Hajee Karutha Rowther Howdia College (Autonomous) Uthamapalayam 625 533, Theni District.



Department of Information Technology

Programme Specific Outcomes (PSOs)

Programme Outcomes (POs)

Course Outcomes (COs)

B.Sc. Information Technology

Programme Specific Outcomes (PSOs):

PSO1: Excel themselves as Software Engineers, System Analyst, Tester, Developer etc and acquirethe leadership qualities

PSO2: Get specialization in the course through their Master"s Degree

PSO3: Promote the students with cumulative skill set to provide solutions to a given real world problem using current trends and technology.

PSO4: Students will be equipped with the life-long learning process for self-sustainability, employability and leadership roles in our dynamic society

PSO5: Deliver a new generation with proficient on fundamental knowledge and recent trends on different disciplines in Information Technology.

Programme Outcomes (POs):

PO1: Apply knowledge of mathemetics, computer fundamentals to IT applications.

PO2: Ability to use a range of programming languages and tools to develop computer programs to solve problems effectively

PO3: Identify , design and analyse complex computer concepts, implementing and interprete the result.

PO4: Select and apply current technology skills and tools accessory for computing practices and integrate IT based solutions into the user environment effectively

PO5: Comminicate effectively with a range of audience using a range of modalities including oral, written and graphical

Course Outcomes (COs):

Course Code: 20UCTC11Course Title: C Programming

Course Outcomes (COs):

CO1: To understand C Program structure and to declare the variables, constants, operators and expressions.

CO2: To understand and develop conditional, iterative statements in C language. **CO3:** To Understand and declare Arrays, Strings.

CO4: To understand Functions, Structures and Unions in C language.

CO5: To Understand about Pointers and File Handling in C language

Course Code: 20UCTC1P Course Title: C Programming Lab

Course Outcomes (COs):

CO1: Understand the basic concepts of C programming and looping Structure **CO2:** Understand the concepts of IF & SWITCH functions

CO3: Apply the functions & Arrays in C programming

CO4: Understand and apply the Strings & Pointers

CO5: Understand and apply the Files and command line.

Course Code: 20UCTA11 **Course Title:** Mathematical Foundations

Course Outcomes (COs):

CO1: Solve the problems using Cayley Hamilton Theorem and know about types of matrices.

CO2: Work with relations and investigate functions as relations.

CO3: Construct the truthtable by analyzing prepositions and prove it algebraically.

CO4: Compare the types of graphs and applying its concepts to design algorithms.

CO5: Understand lattices as algebraic structures and simplify Boolean expressions.

Course Code: 20UCTC21 **Course Title:** Programming with C++

Course Outcomes (COs):

CO1: Understanding the concepts of OOPs, data types (both basic and derived)

CO2: Apply different types of operators, looping concepts and conditional state for developing the code..

CO3: Develop the constructor and destructor with their types in user defined functions and Implement the operator overloading and function overloading concept in complicated problems.

CO4: Write the C++ code using inheritance, polymorphism, pointers and virtual functions in impact of application programs.

CO5: Utilize the files and their operations, connectivity of the data bases.

Course Code: 20UCTC2P **Course Title:** C++ Programming – Lab

Course Outcomes (COs):

CO1: Demonstrate the concept of classes, arrays and their types by using C++

CO2: Implement Constructors and Destructors using C++ coding.

CO3: Apply the concept of polymorphism in C++

CO4: Apply the concept of Inheritence in C++

CO5: Create and manage files in C++ programs.

Course Code: 20UCTA21 **Course Title:** Statistics and Aptitude

Course Outcomes (COs):

CO1: Calculate the Arithmetic mean and to find the average growth of an investment.

CO2: Calculate and interpret the correlation and determine whether the correlation is significant.

CO3: Solve the problems based on average and know the simplification tricks.

CO4: Apply the concepts of Problems on Ages, Percentage, Ratio and Proportion to solving real life problems.

CO5: Prepare financial accounts for partnership firms in different situations.

Course Code: 20UCTC31 **Course Title:** Java Programming

Course Outcomes (COs):

CO1: Defining the object oriented concepts of java for the given problem

CO2: Understanding Overloading, Overriding Constructor packages and Interface **CO3:** Understanding and Applying the exceptions, threads, collections.

CO4: Defining and Applying events through I/O Stream Files Applet Concepts **CO5:** Applying the java concepts in AWT

Course Code: 20UCTC3PCourse Title: Java Programming – Lab

Course Outcomes (COs):

CO1: Demonstrate the concept of classes, arrays and their types by using java programming

CO2: Manipulating String Class and its Methods and interface using java coding.

CO3: Apply the concept of Overloading and Exception Handling

CO4: Apply the concept of package, threading and Applet

CO5: Demonstrate and Implementing the concept of Keyboard Event, Mouse Event, Graphics and JDBC Connectivity

Course Code: 20UCTC32 **Course Title:** Data Structures

Course Outcomes (COs):

CO1: Introduce the concept of data structures and the types of arrays.

CO2: Understand the concept of ADT including list.

CO3: Design and implement various data structure algorithms using stack and queues.

CO4: Understand the concept of Binary trees, Representation of Binary Trees and Tree Traversals.

CO5: Give a good formal foundation on Types of sorting and Representation of graphs.

Course Code: 20UCTA31 **Course Title:** Operations Research

Course Outcomes (COs):

CO1: Understand the theoretical workings of linear programming and perform iterations of it by hand.

CO2: Solve the simplex method problems and find optimal solution for various problems.

CO3: Solve specialized linear programming problems and understand the given problem as transportation and assignment problem.

CO4: Model a dynamic system as a queuing model and compute important performance measures.

C05: Solve network problems like measures of activity and Resource scheduling.

Course Title: Database Management System Course Code: 20UCTC41

Course Outcomes (COs):

CO1: Familiar with the concept Relational model and gain the knowledge on **Database Management Systems**

CO2: To work with Oracle data base and able to write DDL commands

CO3: To understand the DML commands & know the use of where clause, to perform arithmetic operations

CO4: To work with Procedural SQL and Cursors & know the use of Exceptions **C05:** Develop packages, triggers in Pl/Sql and make use of Data dictionary views

Course Code: 20UCTC42 **Course Title:** Operating Systems

Course Outcomes (COs):

CO1: Describe the evolution, types, structure and functions of operating systems

CO2: Explain techniques involved in process, memory, device and file management **CO3:** Describe security and protection measures used in operating systems

CO4: Implement processor scheduling, synchronization, deadlocks and disk allocation algorithms for a given scenario

CO5: Analyze the code for the resource allocation

Course Code: 20UCTC4P	Course Title: Database Management System –

Course Outcomes (COs):

CO1: Describe DBMS architecture Learn the DDL Commands like create, Alter, Drop , Truncate and Delete

Lab

CO2: Understanding of DML Commands like Insert Update String Operations.

CO3: Apply the Set Operations like Union, Union all intersect and minus Operations **CO4:** Understand various Sub queries with Update, Select, Insert, and Delete Statements

CO5: Apply the PL/SQL Procedure functions and Procedures

Course Code: 20UCTS4P **Course Title:** Python Lab

Course Outcomes (COs):

CO1: Understand why Python is useful scripting language for developers

CO2: Learn how to design and program Python applications.

CO3: Learn Python objects types.

CO4: Define the structure and components of a Python program

CO5: Learn how to use exception handling in Python applications for error handling.

Course Code: 20UCTA41Course Title: Computer Oriented Numerical MethodsCourse Outcomes (COs):

CO1: Apply Arithmetic Operations for Normalized Floating Point Numbers. Working on Floating Point Representation of Numbers

CO2: Apply Numerical methods to find our solution of algebraic using different methods under different conditions and numerical solution of system of algebraic equations

CO3: Apply various interpolation and finite difference concepts

CO4: Apply and work on Numerical differentiation and integration whenever and wherever routine methods are not applicable

CO5: Work Numerically on the ordinary differential equations through the theory of finite differences