**B.SC.INFORMATION TECHNOLOGY**

**(IT) SEMESTER-1**

# CORE-1- PROGRAMMING IN C (23UITCC01) COURSE OUTCOMES (COs):

**CO1**: Outline the fundamental concepts of C programming languages, and its features

**CO2:** Demonstrate the programming methodology.

**CO3:** Identify suitable programming constructs for problem solving.

**CO4:** Select the appropriate data representation, control structures, functions and concepts based on the problem requirement.

**CO5:** Evaluate the program performance by fixing the errors.

# FUNDAMENTALS OF COMPUTERS (23UTF01) COURSE OUTCOMES (COs):

**CO1:** Outline the Computer fundamentals and various problem solving concepts in Computers

**CO2:** Describe the basic computer organization, software, computer languages, software development life cycle and the need of structured programming in solving a computer problem

**CO3:** Identify the types of computer languages, software, computer problems and examine how to set up expressions and equations to solve the problem.

**CO4:** Choose most appropriate programming languages, constructs and features to solve the problems in diversified domains.

**CO5:** Analyze the design of modules and functions in structuring the solution and various Organizing tools in problem solving.

# INTRODUCTION TO LINEAR ALGEBRA (23UMAA01) COURSE OUTCOMES (COs)

On completion of this course, students will

**CO1:** Learn about the Computer fundamentals and the Problem solving and understand the basic concepts of C and C++ programming.

**CO2:**Demonstrate the various basic programming constructs like decision making statements. Looping statements and functions.

**CO3:**Analyze the object oriented concepts like overloading, inheritance ,polymorphism, Virtual functions ,constructors and destructors.

**CO4 :**Comparethevariousfilestreamclasses;filetypes,usageoftemplatesand exception Handling mechanisms, pros and cons of procedure oriented language with the concepts of programming language.

**CO5:** Study about Numeric data and character-based data. Analyze about Arrays. **CO6:** Develop programs in corporation the programming constructs of object oriented Programming concepts.

**SEMESTER-1I**

**CORE – III- JAVA PROGRAMMING (23UITCC02) COURSE OUTCOMES (COs):**

**CO1:** Outline the basic terminologies of OOP, programming language techniques, JDBC and Internet programming concepts

**CO2:** Solve problems using basic constructs, mechanisms, techniques and technologies of Java .

**CO3:** Analyse and explain the behavior of simple programs involving different techniques such as Inheritance, Packages, Interfaces,Exception Handling and Thread and technologies such as JDBC and Servlets

**CO4:** Assess various problem-solving strategies involved in Java to develop a high-level application.

**CO5:** Design GUI based JDBC applications and able to develop Servlets using suitable OOP concepts and techniques.

# INTRODUCTION TO HTML (23UITS06) COURSE OUTCOMES (COs):

**CO1:** Knows the basic concept in HTML Concept of resources in HTML

**CO2:** Knows Design concept. Concept of Meta Data Understand the concept of save the files

**CO3:** Understand the page formatting. Concept of list

**CO4:** Creating Links. Know the concept of creating link to email address

**CO5:** Concept of adding images Understand the table creation.

# EC2 –NUMERICAL METHODS-I (23UMAEGS07) COURSE OUTCOMES (COs):

On successful completion of the course, the students will be able to

**CO1:** Define Algebraic methods and problems .

**CO2 :**Define Newton’s methods and Root squaring methods and problems .

**CO3 :**Define finite differences and problems

**CO4:** Define Interpolation methods and problems

**CO5 :**Define divided differences and inverse interpolation and problems.

**SEMESTER-1II**

**CORE-V-RELATIONAL DATABASE MANAGEMENT SYSTEM (23UITCC03) COURSE OUTCOMES (COs):**

CO1: Outline the fundamental RDBMS concepts and PL/SQL

CO2: Apply database operations, mapping, normalization, SQL and PL/SQL CO3: Analyze the requirements to implement relational database concepts CO4: Evaluate the database based on various models and normalization.

CO5: Design and construct normalized tables and manipulate it effectively using SQL and PL/SQL database objects

# INTERNET OF THINGS AND ITS APPLICATIONS (23UITDE05) COURSE OUTCOMES (COs):

On completion of this course, students will

**CO1:** Work with big data tools and its analysis techniques.

**CO2:** Analyze data by utilizing clustering and classification algorithms.

**CO3:** Learn and apply different mining algorithms and recommendation systems for large volumes of data.

**CO4:** Perform analytics on data streams.

**CO5:** Learn NoSQL databases and management.

# EC3- STATISTICAL METHODS AND ITS APPLICATIONS I(23USTAT04) COURSE OUTCOMES (COs):

Students will be able to

**CO1:** Understand the statistical methods measures of location **CO2:** Understand the statistical methods measures of dispersion **CO3:** Apply the statistical methods of dispersion and location

**CO4:** Understand the relationship between variables and forecasting the future values.

**CO5:** Understand the concept of sampling, sampling errors and types of sampling

# WEB DESIGNING (23UITS07) COURSE OUTCOMES (COs):

On completion of this course, students will

**CO1:** Develop working knowledge of HTML

**CO2:** Ability to Develop and publish Web pages using Hypertext Markup Language (HTML).

**CO3:** Ability to optimize page styles and layout with Cascading Style Sheets (CSS).

**CO4:** Ability to develop a java script.

**CO5:** An ability to develop web application using Ajax.

**SEMESTER-1V**

**CORE-VIII- .NET PROGRAMMING (23UITCC04) COURSE OUTCOMES (COs):**

**CO1:** Outline the features of C# programming language and ASP.NET applications

**CO2:** Demonstrate the salient properties of C# and ASP.NET applications

**CO3 :**Identify the various stages in developing a web forms

**CO4:** Select the appropriate controls to create a web form.

**CO5:** Recommend a data driven web application by connecting to the data sources

# CRYPTOGRAPHY (23UITDE03) COURSE OUTCOMES (COs):

On completion of this course, students will

**CO1:** Analyze the vulnerabilities in any computing system and hence be able to design a security solution.

**CO2:** Apply the different cryptographic operations of symmetric cryptographic algorithms

**CO3:** Apply the different cryptographic operations of public key cryptography **CO4:** Apply the various Authentication schemes to simulate different applications. **CO5:** Understand various Security practices and System security standards .

# EC4-STATISTICAL METHODS AND ITS APPLICATIONS II(23USTAT05) COURSE OUTCOMES (COs):

Students will be able to

CO1: Understand the concept of random variables and expected average CO2: Compute Bernoulli trials and understand the rare case population.

CO3: Learn the usage of normal curve and curve fitting by using the method of least squares CO4: Learn about the large samples

CO5: Learn the basic concepts of theory of attributes.

# BASICS OF INTERNET (23UITS02) COURSE OUTCOMES (COs):

**CO1:** Knows the basic concept in HTML Concept of resources in HTML

**CO2:** Knows Design concept. Concept of Meta Data Understand the concept of save the files.

**CO3:** Understand the page formatting. Concept of list

**CO4:** Creating Links. Know the concept of creating link to email address

**CO5:** Concept of adding images Understand the table creation.

**SEMESTER-V**

**CORE-IX-PYTHON PROGRAMMING (23UITCC05) COURSE OUTCOMES (COs):**

**CO1:** Outline the basic concepts in python language.

**CO2:** Interpret different looping and conditional statements in python language

**CO3:** Apply the various data types and identify the usage of control statements, loops, functions and Modules in python for processing the data

**CO4:** Analyze and solve problems using basic constructs and techniques of python.

**CO5:** Assess the approaches used in the development of interactive application

# CORE-XI- OPERATING SYSTEMS (23UITCC06) COURSE OUTCOMES (COs):

**CO1:** Outline the fundamental concepts of an OS and their respective functionality

**CO2:** Illustrate the importance of open source operating system commands **CO3:** Identify and stimulate management activities of operating system **CO4:** Analyze the various services provided by the operating system.

**CO5:** Interpret different problems related to Process, Scheduling, Deadlock, memory and Files

# BIG DATA ANALYTICS (23UITDE04) COURSE OUTCOMES (COs):

On completion of this course, students will

**CO1:** Work with big data tools and its analysis techniques. PO1

**CO2:** Analyze data by utilizing clustering and classification algorithms. PO1, PO2

**CO3:** Learn and apply different mining algorithms and PO4, PO6 recommendation systems for large volumes of data.

**CO4:** Perform analytics on data streams. PO4, PO5, PO6

**CO5:** Learn NoSQL databases and management.

# ROBOTICS AND ITS APPLICATIONS (23UITDE09) COURSE OUTCOMES (COs):

On completion of this course, students will

**CO1:** Describe the different physical forms of robot architectures. **CO2:** Kinematically model simple manipulator and mobile robots. **CO3:** Mathematically describe a kinematic robot system

**CO4:** Analyze manipulation and navigation problems using knowledge of coordinate frames, kinematics, optimization, control, and uncertainty.

**CO5:** Program robotics algorithms related to kinematics, control, optimization, and uncertainty.

**SEMESTER-VI**

**CORE-XIII- DATA MINING (23UITCC08)**

# COURSE OUTCOMES (COs):

**CO1:** Outline the fundamentals and the principles of Data Mining

**CO2:** Apply suitable different preprocessing for data mining

**CO3:** Classify data-mining techniques based on the different applications

**CO4:** Analyze the various data mining algorithms with respect to functionality

**CO5:** Recommend appropriate data models for data mining techniques to solve real world problems T

# DATA COMMUNICATION AND NETWORKING (23UITCC07) COURSE OUTCOMES (COs):

**CO1:** Understand the fundamental concepts of computer networks and its application areas

**CO2:** Identify and use various networking techniques and components to establish networking connection and transmission

**CO3:** Analyze the services performed by different network layers and recent advancements in networking

**CO4:** Compare various networking models, layers, protocols and technologies.

**CO5:** Select the appropriate networking mechanisms to build a reliable network

# GRID COMPUTING (23UITDE11) COURSE OUTCOMES (COs):

On completion of this course, students will

**CO1:** To understand the basic elements and concepts of Grid computing.

**CO2:** To understand the Grid computing toolkits and Framework. **CO3:** To understand the concepts of Anotomy of Grid Computing. **CO4:** To understand the concept of service oriented architecture. **CO5:** To Gain knowledge on grid and web service architecture.

# ARTIFICIAL INTELLIGENCE (23UITDE08) COURSE OUTCOMES (COs):

On completion of this course, students will

**CO1:** Understand the various concepts of AI Techniques.

**CO2:** Understand various Search Algorithm in AI.

**CO3:** Understand probabilistic reasoning and models in AI.

**CO4:** Understand Markov Decision Process.

**CO5:** Understand various type of Reinforcement learning Techniques.