

Course Outcome

IEN1CC01 English 1- Communication Skills in English

- To introduce the students to the speech sounds of English in order to enable them to listen to English and speak with global intelligibility
- To enable the students to speak English confidently and effectively in a wide variety of situations.
- To help the students to improve their reading efficiency by refining their reading strategies.

ICSC1CR2 Programming in C

- On completion of the course, the student will be able to write a complete C program
- He/she will be able to use decision making statements and looping structures, should have a clear concept on one dimensional, two dimensional arrays, modular programming using user defined functions, clarity on concept of strings, structures and Unions.
- Should be able to use files for input and output, basic ideas on dynamic storage allocation and command line arguments

ICSC1CR3 Introduction to Computer

- After successful completion of the course, the students will be able to Understand basic functions of computer hardware, software components including memory & operating systems
- Understand the concept of networking and internet
- Understand IT and its impact on society.

ICSC1CR4 Database Management Systems

- On completion of the course, the student should have a clear concept on databases, data models, architecture and components of DBMS.
- The concept of entity, attributes, associations and relationships concept of tables and its properties, table creation and manipulation of tables and databases using SQL. DDL and DML facilities of SQL

ICSC1CM5 Mathematics – I-Graph Theory and Operations Research

- After successful completion of the course, the students will be able to Understand basic concepts of Graphs, Trees, LPP, Transportation problems

ICSC2CR2 -Object Oriented Programming Using C++

- On completion of the course, the student will be able to understand Object oriented programming concepts and introduction of C++ Programming language.
- Different control structures used in C++ and implementation of functions in C++.
- Importance of class and objects concept in programming
- Role of constructors and destructors and importance of Operator overloading
- Different types of inheritance and implementation of polymorphism.

ICSC2CR3 Data Structures using C++

- Upon successful completion of this course, students should be able to:
- Describe fundamental concepts of data structures.
- Illustrate the representation of arrays in memory and operations on it
- Compare and Contrast different searching and sorting techniques.
- Design operations on linear data structures such as stacks and queues.
- Implement operations on various types of linked lists.

ICSC2CR4**Operating Systems**

After completing the course, the student should be able to explain

- The fundamental concepts regarding an OS
- Concept of a process and management of processes
- Inter process synchronization methods and deadlock handling
- Various memory management techniques
- Concept of file and various file handling methods

ICSC2CM5**Mathematics II – Linear Algebra**

- On completion of the course, the student will be able to understand Vector spaces, Linear Maps, Eigen values, Inner products and Norms

IC3CET01**Digital Electronics**

After completion of the course the students will be able to

- CO1: Explain number systems, describe binary and hexadecimal arithmetic and Discuss on logic gates.
- CO2: Analyse Boolean expressions using logic gates, Discuss Boolean algebra and Minimize SOP and POS expressions using Karnaugh map.
- CO3: Illustrate and explain various combinational logic circuits
- CO4: Explain various sequential logic circuits, Design various Up and down counters and describe various shift registers and shift register counters.

IC3CRT07 Advanced Computation Techniques

Upon successful completion of this course, students should be able to:

- Illustrate the representation of tree structure and basic operations on it
- Describe fundamental concepts of File as a data structures.
- Gain the needed expertise in designing normalized databases
- Attain fundamental concepts of concurrent transactions and Database security
- Understand the storage techniques and accessing data from databases

IC3CRT08 Programming in Python

After completing this course, the student will learn how to design and program Python applications, acquire object oriented skills in Python and able to work with python standard library.

IC3CRT09 R Programming and Mathematics for Artificial Intelligence

On completion first two Units of the course, students will be able to use R language for programming purposes. The remaining three Units will enable the student to become confident in the Mathematical portions needed in the field of Artificial Intelligence. The Lab sessions for the Paper is so designed to make the student an expert in R to solve problems in Mathematics

IC3CRT10 Computer Organization and Architecture

Upon successful completion of this course, students should be able to:

- Describe the fundamental organisation of a computer system
- Explain addressing modes, instruction formats and program control statements
- Analyze the organization and performance of system memory hierarchy
- Describe basic concept of parallel computing.
- Describe fundamentals concepts of pipeline and vector processing

MICROPROCESSORS

At the end of the course, a student will be able to

- CO1: Assess and solve basic binary math operations using the microprocessor and explain the 8086 microprocessors internal architecture and its operation.
- CO2: Apply knowledge and demonstrate programming proficiency using the various addressing modes and data transfer instructions of the microprocessor 8086.
- CO3: Discuss operations of 8087, 8089, 8255 etc.
- CO4: Get an idea of advanced processors.

IC4CRT11 Data Mining

- To identify the scope and essentiality of Mining
- To analyse data, choose relevant models and algorithms for respective applications.
- To develop research interest towards advances in data mining

IC4CRT12 Software Engineering

Upon the completion of the course, students should be able to

- Recognize the importance of basic processes in software Development life cycle.
- Understand the various activities associated with different models and their significance.
- Familiarize the requirements in engineering and systematic approach in classical software design and development techniques.
- Familiarize with various software testing techniques and tools.
- Perceive the importance of Software Maintenance

IC4CRT13: Basics of Artificial Intelligence

Upon successful completion of this course students should be able to:

- Explain the basics of AI.
- Identify appropriate AI methods to solve a given problem.
- Will be able understand the concept of differentiation and its applications
- Should have sound knowledge in the field of probability and correlation and regression

IC4CEP01 Complementary Lab

At the end of the course, a student will be able to

- CO1: Analyze assembly language programs using appropriate assembler.
- CO2: Construct a maintainable assembly language program for an algorithm.

IC5CRT15: Web Application Development Using PHP

Upon successful completion of this course, students should be able to:

- Develop web applications using PHP and MySQL database.
- Use java scripts and jQuery in client side
- Use CSS concepts in Webpage designing

IC5CRT16 Programming in Java

- To familiarize input/output and file handling.
- To inculcate concepts of GUI programming using Swing
- To demonstrate exception handling, use of packages and multithreading
- To introduce database connectivity and network based Java applications

IC6CRT18 Linux and Shell Programming

- Upon completion of the course, students will be able to gain working knowledge in Linux environment, a clear view on Linux file system, process scheduling in Linux, facilities for user creation and management and basics of shell programming.

IC6CRT19 Neural Networks and Deep Learning

The expected course outcomes are

- To impart knowledge on Neural Network design.
- To acquire advanced theoretical knowledge about the simulation of various machine learning models with Neural Network.
- To develop skills in analyzing the Training Methods for Neural Networks.
- To construct and compare the application of three important neural network models - Radial basis function Network, Recurrent Neural Network and Convolutional Neural Network.
- To evaluate neural network systems for solving real world problems.

IC6CRT20: Computer Networks

Upon completion of this course, the students will be able to:

- Understand the concepts of signals and OSI layer functions.
- Discuss the process of Multiplexing, switching and difference between guided and unguided media in networks
- Describe, analyze various data link layer protocols
- Describe and analyze various network, and transport layer protocols
- Have a basic knowledge of the use of cryptography and network security

IC6CRT21 Mobile Application Development Using Kotlin

Upon successful completion of this course, students should be able to:

- Kotlin programming
- Android programming using Kotlin