DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

COURSE OUTCOMES

Course Name: MAT 101 LINEAR ALGEBRA AND CALCULUS

Sl.No	DESCRIPTION
MAT101.1	solve systems of linear equations, diagonalize matrices and characterise quadratic forms
MAT101.2	compute the partial and total derivatives and maxima and minima of multivariable functions
MAT101.3	compute multiple integrals and apply them to find areas and volumes of geometrical shapes, mass and centre of gravity of plane laminas
MAT101.4	perform various tests to determine whether a given series is convergent, absolutely convergent or conditionally convergent
MAT101.5	determine the Taylor and Fourier series expansion of functions and learn their applications

Course Name: PHT 100 ENGINEERING PHYSICS A

Sl.No	DESCRIPTION
PHT100.1	Compute the quantitative aspects of waves and oscillations in engineering systems
PHT100.2	Apply the interaction of light with matter through interference, diffraction and identify these phenomena in different natural optical processes and optical instruments
PHT100.3	Analyze the behaviour of matter in the atomic and subatomic level through the principles of quantum mechanics to perceive the microscopic processes in electronic devices.
PHT100.4	Classify the properties of magnetic materials and apply vector calculus to static magnetic fields and use Maxwell's equations to diverse engineering problems
PHT100.5	Analyze the principles behind various superconducting applications, explain the working of solid state lighting devices and fibre optic communication system

Course Name: CYT 100 ENGINEERING CHEMISTRY

Sl.No	DESCRIPTION
CYT100.1	Apply their knowledge for protection of different metals from corrosion. To prevent the monuments from getting corroded,recent trends in electrochemical energy storage devices.
CYT100.2	Learn how to use different spectroscopy techniques for analysis purpose of simple molecules.
CYT100.3	Design economically and new methods of synthesis nano materials.
CYT100.4	Substitute metals with conducting polymers and also produce cheaper biodegradable polymers to reduce environmental pollution.
CYT100.5	Develop innovative methods to produce soft water for industrial use and potable water at cheaper cost.

Course Name: EST 100 ENGINEERING MECHANICS

Sl.No	DESCRIPTION
EST100.1	Recall principles and theorems related to rigid body mechanics
EST100.2	Identify and describe the components of system of forces acting on the rigid body
EST100.3	Apply the conditions of equilibrium to various practical problems involving different force system
EST100.4	Choose appropriate theorems, principles or formulae to solve problems of mechanics
EST100.5	Solve problems involving rigid bodies, applying the properties of distributed areas and masses

Course Name: EST 110 ENGINEERING GRAPHICS

Sl.No	DESCRIPTION
EST 110.1	Draw the projection of points and lines located in different quadrants
EST 110.2	Prepare multi-view orthographic projections of objects by visualizing them in different positions
EST 110.3	Draw sectional views and develop surfaces of a given object
EST 110.4	Prepare pictorial drawings using the principles of isometric and perspective projections to visualize objects in three dimensions.
EST 110.5	Convert 3D views to orthographic views, Obtain multiview projections and solid models of objects using CAD tools

Course Name: EST 120 BASIC CIVIL AND MECHANICAL ENGINEERING

Sl.No	DESCRIPTION
EST120.1	Recall the role of civil engineer in society and to relate the various disciplines of Civil Engineering.
EST120.2	Explain different types of buildings, building components, building materials and building construction
EST120.3	Describe the importance, objectives and principles of surveying.
EST120.4	Summarise the basic infrastructure services MEP,HVAC, elevators, escalators and ramps
EST120.5	Discuss the Materials, energy systems, water management and environment for green buildings.

Course Name: EST 130 BASICS OF ELECTRICAL AND ELECTRONICS ENGINEERING

Sl.No	DESCRIPTION
EST 130.1	The students will be able to apply fundamental concepts and circuit laws to solve simple DC electric circuits
EST 130.2	The students will be able to develop and solve models of magnetic circuits
EST 130.3	The students will be able to apply the fundamental laws of electrical engineering to solve simple ac circuits in steady state
EST 130.4	The students will be able to describe working of a voltage amplifier
EST 130.5	The students will be able to outline the principle of an electronic instrumentation system. The students will be able to explain the principle of radio and cellular communication

Course Name: HUN 101 LIFESKILLS

Sl.No	DESCRIPTION
HUN101.1	Define and Identify different life skills required in personal and professional life
HUN101.2	Develop an awareness of the self and apply well-defined techniques to cope with emotions and stress.
HUN101.3	Explain the basic mechanics of effective communication and demonstrate these through presentations.
HUN101.4	Explain the basic mechanics of effective communication and demonstrate these through presentations.
HUN101.5	Understand the basics of teamwork and leadership

Course Name: PHL 120 ENGINEERING PHYSICS LAB

Sl.No	DESCRIPTION
PHL120.1	Compute the quantitative aspects of waves and oscillations in engineering systems
PHL120.2	Apply the interaction of light with matter through interference, diffraction and identify these phenomena in different natural optical processes and optical instruments
PHL120.3	Apply the concept of polarization to understand the wave nature of light and the metod of analyzing the light whether it is polarized or not.Explain types of superconductivity and their applications
PHL120.4	Analyze the behaviour of matter in the atomic and subatomic level through the principles of quantum mechanics to perceive the microscopic processes in electronic devices
PHL120.5	Compute the quantitative aspects of waves and oscillations in engineering systems

Course Name: CYL 120 ENGINEERING CHEMISTRY LAB

Sl.No	DESCRIPTION
CYL 120.1	Understand the practice different techniques of quantitative chemical analysis to generate experimental skills and apply these skills to various analysis.
CYL 120.2	Develop skills relevant to synthesis organic polymers and acquire the practical skills to use TLC for the identification of drugs.
CYL 120.3	Develop the ability to understand and explain the use of modern spectroscopic techniques for analysiing and interpreting the IR spectra of somer organic compounds
CYL 120.4	Aquire the ability to understand, explain and use instrumental techniques for chemical analysis.
CYL 120.5	Learn to design and carry out scientific experiments as well as accurately record and analyse the result of such experiment. Also understand how chemistry addresses ,economical and experimental problems and why it is an integral part of curriculum.

Course Name: ESL120 CIVIL & MECHANICAL WORKSHOP

Sl.No	DESCRIPTION
ESL120.1	Name different devices and tools used for civil engineering measurements
ESL120.2	Explain the use of various tools and devices for various field measurements

ESL120.3	Demonstrate the steps involved in civil engineering activities like plot measurement, seting out operation, evaluating the natural profile of land, plumbing and undertasking simple construction work
ESL120.4	Choose materials and methods required for basic civil engineering activities like field measurements, masonry work and plumbing.
ESL120.5	Compare different techniques and devices used in civil engineering measurements

Course Name: ESL 130 BASIC ELECTRICAL AND ELECTRONICS WORKSHOP

Sl.No	DESCRIPTION
ESL130.1	Demonstrate safety measures against electric shocks
ESL130.2	identify the tools used for electrical wiring ,electrical accessories, wires, cables, batteries and standard symbols
ESL130.3	Develop the connection diagram, identify the suitable accessories and materials necessary for wiring simple lighting circuits for domestic buildings.
ESL130.4	Identify and test various electronic components. Assemble and test electronic circuits on boards
ESL130.5	Draw circuit schematics with EDA tools a team with good interpersonal skills

Course Name: MAT 102 VECTOR CALCULUS DIFFERENTIAL EQUATIONS TRANSFORMS

Sl.No	DESCRIPTION
MAT 102.1	Compute the derivatives and line integrals of vector functions and learn their applications
MAT 102.2	Evaluate surface and volume integrals and learn their inter-relations and applications
MAT 102.3	Solve homogeneous and non-homogeneous linear differential equation with constant coefficients
MAT 102.4	Compute Laplace transform and apply them to solve ODEs arising in engineering
MAT 102.5	Determine the Fourier transforms of functions and apply them to solve problems arising in engineering

Course Name: HUN 102 PROFESSIONAL COMMUNICATION

Sl.No	DESCRIPTION
HUN 102.1	Understand the role of communication in personal & professional success
HUN 102.2	Understand the role of communication in personal & professional success
HUN 102.3	Prepare and present messages with a specific intent.
HUN 102.4	Analyze a variety of communication acts.
HUN 102.5	Ethically use, document and integrate sources

Course Name: EST 102 PROGRAMMING IN C

Sl.No	DESCRIPTION
E102.1	Analyze a computational problem and develop an algorithm/flowchart to find its solution.
E102.2	Develop readable C programs with branching and looping statements, which uses Arithmetic, Logical, Relational or Bitwise operators.
E102.3	Write readable C programs with arrays, structure or union for storing the data to be processed
E102.4	Divide a given computational problem into a number of modules and develop a readable multi-function C program by using recursion if required,to find the solution to the computational problem
E102.5	Write readable C programs which use pointers for array processing and parameter passing, develop readable C programs with files for reading input and storing output.

Course Name: MAT 203 DISCRETE MATHEMATICAL STRUCTURES

Sl.No	DESCRIPTION
M203.1	Check the validity of predicates in Propositional and Quantified Propositional Logic using truth tables, deductive reasoning and inference theory on Propositional Logic
M203.2	Solve counting problems by applying the elementary counting techniques - Rule of Sum, Rule of Product, Permutation, Combination, Binomial Theorem, Pigeonhole Principle and Principle of Inclusion and Exclusion
M203.3	Classify binary relations into various types and illustrate an application for each type of binary relation, in Computer Science
M203.4	Illustrate an application for Partially Ordered Sets and Complete Lattices, in

	Computer Science
M203.5	Explain Generating Functions and solve First Order and Second Order Linear Recurrence Relations with Constant Coefficients and to illustrate the abstract algebraic systems - Semigroups, Monoids, Groups, Homomorphism and Isomorphism of Monoids and Groups

Course Name: CST 201 DATA STRUCTURES

Sl.No	DESCRIPTION
CST201.1	Design an algorithm for a computational task and calculate the time/space complexities of that algorithm.
CST201.2	Identify the suitable data structure (array or linked list) to represent a data item required to be processed to solve a given computational problem and write an algorithm to find the solution of the computational problem.
CST201.3	Write an algorithm to find the solution of a computational problem by selecting an appropriate data structure (binary tree/graph) to represent a data item to be processed.
CST201.4	Store a given dataset using an appropriate Hash Function to enable efficient access of data in the given set.
CST201.5	Select appropriate sorting algorithms to be used in specific circumstances. Design and implement Data Structures for solving real world problems efficiently.

Course Name: CST 203 LOGIC SYSTEM DESIGN

Sl.No	DESCRIPTION
CST203.1	Illustrate decimal, binary, octal, hexadecimal and BCD number systems, perform conversions among them and do the operations - complementation, addition, subtraction, multiplication and division on binary numbers
CST203.2	Simplify a given Boolean Function and design a combinational circuit to implement the simplified function using Digital Logic Gates
CST203.3	Design combinational circuits - Adders, Code Convertors, Decoders, Magnitude Comparators, Parity Generator/Checker and design the Programmable Logic Devices - ROM and PLA
CST203.4	Design sequential circuits - Registers, Counters and Shift Registers
CST203.5	Use algorithms to perform addition and subtraction on binary, BCD and floating point numbers

Course Name: CST 205 OBJECT ORIENTED PROGRAMMING

Sl.No	DESCRIPTION
CST 205.1	Write Java programs using the object oriented concepts - classes, objects, constructors, data hiding, inheritance and polymorphism
CST 205.2	Utilise datatypes, operators, control statements, built in packages & interfaces, Input/ Output Streams and Files in Java to develop programs
CST 205.3	Illustrate how robust programs can be written in Java using exception handling mechanism
CST 205.4	Write application programs in Java using multithreading
CST 205.5	Write Graphical User Interface based application programs by utilising event handling features and Swing in Java

Course Name: EST 200 DESIGN AND ENGINEERING

Sl.No	DESCRIPTION
EST 200.1	Appreciate the different concepts and principles involved in design engineering
EST 200.2	Apply design thinking while learning and practicing engineering.
EST 200.3	Develop innovative, reliable, sustainable and economically viable designs incorporating different segments of knowledge in engineering.

Course Name: MCN 201 SUSTAINABLE ENGINEERING

Sl.No	DESCRIPTION
M201.1	Understand the relevance and the concept of sustainability and the global initiatives in this direction.
M201.2	Explain the different types of environmental pollution problems and their sustainable solutions.
M201.3	Discuss the environmental regulations and standards.
M201.4	Outline the concepts related to conventional and non-conventional energy.
M201.5	Demonstrate the broad perspective of sustainable practices by utilizing engineering knowledge and principles.

Course Name: CSL 201 DATA STRUCTURES LAB

Sl.No	DESCRIPTION
CSL201.1	Write a time/space efficient program using arrays/linked lists/trees/graphs to provide necessary functionalities meeting a given set of user requirements
CSL201.2	Write a time/space efficient program to sort a list of records based on a given key in the record
CSL201.3	Examine a given Data Structure to determine its space complexity and time complexities of operations on it.
CSL201.4	Design and implement an efficient data structure to represent given data
CSL201.5	Write a time/space efficient program to convert an arithmetic expression from one notation to another. Write a program using linked lists to simulate Memory Allocation and Garbage Collection

Course Name: CSL 203 OBJECT ORIENTED PROGRAMMING LAB (In JAVA)

Sl.No	DESCRIPTION
CSL203.1	Implement basic programs in Java which use datatypes, operators, control statements and command line arguments.
CSL203.2	Implement the Object Oriented concepts - constructors, inheritance, method overloading & overriding and polymorphism in Java
CSL203.3	Implement programs in Java which use built in packages & interfaces, Input/Output streams and Files
CSL203.4	Implement robust application programs in Java using exception handling and String library.
CSL203.5	Implement application programs in Java using multithreading and collections framework. Implement Graphical User Interface based application programs by utilizing event handling features in Swing and Java database connectivity

Course Name: MAT 216 MATHEMATICAL FOUNDATIONS FOR MACHINE LEARNING

Sl no	DESCRIPTION
M216.1	Make use of the concepts, rules and results about linear equations, matrix algebra, vector spaces, eigenvalues & eigenvectors and orthogonality & diagonalization to solve computational problems.
M216.2	Perform calculus operations on functions of several variables and matrices, including partial derivatives and gradients.
M216.3	Utilize the concepts, rules and results about probability, random variables, additive & multiplicative rules, conditional probability, probability distributions and Bayes' theorem to find solutions of computational problems.
M216.4	Train Machine Learning Models using unconstrained and constrained optimization methods .

Course Name: CST 202 COMPUTER ORGANIZATION AND ARCHITECTURE

Sl.No	DESCRIPTION
C202.1	Recognize the basic structure of a computer,express the concepts of basic processing unit and bus structure.
C202.2	Illustrate the register transfer logic and the design of processor logic
C202.3	Demontrate arithmetic algorithms and pipelining schemes in a digital computer
C202.4	Design control logic for a given arithmetic problem
C202.5	Recognize the relevance of I/O organization and memory system

Course Name: CST 204 DATABASE MANAGEMENT SYSTEMS

Sl.No	DESCRIPTION
C204.1	Summarize and exemplify fundamental nature and characteristics of database systems
C204.2	Model real word scenarios given as informal descriptions, using Entity Relationship diagrams.
C204.3	Model and design solutions for efficiently representing and querying data using relational model

C204.4	Demonstrate the features of indexing and hashing in database applications
C204.5	Explain various types of NoSQL databases and discuss the aspects of Concurrency Control and Recovery in Database systems

Course Name: CST 206 OPERATING SYSTEMS

Sl.No	DESCRIPTION
CST 206.1	Explain the relevance, structure and functions of Operating Systems in computing devices.
CST 206.2	Illustrate the concepts of process management and process scheduling mechanisms employed in Operating Systems
CST 206.3	Explain process synchronization in Operating Systems and illustrate process synchronization mechanisms using Mutex Locks, Semaphores and Monitors
CST 206.4	Explain any one method for detection, prevention, avoidance and recovery for managing deadlocks in Operating Systems and to
CST 206.5	Explain the memory management algorithms, security aspects, algorithms for file and storage management in Operating Systems

Course Name: HUT 200 PROFESSIONAL ETHICS

Sl.No	DESCRIPTION
HUT 200.1	Understand the core values that shape the ethical behavior of a professional.
HUT 200.2	Adopt a good character and follow an ethical life
HUT 200.3	Explain the role and responsibility in technological development by keeping personal ethics and legal ethics.
HUT 200.4	Solve moral and ethical problems through exploration and assessment by established experiments.
HUT 200.5	Apply the knowledge of human values and social values to contemporary ethical values and global issues.

Course Name: MCN202 CONSTITUTION OF INDIA

Sl.No	DESCRIPTION
MCN202.1	Explain the background of the present constitution of India and features.
MCN202.2	Utilize the fundamental rights and duties.
MCN202.3	Understand the working of the union executive, parliament and judiciary.
MCN202.4	Understanding the working of the state executive, legislature and judiciary.
MCN202.5	Utilize the special provisions and statutory institutions. Show national and patriotic spirit as responsible citizens of the country

Course Name: AIL 202 DATABASE MANAGEMENT SYSTEMS LAB

Sl.No	DESCRIPTION
AIL 202.1	Design database schema for a given real world problem-domain using standard design and modeling approaches.
AIL 202.2	Construct queries using SQL for database creation, interaction, modification, and updation.
AIL 202.3	Design and implement triggers and cursors.
AIL 202.4	Implement procedures, functions, and control structures using PL/SQL.
AIL 202.5	Perform CRUD operations in NoSQL Databases and Develop database applications using front-end tools and back-end DBMS.

Course Name: CSL 204 OPERATING SYSTEMS LAB

Sl.No	**DESCRIPTION**
CSL204.1	Illustrate the use of systems calls in Operating Systems.
CSL204.2	Implement Process Creation and Inter Process Communication in Operating Systems.
CSL204.3	Implement Fist Come First Served, Shortest Job First, Round Robin and Priority-based CPU Scheduling Algorithms.
CSL204.4	Illustrate the performance of First In First Out, Least Recently Used and Least Frequently Used Page Replacement Algorithms.
CSL204.5	Implement modules for Deadlock Detection and Deadlock Avoidance in Operating Systems. Implement modules for Storage Management and Disk Scheduling in Operating Systems.

Course Name: AMT301 DATA HANDLING AND VISUALIZATION

Sl.No	DESCRIPTION
AMT301.1	Summarize the key techniques and theory used in visualization.
AMT301.2	Design and use various methodologies present in data visualization.
AMT301.3	Employ various processes and tools for data visualization
AMT301.4	Use interactive data visualization to make inferences.
AMT301.5	Recognize the process involved and security issues present in data visualization.

Course Name: CST 303 COMPUTER NETWORKS

Sl.No	DESCRIPTION
C303.1	Explain the features of computer networks, protocols, and network design models
C303.2	Describe the fundamental characteristics of the physical layer and identify the usage in network communication
C303.3	Explain the design issues of data link layer, link layer protocols, bridges and switches
C303.4	Illustrate wired LAN protocols (IEEE 802.3) and wireless LAN protocols (IEEE 802.11)
C303.5	Select appropriate routing algorithms, congestion control techniques, and Quality of Service requirements for a network and to illustrate the functions and protocols of the network layer, transport layer, and application layer in inter-networking

Course Name: AMT 305 INTRODUCTION TO MACHINE LEARNING

Sl.No	DESCRIPTION
AMT305.1	Illustrate Machine Learning concepts and basics of supervised learning concepts
AMT305.2	Describe dimensionality reduction techniques and supervised learning concepts
AMT305.3	Solve real life problems using appropriate machine learning models and evaluate the performance measures and Illustrate the concepts of Multilayer neural network
AMT305.4	Illustrate basics of parameter estimation models and the working of classifier SVM classifier model
AMT305.5	Describe unsupervised learning concepts

Course Name: AIT 307 INTRODUCTION TO ARTIFICIAL INTELLIGENCE

Sl.No	DESCRIPTION
AIT307.1	Explain the fundamental concepts of intelligent systems and their architecture
AIT307.2	Illustrate uninformed and informed search techniques for problem solving in intelligent systems
AIT307.3	Solve Constraint Satisfaction Problems using search techniques
AIT307.4	Represent AI domain knowledge using logic systems and use inference techniques for reasoning in intelligent systems
AIT307.5	Illustrate different types of learning techniques used in intelligent systems

Course Name: CST 309 MANAGEMENT OF SOFTWARE SYSTEMS

Sl.No	DESCRIPTION
C309.1	Demonstrate Traditional and Agile Software Development approaches
C309.2	Prepare Software Requirement Specification and Software Design for a given problem.
C309.3	Justify the significance of design patterns and licensing terms in software development, prepare testing, maintenance and DevOps strategies for a project.
C309.4	Make use of software project management concepts while planning, estimation, scheduling, tracking and change management of a project, with a traditional /agile framework**.**
C309.5	Utilize SQA practices, Process Improvement techniques and Technology advancements in cloud based software models and containers & microservices

Course Name: MCN 301 DISASTER MANAGEMENT

Sl.No	DESCRIPTION
MCN 301.1	Define and use various terminologies in use in disaster management parlance and organise each of these terms in relation to the disaster management cycle
MCN 301.2	Distinguish between different hazard types and vulnerability types and do vulnerability assessment
MCN 301.3	Identify the components and describe the process of risk assessment, and apply appropriate methodologies to assess risk
MCN 301.4	Explain the core elements and phases of Disaster Risk Management and develop possible measures to reduce disaster risks across sector and community
MCN 301.5	Identify factors that determine the nature of disaster response and discuss the various disaster response actions. Explain the various legislations and best practices for disaster management and risk reduction at national and international level

Course Name: AML 331 PYTHON AND MACHINE LEARNING LAB

Sl.No	DESCRIPTION
AML331.1	Develop applications in Python programming

AML331.2	Implement machine learning algorithms using packages and libraries in Python for various applications
AML331.3	Implement python programs for supervised learning methods through Neural network, Regression and classification
AML331.4	Implement clustering algorithms
AML331.5	Apply dimensionality reduction as a dataset preprocessing step.

Course Name: AIL 333 AI ALGORITHMS LAB

Sl.No	DESCRIPTION
AIL333.1	State the basics of learning problems with hypothesis and version spaces
AIL333.2	Demonstrate real-world problems as state space problems, optimization problems or constraint satisfaction problems
AIL333.3	Simulate given problem scenario and analyze its performance.
AIL333.4	Develop programming solutions for given problem scenario
AIL333.5	Design and develop an expert system byusing appropriate tools and techniques

Course Name: AMT302-Concepts In Natural Language Processing

Sl.No	DESCRIPTION
AMT302.1	Summarize basic concepts and learning methods for NLP
AMT302.2	Demonstrate the relevance of pre-processing methods on text data
AMT302.3	Compare different language modelling techniques
AMT302.4	Make use of NLP techniques in Text Classification and Information Retrieval
AMT302.5	Explain Information Extraction, Relation Detection, QA Systems and Machine Translation

Course Name: AIT 322-CONCEPTS IN COMPUTER GRAPHICS & IMAGE PROCESSING

Sl.No	DESCRIPTION
AIT322.1	Describe the working principles of graphics devices.
AIT322.2	Illustrate line drawing, circle drawing and polygon filling algorithms.
AIT322.3	Demonstrate geometric representations, transformations on 2D & 3D objects, clipping algorithms and projection algorithms.
AIT322.4	Summarize visible surface detection methods
AIT322.5	Summarize the concepts of digital image representation, processing and demonstrate pixel relationships.

Course Name: CST 306 ALGORITHM ANALYSIS AND DESIGN

Sl.No	DESCRIPTION
CST306.1	Students will be able to Analyze a given algorithm and express its time and space complexities in asymptotic notations.
CST306.2	Students will be able to Solve recurrence equations using Iteration Method, Recurrence Tree Method and Master's Theorem
CST306.3	Students will be able to design algorithms using Divide and Conquer Strategy.
CST306.4	Students will be able to compare Dynamic Programming and Divide and Conquer Strategies
CST306.5	Students will be able to solve Optimization problems using Greedy strategy.

Course Name: AIT 304-ROBOTICS AND INTELLIGENT SYSTEM

Sl.No	DESCRIPTION
AIT304.1	Understand the concepts of manipulator and mobile robotics.
AIT304.2	Choose the suitable sensors, actuators and control for robot design
AIT304.3	Developing kinematic model of mobile robot and understand robotic vision intelligence.
AIT304.4	Discover the localization and mapping methods in robotics.
AIT304.5	Plan the path and navigation of robot by applying artificial intelligence algorithm

Course Name: HUT 300 INDUSTRIAL ECONOMICS & FOREIGN TRADE

Sl.No	DESCRIPTION
HUT 300.1	Explain the problem of scarcity of resources and consumer behaviour, and to evaluate the impact of government policies on the general economic welfare.
HUT 300.2	Take appropriate decisions regarding volume of output and to evaluate the social cost of production.
HUT 300.3	Determine the functional requirement of a firm under various competitive conditions.
HUT 300.4	Examine the overall performance of the economy, and the regulation of economic fluctuations and its impact on various sections in the society.
HUT 300.5	Determine the impact of changes in global economic policies on the business opportunities of a firm.

Course Name: AML332-NATURAL LANGUAGE PROCESSING LAB

Sl.No	DESCRIPTION
AML332.1	Apply the concept of natural language processing (NLP) using Natural Language Toolkit (NLTK)

AML332.2	Build text corpora with tokenization, Stemming, Lemmatization and apply visualization techniques.
AML332.3	Evaluate the classifiers and choose the best classifier.
AML332.4	Create Artificial Intelligence applications for text data
AML332.5	Apply the concept of natural language processing (NLP) using Natural Language Toolkit (NLTK)

Course Name: CSD 334 MINI PROJECT

Sl.No	DESCRIPTION
CSD334.1	Identify technically and economically feasible problems.
CSD334.2	Identify and survey the relevant literature for getting exposed to related solutions and get familiarized with software development processes.
CSD334.3	Perform requirement analysis, identify design methodologies and develop adaptable & reusable solutions of minimal complexity by using modern tools & advanced programming techniques.
CSD334.4	Prepare technical report and deliver presentation.
CSD334.5	Apply engineering and management principles to achieve the goal of the project.

Course Name: AIT 401,Foundation of Deep Learning

Sl.No	DESCRIPTION
AIT 401.1	Illustrate the basic concepts of neural networks, deep learning and its practical issues
AIT 401.2	Outline the standard regularization and optimization techniques for the effective training of deep neural networks.
AIT 401.3	Build convolutional Neural Network (CNN) models for different use cases
AIT 401.4	Apply the concepts of Recurrent Neural Network (RNN), Long Short Term Memory(LSTM), Gated Recurrent Unit (GRU)
AIT 401.5	Plain the concepts of auto encoder, generative models

Course Name: CST 463 WEB PROGRAMMING

Sl.No	DESCRIPTION
CST463.1	Use HyperText Markup Language (HTML) for authoring webpages and understand the fundamentals of WWW.
CST463.2	Construct and visually format responsive, interactive webpages using CSS and JavaScript (JS)
CST463.3	Construct websites using advanced server side programming tool PHP
CST463.4	Develop dynamic web applications using PHP and perform MYSQL database operations
CST463.5	Explain the importance of object exchange formats using JSON and the MVC based web application development frameworks (LARAVEL)

Course Name: MCN 401 INDUSTRIAL SAFETY ENGINEERING

Sl.No	DESCRIPTION
MCN 401.1	Describe the theories of accident causation and preventive measures of industrial accidents.
MCN 401.2	Explain about personal protective equipment, its selection, safety performance & indicators and importance of housekeeping.
MCN 401.3	Explain different issues in construction industries.
MCN 401.4	Describe various hazards associated with different machines and mechanical material handling.
MCN 401.5	Utilize different hazard identification tools in different industries with the knowledge of different types of chemical hazards.

Course Name: CET 415 ENVIRONMENTAL IMPACT ASSESSMENT

Sl.No	DESCRIPTION
CET415.1	Explain the need for minimizing the environmental impacts of developmental activities
CET415.2	Apply various methodologies for assessing the environmental impacts of any developmental activity
CET415.3	The Students will be able to apply appropriate distributed system principles in ensuring transparency, consistency and fault-tolerance in distributed file system
CET415.4	Prepare an environmental impact assessment report
CET415.5	Conduct an environmental audit

Course Name: AMD 415 PROJECT PHASE 1

Sl.No	DESCRIPTION
AMD415.1	The students will be able to Model and solve real world problems by applying knowledge across domains
AMD415.2	The students will be able to Develop products, processes or technologies for sustainable and socially relevant applications
AMD415.3	The students will be able to Function effectively as an individual and as a leader in diverse teams and to comprehend and execute designated tasks
AMD415.4	The students will be able to Plan and execute tasks utilizing available resources within timelines, following ethical and professional norms
AMD415.5	The students will be able to Identify technology/research gaps and propose innovative/creative solutions
CSD415.6	The students will be able to Organize and communicate technical and scientific findings effectively in written and oral forms

Course Name: **AM**Q 413 SEMINAR

Sl.No	DESCRIPTION
A413.1	Identify academic documents from the literature which are related to her/his areas of interest
A413.2	Read and apprehend an academic document from the literature which is related to her/ his areas of interest
A413.3	Prepare a presentation about an academic document (Cognitive knowledge)
A413.4	Give a presentation about an academic document
A413.5	Prepare a technical report

Course Name: **AI**L 411 DEEP LEARNING LAB

Sl.No	DESCRIPTION
AIL411.1	Implement advanced machine learning concepts using python.
AIL411.2	Apply basic data pre-processing and tuning technique.
AIL411.3	Implement basic neural network and CNN on standard datasets.
AIL411.4	Design and implement sequence modelling schemes.
AIL411.5	Implement auto encoders on standard datasets and analyse the performance.