Swami Swatantranand Memorial College, Dinanagar

Affiliated to GNDU, Amritsar| Accredited by NAAC with 'A' Grade

INDEX

Course Outcomes (COs), Programme Outcomes (POs) & Programme Specific Outcomes (PSOs) for UG, PG and Vocational Programmes

COURSE OUTCOMES

NAME OF PROGRAMME: M.Sc. (Computer Science)

PROGRAMME OUTCOMES:

- Provides technology-oriented students with the knowledge and ability to develop creative solutions.
- Develop skills to learn new technology.
- Apply computer science theory and software development concepts to construct computing-based solutions.
- Design and develop computer programs/computer-based systems in the areas related to algorithms, networking, web design, cloud computing, Artificial Intelligence, Mobile applications.

PROGRAMME SPECIFIC OUTCOMES:

- Enrich the knowledge in the areas like Artificial Intelligence, Web Services, Cloud Computing, Paradigm of Programming language, Design and Analysis of Algorithms, Database Technologies Advanced Operating System, Mobile Technologies, Software Project Management and core computing subjects.
- Students understand all dimensions of the concepts of software application and projects.
- Developed in-house applications in terms of projects.
- To make them employable according to current demand of IT Industry and responsible citizen.

SEMESTER – I
COURSE CODE: MCS-101
COURSE NAME: ADVANCED DATA STRUCTURES
COURSE OUTCOMES:
After completing this paper, student will be able to

- Design and analyze programming problem statements.
- Choose appropriate data structures and algorithms, understand the ADT/libraries, and use it to design algorithms for a specific problem.
- Understand the necessary mathematical abstraction to solve problems.
- Come up with analysis of efficiency and proofs of correctness
- Comprehend and select algorithm design approaches in a problem specific manner.

COURSE CODE: MCS-102
COURSE NAME: ADVANCED COMPUTER ARCHITECTURE
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Discuss memory organization and mapping techniques.
- Describe architectural features of advanced processors.
- Interpret performance of different pipelined processors.
- Explain data flow in arithmetic algorithms

- Development of software to solve computationally intensive problems.

COURSE CODE: MCS-103
COURSE NAME: NETWORK DESIGN & PERFORMANCE ANALYSIS
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Describe and develop a network model using analysis and simulation
- Design a new network model to meet requirements for new and existing networks.
- Use quantitative and qualitative techniques to design or upgrade a network
- Make decisions on the proper network technologies, routing protocols, network topologies, node placement, etc.

COURSE CODE: MCS-104
COURSE NAME: DISCRETE STRUCTURES
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Understand the basic principles of sets and operations in sets.
- Prove basic set equalities.
- Apply counting principles to determine probabilities.
- Demonstrate an understanding of relations and functions and be able to determine their properties.
- Solve problem regarding Recurrence relations and Generating Function

COURSE CODE: MCS-105
COURSE NAME: SOFT COMPUTING
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Understand the Neural Network and its various architectures and models and its applications.
- Comprehend the fuzzy logic and the concept of fuzziness involved in various systems and fuzzy set theory.
- Understand the concepts of fuzzy sets, knowledge representation using fuzzy rules, approximate reasoning, fuzzy inference systems, and fuzzy logic.
- To understand the fundamental theory and concepts of neural networks, Identify different neural network architectures, algorithms, applications and their limitations.

COURSE CODE: MCS-106
COURSE NAME: PROGRAMMING LABORATORY-I(BASED ON ADVANCED DATA STRUCTURES)
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Design and analyze programming problem statements.
- Choose appropriate data structures and algorithms, understand the ADT/libraries, and use it to design algorithms for a specific problem.
- Understand the necessary mathematical abstraction to solve problems.
- Come up with analysis of efficiency and proofs of correctness

- Comprehend and select algorithm design approaches in a problem specific manner.

Semester-II

COURSE CODE: MCS-201
COURSE NAME: THEORY OF COMPUTATION
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Analyze and design finite automata, pushdown automata, Turing machines, formal languages, and grammars.
- Demonstrate the understanding of key notions, such as algorithm, computability, decidability, and complexity through problem solving.
- Prove the basic results of the Theory of Computation.

COURSE CODE: MCS-202
COURSE NAME: IMAGE PROCESSING
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Have a clear understanding of the principals the Digital Image Processing terminology used to describe features of images.
- Have a good understanding of the mathematical foundations for digital manipulation of images; image acquisition; preprocessing; segmentation; Fourier domain processing, compression and analysis.
- Be able to write programs for digital manipulation of images; image acquisition; preprocessing; segmentation; Fourier domain processing; and compression.
- Have knowledge of the Digital Image Processing Systems.

COURSE CODE: MCS-203
COURSE NAME: DESIGN & ANALYSIS OF ALGORITHMS
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Analyze the asymptotic performance of algorithms.
- Write rigorous correctness proofs for algorithms.
- Demonstrate a familiarity with major algorithms and data structures.
- Apply important algorithmic design paradigms and methods of analysis.
- Synthesize efficient algorithms in common engineering design situations.

COURSE CODE: MCS-204
COURSE NAME: CLOUD COMPUTING
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Analyze the Cloud computing setup with its vulnerabilities and applications using different architectures.

- Design different workflows according to requirements and apply map reduce programming model.
- Apply and design suitable Virtualization concept, Cloud Resource Management and design scheduling algorithms.
- Create combinatorial auctions for cloud resources and design scheduling algorithms for computing clouds.

COURSE CODE: MCS-205
COURSE NAME: DISTRIBUTED DATABASE SYSTEM
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Develop system architecture based on distributed databases.
- Develop a system to support distributed transactions in such databases
- Create queries to retrieve data from a distributed database which will have optimum performance.
- Provide for competitive access to data in systems using distributed databases.
- Propose solutions for increasing reliability and security of distributed database system

COURSE CODE:MCS-206
COURSE NAME: PROGRAMMING LABORATORY-II
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Analyze the asymptotic performance of algorithms.
- Write rigorous correctness proofs for algorithms.
- Demonstrate a familiarity with major algorithms and data structures.
- Apply important algorithmic design paradigms and methods of analysis.
- Synthesize efficient algorithms in common engineering design situations.

Semester-III

COURSE CODE: MCS-301
COURSE NAME: ADVANCED SOFTWARE ENGINEERING
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- The principles of object-oriented software construction.
- The software-development process, including requirements analysis, design, programming, testing and maintenance.
- Apply various metrics to evaluate the performance of software.
- Evaluate systems in terms of general quality attributes.

COURSE CODE: MCS-302
COURSE NAME: SYSTEM SOFTWARE
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Explain the working of OS in detail
- Identify and understand different phases and passes of compiler and their functioning.
- Understand the concept of syntax analysis and solve the problems of predictive parsing.
- Differentiate between top down and bottom up parsing and understand syntax directed translation technique

COURSE CODE: MCS-303
COURSE NAME: DATA MINING AND WAREHOUSING
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Identify the scope and necessity of Data Mining & Warehousing for the society.
- Describe the designing of Data Warehousing so that it can be able to solve the root problems.
- To understand various tools of Data Mining and their techniques to solve the real time problems.
- To develop ability to design various algorithms based on data mining tools.

COURSE CODE: MCS-304
COURSE NAME: CONCEPT OF CORE AND ADVANCED JAVA
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Able to understand concept of Object Oriented Programming & Java Programming.
- Basic concepts of Java such as operators, classes, objects, inheritance, packages, Enumeration and various keywords.
- Able to understand the concept of exception handling and Input/Output operations.
- Able to design the applications of Java & Java applet.

COURSE CODE: MCS-305
COURSE NAME: NETWORK PROGRAMMING
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Create applications using techniques such as multiplexing, forking, and multithreading
- Make use of different types of I/O such as non-blocking I/O and event driven I/O
- Make use of various solutions to perform inter-process communications
- Apply knowledge of Unix/Linux operating systems to build robust client and server software for this environment.

COURSE CODE: MCS-306
COURSE NAME: PROGRAMMING LABORATORY-III
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Objects Oriented Basis, Java Virtual Machine.
- Classes, objects, inheritance, packages, Enumeration, Input/output operations, and various keywords.
- Exception and Error. How to handle the exception in Java
- Applet basics, Applet Architecture

- Event Handling and Abstract Window Toolkit.
- Multithreading: Java Thread model, How to set Thread Priorities

Semester-IV

COURSE CODE: MCS-401
COURSE NAME: ADVANCED WEB TECHNOLOGIES
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Design web applications using ASP.NET.
- Use ASP.NET controls in web applications.
- Debug and deploy ASP.NET web applications.
- Create database driven ASP.NET web applications and web services.

COURSE CODE: MCS-402
COURSE NAME: MICROPROCESSOR AND ITS APPLICATIONS
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Compare accepted standards and guidelines to select appropriate Microprocessor (8085 & 8086) and Microcontroller to meet specified performance requirements.
- Analyze assembly language programs; select appropriate assemble into machine a cross assembler utility of a microprocessor and microcontroller.
- Design electrical circuitry to the Microprocessor I/O ports in order to interface the processor to external devices.
- Evaluate assembly language programs and download the machine CODE that will provide solutions real- world control problems.

COURSE CODE: MCS-404
COURSE NAME: OBJECT ORIENTED MODELING, ANALYSIS AND DESIGN
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Analyze a problem statement.
- Construct models for the problem in hand.
- Prepare a System Design
- Prepare Object Design
- Write clean CODE in Programming Language
- Effectively develop a high quality Software

COURSE CODE: MCS-405
COURSE NAME: PROGRAMMING LABORATORY-IV
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Design web applications using ASP.NET.
- Use ASP.NET controls in web applications.

- Debug and deploy ASP.NET web applications.
- Create database driven ASP.NET web applications and web services.

COURSE CODE: MCS-406
COURSE NAME: PROJECT WORK
COURSE OUTCOMES:
After completing this course successfully student will be able to

- Acquire skills to develop the software project.
- Understand the software development life cycle

NAME OF PROGRAMME: M.Sc. (INFORMATION TECHNOLOGY)

PROGRAMME OUTCOMES:

- Will have the ability to communicate computer science concepts, designs, and solutions effectively and professionally. Apply knowledge of computing to produce effective designs and solutions for specific problems. Identify, analyze, and synthesize scholarly literature relating to the field of computer science; and use software development tools, software systems, and modern computing platforms.
- Work in a collaborative manner with others on a team, contributing to the management, planning and implementation of a computer system.
- Independently propose a small scale research project, plan its execution, undertake its development, evaluate its outcome and report on its results in a professional manner.
- Advance knowledge through innovation and knowledge creation. Pursue life-long learning in practice. Interpret and present theoretical issues and empirical findings.

PROGRAM SPECIFIC OUTCOMES

- Gains understanding about techniques, technologies and methods used in managing and implementing information technology systems.
- Widens and deepens understanding of computing technologies and covers high level concept that enable the effective management and planning of IT project and services.
- High level strategy and design in-depth technical specializations, management and planning of IT project and services.

SEMESTER – I
COURSE CODE:MIT-101
COURSE NAME: ANALYSIS & DESIGN OF EMBEDDED SYSTEM
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- To acquire knowledge about microcontrollers embedded processors and their applications.
- Foster ability to understand the internal architecture and interfacing of different peripheral devices with Microcontrollers.

- Foster ability to write the programs for microcontroller
- Foster ability to understand the role of embedded systems in industry.
- Foster ability to understand the design concept of embedded systems.

COURSE CODE: MIT-102
COURSE NAME: DISTRIBUTED COMPUTING
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Acquire fundamental knowledge in distributed computing.
- Learn about advanced distributed computing concepts.
- Understand limitations and appreciate innovative solutions.
- Apply the knowledge in distributed application development and problem solving.

a) **Knowledge and Understanding:** Students will

- Outline the potential benefits of distributed systems.
- Summarize the major security issues associated with distributed systems along with the range of techniques available for increasing system security.
- Understand the concepts of distributed database systems and synchronization algorithms.
- Learn distributed operating systems and token based algorithms.
- Understand the concepts of process and resource management in distributed computing environment.

b) **Intellectual Cognitive/Analytical Skills:** Students will be able to

- Apply standard design principles in the construction of these systems.
- Select appropriate approaches for building a range of distributed systems.
- Gain knowledge on Distributed operating system concepts- multi-processor operating system and database operating systems.
- Acquire knowledge on the process of communication and interconnection architecture of multiple computer systems.

c) **Practical Skills:** Students will learn to:

- Apply Security techniques in Distributed System.
- Manage Distributed Shared Memory.
- Analyze and understand the concepts of synchronization of clocks and deadlocks.

d) **Transferable Skills:** Students will be able to

- Apply the different measures for protection and security in operating systems.

COURSE CODE:MIT-103
COURSE NAME: ADVANCED COMPUTER ORGANIZATION AND ARCHITECTURE
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Conceptualize the basics of organizational and architectural issues of a digital computer.

- Analyze processor performance improvement using instruction level parallelism.
- Learn the function each element of a memory hierarchy.
- Study various data transfer techniques in digital computer.
- Acquainting the students with principles and concepts of parallel processing including Parallel computer architectures, performance metrics, the scheduling problem and parallel algorithm.
- Demonstrate the basics of Computer Components.
- Articulate design issues in the development of processor or other components that satisfy design requirements and objectives.

COURSE CODE:MIT-104
COURSE NAME: NETWORK OPERATING SYSTEM
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Demonstrate an understanding of the principles, practices and goals of system administration.
- Demonstrate an understanding of system components, the advantages of Unix-like and Windows-like OS, major networking models, network addressing and naming systems, network services.
- Demonstrate an understanding of the major approaches to computer management in the network environment.
- Demonstrate an understanding of the features of the Windows 2003 Server Operating System.
- Perform the installation of Windows 2003 OS and configure the server environment.
- Demonstrate an understanding of Active Directory and its key features.
- Perform user accounts management and implement security groups.
- Perform configuration, management, and troubleshooting of folders, files, and printing resources.
- Demonstrate an understanding of the configuration and management of data storage.
- Demonstrate an understanding of Group Policies to secure Windows 2003 Server.
- Perform network services installation and management.
- Use server and network monitoring software tools.
- Describe the elements of an effective troubleshooting methodology and use a variety of software and hardware tools to diagnose problems.
- Demonstrate an understanding of network backup and recovery strategies and how to protect a network from viruses.
- Use Network OS administration techniques to provide basic security.

COURSE CODE: MIT-105
COURSE NAME: COMPUTATIONAL PROBLEM SOLVING USING PYTHON
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- To get acquaint students with good knowledge of Programming skills.

- To get acquaint students with various case studies using Python.
- Knowledge & Understanding: Python programming.
- Intellectual Cognitive/ analytical skills: Application development.
- Practical Skills: Programming for application development and data science.
- Transferable skills: Ability to define a practical problem, Data structure and Modular approach.

SEMESTER – II
COURSE CODE:MIT-201
COURSE NAME: MOBILE COMPUTING
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Understand fundamentals of wireless communications.
- Analyze security, energy efficiency, mobility, scalability, and their unique characteristics in wireless networks.
- Demonstrate basic skills for cellular networks design.
- Apply knowledge of TCP/IP extensions for mobile and wireless networking.

COURSE CODE:MIT-202
COURSE NAME: DISTRIBUTED DATABASES
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- The key goal is to prepare students for a professional career in the field of data administration and database design.
- To get acquaint students with good knowledge of Distributed DBMS. During the course, students will learn about data distribution, data distribution mechanism/ techniques along with its pros/cons.
- To get acquaint students with Query Decomposition and Distributed Concurrency Control issues, methods and their merits and demerits.
- Knowledge & Understanding : Distributed Databases and their design &development
- Intellectual Cognitive/ analytical skills: Data Distribution and Allocation strategies
- Practical Skills : Algorithmic knowledge about distributed database design and allocation
- Transferable skills: Usage of DDBMS design and allocation model

COURSE CODE:MIT-203
COURSE NAME: IMAGE PROCESSING
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- To learn and understand the fundamentals of digital image processing, and various image Transforms, Image Enhancement Techniques, Image restoration Techniques and methods, image compression and Segmentation used in digital image processing.
- To have understanding about various algorithms of Digital Image Processing so that the respondent may be able to implement in their practical.
- This course introduces digital image processing. It focuses on the theory and algorithms underlying a range of tasks including acquisition and formation, enhancement, segmentation, and representation.

- An ability to apply knowledge of computing and mathematics appropriate to the discipline.
- An ability to analyze a problem and identify the computing requirements appropriate for its solution; an ability to design, implement and evaluate a computer-based system, process, component or program to meet desired needs.
- An ability to apply mathematical foundations, algorithmic principles and computer science theory to the modeling and design of computer based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
- Develop programs in their practical labs.
- To develop interest in research oriented approach towards the course content so as to take this course as domain for their project work at later stage.

COURSE CODE: MIT-204
COURSE NAME: FUZZY SYSTEM
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- To understand the fundamental theory and concepts of Fuzzy sets theory, Fuzzy relations.
- To understand the concepts of Properties of Membership Functions.
- To understand the basics of an evolutionary computing paradigm known as genetic algorithms and its application to engineering optimization problems.
- To understand decision making using Fuzzy information.
- To understand the use of MATLAB in Fuzzy Logics.
- Understand the concepts of Fuzzy Systems, ANN, Genetic Algorithms and its applications.
- Understand the concepts of feed forward neural networks and learning and understanding of NETWORKS AND FUZZY feedback neural networks.
- Understand the concept of fuzziness involved in various systems and fuzzy set theory.
- Comprehensive knowledge of fuzzy logic control and adaptive fuzzy logic.
- Gain adequate knowledge of application of fuzzy logic control to real time systems.
- Identify process/procedures to handle real world problems using Fuzzy Logics.
- Analyze and apply the neural networks to solve classification and functions approximation.
- Back Propagation Networks for real world problems.
- Fuzzy logic in Industrial application.
- Implementation of Genetic Algorithms for optimization problems.
- Designing of fuzzy membership functions and construct fuzzy logic control systems for simple applications.
- Apply fuzzy logic and reasoning to handle uncertain data to solve various fields of engineering problems.
- Design hybrid system to revise the principles of Fuzzy Logics in various applications.

COURSE CODE:MIT-205
COURSE NAME: NETWORK DESIGN AND PERFORMANCE ANALYSIS
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Describe and develop a network model using analysis and simulation
- Design a new network model to meet requirements for new and existing networks.
- Use quantitative and qualitative techniques to design or upgrade a network
- Make decisions on the proper network technologies, routing protocols, network topologies, node placement etc.
- Troubleshoot and diagnose network problems
- Identify network issues, risks, bottle necks etc.

SEMESTER – III
COURSE CODE: MIT-301
COURSE NAME: NETWORK PROTOCOLS
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- Explain how protocols and standards benefit a global internetwork.
- Describe how the Ethernet Protocol transmits data within a LAN.
- Explain IPv4 addressing and the role subnet masks.
- Use Cisco Packet Tracer to connect hosts to a wireless router in a LAN.
- Use a protocol analyzer or "packet sniffer" to open and examine a data packet that has been transmitted across a network.
- Examine a Windows computer to locate the physical or MAC address used send and receive data

COURSE CODE:MIT-302
COURSE NAME: ADVANCED WEB TECHNOLOGIES
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- **Knowledge and Understanding**: Learn web development model view controller principles, data structures, and libraries. The subject matter of the course is object-oriented development in the ASP.NET MVC using the C# language.
- **Intellectual Cognitive/ Analytical Skills**: Develop critical thinking skills through solving programming problems in practical assignments, on projects, and on tests.
- **Practical Skills**: Successful students will able to design web applications using ASP.NET. They will be able to use ASP.NET controls in web applications and will be able to debug and deploy ASP.NET web applications. They will be able to create database driven ASP.NET web applications and web services
- **Transferable Skills:** In many multinational companies they can work effectively in a group or team to achieve goals and can show initiative and leadership abilities.

COURSE CODE: MIT-303
COURSE NAME: LINUX ADMINISTRATION
COURSE OUTCOMES:
After completing this course successfully student will be able to:

- To learn the fundamentals of Operating Systems.
- To learn the mechanisms of OS to handle processes and threads and their communication

.

- To learn the mechanisms involved in memory management in contemporary OS
- To gain knowledge on distributed operating system concepts that includes architecture, Mutual exclusion algorithms, deadlock detection algorithms and agreement protocols.
- To know the components and management aspects of concurrency management.
- To learn programmatically to implement simple OS mechanisms.
- Jump Statements, Array, Classes, Class Inheritance, Abstract Class and Methods.

COURSE CODE:MIT-304
COURSE NAME: SYSTEM SIMULATION
COURSE OUTCOMES:

After completing this course successfully student will be able :

- To understand the concept of System Simulation and its application in real world.
- To understand the different types of System Simulation and the usage.
- To understand the concept of random number generation in discrete simulation.
- To understand queuing simulation process in detail.
- To learn about models of Inventory Control.
- To understand experimental layout of simulation experiment.
- To understand different methods for random number generation

COURSE CODE:MIT-305
COURSE NAME: MICROPROCESSOR AND ITS APPLICATIONS
COURSE OUTCOMES:

After completing this course successfully student will be able to:

- Introduce students with the architecture and operation of typical microprocessors and microcontrollers.
- Familiarize the students with the programming and interfacing of microprocessors and microcontrollers.
- Provide strong foundation for designing real world applications using microprocessors and microcontrollers.
- Evaluate and solve basic binary math operations using the microprocessor and describe the microprocessor's and Microcontroller's internal architecture and its operation within the area of manufacturing and performance.
- Apply knowledge and demonstrate programming proficiency using the various addressing modes and data transfer instructions of the target microprocessor and microcontroller.
- Compare accepted standards and guidelines to select appropriate Microprocessor (8085& 8086) and Microcontroller to meet specified performance requirements.
- Analyze assembly language programs; select appropriate assemble into machine across assembler utility of a microprocessor and microcontroller.
- Design electrical circuitry to the Microprocessor I/O ports in order to interface the processor to external devices.
- Evaluate assembly language programs and download the machine CODE that will provide solutions real- world control problems.

SEMESTER – IV
COURSE CODE:MIT-401
COURSE NAME: ADVANCED JAVA TECHNOLOGY
COURSE OUTCOMES:

After completing this course successfully student will be able to:

- Knowledge of the structure and model of the Java programming language.
- Use the Java programming language for various programming technologies.
- Evaluate user requirements for software functionality required to decide whether the Java programming language can meet user requirements.
- Purpose the use of certain technologies by implementing them in the Java programming language to solve the given problem.
- Choose an approach to solving problems, starting from the acquired knowledge of programming and knowledge of operating systems.

COURSE CODE: MIT-402
COURSE NAME: NETWORK SECURITY
COURSE OUTCOMES:

After completing this course successfully student will be able to:

- Upon successful completion of this course, the student should be able to:
- Recognize the basic working principles of computer networks.
- Identify threats to network security.
- Distinguish between various protocols employed to secure networks.
- Utilize network security tools.
- Specify procedures for defending network systems.
- Develop network security policies.
- Specify procedures for recovery from attacks on network

COURSE CODE: MIT-403
COURSE NAME: ARTIFICIAL NEURAL NETWORK
COURSE OUTCOMES:

After completing this course successfully student will be able to:

- To understand the fundamental theory and concepts of neural networks, neuron-modeling, several neural network paradigms and its applications.
- To understand the basics of an evolutionary computing paradigm known as genetic algorithms and its application to engineering optimization problems.
- Understand generic machine learning terminology
- Understand motivation and functioning of the most common types of deep neural networks
- Understand the choices and limitations of a model for a given setting
- Apply deep learning techniques to practical problems
- Critically evaluate model performance and interpret results
- Write reports in which results are assessed and summarized in relation to aims, methods and available data

COURSE CODE: MIT-404
COURSE NAME: PROGRAMMING LABORATORY-IV (BASED ON ADVANCED JAVA TECHNOLOGY)
COURSE OUTCOMES:

After completing this course successfully student will be able to

- Develop a web-based application using Servlets & JSPs.
- Process XML using Java APIs.
- Skill to use a pre-built framework for rapid application development.
- Strong foundation for applying design patterns like MVC.

COURSE CODE: MIT-405
COURSE NAME: PROJECT WORK
COURSE OUTCOMES:

After completing this course successfully student will be able to

- Acquire skills to develop the software project.
- Understand the software development life cycle.
- Analyses requirements compare alternatives and specify a solution.
- Design and implement the solution.
- Experiment and evaluate the solution.

NAME OF PROGRAMME: M.Sc. (Mathematics)

PROGRAMME OUTCOMES:

- Ability to identify formulates and solves complex engineering problems by applying principles of mathematics.
- An ability to communicate effectively with a range of audience.
- An ability to develop and analyze data.
- By study of algebra students will develop and apply concepts of expressions, equation describe relationships and solve problems.
- They can perform flexibly operations on polynomials equations.
- By study of calculus helps students to identify area of mathematics and other fields where calculus is useful.
- Students will be able to write detailed solution using appropriate mathematical language.

SEMESTER – I
COURSE CODE: PAPER – I
COURSE NAME: Calculus of Trigonometry
COURSE OUTCOMES:
Upon completing this course, students will be

- Compute derivatives of hyperbolic & inverse hyperbolic functions.
- They will be able to compute nth derivative of product of two functions of a variable by using Leibnitz's theorem.
- They will be able to solve indeterminate forms limit problems.
- They will be able to compute limit of a function by using properties of limit.

COURSE CODE: PAPER – I
COURSE NAME: Algebra
COURSE OUTCOMES:
Upon completing this course, students will be

- To find rank of a Matrix by using minors and elementary operations.
- They will be able to find linearly dependent and linearly independent vectors.
- They will be able to solve quadratic, cubic and biquadratic equations by using various methods like cardano's method, Descartes method, and Ferrari method.

COURSE CODE: PAPER – I
COURSE NAME: Analysis
COURSE OUTCOMES:
Upon completing this course, students will be

- Distinguish between concept of sequence and series.
- They will able to determine limits and convergence of series.
- They will able to differentiate between concept of beta & gamma functions.

COURSE CODE: PAPER – I
COURSE NAME: Analytical Geometry
COURSE OUTCOMES:
Upon completing this course, students will be

- They will be able to sketch conic sections.
- They will be able to identify conic sections.
- They will be able to evaluate distance and angle.
- Students will be able to classify quadratic equations.

COURSE CODE: PAPER – I
COURSE NAME: Number Theory
COURSE OUTCOMES:
Upon completing this course, students will be

- To define concept of divisibility.
- They will be able to interpret the concepts of congruence, greatest common divisions, prime & prime factorization.
- They can apply law of quadratic reciprocity and other methods to classify numbers as primitive roots, residues & non-residues.

COURSE CODE: PAPER – I
COURSE NAME: Dynamics
COURSE OUTCOMES:
Upon completing this course, students will be

- They will be able to apply Newton's Law in vector form to problems in more than one dimension.
- They understand and use basic terms for the description of motion of particles and fundamental laws of Newtonian mechanics.
- They are able to solve problems relating to motion of a projectile.

COURSE CODE: MATH-551
COURSE NAME: Real Analysis-I
COURSE OUTCOMES:
Upon completing this course, students will be

- To describe real line as a complete ordered field.
- They determine basic properties of subsets of the real numbers.
- They are able to determine continuity differentiability & integrability of functions defined on subsets of real line.
- They are able to use definitions of convergence on sequences & series.

COURSE CODE: MATH-555
COURSE NAME: Differential Equations
COURSE OUTCOMES:
Upon completing this course, students will be

- To solve linear differential equations of second degree & higher.
- Solve linear differential equations using Laplace transform techniques.
- Find power series solution of differential equations.

COURSE CODE: MATH-552
COURSE NAME: Complex Analysis
COURSE OUTCOMES:
Upon completing this course, students will be

- Represent complex numbers algebraically and geometrically.
- They will be able to define and analyze limits & continuity for complex functions.

- Analyze sequence of series of analytic functions and types of convergence.
- Evaluate complex contour integrals.
- Represent functions as Taylor power.

COURSE CODE: MATH-554
COURSE NAME: Mechanics-I
COURSE OUTCOMES:
At the end of this course, Students will be able to

- They will be able to describe relative motion, inertial & non inertial frames.
- They are able to understand Newton's Law of motion and conservation principles.
- They will be able to understand centre of mass and inertia tenior.

COURSE CODE: MATH-572
COURSE NAME: Topology-I
COURSE OUTCOMES:
At the end of this course, Students will be able to

- Define and illustrate concept of topological spaces.
- They will be able to define concept of product of topology and quotient topology.
- They are able to prove selection of theorems concerning topological spaces.

COURSE CODE: MATH-586
COURSE NAME: Number Theory
COURSE OUTCOMES:
At the end of this course, Students will be able to

- To understand concept of divisibility and congruence.
- They will be able to define concept of G.C.D. prime & prime factorization.
- They are able to apply law of reciprocity to classify numbers as primitive roots, quadratic & quadratic non reduces.

COURSE CODE: PAPER – I
COURSE NAME: Functional Analysis-I
COURSE OUTCOMES:
At the end of this course, Students will be able to

- Formulate & model a linear programming problem from a word problem and solve them graphically in two & three dimensions.
- Find dual & identity & interpret the solution of dual problem.
- They are able to use simplex, dual-simplex big-M method to solve linear programming problem.

COURSE CODE: MATH-587
COURSE NAME: Statistics-I
COURSE OUTCOMES:
At the end of this course, Students will be able to

- Recall basic concepts in probability and statistics & understand the concepts of transformation of variable and moment generating functions.
- Define & examine the random sampling data analysis & graphical methods.

COURSE OUTCOMES

NAME OF PROGRAMME: MA (History)

SEMESTER – I
COURSE CODE: PAPER –1
COURSE NAME: POLITICAL PROCESSES AND STRUCTURES IN INDIA UP TO A.D. 1200
COURSE OUTCOMES:
After completing this paper, student will be able to

- The students will be able to analyze the culture of India.
- Understood the contribution of various dynasties to political structures.
- The students will be able to critically evaluate the socio political ethics of Indian society. Enhance their intellectual development.

COURSE CODE: PAPER –II
COURSE NAME: SOCIETY AND CULTURE IN INDIA A.D. 1200
COURSE OUTCOMES:
After completing this paper, student will be able to

- A new phase in Indian history began with the advent of the Arabs in Sindh in AD 712. The religion of the Arabs, Islam had tremendous lasting impact on India.
- The study of the paper will make the students understand a very important fact of Indian history.
- Evaluate secondary historical sources by analyzing them in relation to the evidence that supports them, their theoretical frameworks and other secondary historical creation.

COURSE CODE: PAPER –III
COURSE NAME: POLITY AND ECONOMY OF INDIA AD 1526-1750
COURSE OUTCOMES:
After completing this paper, student will be able to

- The students will learn advent of Mughals rule in India and policies.
- The students will be able to understand the economy ethos of Indian society.
- Its use full for competitive exams like UPSC, PTET, UGC-NET, Banking.
- Gain knowledge above background of our religions, institution and administration.

COURSE CODE: PAPER –IV
COURSE NAME: POLITICAL IDEAS AND INSTITUTIONS IN INDIA AD 1757-1947
COURSE OUTCOMES:
After completing this paper, student will be able to

- The students will learn about the advent of British rule in India.
- The students will be able to evaluate the political ideas of Indian history.
- Gain knowledge above background of our religions, institution and administration.
- It's helpful for students provide knowledge difficult policies and institution.

COURSE CODE: PAPER –V
COURSE NAME: HISTORY OF PUNJAB AD 1450-1708

COURSE OUTCOMES:

After completing this paper, student will be able to

- The students will gain knowledge about the rise of Sikh movement.
- The students will be aware of the contribution of Sikh gurus in the growth of Sikhism.
- The students will be developing knowledge about the early resistance against the Mughal rule.
- Its use full for competitive exams like UPSC, PTET, UGC-NET, Banking.

Semester-II

COURSE CODE: PAPER –I
COURSE NAME: URBAN AND AGRARIAN ECONOMY IN INDIA UP TO AD 1200
COURSE OUTCOMES:

After completing this paper, student will be able to

- Understand the present existing political economic conditions of the people.
- Use the reading of history which trains memory, reasons and presentation of facts systematically and successfully.
- Gain knowledge about the revenue system of the period.

COURSE CODE: PAPER –II
COURSE NAME: SOCIETY AND CULTURE IN INDIA A.D. 1200-1750
COURSE OUTCOMES

After completing this paper, student will be able to

- Correctly extract evidence from primary sources by analyzing and evaluating them in relations to their Cultural and historical context and use that evidence to build and support am argument.
- Demonstrate knowledge of the chronology narrative, major events, and personalities.

COURSE CODE: PAPER –III
COURSE NAME: MODERN WORLD: MAJOR TRENDS AD 1500-1900
COURSE OUTCOMES

After completing this paper, student will be able to

- Understand the directly of the human experience as influenced by geographical location, ethnicity cultural tradition, gender class.
- Analyze historical process that shape individuals and communities, drawing on detailed knowledge about the history of the area under study.
- Think critically about the varieties of experience found in the historical record of the United States, exploring diversity as a critical component of history.

COURSE CODE: PAPER –IV
COURSE NAME: ECONOMIC HISTORY OF MODERN INDIA AD 1757-1857
COURSE OUTCOMES

After completing this paper, student will be able to

- This clearly indicates the value of economics. So, it is necessary to introduce this paper to the students of history.
- This paper would turn the mind and heart of the students to create healthy and wealthy India in future.
- To become familiar and salient development in the India economy in both present day and historical contents.

- Students apply economic theory to issues in fields of economics.
- Students will be able to present economic theory and applications in written and oral form.

Semester-III

COURSE CODE: PAPER –I
COURSE NAME: CULTURAL HISTORY OF INDIA AD 1757-1857
COURSE OUTCOMES
After completing this paper, student will be able to

- Aims at understanding various cultural heritages of our ancient India and to presence our entity in the present trend of changing cultural phenomena
- To help the students to acquire the knowledge of various dimensions of the life style of the people from 1757-1857.

COURSE CODE: PAPER –II
COURSE NAME: EMERGENCE OF INDIAN NATIONALISM A.D. 1857-1919
COURSE OUTCOMES
After completing this paper, student will be able to

- The objectives of the paper is to impact and imbibe in students values and lessons of the Indian national movement sacrifices made by nationalist leaders for the cause of freedom, prepare students for the state and central govt. Competition examinations and communicate the importance of safeguarding our freedom and national values. Analyze the emergence of the national movement appreciate the struggle for freedom.

COURSE CODE: PAPER –III
COURSE NAME: PUNJAB UNDER COLONIAL RULE AD 1849-1947

COURSE OUTCOMES
After completing this paper, student will be able to

- Students will be able to demonstrate thinking skills by analyzing, synthesizing and evaluating historical information from multiple sources.
- Students will understand about the British rule in Punjab.
- Gain knowledge about during acts and role of different institutions in freedom of Punjab.

COURSE CODE: PAPER –IV
COURSE NAME: TWENTIETH CENTURY WORLD AD 1901-2000
COURSE OUTCOMES
After completing this paper, student will be able to

- Students have understood the relation between modernity and nationalism and its implication.
- Students have understood the process of colonialism in different part of world.
- Students have understood the problems of contemporary world in the light of its background history.
- Students have understood the necessity of universal brotherhood.

COURSE CODE: PAPER –V
COURSE NAME: HISTORICAL THOUGHT AND HISTORIOGRAPHY
COURSE OUTCOMES

After completing this paper, student will be able to

- The students will understand the scope and purpose of history.
- Learns the various histories of nations with comparative approach.
- Enable the students to history relations with other disciplines.
- The students will be able to learn and make use of different techniques of research methodology.

Semester-IV

COURSE CODE: PAPER –I
COURSE NAME: ECONOMIC HISTORY OF MODERN INDIA AD 1858-1947
COURSE OUTCOMES

After completing this paper, student will be able to

- To gain an understanding of core economic principle and how they apply to a wide range of real world issues.
- To master the theoretical and applied to necessary to critique and create economic research.
- Students will able to understand basic estimators and their properties estimate economic models using test hypotheses, forecast and interpret.

COURSE CODE: PAPER –II
COURSE NAME: THE NATIONAL MOVEMENT AD 1920-1947
COURSE OUTCOMES

After completing this paper, student will be able to

- Gain knowledge about the I.N.C.
- The students will be able to appreciate and respect national leaders.
- Gain knowledge about the value of partitions and nationalism

COURSE CODE: PAPER –III
COURSE NAME: CONTEMPORARY INDIA AD 1947-2004
COURSE OUTCOMES

After completing this paper, student will be able to

- This paper aims at making the student to acquire critical knowledge about the current history of India.
- The students may develop analytical approach towards socio economic development of contemporary India.

COURSE CODE: PAPER –IV
COURSE NAME: INDIAN HISTORIOGRAPHY
COURSE OUTCOMES

After completing this paper, student will be able to

- This course is introduced to impart knowledge about the different historiography trends or schools in Indian history.
- It covers the major development in the interpretation of Indian history forms the ancient times to the modern.
- Understand the privileges and obligations associates with a career as a professional historian.

- Understand historical trends in theory and method and be able to identify and explain major trends and issues in historiography.

COURSE CODE: PAPER –V
COURSE NAME: HISTORY OF IDEAS
COURSE OUTCOMES
After completing this paper, student will be able to

- Acquire knowledge of particular historical contexts.
- This paper aims act making the students to acquire critical knowledge about history.
- This paper also introduced to impact knowledge about the different historiographical trends or school in Indian history.
- The students will learn about the richness of our India.

NAME OF PROGRAMME: M.Com (Master in Commerce)

PROGRAMME OUTCOMES:

- To acquaint a student with conventional as well as contemporary areas in the discipline of Commerce.
- To enable a student well versed in national as well as international trends.
- To enable the students for conducting business, accounting and auditing practices, role of regulatory bodies in corporate and financial sectors nature of various financial instruments.
- To provide in-depth understanding of all core areas specifically Advanced Accounting, International Accounting, Management, Security Market Operations and Business Environment, Research Methodology and Tax planning.

PROGRAMME SPECIFIC OUTCOMES:

After the completion of the M.Com Course, a student is able

- For pursuing research in their chosen areas.
- For teaching in Schools and Colleges after qualifying requisite tests.
- For working as data analyst.
- To work as investment consultants after a brief internship in suitable organizations absorbed in Banking and Insurance sector as executives

SEMESTER – I
COURSE CODE: MC-101
COURSE NAME: MANAGERIAL ECONOMICS
COURSE OUTCOMES:
After completing this paper, student will be able to

- Ability to forecast demand in light of changing circumstances and to formulate business plans.
- Ability to chalk out Business Policies.
- Knowledge about Profit Planning and control.
- Skill to analyze effects of Government Policies.

COURSE CODE: MC-102
COURSE NAME: STATISTICAL ANALYSIS FOR BUSINESS
COURSE OUTCOMES:
After completing this paper, student will be able to

- Development of logical reasoning ability in students.
- Knowledge about the applicability of various parametric and non-parametric tests.
- Ability to use SPSS to solve statistical problems.
- Ability to make decisions under uncertain business situations.

COURSE CODE:MC-103
COURSE NAME: MANAGEMENT PRINCIPLES AND ORGANIZATION BEHAVIOR
COURSE OUTCOMES:
After completing this paper, student will be able to

- Ability to execute managerial tasks of planning, organizing and controlling.
- Understanding of different styles of leadership and its impact on decision making process.
- In-depth understanding of emotional labor and different types of emotions.
- Ability to analyze challenges and opportunities in the field of organization behavior.

COURSE CODE: MC-104
COURSE NAME: BUSINESS ENVIRONMENT
COURSE OUTCOMES:
After completing this paper, student will be able to

- Skill to identify and differentiate various Micro and Macro factors affecting functioning of Business.
- Ability to analyze Indian Economy in light of changing government regulatory policies.
- Understanding of the targets and priorities of five years plans.
- Ability to file complaint against unfair trade practices under Consumer Protection Act.
- Familiarization with the objectives and strategies in Economic planning with special reference to Planning Commission and NITI Aayog.

COURSE CODE: MC-105
COURSE NAME: BUSINESS ENVIRONMENT
COURSE OUTCOMES:
After completing this paper, student will be able to

- Familiarization with the Management Control Systems.
- Ability to understand Managerial Behavior and Control Structure prevalent under varied business environment.
- Skill to evaluate the Segment Business Units.
- Familiarization with Contemporary issues in management.
- Clarity about the reporting requirements of management.

Semester-II

COURSE CODE: MC-201

COURSE NAME: CORPORATE FINANCIAL ACCOUNTING AND AUDITING
COURSE OUTCOMES:
After completing this paper, student will be able to

- Ability to calculate Goodwill, evaluate shares adopting different methods and preparation of final accounts of Indian Companies.
- Understanding of the provisions regarding the appointment, qualifications, duties and liabilities of auditor.
- Clarity about the applicability of different types of audits.

COURSE CODE: MC-202
COURSE NAME: FINANCIAL MANAGEMENT
COURSE OUTCOMES:
After completing this paper, student will be able to

- Skill to manage financial resources of a company.
- Knowledge about the various sources of finance available to businessmen these days.
- Ability to select an investment proposal by analyzing the compounded and discounted value of money invested.

COURSE CODE: MC-203
COURSE NAME: RESEARCH METHODOLOGY
COURSE OUTCOMES:
After completing this paper, student will be able to

- Familiarization with Research and research problems.
- Understanding of the Quantitative and Qualitative Methods of research.
- Ability to represent data in tabular as well as graphical manner.
- Skill to write Research paper.
- Detailed knowledge about SPSS and its application.

COURSE CODE: MC-204
COURSE NAME: MARKETING MANAGEMENT
COURSE OUTCOMES:
After completing this paper, student will be able to

- Familiarization with Marketing Concepts and Philosophies.
- Ability to understand the changing Marketing Environment.
- Knowledge of different consumer and business buying behaviors.
- Familiarization with product related decisions.

COURSE CODE: MC-205
COURSE NAME: HUMAN RESOURCE MANAGEMENT
COURSE OUTCOMES:
After completing this paper, student will be able to

- Capability to understand employee recruitment and selection process.
- Understanding of different types of remuneration plans and their significance.
- Capability to evaluate different training programs and understanding of their limitations.
- Knowledge regarding the developing role of human resource management in the globalized world.

Semester – III

COURSE CODE: MC-301
COURSE NAME: Banking and Insurance Services
COURSE OUTCOMES:
After completing this paper, student will be able to

- Understanding the operations and working of insurance companies in India.
- Capability to assess the significance of online banking.
- Understanding the functions and significance of RBI in India.
- Knowledge regarding different models of bank assurance in India.
- Understanding of the different techniques of risk management.

COURSE CODE: MC-302
COURSE NAME: SEMINAR
COURSE OUTCOMES:
After completing this paper, student will be able to

- Basic orientation towards research.
- Understanding the practical application of theoretical models in the discipline of Commerce, Economics and Business Administration etc.
- Clarity regarding difference between qualitative and quantitative methods of research while writing a seminar report.
- Skill to write bibliography of a seminar report citing references from different sources.

COURSE CODE: MC-311
COURSE NAME: SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT
COURSE OUTCOMES:
After completing this paper, student will be able to

- Familiarization with the designing and construction of portfolios.
- Knowledge about techniques of doing investment analysis.
- Ability to identify and study the trends of stock markets.
- Ability to take investment decisions taking into consideration various determinants influencing investment decisions.

COURSE CODE: MC-312
COURSE NAME: CONTEMPORARY ACCOUNTING
COURSE OUTCOMES:
After completing this paper, student will be able to

- Practical knowledge about the application of HRA and Price level accounting in Indian context.
- Ability to write report with respect to recent trends in published accounts.
- Understanding of the practical use of Accounting Standards in preparation of financial statements.
- Skill to prepare value added statement and calculate economic value added.

COURSE CODE: MC-321

COURSE NAME: STRATEGIC MANAGEMENT
COURSE OUTCOMES:
After completing this paper, student will be able to

- Familiarization with the strategic management process.
- Understanding about the techniques to scan an environments and the role of environment scanning in hurdle less strategic management of an organization.
- Understanding about the equal importance of strategy formulation and strategy implementation.
- Clarity about the strategies followed by different companies in the corporate world.

COURSE CODE: MC-322
COURSE NAME: SECURITY MARKET OPERATIONS
COURSE OUTCOMES:
After completing this paper, student will be able to

- Familiarization with Capital Market and Depository System prevalent in capital markets.
- Clarity about the current status of Stock Exchanges in India.
- Understanding about the Trading, Clearing and Settlement procedures followed at stock exchanges.
- Clarity about the calculation methodology of Indices.

COURSE CODE: MC-351
COURSE NAME: CONSUMER BEHAVIOUR
COURSE OUTCOMES:
After completing this paper, student will be able to

- Knowledge about the consumer decision making process.
- Understanding of the influence of various environmental factors on consumer behavior.
- Have practical insight at the various stages of purchasing.

COURSE CODE: MC-352
COURSE NAME: RETAIL MANAGEMENT
COURSE OUTCOMES:
After completing this paper, student will be able to

- Knowledge about retailing practices followed in India.
- Ability to understand behavior of Retail shopper.
- Basics of Retail Merchandising and Merchandising Planning Process.
- Familiar with Merchandise Procurement and Retail pricing issues.

Semester-IV

COURSE CODE: MC-401
COURSE NAME: INTERNATIONAL ACCOUNTING
COURSE OUTCOMES:
After completing this paper, student will be able to

- Knowledge of concept, evolution and relevance of international accounting.

- Understanding of varying patterns and practices of financial reporting across the nations.
- Development of an insight to read between the lines while studying a financial statement of an MNC
- Understanding the procedures related to foreign currency translation, International taxation and Consolidation of Financial Statements in the context of MNCs.

COURSE CODE: MC-402
COURSE NAME: E- COMMERCE
COURSE OUTCOMES:
After completing this paper, student will be able to

- Ability to start up and operate e-commerce website.
- Familiarization with online payment services and different cyber laws.
- Ability to understand customer relationship life.
- Knowledge of cyber world and scope of cyber laws in E-commerce.

COURSE CODE: MC-411
COURSE NAME: INTERNATIONAL FINANCIAL MANAGEMENT
COURSE OUTCOMES:
After completing this paper, student will be able to

- Knowledge about IMF, World Bank, European Monetary System and their role in international financial management.
- Clarity about the role of central bank in international financial management.
- Ability to use various scanning techniques to scan the environment of host country.
- Understanding of the manner of management of exposures involved in international transactions.

COURSECODE: MC-412
COURSE NAME: FINANCIAL MARKETS AND FINANCIAL SERVICES
COURSE OUTCOMES:

- Knowledge of the progress of various components of Indian financial system.
- Clarity of stock market operations and the clearing and settlement procedures of stock exchanges.
- Detailed understanding about the Banking Structure of the country and its recent developments.

COURSE CODE: MC-413
COURSE NAME: CORPORATE TAX TAW & PLANNING
COURSE OUTCOMES:

- Ability to identify the difference between Tax Evasion, Tax Planning and Tax Avoidance.
- Understanding of various deductions, rebates and reliefs to reduce the taxable income and tax liability.
- Skill to take managerial decisions keeping in view the Income Tax Rules.
- Knowledge of Double Taxation Avoidance Agreement.

COURSE NAME: ADVERTISING AND SALES MANAGEMENT
COURSE CODE: MC-451
COURSE OUTCOMES:

After completing this paper, student will be able to

- Ability to study market trends and consumer behavior.
- Understanding of sales milestones, sales situations, selling styles and sales strategies followed by different business houses.
- Ability to connecting advertising strategies and organizational goals with the moral CODE of conduct in advertising.
- Skill to targeting new business and exploit new areas of opportunity.

COURSE CODE: MC-452
COURSE NAME: BRAND AND DISTRIBUTION MANAGEMENT
COURSE OUTCOMES:
After completing this paper, student will be able to

- Familiarization with Brand Management, Brand Equity and product branding strategies.
- Ability to measure Brand Performance using Research techniques.
- Understanding of various Retail formats and Retail locations.
- Ability to integrate Retail Supply Chain.

COURSE CODE: MC-453
COURSE NAME: SERVICES MARKETING
COURSE OUTCOMES:
After completing this paper, student will be able to

- Capability to evaluate the suitability of different pricing methods for services.
- Understanding of the roles of employees and customers in service delivery.
- Capability to analyze different service quality models.
- In-depth understanding of impact of service failure and recovery.
- Ability to analyze and interpret marketing research findings.

NAME OF PROGRAMME: MA (Economics)

COURSE CODE: MAE-101
COURSE NAME: MICRO ECONOMICS-I
COURSE OUTCOMES:
After completing this paper, student will be able to

- Microeconomics is helpful in efficient management of available resources of a country.
- It helps to make the rotational decisions to both produces and consumers in an economy.
- It provides tools for economic policies.
- Efficient utilization of resources.
- Useful in decision making.
- To examine the condition of economic welfare.

COURSECODE: MAE-102
COURSE NAME: MACRO ECONOMICS
COURSE OUTCOMES:

- It explains the working of the economics system as a whole.
- It is very useful to the planner for preparing economic plans for the country's development.
- It helps to achieve the goal of economics growth a higher GDP level and higher level of employment.
- The estimate of national income is very useful tool to analyze the performance of an economy.

COURSECODE: MAE-103
COURSE NAME: QUANTITATIVE TECHNIQUES FOR ECONOMICS
COURSE OUTCOMES:

- Quantitative techniques are very powerful medium through which we solve uncertainty in decision making and enhance project ability and efficiency in the business.
- These quantitative techniques evaluate planning factors and when these arise then provide meaningful solution to particular business problem.
- It's very helpful to provide more reliable and objective result.
- Looks at relationship between variables.

COURSE CODE: MAEO – 1
COURSE NAME: PUBLIC FINANCE
COURSE OUTCOMES:

- It's a very useful object to calculate the public revenue/govt. revenue and various sources of tax.
- It's also a study about public expenditure refers to the expenses incurred by the public bodies in order to fulfill the overall needs of the general public.
- Under an economy, public finance plays an important role for economic stabilization and remove inequality between rich and poor.

COURSE CODE: MAEO – 4
COURSE NAME: MONEY AND BANKING & FINANCE
COURSE OUTCOMES:

- It's very helpful to understand the role of medium of exchange and its value.
- Helpful to understand, how bank create rate of interest increase and decrease and why.
- Those study clear the relation between money and also usefulness of banks for public.
- Money creation in modern economy and money pay important.

Semester- II

COURSECODE: MAE-201
COURSE NAME: MICRO ECONOMICS-II
COURSE OUTCOMES:

- Microeconomics is helpful in efficient management of available resources of a country.
- It helps to make the rotational decisions to both produces and consumers in an economy.

- It provides tools for economic policies.
- Efficient utilization of resources.
- Useful in decision making.
- To examine the condition of economic welfare.

COURSECODE: MAE – 202
COURSE NAME: MACRO ECONOMICS-II
COURSE OUTCOMES:-

- It explains the working of the economics system as a whole.
- It is very useful to the planner for preparing economic plans for the country's development.
- It helps to achieve the goal of economics growth a higher GDP level and higher level of employment.
- The estimate of national income is very useful tool to analyze the performance of an economy.

COURSECODE: MAE-203
COURSE NAME: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II
COURSE OUTCOMES:-

- Quantitative techniques are very powerful medium through which we solve uncertainty in decision making and enhance project ability and efficiency in the business.
- These quantitative techniques evaluate planning factors and when these arise then provide meaningful solution to particular business problem.
- It's very helpful to provide more reliable and objective result.
- Looks at relationship between variables.

COURSE CODE: MAEO – 9
COURSE NAME: ECONOMICS OF AGRICULTURE
COURSE OUTCOMES:

- Agriculture economics plays a role in the economics of development.
- From agriculture economics know the study about how agriculture influence on national.
- Agriculture play vital role in generating employment.
- Also helpful to understand about agriculture makes provision for food for even increasing population.

COURSECODE: MAEO – 11
COURSE NAME: COMPUTER APPLICATION FOR ECONOMIST
COURSE OUTCOMES:

- It's very useful subject for today era, useful for economic researchers and students.
- By modern languages researchers and students can obtain maximum flexibility, portability, intellectual techniques by computer.
- They can perform very complex arithmetic operations faster with cent percent accuracy. They are used for some specific scientific and engineering purpose.

Semester- III

COURSE CODE: MAE – 301
COURSE NAME: ECONOMICS OF DEVELOPMENT
COURSE OUTCOMES:

- Development economics very helpful to understand the employment situation and how more job creation.
- Also very effectual in industry diverstication, digital media, life sciences, healthcare, aerospace defense and business services.
- Economic development also helpful to the increased presence of companies in the region translates to increased tax revenue for community projects and local infrastructure.

COURSECODE: MAE – 302
COURSE NAME: INTERNATIONAL ECONOMICS
COURSE OUTCOMES:

- Firstly, one of the beneficial point to earn foreign exchanges.
- By international economics study known about how optimum utilization of resources.
- International Economics is helpful subject for to spread business risks and improve organization efficiency.
- Also very helpful for student to know about how to deal international business to get benefits from government.

COURSECODE: MAE – 303
COURSE NAME: INDIAN ECONOMY
COURSE OUTCOMES:

- It's helpful to know about Indian economy like low per capita income, higher population below poverty line, poor infrastructure, and agriculture based economy and lower rate of capital formation tagged it as a developing economy in the world.
- It's helpful to know about the growth rate improved as a result of the economic reforms initiated since 1991.
- It's also to know about the India is the largest producer of milk, pulses and jute in the whole world.

COURSECODE: MAEO – 2
COURSE NAME: ECONOMICS OF LABOUR
COURSE OUTCOMES:

- From the labour economics students know how about fundamental and active factor of production.
- Labour has important contribution to the production of commodities.
- Economics of labour is very useful for understand the labour market in which labour demand and labour supply included. So it's important for any businessman.
- Form labour market student.

COURSECODE: MAEO – 10
COURSE NAME: ECONOMICS OF PUBLIC ENTERPRISES

COURSE OUTCOMES:

- It's helpful to know how the international market demands of their country and their enterprises.
- Employees receive a fair deal as compared to the help private sector.
- United controls of public enterprises ensure their economic functioning while enjoying economics of scale.
- They also pay dividends to the government and enhance earning and import.

Semester - IV

COURSECODE: MAE – 401
COURSE NAME: ECONOMICS FOR PLANNING
COURSE OUTCOMES:

- Economic planning is to make decision with respect to the use of resources.
- In communist countries the government makes both micro and macroeconomic decisions.
- By economic planning country can reduction of economic inequalities and unemployment and increase in saving and modernization.
- Economic planning plays an important role to remove BOP difficulties price stability, higher.

COURSECODE: MAE – 402
COURSE NAME: INTERNATIONAL ECONOMICS-II
COURSE OUTCOMES:

- Firstly, one of the beneficial point to earn foreign exchanges.
- By international economics study known about how optimum utilization of resources.
- International Economics is helpful subject for to spread business risks and improve organization efficiency.
- Also very helpful for student to know about how to deal international business to get benefits from government.

COURSECODE: MAE – 403
COURSE NAME: PUNJAB ECONOMY
COURSE OUTCOMES:

- Punjab economy one of the most important topic for students to know that Punjab importance in India and also for foreign economies.
- Punjab is also referred to as the "Granary of India" or "India's bread basket".
- Punjab economy is a rich economy; it produces in a big amount of wheat, rice fruits and vegetables etc.

COURSECODE: MAEO – 5
COURSE NAME: INDUSTRIAL ECONOMICS
COURSE OUTCOMES:

- When analyzing decision making at the levels of the individual firm and industry, industrial economics helps us understand that issues.
- Industrial economics helps to understand the levels at which capacity output and prices are set.

- It also helps to decide like how much firms invest in research and development.
- Industrial economics play an important role under labour market and their decision.

COURSECODE: MAEO – 7
COURSE NAME: ECONOMICS OF SOCIALISM
COURSE OUTCOMES:

- Economics of socialist based on public benefits, socialism has the greatest goal of common wealth.
- In this system government controls almost all of society's function; it can make better use of resources, labors and lands.
- Socialism reduces disparity in wealth not only in different areas but also in all societal rank and classes.

NAME OF PROGRAMME: POST GRADUATE DIPLOMA IN COMPUTER APPLICATION

PROGRAM OUTCOMES:

At the end of this programme, student will be

- Equipped with skills required for designing, developing applications in Information Technology.
- Able to learn the latest trends in various subjects of computers & information technology.
- The PG Diploma is aimed at graduates with a computing background and provides a detailed coverage of the key concepts and challenges in data and resource protection and computer software security.
- Implement hands on developing real life IT application as part of the study.
- To train graduate students in basic computer technology concepts and information technology applications.
- Prepare for all computer knowledge and Languages in one year.

PROGRAM SPECIFIC OUTCOMES:

After completing this programme, student will

- Understand fundamental concepts of computers and programming languages such as C Language.
- Able to identify software and hardware specification.
- Acquire knowledge related to Scripting Language, Database Management System and Computer Networks.
- Understand implementation of different software.
- Gain knowledge of E-commerce, online marketing etc.
- Able to develop applications based on C language HTML.
- Able to use internet, send and receive e-mails and downloading information on web.

SEMESTER-I

COURSE CODE: PAPER-I

COURSE NAME: PC COMPUTING-I (MS OFFICE) 2003
COURSE OUTCOMES:
After successful completion, Students will be able to

- Understand the basic terminology of MS Office.
- Create a new document, apply formatting and print the document.
- Perform Mail-Merge and apply features that affect the page layout of the document.
- Create effective and high quality document and design.
- Gain knowledge about functions of PowerPoint interface.
- Apply formatting, animation, transitions and add graphics.
- Apply templates and design layouts on PowerPoint presentation.
- Create worksheet, edit data, format data and cells and print worksheet.
- Use built in functions, construct formulae and insert chart.

COURSE CODE: PAPER-II
COURSE NAME: PC COMPUTING-II (PROFESSIONAL DTP)
COURSE OUTCOMES:
At the end of this course, students will

- Equipped with the basic knowledge of CorelDraw Graphics Suite.
- Familiar with the CorelDraw workspace, tools, panels, basic techniques.
- Gain an insight into the techniques of creating and manipulating vector (design) objects, shapes and color fills.
- Be able to work with artistic text for the creation of logos, labels and any other one page print design material.
- Add a great degree of dimensional effect and richness to your drawings.

COURSE CODE: PAPER-III
COURSE NAME: FUNDAMENTALS OF COMPUTER & OPERATING SYSTEMS
COURSE OUTCOMES:
After successful completion of this course, students will be able to

- Understand the role and services of Operating System.
- Understand the fundamentals hardware components and its specification.
- Familiarize with the role of computers in Business, Education and Society.
- Familiar with the anatomy of Windows.
- Understand and work with Command User Interface.
- Run internal and external commands of MS-DOS.
- Familiar with UNIX Operating System.

COURSE CODE: PAPER-IV
COURSE NAME: DATABASE MANAGEMENT SYSTEM THROUGH ORACLE-10G & SYSTEM ANALYSIS & DESIGN
COURSE OUTCOMES:
At the end of this course, students will be

- Familiarize with Databases Management System and its applications.
- Gain knowledge about database languages such as DDL, DML and DCL.
- Understand levels of Database Architecture and Mapping.
- Understand role and responsibilities of Database Administrator (DBA).
- Able to use data models to design databases.
- Able to perform queries related to SQL and PL/SQL.

SEMESTER-II

COURSE CODE: PAPER-I
COURSE NAME: NETWORK CONCEPTS AND MANAGEMENT
COURSE OUTCOMES:
At the end of this course, students will

- Acquire knowledge of Network Hardware and Software requirements.
- Able to design network using various topologies and differentiate types of network as well.
- Understand transmission media and design issues related to network.
- Understand OSI Reference Model and TCP/IP Model and functions of its layers.
- Understand and implement the concepts of Network Operating System and NT Server.
- Understand basic concepts of Network Security.

COURSE CODE: PAPER-II
COURSE NAME: PROGRAMMING IN C
COURSE OUTCOMES:
After successful completion, students will be able to:-

- Understand fundamental concepts of C programming.
- Acquire knowledge and skills of programming.
- Develop logics which will help them to create programs and applications in C.
- Understand flow control statements, storage classes, concepts of pointer and file handling.
- Learn to use functions, structure and union in programming.
- Easily switch over to any other language in future.

COURSE CODE: PAPER-III
COURSE NAME: INTRODUCTION TO SCRIPTING LANGUAGES, WEB DESIGNING & USES OF INTERNET
COURSE OUTCOMES:
After successful completion of this course, students will be:

- Able to design WebPages using HTML and DHTML.
- Able to identify and debug error while web designing
- Familiarize with the concepts of links, addresses, images, hyperlink and tables.
- Understand and use Front Page 2000.
- Acquire knowledge of Internet, WWW, E-mail, FTP, IRC and Virtual Reality.
- Learn about cybercrime its types, cookies and computer Viruses.

COURSE CODE: PAPER- IV (OPTION- i)
COURSE NAME: PROGRAMMING IN VISUAL BASIC WITH ACTIVE-X
COURSE OUTCOMES:

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

- Understand fundamental concepts of Visual Basic (VB).
- Design and develop programs and applications using the concepts of VB.
- Identify and debug errors in applications using Visual Basic.
- Develop GUI (Graphical User Interface) applications using Visual Basic.
- Acquire knowledge of Active-X its controls, documents and wizards.
- Develop applications and projects based on Visual Basic.

COURSE CODE: PAPER-IV
COURSE NAME: (OPTION-ii) E-COMMERCE / BUSINESS
COURSE OUTCOMES:
After successful completion this course, students will be able to:-

- Understand latest trends and e-commerce infrastructure.
- Analyze the impact of E-commerce on business models and strategy
- Describe Internet trading relationships including Business to Consumer, Business-to Business, Intra-organizational.
- Understand technological aspects of e-commerce, authentication mechanism.
- Acquire knowledge of laws of e-commerce and legal issues related to internet commerce.
- To do case studies based on e-commerce in various business areas.

COURSE CODE: PAPER-IV
COURSE NAME: (OPTION-iii) MULTIMEDIA SYSTEM
COURSE OUTCOMES:

At the end of this course, students will:

- Able to describe types of multimedia and multimedia system.
- Understand methodology to develop multimedia system.
- Understand basics of multimedia content description.
- Able to analyses user perception of multimedia tools.
- Familiarize with concepts of video and image retrieval techniques.

COURSE CODE: PAPER-IV
COURSE NAME: (OPTION-iv) INSTALLATION AND MAINTENANCE OF COMPUTER SYSTEM
COURSE OUTCOMES:

At the end, the students will be able to:

- Understand designing and site preparation of computer labs.
- Familiarize with installation, testing of computer system/hubs/switched/Network media.
- Understand computer maintenance and use of diagnostic software's.
- Identify error, messages, fault and its rectification.
- Know about local part substitution and maintenance of equipment.

NAME OF PROGRAMME: M.Sc. (Physics)

PROGRAMME OUTCOMES:

- Fundamentals and advancements in nuclear physics and their applications in the area of nuclear reactors, accelerators, and medicine.
- Fundamentals and advancements in electronics, microprocessors, and their applications in electronic devices and microwave and optical fiber communications.
- Fundamentals and electromagnetic properties of materials, their characterization techniques, as well as advancements in the area of nano materials.
- Various aspects of natural laws in the regimes of classical and quantum techniques.

SEMESTER – I
COURSE NAME: CLASSICAL MECHANICS
COURSE OUTCOMES:
After completing this paper, student will be able to

- Necessity of Lagrangian and Hamiltonian formulations.
- Essential features of a problem (like motion under central force, rigid body dynamics, and periodic motions), use them to set up and solve the appropriate mathematical equations, and make quick and easy checks on the answer to catch simple mistakes.
- Theory of small oscillations which is important in several areas of physics e.g., molecular spectra, acoustics, vibrations of atoms in solids, coupled mechanical oscillators and electrical circuits.

COURSE NAME: MATHEMATICAL PHYSICS:
COURSE OUTCOMES:
After completing this paper, student will be able to

- To impart knowledge about various mathematical tools employed to study physics problems.
- Students will have understanding of various techniques to solve differential equations
- Students will know how to use special functions in various physics problems.

COURSE NAME: ELECTRONICS
COURSE OUTCOMES:
After completing this paper, student will be able to

- To introduce students to entire circuit designs, and to provide in-depth theoretical base of Digital Electronics.
- Help to understand fundamental designing concepts of different types of Logic Gates, Minimization techniques etc.
- Designing of different types of the Digital circuits, and to give the computational details for Digital Circuits.
- Knowledge and characteristics of devices like PNP, and NPN junction diode and truth tables of different logic gates.

COURSE NAME: COMPUTATIONAL TECHNIQUES
COURSE OUTCOMES:
After completing this paper, student will be able to

- To give exposure about various computational techniques to solve physics using advance computer programming languages.

- Students will have understanding of various computational methods like Euler, Newton-Raphson and RangaKutta useful to solve research problems.
- They will also know about various simulation techniques which can be used in future by students to analyses the data.
- Student will be familiar with MATLAB.

SEMESTER - II

COURSE NAME: QUANTUM MECHANICS – I
COURSE OUTCOMES:
After completing this paper, student will be able to

- To give exposure about the various tools employed to analyze the quantum mechanical problems.
- Students will have understanding of importance of quantum mechanics compared to classical mechanics at microscopic level.
- They will know about various tools to calculate Eigen values and total angular momentum of particles.
- They will be able to apply approximation methods and scattering theories.

COURSE NAME: CONDENSED MATTER PHYSICS – I
COURSE OUTCOMES:
After completing this paper, student will be able to

- To study some of the basic properties of the condensed phase of materials especially solids.
- Students will have understanding of structures in solids and their determination using XRD.
- Understanding the behavior of electrons in solids including the concept of energy bands and effect of the same on material properties.
- Knowledge of electrical, thermal, magnetic and dielectric properties of solids.

COURSE NAME: ATOMIC AND MOLECULAR SPECTROSCOPY
COURSE OUTCOMES:
After completing this paper, student will be able to

- Objective of this course is to learn atomic, molecular and spin resonance spectroscopy.
- Students will have understanding of atomic spectroscopy of one and two valance electron atoms.
- They will know the change in behavior of atoms in external applied electric and magnetic field.
- They will get the knowledge of rotational, vibration, electronic and Raman spectra of molecules.
- Students will acquire the knowledge of electron spin and nuclear magnetic resonance spectroscopy.

COURSE NAME: ELECTRODYNAMICS – I
COURSE OUTCOMES:
After completing this paper, student will be able to

- To apprise the students regarding the concepts of electrodynamics and its use in various situations.
- Students will have understanding of time-varying fields and Maxwell equations.
- Knowledge of various concepts of electromagnetic waves.

- Understanding the radiation from localized time varying sources, and the charged particle dynamics.

COURSE NAME: CONDENSED MATTER PHYSICS LAB
COURSE OUTCOMES:
After completing this paper, student will be able to

- To experimentally realize the structural, optical, magnetic and electric behavior of condensed matters.
- Students will have understanding of how to determine the crystal structure, lattice parameter and crystallite size?
- Measurement and analysis of various types of transport.
- Optical characterization of solid.
- Magnetic and dielectric behavior of solids.

SEMESTER – III
COURSE NAME: QUANTUM MECHANICS - II
COURSE OUTCOMES:
After completing this paper, student will be able to

- To give exposure about the various tools employed to analyze the quantum mechanical problems.
- Students will have understanding of importance of quantum mechanics compared to classical mechanics at microscopic level.
- They will know about various tools to calculate Eigen values and total angular momentum of particles.
- They will be able to apply approximation methods and scattering theories.

COURSE NAME: ELECTRODYNAMICS – II
COURSE OUTCOMES:
After completing this paper, student will be able to

- To apprise the students regarding the concepts of electrodynamics and its use in various situations.
- Students will have understanding of time-varying fields and Maxwell equations.
- Knowledge of various concepts of electromagnetic waves.
- Understanding the radiation from localized time varying sources, and the charged particle dynamics.

COURSE NAME: NUCLEAR PHYSICS
COURSE OUTCOMES:
After completing this paper, student will be able to

- To impart knowledge about basic nuclear physics properties and nuclear models for understanding of related reaction dynamics.
- Students will have understanding of basic properties of nucleus and nuclear models to study the nuclear structure properties.
- They will know various aspects of nuclear reactions will give idea how nuclear power can be generated.

COURSE NAME: STATISTICAL MECHANICS:
COURSE OUTCOMES:
After completing this paper, student will be able to

- The objective of this course is to learn the properties of macroscopic systems using the knowledge of the properties of individual particles.
- Students will have understanding of connection between statistics and thermodynamics.
- They will know different ensemble theories to explain the behavior of the systems.
- Difference between classical statistics and quantum statistics.
- Statistical behavior of ideal Bose and Fermi systems.

COURSE NAME: NUCLEAR PHYSICS LAB
COURSE OUTCOMES:
After completing this paper, student will be able to

- Aim of Nuclear Physics Lab is to train the students for advanced techniques in nuclear physics so that they can investigate various relevant aspects and be confident to handle sophisticated instruments of nuclear physics.
- Students will have understanding of how to operate a GM counter?
- How to find the absorption coefficient of different materials?
- How to handle nuclear materials and nuclear safely management.

COURSE NAME: CONDENSED MATTER PHYSICS LAB
COURSE OUTCOMES:
After completing this paper, student will be able to

- To experimentally realize the structural, optical, magnetic and electric behavior of condensed matters.
- Students will have understanding of how to determine the crystal structure, lattice parameter and crystallite size?
- Measurement and analysis of various types of transport.
- Optical characterization of solid.
- Magnetic and dielectric behavior of solids.

SEMESTER - IV
COURSE NAME: PARTICLE PHYSICS
COURSE OUTCOMES:
After completing this paper, student will be able to

- To impart the knowledge of fundamental particles, fundamental interaction and the range and strength of these interactions with the concept of particle antiparticle or matter antimatter.
- Students will have understanding of need of standard model and its limitations and the properties of QCD.
- Basic rules of Feynman diagrams and the quark model for hadrons
- Properties of neutrons and protons in terms of a simple quark model.
- Weak interaction between quarks and how that this is responsible for β decay.
- Leptons and how the (electron) neutrinos and (electron) antineutrinos are produced during β+ and β- decays respectively.

COURSE NAME: CONDENSED MATTER PHYSICS - II

COURSE OUTCOMES:

After completing this paper, student will be able to

- To study some of the basic properties of the condensed phase of materials especially solids.
- Students will have understanding of structures in solids and their determination using XRD.
- Understanding the behavior of electrons in solids including the concept of energy bands and effect of the same on material properties.
- Knowledge of electrical, thermal, magnetic and dielectric properties of solids.

COURSE NAME: PHYSICS OF MATERIALS

COURSE OUTCOMES:

After completing this paper, student will be able to

- To introduce the students to the principles of optical and electron microscopy, X-ray diffraction and various spectroscopic techniques.
- Students will be able to apply appropriate characterization techniques for microstructure examination at different magnification level.
- Understand the crystal structure determination and phase analysis of the materials.
- Able to examine the electronic structure, and the thermal behavior of the materials

COURSE NAME: RADIATION PHYSICS

COURSE OUTCOMES:

After completing this paper, student will be able to

- To impart knowledge in depth about nuclear radiation, its detection, nuclear spectrometry and related aspects
- Students will have understanding of nuclear radiation and its detection procedure, nuclear spectrometry.
- Applications of nuclear spectrometry.
- How to solve problems related to safety aspect of nuclear radiation.

NAME OF PROGRAMME: M.Sc. (FASHION DESIGNING)

SEMESTER-I

COURSE CODE: PAPER-I

COURSE NAME: FASHION ILLUSTRATION

COURSE OUTCOMES:

After completing this paper, student will be able to

- The basic in illustration is increase with the help of developing skills and you want to make a good illustrator.
- Understood the level of sketching and how to illustrate and object.
- Its helps to understand the knowledge about rendering and different-different color schemes.
- It helps to get more knowledge about color and basic to final illustration matter.
- According to fashion industry the designer mostly selecting in job of sketching.

COURSE CODE: PAPER-III

COURSE NAME: PATTERN MAKING AND GRADING
COURSE OUTCOMES:
After completing this paper, student will be able to

- Level of interest and concentration will be increased.
- Understood proper knowledge about pattern making and grading.
- Get proper knowledge about cutting the garment and how to manage it.
- Set our own business within stitching, grading or pattern making and drafting.
- Its helps to improve the skills about proper cutting and pattern making processer.

COURSE CODE: PAPER-IV
COURSE NAME: COMPUTER AIDED FASHION DESIGNING
COURSE OUTCOMES:
After completing this paper, student will be able to

- Design the women's garment with suitable texture.
- Formulate the familiar logos for Indian and international apparel branded company.
- Illustrate the basic small designs as motifs.

COURSE CODE: PAPER-V
COURSE NAME: HISTORY OF INDIAN COSTUME
COURSE OUTCOMES:
After completing this paper, student will be able to

- Level of historical thinks is increased and understood the history of India and get knowledge about cultural costumes.
- Students improve the skills about different-different fabric and costumes.
- In this each and every type of state and historical costume are included which through the knowledge about-which people wear which type of costume.

COURSE CODE: PAPER-VI
COURSE NAME: COMMUNICATION SKILLS IN ENGLISH
COURSE OUTCOMES:
After completing this paper, student will be able to

- Understand and apply knowledge of human communication and language process as they occur across various contexts.
- To find, use, and evaluate primary academic writing associated with the communication discipline.
- To communicate effectively oral and in writing.
- Develop knowledge, skills and judgment around human communication.
- Develop ability to work collaboratively with others.

SEMESTER-II

COURSE CODE: PAPER-I
COURSE NAME: FASHION ILLUSTRATION
COURSE OUTCOMES:
After completing this paper, student will be able to

- The basic in illustration is increase with the help of developing skills and you want to make a good illustrator.
- Understood the level of sketching and how to illustrate and object.
- Its helps to understand the knowledge about rendering and different-different color schemes.
- It helps to get more knowledge about color and basic to final illustration matter.
- According to fashion industry the designer mostly selecting in job of sketching.

COURSE CODE: PAPER-III
COURSE NAME: PATTERN DEVELOPMENT AND DRAPING
COURSE OUTCOMES:
After completing this paper, student will be able to

- Level of knowledge and concentration is increased for making the pattern.
- In this we collect the knowledge about pattern development.
- Understood the knowledge about draping of the fabric with the help of muslin cloth.
- Developing the skills in patternmaking, and draping with fully professional way.

COURSE CODE: PAPER-IV
COURSE NAME: COMPUTER AIDED FASHION DESIGNING
COURSE OUTCOMES:
After completing this paper, student will be able to

- Design the women's garment with suitable texture.
- Formulate the familiar logos for Indian and international apparel branded company.
- Illustrate the basic small designs as motifs.

COURSE CODE: PAPER-VI
COURSE NAME: TRADITIONAL INDIAN EMBROIDERIES
COURSE OUTCOMES:
After completing this paper, student will be able to

- Level of concentration will be increased in different types of designing.
- Level of skills in traditional embroideries and traditional fabric will be increased.
- We will set our carrier in bases on embroideries in fashion field.
- We will get more knowledge about the different cultural fashion and style and how to wear it.
- We have a great opportunity for future reference.

SEMESTER-III

COURSE CODE: PAPER-II
COURSE NAME: ADVANCED DRAPING
COURSE OUTCOMES:
After completing this paper, student will be able to

- To apply the learned techniques of draping to develop a product.
- To apply the technique effectively for a desired fit in a garment.
- Through grading process, students will be able to develop pattern for different sizes.
- Understand the relevance of draping in fashion.

- Identify specific garment features and pattern shapes to construct them.

COURSE CODE: PAPER-III
COURSE NAME: COMPUTER AIDED FASHION DESIGNING
COURSE OUTCOMES:
After completing this paper, student will be able to

- Design the women's garment with suitable texture.
- Formulate the familiar logos for Indian and international apparel branded company.
- Illustrate the basic small designs as motifs.

COURSE CODE: PAPER-IV
COURSE NAME: SURFACE ORNAMENTATION
COURSE OUTCOMES:
After completing this paper, student will be able to

- Level of concentration and activation of mind will be began
- Understand the knowledge about coloring and different types of techniques.
- In this block printing, screen printing, tie and dye and other different method will used for the texture to the fabric.
- The great opportunity of job replacement.

COURSE CODE: PAPER-V
COURSE NAME: GLOBAL COSTUMES
COURSE OUTCOMES:
After completing this paper, student will be able to

- If we have knowledge about the global costume you will make any type of costume accordingly.
- Understood the knowledge about different state costumes.
- In industrial area we get the better job in dress designing section.
- Increase the major level of designing and get more knowledge about traditional garment.

COURSE CODE: PAPER-VI
COURSE NAME: INDIAN TRADITIONAL TEXTILE
COURSE OUTCOMES:
After completing this paper, student will be able to

- Level of concentration and activation of mind will be began
- Understood the knowledge about all state different fabric and textile.
- Get the proper knowledge about Indian state costume different design fabric and textile.

SEMESTER-IV

COURSE CODE: PAPER-IV
COURSE NAME: TEXTILE CHEMISTRY
COURSE OUTCOMES:
After completing this paper, student will be able to

- Understood the knowledge about chemical which will use for making the yarns and fibres.

- Get the proper knowledge about how to make the fibres and different textile.
- Understood the chemical structure of textile fibre and the effect of various chemical.
- Understood the knowledge about knitting, microscopic solubility etc.
- Get more opportunity within textile industry.

COURSE CODE: PAPER-V
COURSE NAME: COMMUNICATION SKILLS IN ENGLISH
COURSE OUTCOMES:

After completing this paper, student will be able to

- Understand and apply knowledge of human communication and language process as they occur across various contexts.
- To find, use, and evaluate primary academic writing associated with the communication discipline.
- To communicate effectively oral and in writing.
- Develop knowledge, skills and judgment around human communication.
- Develop ability to work collaboratively with others.