - 1	Familiarise statistical data and descriptive statistics for business decision-making.
CO - 2	Comprehend the measures of variation and measures of skewness.
CO - 3	Demonstrate the use of probability and probability distributions in business.
CO - 4	Validate the application of correlation and regression in business decisions.
CO - 5	Show the use of index numbers in business.

Semester III
Course code B.Com 3.3

Name of the course: Cost Accounting

CO - 1	Understand concepts of cost accounting & Methods of Costing.
CO - 2	Outline the Procedure and documentations involved in procurement of materials & Compute the valuation of Inventory.
CO - 3	Make use of payroll procedures & compute idle and over time.
CO - 4	Discuss the methods of allocation, apportionment & absorption of overheads.
CO - 5	Prepare cost sheet & discuss cost allocation under ABC.

Semester IV
Course code B.Com 4.1

Name of the course: Advanced Corporate Accounting

CO - 1	Know the procedure of redemption of preference shares.
CO - 2	Comprehend the different methods of Mergers and Acquisition of Companies
CO - 3	Understand the process of internal reconstruction.
CO - 4	Prepare the liquidators final statement of accounts.
CO - 5	Understand the recent developments in accounting.

Semester	IV
Course code	B.Com 4.2

Name of the course: Costing Methods and Techniques

CO - 1	Distinguish Traditional costing method and strategic cost management tool with development in cost management.
CO - 2	Apply appropriate decision making techniques to a variety of costing problems.
CO - 3	Analyse the processes involved in standard costing.
CO - 4	Familiarize with the Activity Based Costing and its applications.
CO - 5	Acquaint cost of quality and TQM parameters.

Semester	IV
Course code	B.Com 4.3

Name of the course: Business Regulatory Framework

CO - 1	Recognize the laws relating to Contracts and its application in business activities.
CO - 2	Acquire knowledge on bailment and indemnification of goods in a contractual relationship and role of agents.
CO - 3	Comprehend the rules for Sale of Goods and rights and duties of a buyer and a seller.
CO - 4	Distinguish the partnership laws, its applicability and relevance.
CO - 5	Rephrase the cyber law in the present context.

Semester	V
Course code	B.Com 5.1

Name of the course: Financial Management

CO - 1	Understand the role of financial managers effectively in an organization.
CO - 2	Apply the compounding & discounting techniques for time value of money.
CO - 3	Take investment decision with appropriate capital budgeting techniques for investment proposals.
CO - 4	Understand the factors influencing the capital structure of an organization.
CO - 5	Estimate the working capital requirement for the smooth running of the business

Semester	V
Course code	B.Com 5.2

Name of the course: Income Tax Law and Practice – I

CO - 1	Comprehend the procedure for computation of Total Income and tax liability of an individual.
CO - 2	Understand the provisions for determining the residential status of an Individual.
CO - 3	Comprehend the meaning of Salary, Perquisites, Profit in lieu of salary, allowances, and various retirement benefits.
CO - 4	Compute the income house property for different categories of house property.
CO - 5	Comprehend TDS & advances tax Ruling and identify the various deductions under section 80.

Semester V
Course code B.Com 5.3

Name of the course: Principles and Practice of Auditing

CO - 1	Understand the conceptual framework of auditing.
CO - 2	Examine the risk assessment and internal control in auditing
CO - 3	Comprehend the relevance of IT in audit and audit sampling for testing.
CO - 4	Examine the company audit and the procedure involved in the audit of different entities.
CO - 5	Gain knowledge on different aspect of audit reporting and conceptual framework applicable on professional accountants.

Semester V
Course code B.Com A1

Name of the course: Indian Accounting Standards-1

CO - 1	Understand the need and benefits of accounting standards.
CO - 2	Prepare the financial statements as Indian Accounting standards.
CO - 3	Comprehend the requirements of Indian Accounting Standards for recognition, measurement and disclosures of certain items appear in financial statements
CO - 4	Understand the Accounting Standards for Items that do not Appear in Financial Statements

Semester V
Course code B.Com F1

Name of the course: Financial Institutions and Markets

CO - 1	Understand the structure of Indian financial system and its constituents.
CO - 2	Outline the role of capital and money market in economic development.
CO - 3	Comprehend primary and secondary market and its relevance in capital formation.
CO - 4	Appraise the role played by banking and development financial institutions in economic development so far.
CO - 5	Understand the different types of NBFCs and their contribution.

Semester V
Course code B.Com 5.6

Name of the course: GST-Law & Practice

CO - 1	Comprehend the concepts of Goods and Services tax.
CO - 2	Understand the fundamentals of GST.
CO - 3	Analyze the GST Procedures in the Business.
CO - 4	Know the GST Assessment and its computation.

Semester VI
Course code B.Com 6.1

Name of the course: Advanced Financial Management

CO - 1 Understand and determine the overall cost of capital.
CO - 2 Comprehend the different advanced capital budgeting techniques.
CO - 3 Understand the importance of dividend decisions.
CO - 4 Evaluate mergers and acquisition.
CO - 5 Enable the ethical and governance issues in financial management.

Semester VI
Course code B.Com 6.2

Name of the course: Income Tax Law & Practice – II

CO - 1 Understand the procedure for computation of income from business and other Profession.
CO - 2 The provisions for determining the capital gains.
CO - 3 Compute the income from other sources.
CO - 4 Demonstrate the computation of total income of an Individual.
CO - 5 Comprehend the assessment procedure and to know the power of income tax authorities.

Semester VI
Course code B.Com 6.3

Name of the course: Management Accounting

CO - 1 Demonstrate the significance of management accounting in decision making.
CO - 2 Analyze and interpret the corporate financial statements by using various techniques.
CO - 3 Compare the financial performance of corporates through ratio analysis.
CO - 4 Understand the latest provisions in preparing cash flow statement.
CO - 5 Comprehend the significance of management audit and examine the corporate reports of Management Review and Governance.

Semester VI
Course code B.Com A2

Name of the course: Indian Accounting Standards-2

CO - 1 Understand the preparation of consolidated financial statements as per Ind AS
CO - 2 Learn the disclosures in the financial statements
CO - 3 Understand the latest provisions of measurement-based accounting policies.
CO - 4 Comprehend the Accounting and Reporting of Financial Instruments
CO - 5 Analyze the Revenue based accounting standard.

Semester	VI
Course code	B.Com F2

Name of the course: Investment Management

CO - 1	Understand the concept of investments, its features, and various instruments.
CO - 2	Comprehend the functioning of secondary market in India.
CO - 3	Underline the concept of risk and return and their relevance in purchasing and selling of securities.
CO - 4	Illustrate the valuation of securities and finding out the values for purchase and sale of securities.
CO - 5	Demonstrate the fundamental analysis to analyze the company for purchase and sale of securities and technical analysis for trading in the share market.

Semester	VI
Course code	B.Com 6.6

Name of the course: Assessment of Persons other than Individuals and Filing of ITRs

CO - 1	Understand the calculation of Depreciation and allowance
CO - 2	Comprehend the assessment of partnership Firms and determine the tax liability.
CO - 3	Comprehend the assessment of corporate entities and determine the tax liability.
CO - 4	Equip with understanding of intensive knowledge on analysis of all forms of ITR Forms along with the Overview ITR Forms and e-filing.

Course Mapping

Semester	Course/Po's	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
B.com I Semester	1.1 Financial Accounting I	X		X		X	X	
	1.2 Management Principles & Applications	X		X		X	X	
	1.3 Principles of Marketing	X	X	X		X	X	
B.com II Semester	**2.1 Advanced Financial Accounting**	X		X		X	X	
	2.2 Business mathematics or Corporate Administration	X		X		X	X	
	2.3 Law & Practice of Banking		X		X	X	X	
B.com III Semester	**3.1 Corporate Accounting**	X	X	X		X	X	
	3.2 Business statistics		X		X	X	X	
	3.3 Cost Accounting	X		X		X		X
B.com IV Semester	**4.1 Advanced Corporate Accounting**	X	X	X		X	X	
	4.2 Costing Methods & Techniques		X		X	X	X	X
	4.3 Business Regulatory Framework	X		X		X	X	
B.com V Semester	**5.1 Financial Management**	X	X	X		X	X	
	5.2 Income Tax Law & Practice - I							
	5.3 Auditing & assurance							
	A 1 Indian Accounting Standards - I							
	F 1 Financial Institutions & Markets	X	X	X		X	X	
	5.6 GST Law & Practice	X	X	X		X	X	
	5.7 Employability skills	X	X	X		X	X	
B.com VI Semester	**6.1 Advanced Financial Management**	X	X		X	X	X	
	6.2 Income Tax Law & Practice - II							
	6.3 Management Accounting	X	X			X	X	
	A2 Indian Accounting Standards 2	X			X	X	X	
	F2 Investment Management	X	X	X		X	X	
	6.6 Assessment of Persons other than Individuals & Filing of ITRs	X	X	X		X	X	
	6.7 Internship	X	X	X		X	X	