

**NALLAMUTHU GOUNDER MAHALINGAM
COLLEGE (AUTONOMOUS)**



**U.G. DEPARTMENT OF COMPUTER TECHNOLOGY
(C.T)**



SYLLABUS

2022 – 2025 Batch

**(With Effect From 2022-2025 Batch and
Onwards)**

NGM College

Vision

Our dream is to make the college an institution of excellence at the national level by imparting quality education of global standards to make students academically superior, socially committed, ethically strong, spiritually evolved and culturally rich citizens to contribute to the holistic development of the self and society.

Mission

Training students to become role models in academic arena by strengthening infrastructure, upgrading curriculum, developing faculty, augmenting extension services and imparting quality education through an enlightened management and committed faculty who ensure knowledge transfer, instill research aptitude and infuse ethical and cultural values to transform students into disciplined citizens in order to improve quality of life.

Department of Computer Technology

Vision

To continue to be the Premier Department for Computer Technology and to become regionally top-ranked and nationally recognized for Academic Excellence

Mission

- To offer a broad-based education, encourage lifelong learning, foster teamwork, promote creativity, discovery and competitiveness
- To turn out highly qualified graduates into world-class professionals capable of competing in the IT Arena as well as in a research environment

Program Educational Objectives:

PEO1	Demonstrating the concepts and technologies of Software Industry
PEO2	Motivate to select one domain knowledge and develop smart software solutions as per industry standard
PEO3	Focus to solve real time problems in terms of various technologies.
PEO4	Understand the concepts of software project life cycle during software development.
PEO5	Apply the knowledge of various levels of security in computer field.

Program Outcomes:

PO1	<i>Problem solving:</i> Under Graduate students are to apply, algorithmic, real time and Industry standard reasoning to a variety of computational problems.
PO2	<i>Problem solving:</i> Understand the fundamental knowledge of various domains in IT Industry and change their carrier as per industry Demand.
PO3	<i>Self-directed learning :</i> Combine the knowledge of mathematics and Software Technologies in the field of Software project development
PO4	<i>Information/digital literacy:</i> Implement industry standard projects of their own choice using latest tools.
PO5	<i>Analytical reasoning:</i> Improve the aptitude skill to clear various levels of entrance exams in their carrier.
PO6	<i>Physical and mental wellness:</i> The Under Graduate students are recognize the Human Excellence and ethical responsibilities through yoga in various disciplines
PO7	<i>Reflective thinking and Communication Skills:</i> Demonstrate global Industry demand related subjects and transferable skills that a relevant to global industry and employment opportunities
PO8	<i>Self-directed learning :</i> Graduates will recognize the need for self-motivation and Life Long Learning to update in technologies to be in par with changing technology.
P09	<i>Cooperation/Team work:</i> Ability to analyze the local and global impact of computing on individuals, organizations and society.
P10	<i>Multicultural competence:</i> Identify a timely opportunity and using innovation to pursue that opportunity to create value and wealth for the betterment of the individual and society at large.

Program Specific Outcomes:

PSO – 01	<i>Academic skills and abilities:</i> Acquire academic excellence with professional skill for employment and higherstudies.
PSO – 02	<i>Explore Software Development Solutions:</i> Create, select and apply modern tools and techniques to analyze and developsuccessful software in IT Industry.

Mapping

PEO PO	PEO1	PEO2	PEO3	PEO4	PEO5
PO1	H	M	M	M	L
PO2	H	L	H	M	M
PO3	H	H	M	M	L
PO4	H	M	H	H	H
PO5	M	H	L	H	M
PO6	H	M	H	M	L
PO7	H	L	H	H	M
PO8	M	H	M	H	M
PO9	H	M	M	H	H
PO10	M	M	L	H	H
PSO-01	H	H	H	H	H
PSO-02	H	H	H	H	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc.			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT101			Title	Batch:	2022 – 2025	
				Title	Semester:	I	
Lecture Hrs./Week or Practical Hrs./Week	4	Tutorial Hrs./Sem.	-	CORE I: PROGRAMMING IN C	Credits:	4	

Course Objective

To focus on the language and syntax of C programming concepts.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To remember data types, identifier, arrays, strings and pointers	K1
CO2	To understand how to write and use control statements and functions in C	K2
CO3	To implement the concept of pointers, structure and union	K3
CO4	To evaluate string functions and file Operations in C programming for a given application	K4
CO5	To evaluate random file operations, preprocessor and command line arguments	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	M	M	M	L	H	M	M	M	M	M	M
CO2	H	L	H	M	M	M	L	M	M	M	M	M
CO3	H	H	M	M	L	H	H	H	L	H	M	H
CO4	H	M	H	H	H	M	H	H	H	H	L	H
CO5	M	M	L	H	M	H	M	M	M	M	H	M

*H-High; M-Medium; L-Low

Programme Code:	B.Sc.			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT102			Title	Batch:	2022 – 2025	
				Title	Semester:	I	
Lecture Hrs./Week or Practical Hrs./Week	4	Tutorial Hrs./Sem.	–	CORE II: DIGITAL FUNDAMENTALS AND COMPUTER ORGANIZATION	Credits:	4	

Course Objective

To convert the knowledge on digital circuits, logic gates and about interfacing of various components.

To cover the various digital components used in the Organization and Hardware design of digital computers

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To recollect number system, Binary Codes concepts	K1
CO2	To understand the concepts of Boolean laws, logic gates, Karnaugh map for Minimization of POS and SOP form of Boolean expressions.	K2
CO3	To apply arithmetic and logic circuits, different sequential circuits with flipflops, registers.	K3
CO4	To analyze the concept of Register Organization, Data Transfer and Manipulation, Registers and Memory Organization.	K4
CO5	To evaluate memory hierarchy and types of memory	K5

Mapping

PO / PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	M	H	M	L	H	M	H	H	M	M	M
CO2	H	L	H	M	M	M	L	M	M	M	H	M
CO3	H	H	L	M	L	M	H	H	L	H	M	H
CO4	H	L	H	H	H	M	H	M	H	H	L	H
CO5	M	M	L	H	M	H	M	M	M	M	H	L

*H-High; M-Medium; L-Low

Programme Code:	B.Sc.			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT1A1			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	5	Tutorial Hrs./Sem.	–	ALLIED 1: MATHEMATICS – I –MATHEMATICAL STRUCTURE FOR COMPUTER SCIENCE	Semester:	I	
					Credits:	4	

Course Objective

To gain knowledge of the concepts of matrices, algebraic equations, numerical differentiation, integration and correlation for computer applications.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To remember an in-depth knowledge in Matrices, Determinants, Inverse of a matrix, Rank of a Matrix and Eigen value Problems	K1
CO2	To understand the concepts of numerical differentiation and integration	K2
CO3	To apply an appropriate numerical method for solving algebraic	K3
CO4	To figure out the concept of Mean, Median, Mode, Measures of dispersion and the law relating to Correlation and Regression	K4
CO5	To evaluate the concept of correlation and correlation evaluation regression	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	M	M	M	L	H	M	H	H	M	M	M
CO2	M	H	H	M	M	M	L	M	H	H	H	M
CO3	H	H	L	H	L	M	H	H	L	H	L	H
CO4	L	L	H	H	H	M	H	M	H	H	L	H
CO5	M	M	L	L	M	H	M	M	H	M	H	L

*H-High; M-Medium; L-Low

Programme Code:	B.Sc.			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT103			Title	Batch:	2022 - 2025	
				LAB – I - PROGRAMMING IN C	Semester:	I	
Lecture Hrs./Week or Practical Hrs./Week	4	Tutorial Hrs./Sem.	-		Credits:	2	

Course Objective

On successful completion of this subject the students will be able to enhance their analyzing and problem solving skills and use the same for writing programs in C.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To remember the concept of data types, decision making and looping control statements	K1
CO2	To get the idea of array, strings and functions in C	K2
CO3	To access the file information through open/close and reading/writing operations in a file	K3
CO4	To remember the concept of pointers	K4
CO5	To get the idea of file functions	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	M	M	M	L	H	M	H	H	M	H	M
CO2	M	M	H	L	M	M	L	H	H	H	H	M
CO3	H	H	L	H	H	M	H	H	L	H	L	H
CO4	L	H	H	H	H	H	H	M	H	H	L	H
CO5	M	M	L	L	M	H	M	L	H	M	H	L

*H-High; M-Medium; L-Low

Programme Code:	B.Sc.			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT204			Title	Batch:	2022 - 2025	
				CORE III: JAVA PROGRAMMING	Semester:	II	
Lecture Hrs./Week or Practical Hrs./Week	4	Tutorial Hrs./Sem.	–	Credits:	4		

Course Objective

To provide profound coverage on classes, multithreading, exception handling, applets and file handling in Java

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Remember about classes, objects, members of a class and relationships among them needed for a specific problem	K1
CO2	Comprehend the concepts of inheritance, interface and package	K2
CO3	Examine error handling techniques using exception handling	K3
CO4	Evaluate the concepts of thread, applet and files	K4
CO5	Developed skills in designing abstract window toolkit	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	L	H	H	H
CO2	H	M	H	M	H	H	M	H	M	H	M	L
CO3	H	M	H	M	H	L	M	H	M	H	M	H
CO4	M	H	L	H	M	M	H	M	H	M	H	M
CO5	H	L	H	M	H	H	M	H	M	L	M	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc.		Programme Title:	Bachelor of Science (Computer Technology)	
Course Code:	22UCT205		Title	Batch:	2022 – 2025
Lecture Hrs./Week or Practical Hrs./Week	4	Tutorial Hrs./Sem.	–	Semester:	II
				Credits:	4

Course Objective

To understand the concepts of array, stack, queue, list, linked list, tree and their computer applications.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To remember arrays, stack/queue operations and trees	K1
CO2	To understand and develop skills to analyze simple linear and non linear Data structures	K2
CO3	To apply the concept of linked lists, graphs and trees for the Real world problems	K3
CO4	To evaluate file organizations, various searching and sorting methodologies	K4
CO5	To apply the concept of Binary trees	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	M	H	M	L	H	M	H	H	M	M	M
CO2	M	H	H	L	H	M	L	H	H	M	H	M
CO3	H	H	L	H	H	L	H	M	L	H	L	H
CO4	L	H	M	H	H	H	H	M	H	H	M	H
CO5	M	M	L	L	M	H	M	L	H	M	H	M

*H-High; M-Medium; L-Low

Programme:	B.Sc.			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT2A2			Title	Batch:	2022 - 2025	
Lecture Hrs./Week or Practical Hrs./Week	4	Tutorial Hrs./Sem.	-	ALLIEDII: MATHEMATICS – II -	Semester:	II	
				OPERATIONS RESEARCH	Credits:	4	

Course Objective

Every industrial organization faces multifaceted problems to identify best possible solution to their problems. OR aims to help the executives to obtain optimal solution with the use of OR techniques and to locate best or optimal solution.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To recollect the modeling tools and computational tools as well as analytic skills to evaluate the problems.	K1
CO2	To understand how to translate real world problem given in words into a mathematical formulation.	K2
CO3	To apply mathematical optimization techniques, existing optimization tool kits to write computer programs and to implement algorithms and solve problems.	K3
CO4	To analyze the problem situation leading to better control, better co-ordination, better systems and finally better decisions.	K4
CO5	To analyze the concept of CPM and PERT	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	M	H	M	L	H	M	H	H	M	M	H
CO2	M	M	H	L	MH	M	L	H	H	H	H	M
CO3	H	H	L	H	H	M	H	M	L	H	L	H
CO4	L	H	M	H	H	H	H	M	H	H	L	L
CO5	M	M	L	L	M	H	M	L	H	M	H	M

*H-High; M-Medium; L-Low

Programme Code:	B.Sc.			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT206			Title	Batch:	2022 - 2025	
				LAB – II: JAVA PROGRAMMING Lab	Semester:	II	
Lecture Hrs./Week or Practical Hrs./Week	4	Tutorial Hrs./Sem.	–		Credits:	2	

Course Objective

To utilize java programming concepts for developing, compiling and running java applications and applets.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Understand the basic concepts of Java Programming with emphasis on ethics and principles of professional coding	K3
CO2	Demonstrate the creation of objects, classes and methods and the concepts of constructor, methods overloading, Arrays, branching and looping	K4
CO3	Create data files and Design a page using AWT controls and Mouse Events in Java programming Implement the concepts of code reusability and debugging.	K3
CO4	Develop applications using Strings, Interfaces and Packages and applets	K4
CO5	Construct Java programs using Multithreaded Programming and Exception Handling	K4

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	M	L	H	M	M	H	M	M	H
CO2	M	H	H	L	H	M	L	H	H	M	H	M
CO3	H	H	L	H	H	L	H	M	L	H	L	H
CO4	L	H	M	M	H	H	H	M	H	H	M	H
CO5	M	M	L	L	M	H	M	L	H	M	H	M

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT307			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	05	Tutorial Hrs./Sem.	06	Core Course V:	Semester:	III	
				ADVANCED JAVA PROGRAMMING	Credits:	03	

Course Objective

To inculcate the students to understand the advanced JAVA concepts and develop Java based applications by applying these advanced concepts to implement in web based applications.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Create Applications using Swing Components.	K4
CO2	Understand about Servlets and Server Side Includes	K2
CO3	Implement JDBC connectivity and Java Server Pages	K3
CO4	Review the various types of beans	K4
CO5	Understand and apply Well-Formed XML and different types of XML Schemas	K5

Mapping

PO / PSO CO	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	H	H
CO2	H	M	H	M	H	H	M	H	M	H	H	M
CO3	H	M	H	M	H	H	M	H	M	H	L	M
CO4	M	H	L	H	M	M	H	L	H	M	M	H
CO5	H	L	H	M	H	H	L	H	M	H	H	M

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT308			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	04	Tutorial Hrs./Sem.	08	Core Course VI: DATABASE MANAGEMENT SYSTEM	Semester:	III	
					Credits:	03	

Course Objective

The learner would have to understand the fundamental concepts of database systems & use the features available in a DBMS package

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Keep in mind Queries in a DBMS, Structure of a DBMS attributes and entity sets	K1
CO2	Comprehend deep knowledge about the basics of Relational Model and ACID properties	K2
CO3	Apply joins and set operators, control structures and embedded SQL for data management and retrieval techniques	K3
CO4	Analyze the basic issues of transaction processing, concurrency control and understand the importance of Normalization	K4
CO5	Familiarity on Parallel, Object Oriented & Distributed databases	K4

Mapping

PO /PSQ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	H	H
CO2	H	M	H	M	H	M	H	M	H	M	H	H
CO3	H	M	H	M	H	M	H	M	H	M	H	L
CO4	M	H	M	H	L	H	M	H	L	H	M	M
CO5	H	L	H	L	H	M	H	L	H	M	H	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT 3A3			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	05	Tutorial Hrs./Sem.	06	GE III: ALLIED III: SOFTWARE ENGINEERING	Semester:	III	
					Credits:	04	

Course Objective

To enhance the basic software engineering methods and practices and to learn the techniques for developing software systems

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Keep in mind layers of process models, Requirement gathering phases design concepts and testing strategies	K1
CO2	Picture out the main aspects of software engineering and evaluate requirements for a software system and analyzing the requirements through modeling	K2
CO3	Apply the process of analysis and design using the object-oriented approach	K3
CO4	Interpret the design engineering and various Testing tactics	K4
CO5	Inculcate knowledge on Software engineering concepts in turn gives a roadmap to design a new software project.	K4

Mapping

PO / PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	L	H	H	H
CO2	H	M	H	M	H	H	M	H	M	H	M	L
CO3	H	M	H	M	H	L	M	H	M	H	M	H
CO4	M	H	L	H	M	M	H	M	H	M	H	M
CO5	H	L	H	M	H	H	M	H	M	L	M	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT309			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	04	Tutorial Hrs./Sem.	0	Core Course Lab – III - ADVANCED JAVA PROGRAMMING LAB	Semester:	III	
					Credits:	02	

Course Objective

To build GUI applications and connect to JDBC, create Web applications using server side programming languages – Servlets, JSP and Java beans.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Recollect the concept of Swing Components and cookies	K3
CO2	Understand and integrate Servlets, JDBC and JSP to develop web applications	K4
CO3	Validate the idea of Java Beans to build enterprise applications	K3
CO4	Develop an request object method using enterprise applications	K4
CO5	Illustrate the concept of Server-side Includes and Servlet chaining	K4

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	L	H	H	H
CO2	H	M	H	M	H	H	M	H	M	H	M	L
CO3	H	M	H	M	H	L	M	H	M	H	M	H
CO4	M	H	L	H	M	M	H	M	H	M	H	M
CO5	H	L	H	M	H	H	M	H	M	L	M	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT310			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	04	Tutorial Hrs./Sem.		Core Course Lab- IV- DATABASE MANAGEMENT SYSTEM LAB	Semester:	III	
					Credits:	02	

Course Objective

To enable the students to know about database concepts with practical Knowledge

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Recollect the basic commands such as DDL, DML, TCL	K3
CO2	Understand about various set, join operations and group functions in PL/SQL	K4
CO3	Develop various set and join operation in SQL	K4
CO4	Use PL/SQL stored procedure, stored functions, cursors and packages to query the database.	K4
CO5	Validate the PL/SQL cursors, GROUPBY clauses	K4

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	H	H
CO2	H	M	H	H	H	M	H	M	H	H	M	H
CO3	H	M	H	H	H	M	H	M	H	L	M	H
CO4	M	H	L	M	M	H	L	H	M	M	H	M
CO5	H	L	H	H	H	L	H	M	H	H	M	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT	Programme Title:	Bachelor of Science (Computer Technology)
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Course Code:	22UCT3N1		Title	Batch:	2022 – 2025
			Skill Based NON-MAJOR ELECTIVE I - HTML LAB	Semester:	III
Lecture Hrs./Week or Practical Hrs./Week	01	Tutorial Hrs./Sem.		04	Credits:

Course Objective

To understand the principles of creating an effective web page using HTML.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Keep in mind the concept of Basic HTML tags	K3
CO2	Understand about ordered list and unordered list, creation of table, creations of forms	K4
CO3	Validate the creation of a simple webpage using basic HTML	K4
CO4	Use scripting Techniques for dynamic effects and to validate form input entry	K3
CO5	Analyze to Use appropriate client-side or Server-side applications	K4

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	L	H	H	H
CO2	H	M	H	M	H	H	M	H	M	H	M	L
CO3	H	M	H	M	H	L	M	H	M	H	M	H
CO4	M	H	L	H	M	M	H	M	H	M	H	M
CO5	H	L	H	M	H	H	M	H	M	L	M	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT3N2			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	01	Tutorial Hrs./Sem.	0	Skill Based NON- MAJOR ELECTIVE I - MULTIMEDIA LAB	Semester:	III	
					Credits:	02	

Course Objective

To offer the knowledge of creating and working with digital images and to manipulate them and to develop a presentation package using multimedia tools

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Keep in mind the concept of Basic Multimedia Techniques	K3
CO2	Discuss the application of multimedia concepts in the development of information visualization and business applications.	K4
CO3	Validate the creation of a simple applications using multimedia tools	K4
CO4	Use scripting Techniques for dynamic effects and to validate form input entry	K3
CO5	Comprehend and analyse the fundamentals of animation, virtual reality, underlying technologies, principles and applications.	K4

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	L	H	H	H
CO2	H	M	H	M	H	H	M	H	M	H	M	L
CO3	H	M	H	M	H	L	M	H	M	H	M	H
CO4	M	H	L	H	M	M	H	M	H	M	H	M
CO5	H	L	H	M	H	H	M	H	M	L	M	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT411			Title	Batch:	2022-2025	
Lecture Hrs./Week or Practical Hrs./Week	04	Tutorial Hrs./Sem.	04	Core Course VII: PYTHON PROGRAMMING	Semester:	IV	
					Credits:	04	

Course Objective

The course is designed to provide Basic knowledge of Python. Python programming is intended for software engineers, system analysts, program managers and user support personnel who wish to learn the Python programming language.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To develop python programs for core python and data types using objects and functions.	K4
CO2	To develop python programs for List, Stack, Queues.	K2
CO3	To implement File Objects and Object-Oriented Programming using python.	K3
CO4	To manage Errors and Exceptions and summarize the Network Programming.	K4
CO5	Understand and apply Well-Formed Object Oriented Features.	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	H	H
CO2	H	M	H	M	H	H	M	H	M	H	H	M
CO3	H	M	H	M	H	H	M	H	M	H	L	M
CO4	M	H	L	H	M	M	H	L	H	M	M	H
CO5	H	L	H	M	H	H	L	H	M	H	H	M

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT412			Title	Batch:	2022-2025	
Lecture Hrs./Week or Practical Hrs./Week	04	Tutorial Hrs./Sem.	4	CORE VIII: LINUX AND SHELL PROGRAMMING	Semester:	IV	
					Credits:	03	

Course Objective

This course introduces basic understanding of Linux OS, Linux commands and File system and to Familiarize students with the Linux environment.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Remember the operating system architecture and low level interfaces that are required to build Linux systems	K1
CO2	Understand different commands used by system administrator and file related commands	K2
CO3	Apply various Linux operating system commands and utilities in Linux systems	K3
CO4	Evaluate the shell scripts with different programming goals	K4
CO5	Analyze different types of shell associated commands	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	H	H
CO2	H	M	H	M	H	M	H	M	H	H	M	H
CO3	H	M	H	M	H	M	H	M	H	H	M	H
CO4	M	H	L	H	M	H	L	H	M	M	H	L
CO5	H	L	H	M	H	L	H	M	H	H	L	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)	
Course Code:	22UCT4A4			Title	Batch:	2022 – 2025
Lecture Hrs./Week or Practical Hrs./Week	04	Tutorial Hrs./Sem.	03	GE IV: Allied IV: DATA COMMUNICATION AND NETWORKS	Semester:	IV
					Credits:	03

Course Objective

To identify various components in a data communication system and understand state-of-the-art in network protocols, architectures and applications. To enable students through the concepts of computer networks, different models and their involvement in each stage of network communication. To educate the concepts of terminology and concepts of the OSI reference model and the TCP/IP reference model and protocols such as TCP, UDP and IP.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Remember the organization of computer networks, factors influencing computer network development and the reasons for having variety of different types of networks.	K1
CO2	Understand Internet structure and can see how standard problems are solved and the use of cryptography and network security.	K2
CO3	Apply knowledge of different techniques of error detection and correction to detect and solve error bit during data transmission.	K3
CO4	Analyze the requirements for a given organizational structure and select the most appropriate networking architecture and technologies	K4
CO5	Knowledge about different computer networks, reference models and the functions of each layer in the models	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	H	H
CO2	H	M	H	M	H	H	M	H	M	H	H	M
CO3	H	M	H	M	H	H	M	H	M	H	L	M
CO4	M	H	L	H	M	M	H	L	H	M	M	H
CO5	H	L	H	M	H	H	L	H	M	H	H	M

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT413			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	04	Tutorial Hrs./Sem.	0	CC LAB - V: PYTHON PROGRAMMING LAB	Semester:	IV	
					Credits:	02	

Course Objective

The course is designed to provide Basic knowledge of Python. Python programming is intended for software engineers, system analysts, program managers and user support personnel who wish to learn the Python programming language.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To develop python programs for list and control statements and understand the Different loops such as “for”, “while” and “do-while”.	K1
CO2	To Manage Errors and Exception and summarization of networks	K2
CO3	To implement File Objects and Object-Oriented Programming using python.	K3
CO4	Analyze the use control structures in programming.	K4
CO5	Design Python scripting language to develop innovative real time applications.	K6

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	H	H
CO2	H	H	H	H	H	H	H	M	H	L	H	H
CO3	H	M	H	H	M	H	L	H	M	H	H	H
CO4	H	H	M	H	H	L	H	H	L	M	H	H
CO5	H	H	H	M	H	H	H	H	H	H	H	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT414			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	04	Tutorial Hrs./Sem	0	CC LAB VI: LINUX AND SHELL PROGRAMMINGLAB	Semester:	IV	
					Credits:	02	

Course Objective

To enable the students to write program in Linux for solving specified problems.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Apply the various Linux distributions.	K3
CO2	Evaluate the basic set of commands and utilities in Linux systems.	K4
CO3	Validate various shell scripts with different programming concepts.	K3
CO4	Apply and change the ownership and file permissions using advance Unix commands.	K4
CO5	Create shell scripts for real time applications.	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	H	H
CO2	H	M	H	M	H	M	H	M	H	M	H	M
CO3	H	M	H	M	H	M	H	M	H	M	H	M
CO4	M	H	L	H	M	H	L	H	M	H	L	H
CO5	H	L	H	M	H	L	H	M	H	L	H	M

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT4S1			Title	Batch:	2022 - 2025	
Lecture Hrs./Week or Practical Hrs./Week	2	Tutorial Hrs./Sem	0	SEC II: Naan Mudhalvan : Desktop Publishing Lab	Semester:	IV	
					Credits:	02	

Course Objective

To provide the students understanding of the techniques essential to build their career in desktop publishing using suitable hardware and software tools.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To keep in mind about the formatted text and graphics.	K3
CO2	To realize about the Print Industry, Printing technology	K4
CO3	To validate the Designing standards, Print layout Design and creative visualization for intuitive layout	K5

CO4	Visualize the special effects, Exporting drawings, outlining & filling objects	K4
CO5	Drawing lines, shapes .inserting pictures, objects, tables, templates	K6

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	M	H	H	H	H	M	H	H	H	H
CO2	H	H	H	H	H	H	H	H	L	H	H	M
CO3	H	H	H	M	H	L	H	H	H	M	H	H
CO4	L	H	L	H	L	H	M	M	L	H	M	H
CO5	H	H	H	H	M	H	H	H	H	M	H	L

* H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT4S2			Title	Batch:	2022 - 2025	
Lecture Hrs./Week or Practical Hrs./Week	2	Tutorial Hrs./Sem	0	SEC II: Naan Mudhalvan : PC Hardware & Troubleshooting	Semester:	IV	
					Credits:	02	

Course Objective

To provide the students understanding of the techniques essential to build their career in desktop publishing using suitable hardware and software tools.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To keep in mind about the formatted text and graphics.	K3
CO2	To realize about the Print Industry, Printing technology	K4
CO3	To validate the Designing standards, Print layout Design and creative visualization for intuitive layout	K5

CO4	Visualize the special effects, Exporting drawings, outlining & filling objects	K4
CO5	Drawing lines, shapes .inserting pictures, objects, tables, templates	K6

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	M	H	H	H	H	M	H	H	H	H
CO2	H	H	H	H	H	H	H	H	L	H	H	M
CO3	H	H	H	M	H	L	H	H	H	M	H	H
CO4	L	H	L	H	L	H	M	M	L	H	M	H
CO5	H	H	H	H	M	H	H	H	H	M	H	L

* H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT4N3			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	01	Tutorial Hrs./Sem.	0	Skill Based NON-MAJOR ELECTIVE II – OFFICE AUTOMATION LAB	Semester:	IV	
					Credits:	02	

Course Objective

To familiarize the students in preparation of documents and presentations with office automation tools

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Keep in mind about the menus and icons functionalities in MS Word	K3
CO2	Understand and apply mathematical functions to calculate mean, median and standard deviation using Excel	K3
CO3	Apply different build in functions and their usage.	K4

CO4	Prepare a power point presentation for a range of events	K4
CO5	Include graphs, tables and images to power point presentation	K3

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	L	H	H	H
CO2	H	M	H	M	H	H	M	H	M	H	M	L
CO3	H	M	H	M	H	L	M	H	M	H	M	H
CO4	M	H	L	H	M	M	H	M	H	M	H	M
CO5	H	L	H	M	H	H	M	H	M	L	M	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT4N4			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	01	Tutorial Hrs./Sem.	0	NON-MAJOR ELECTIVE II - CORELDRAW LAB	Semester:	IV	
					Credits:	02	

Course Objective

To equip the students with the basic knowledge of CorelDraw graphics suites

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Keep in mind about CorelDraw workspace, tools and panels	K3
CO2	Comprehend a variety of images using crop tools, zooming, curve and smart fill tools	K4
CO3	Validate the animation works using CorelDraw	K3
CO4	Develop different animations with help of Corel tools	K4

CO5	Create variety of techniques for designing methods	K4
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Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	L	H	H	H
CO2	H	M	H	M	H	H	M	H	M	H	M	L
CO3	H	M	H	M	H	L	M	H	M	H	M	H
CO4	M	H	L	H	M	M	H	M	H	M	H	M
CO5	H	L	H	M	H	H	M	H	M	L	M	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. UCT			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT515			Title	Batch:	2022 - 2025	
Lecture Hrs./Week or Practical Hrs./Week	6	Tutorial Hrs./Sem.	2	CORE COURSE IX: OPEN SOURCE TECHNOLOGIES	Semester:	V	
					Credits:	05	

Course Objective

To impart basic knowledge of PHP and MySQL and development of web applications using open source web technologies like Apache, MySQL and PHP (LAMP/XAMP).

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Obtaining the basic concepts of PHP	K1
CO2	Gain the basic knowledge on Decision making and Looping	K1, K2
CO3	Understand the concept in string manipulation and arrays	K1, K3
CO4	Gain detailed knowledge on MySQL Commands	K4
CO5	Obtain knowledge about database manipulation using MySQL and design dynamic web pages.	K5, K6

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	M	H	H	H	M	H	H	M	H
CO2	H	H	M	H	H	L	H	H	H	H	H	H
CO3	H	M	H	H	H	H	L	H	H	H	H	M
CO4	H	H	H	M	H	L	H	M	H	M	M	H
CO5	H	M	H	H	H	H	H	H	H	H	H	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT516			Title	Batch:	2022 - 2025	
Lecture Hrs./Week or Practical Hrs./Week	06	Tutorial Hrs./Sem.	2	CORE COURSE: X: INFORMATION SECURITY	Semester:	V	
					Credits:	05	

Course Objective

To understand the essentials of information security and learn the algorithms for implementing security.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Remember and understand the fundamentals of security algorithm in various layers.	K1, K2
CO2	Analyze the various symmetric key and public key algorithms	K4
CO3	Understand the techniques to secure data in Hash algorithms.	K2
CO4	Assess cyber security risk management policies in order to adequately protect critical information and assets.	K3
CO5	Analyze the various attacks in networks and discover how to protect personal data, securing simple computer networks, and safe Internet usage.	K4

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	M	H
CO2	H	H	H	M	H	H	L	M	H	H	M	H
CO3	H	H	L	H	H	M	H	H	H	H	H	H
CO4	H	H	M	L	H	H	L	H	H	M	H	M
CO5	H	H	H	H	H	H	H	H	H	H	H	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. C.T.			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT5E1			Title	Batch:	2022 - 2025	
Lecture Hrs./Week or Practical Hrs./Week	06	Tutorial Hrs./Sem.	2	DSE - I :CLOUD COMPUTING	Semester:	V	
					Credits:	05	

Course Objective

To impart the Basic Concepts of Cloud Computing and understand the Technologies and Architectures of Cloud Computing.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Tell about the fundamentals of cloud computing.	K1
CO2	Describe the scaling techniques in computer system and managing the cloud data.	K2
CO3	Discuss about tracing and exploring cloud services.	K2
CO4	Examine about cloud managing and security.	K3
CO5	Illustrate about managing desktops and devices in the cloud.	K3

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	M	H	H	H	M	H	M
CO2	H	M	L	H	H	H	H	L	M	H	H	H
CO3	H	H	M	H	L	H	M	H	H	L	H	M
CO4	H	H	H	H	H	H	H	H	H	M	H	H
CO5	H	H	M	H	H	M	H	L	H	H	H	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT5E2			Title	Batch:	2022 - 2025	
Lecture Hrs./Week or Practical Hrs./Week	06	Tutorial Hrs./Sem.	2	DSE - I : EMBEDDED SYSTEMS	Semester:	V	
					Credits:	05	

Course Objective

To emphasize on comprehensive treatment of embedded hardware and real time operating systems along with case studies, in tune with the requirements of Industry.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Understand the basics concepts in embedded systems	K1, K2
CO2	Understand the knowledge on hardware & software components and developing tools in embedded systems.	K2
CO3	Understand the working of ARM processor and learn to write programs in ARM processor	K2
CO4	Understand the basic concepts of real time operating systems using the concepts of RTOS.	K2
CO5	Develop embedded applications	K3, K6

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	M	H	H	H	H	H	H	H	H
CO2	H	H	L	H	L	H	H	M	H	L	M	H
CO3	H	M	H	H	H	M	H	H	H	H	H	H
CO4	H	H	H	L	H	H	L	H	M	H	H	H
CO5	H	H	H	H	H	H	H	H	H	H	H	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT5E3			Title	Batch:	2022 - 2025	
Lecture Hrs./Week or Practical Hrs./Week	6	Tutorial Hrs./Sem.	2	DSE - I : FUNDAMENTALS OF BLOCK CHAIN TECHNOLOGY	Semester:	V	
					Credits:	05	

Course Objective

On successful completion of this subject the students can understand various concepts of Blockchain, Cryptocurrency, Digital Signature, Bitcoins etc.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To keep in mind the fundamentals of block chain technology and crypto currency.	K1
CO2	To understand the mining mechanism in block chain.	K2
CO3	To apply and identify security measures, and various types of services that allow people to trade and transact with bitcoin.	K3
CO4	To analyze security, privacy, and efficiency of a given Blockchain system.	K4
CO5	To Assess the concepts of Blockchain, Cryptocurrency, Bitcoin and Digital Signature.	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	M	H	H	H	M	H	M	H	H	H	H	H
CO2	M	H	H	M	M	M	H	M	H	M	M	H
CO3	M	M	M	H	H	M	H	H	M	H	H	H
CO4	H	H	H	H	H	M	H	H	H	M	H	H
CO5	H	H	H	H	H	H	H	H	H	H	H	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT517			Title	Batch:	2022 - 2025	
Lecture Hrs./Week or Practical Hrs./Week	5	Tutorial Hrs./Sem.	0	CC LAB – VII - OPENSOURCE TECHNOLOGIES	Semester:	V	
					Credits:	02	

Course Objective

To expose students to free open source software environment and introduce them to use open source packages.

To work with open source applications that deal with database and website development.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Write PHP scripts using operators to perform various functions	K6
CO2	Implement different types of PHP functions and the concepts of files and directories	K3
CO3	Write regular expressions including modifiers, operators, and meta characters	K6
CO4	Create PHP scripts using array	K6
CO5	Evaluate the database connectivity using PHP and SQLite and Develop dynamic web pages.	K5, K3

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	M	H	M	H	H	H	H	H	H	H	H
CO2	H	H	M	H	L	H	H	M	L	M	H	H
CO3	H	M	H	M	H	M	H	H	H	L	M	H
CO4	H	H	M	H	L	H	M	L	M	H	H	M
CO5	H	H	M	H	H	H	M	H	H	H	H	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT518			Title	Batch:	2022 - 2025	
Lecture Hrs./Week or Practical Hrs./Week	4	Tutorial Hrs. /Sem.	0	CC LAB – VIII - WEB DESIGNING	Semester:	V	
					Credits:	02	

Course Objective

To create tables and frames, ordered and unordered lists within a web page and learn the language of HTML, DHTML, XML and JavaScript.

To develop dynamic web page using scripting languages and various XML, HTML5 where scripting codes are embedded into HTML document for interactive presentation effect.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Analyze a web page and identify its elements and attributes	K3
CO2	Create a HTML page with formatting text tags, tables and lists	K6
CO3	Create a HTML file with Frames	K6
CO4	Create web pages using DHTML and XML documents	K6
CO5	Build dynamic web pages using JavaScript (client side programming)	K3, K6

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
	CO1	H	H	H	H	H	H	H	H	H	H	H
CO2	H	H	H	H	H	L	H	M	H	H	H	H
CO3	H	M	H	H	H	H	L	H	H	H	H	H
CO4	H	H	M	H	M	H	H	L	H	M	H	H
CO5	H	H	H	H	H	H	H	H	L	H	H	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT5AL			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	SS	Tutorial Hrs./Sem.	SS	Advanced Learner Course - I : SOFTWARE TESTING	Semester:	V	
					Credits:	04*	

Course Objective

To study fundamental concepts in software testing and discuss various software testing issues and solutions in software unit test, integration and system testing.

To List a range of different software testing techniques and strategies and be able to apply specific automated unit testing method to the projects.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Understand the basic concepts and the processes that lead to software testing	K2
CO2	Design test cases from the given requirements using Black box testing techniques	K3
CO3	Identify the test cases from Source code by means of white box testing techniques	K3
CO4	Know about user acceptance testing and generate test cases for it	K4

CO5	Examine the test adequacy criteria to complete the testing process	K5
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Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	M	H	H	H
CO2	H	M	H	L	H	H	H	M	L	H	H	H
CO3	H	H	M	H	L	H	M	H	H	H	H	H
CO4	H	H	H	M	H	M	H	L	H	H	H	H
CO5	H	H	H	H	M	H	L	H	H	H	H	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT5S1			Title	Batch:	2022– 2025	
Lecture Hrs./Week or Practical Hrs./Week	2	Tutorial Hrs./Sem	0	Skill Based Major	Semester:	V	
				Elective I:R	Credits:	02	
				PROGRAMMING			

Course Objective

To provide understanding of various concepts of R Programming like functions, variables, data types and standardizing etc.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Show the installation of R Programming Environment.	K1
CO2	Utilize and R Data types for developing programs.	K2
CO3	Design and implement R programming concept in Data Structures to develop innovative real time applications.	K3
CO4	Perform appropriate statistical tests using R	K4
CO5	Create and edit visualizations with R	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	M	H	H	H	H	H	M	L	H	H	H
CO2	H	M	M	M	H	H	M	H	M	H	M	H
CO3	H	M	H	M	H	L	M	H	M	H	M	H
CO4	M	H	L	H	M	M	H	M	H	M	H	L
CO5	H	L	H	M	H	H	M	H	M	H	L	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Computer Technology	
Course Code:	22UCT5S2			Title	Batch:	2022 - 2025
Lecture Hrs./Week or Practical Hrs./Week	2	Tutorial Hrs./Sem	0	Skill Based Major Elective I: SCRIPTING LANGUAGE LAB	Semester:	V
					Credits:	02

Course Objective

To Understand the concepts of scripting languages for developing web based projects.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Understand VB Script language programming constructs and ability to understand the differences between Scripting languages and programming languages	K1
CO2	Gain knowledge of JavaScript language programming constructs.	K2
CO3	Understand the important HTML tags for designing static pages and separate design from content using Cascading Style sheet.	K3
CO4	Develop a dynamic web page using client side and server side scripting language.	K4
CO5	Able to gain some fluency programming in HTML and Java Scripting.	K5

Mapping

PO / PSO CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	H	H	H	H	H	H	H
CO2	H	M	H	H	H	H	H
CO3	H	H	M	H	L	H	H
CO4	H	H	H	H	M	H	H
CO5	H	H	M	H	H	M	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT5VA			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	02	Tutorial Hrs./Sem.	-	VAC I- IoT (Internet of Things)	Semester:	V	
					Credits:	2*	

Course Objective

To imparts a sound understanding of the basic electronics, microcontroller architectures, sensors, IoT architecture and communication protocols.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Understand the scope of the IoT system, architectures, components and supporting technologies.	K2
CO2	Analyzing existing business processes to understand and build technical strategy to develop need aligned technical solutions.	K3
CO3	Apply decision and repetition structures in program design.	K3
CO4	Implement architecture of its networks, devices, programming, data and security.	K4
CO5	Evaluate the data received through sensors in IOT and Design smart city in IOT.	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	L	H	H	H
CO2	H	M	H	M	H	H	M	H	M	H	M	H
CO3	H	M	H	M	H	L	M	H	M	H	M	H
CO4	M	H	L	H	M	M	H	M	H	M	H	L
CO5	H	L	H	M	H	H	M	H	M	H	L	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT619			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	06	Tutorial Hrs./Sem.	08	Core Course XI: FRAMEWORK TECHNOLOGY	Semester:	VI	
					Credits:	04	

Course Objective

To provide in depth knowledge on VB.NET and ASP.NET and making them to develop dynamic web applications, websites using window controls and web controls.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Understand the basic concepts of .NET framework and its components.	K1 / K2
CO2	Acquire the usage of various Elements of VB.Net to develop programs using them	K3
CO3	Implement lists and loops with VB.NET controls and iteration	K3
CO4	Assemble multiple forms, modules, and menus into working VB.NET solutions	K3/K4
CO5	Connect database by using ADO.NET and manipulate the database	K4/K5

Mapping

PO /PSO CO	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	H	H
CO2	H	M	H	M	H	M	H	H	M	L	H	M
CO3	H	M	L	M	H	M	H	H	M	M	H	M
CO4	M	H	M	H	M	H	M	L	H	H	M	H
CO5	H	M	H	M	H	M	H	H	M	M	H	M

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT6E4			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	06	Tutorial Hrs./Sem.	4	DSE II: MOBILE COMPUTING	Semester:	VI	
					Credits:	4	

Course Objective

1. Understand the various concepts and techniques of WAP, GSM, CDMA, 2G, and 3G.
2. Gain knowledge about different mobile platforms and application development.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Understand various networks, standards, communication medium, Spread spectrum technology	K1/K2
CO2	Analyze the basic concepts of wireless networks.	K2/K3
CO3	Deploy the mobile applications to the devices.	K3
CO4	Demonstrate basic skills for cellular networks design.	K4/K5
CO5	Examine to design and develop mobile computing solutions using various components of mobile computing	K5

Mapping

PO / PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	H	H
CO2	H	L	H	M	H	M	H	H	M	M	L	M
CO3	H	M	H	M	H	M	H	H	M	M	H	M
CO4	M	H	M	H	M	H	M	L	H	H	M	H
CO5	H	M	H	M	L	M	H	H	M	M	H	M

* H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT6E5			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	06	Tutorial Hrs./Sem.	04	DSE II: SOFTWARE PROJECT MANAGEMENT	Semester:	VI	
					Credits:	5	

Course Objective

1. To provide the graduates to identify key areas of concern over Project Life Cycle (PLC) and use of project management principles across all the phases of PLC.
2. To understand the importance and necessity of project plan and how it is helpful to project manager in monitoring and controlling the various aspects of the project

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Identify the activities of Software Project Management	K2
CO2	Select appropriate approach for software project	K2/K3
CO3	Manage people in software environment	K3
CO4	Create a critical path and a precedence network for a project.	K4
CO5	Generate project schedule and can construct, design and develop network diagram for different type of Projects.	K4/K5

Mapping

PO / PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	L	H
CO2	H	M	L	M	H	M	H	M	H	M	H	M
CO3	H	M	H	M	H	M	H	L	H	M	H	M
CO4	M	H	M	H	M	H	M	H	M	H	M	H
CO5	L	M	H	M	H	M	H	M	H	M	H	M

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT6E6			Title	Batch:	2022 – 2025	
				DSE II: GRID COMPUTING	Semester:	VI	
Lecture Hrs./Week or Practical Hrs./Week	06	Tutorial Hrs./Sem.	04		Credits:	5	

Course Objective

To provide a thorough knowledge about the technology application and tool kits for grid computing

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Understanding the fundamentals of grid computing	K1
CO2	Discussing the basics of grid monitoring.	K2/K3
CO3	Dissect Grid Computing Systems and Architectures	K4
CO4	Analyze the importance of Grid Computing Standards	K4/K5
CO5	Examine the standards supporting Grid Computing services and Functionality	K5

Mapping

PO /PSO CO	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1 0	PSO1	PSO2
CO1	H	H	H	H	H	H	L	H	H	H	H	H
CO2	H	M	H	M	H	M	H	M	H	M	H	M
CO3	H	M	H	L	H	M	H	M	H	M	H	M
CO4	L	H	M	H	M	H	M	H	M	H	M	H
CO5	H	M	H	M	H	M	H	M	H	L	H	M

* H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT6E7			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	06	Tutorial Hrs./Sem.	04	DSE III: ARTIFICIAL INTELLIGENCE	Semester:	VI	
					Credits:	5	

Course Objective

To embed a deep knowledge about search techniques, reasoning, game playing, expert systems and prolog.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Learn about the artificial intelligence problem and the characteristics of the problem space	K1
CO2	Understand the problem solving using predicates.	K1/K2
CO3	Apply the concepts of game playing techniques and Expert system	K3
CO4	Analyze AI problem to be solved using prolog	K4
CO5	Evaluate different knowledge representation schemes for AI problems	K4 /K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	L	H	H	H	H	H	H	H	H	H	H	H
CO2	H	M	H	M	H	M	H	L	M	M	H	L
CO3	H	M	H	M	L	M	H	H	M	M	H	M
CO4	M	H	M	H	M	H	M	M	H	H	L	H
CO5	H	L	H	M	H	M	H	H	M	M	H	M

* H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT6E8			Title	Batch:	2022 – 2025	
Lecture Hrs./Week	06	Tutorial Hrs./Sem.	04	DSE III: ETHICAL HACKING	Semester:	VI	
					Credits:	5	

Course Objective

To help students understand how ethical hacking is used as a method to prevent hacking. To facilitate students, appreciate the need for understanding non-technology aspects of ethical hacking such as legal frameworks, documentation and report writing.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Explain the importance of numerous methods of real-world informationintelligence	K1/K2
CO2	Differentiate the processes of vulnerability assessment and ethical hacking from penetration testing.	K2/K3
CO3	Comprehend the importance of appropriate countermeasures for managing vulnerabilities	K3
CO4	To familiarize with the methodologies that can be used to hack into a target	K4/K5
CO5	To appreciate the wide variety of attacks that can be performed against a wireless network	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	L	H	H	H	M	H	H	H	H
CO2	H	M	H	M	H	M	H	H	L	M	H	M
CO3	H	M	H	M	H	M	H	H	H	M	H	M
CO4	M	H	L	H	M	H	M	L	M	H	M	L
CO5	H	M	H	M	H	M	H	M	H	M	H	M

* H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)	
Course Code:	22UCT6E9			Title	Batch:	2022 – 2025
Lecture Hrs./Week or Practical Hrs./Week	06	Tutorial Hrs./Sem.	04	DSE III: MACHINE LEARNING TECHNIQUES	Semester:	VI
					Credits:	5

Course Objective

1. This class will familiarize students with a broad cross-section of models and algorithms for machine learning, and prepare students for research or industry application of machine learning techniques.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Understand the difference between continuous class label and discrete class label classification methods.	K1/K2
CO2	Predict the continuous class variable using linear regression analysis	K2/K3
CO3	Predict the binary class variable using decision tree and random forest	K3
CO4	Understand the importance of Logistic regression and its application in business	K4
CO5	Apply the assessment method to find the better number of PCA and Clusters for the given data	K5/K6

Mapping

PO / PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	L	H	H	H
CO2	H	M	H	M	H	M	H	H	M	M	H	M
CO3	H	L	H	M	H	M	H	H	M	M	L	M
CO4	M	H	M	H	M	H	M	M	H	H	M	H
CO5	H	M	H	M	L	M	H	H	M	M	H	M

* H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)		
Course Code:	22UCT620			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	05	Tutorial Hrs./Sem.	0	Core Course Lab - IX : FRAMEWORK TECHNOLOGY	Semester:	VI	
					Credits:	03	

Course Objective

The student learns how to design, code, test and debug programs using VB.Net and ADO.Net.

To utilize .NET framework to build distributed enterprise applications.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Analyze and apply the VB.NET IDE Framework	K3
CO2	Develop, design and implement VB.Net program using various controls.	K4
CO3	To validate the concept of files and exception handling mechanism	K5
CO4	Implement ADO.Net connectivity	K4
CO5	Create their own applications with reports.	K5

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	L	H
CO2	L	M	H	M	H	M	H	L	H	M	H	M
CO3	H	M	H	M	H	M	H	M	H	M	H	L
CO4	M	H	M	L	M	H	M	H	M	H	M	H
CO5	H	M	H	M	H	M	H	M	H	L	H	M

* H-High; M-Medium; L-Low

Programme Code:	B.Sc.			Programme Title:	Computer Technology		
Course Code:	22UCT621			Title	Batch:	2022 – 2025	
Lecture Hrs./Week or Practical Hrs./Week	4	Tutorial Hrs./Sem.	-	Core Course Lab X: Google Workspace	Semester:	VI	
					Credits:	2	

Course Objective

To reinforce human connections is even more important when people are working remotely and interacting with their customers digitally.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To illustrate the concept of quickly schedule meetings and events and get reminders about upcoming activities using calendar	K3
CO2	Understand and integrate skills such as creating, editing, sharing, and customizing documents using documents.	K4
CO3	Validate the idea of creating and presenting professional presentations for sales, projects, training modules, and much more using Slides	K3
CO4	Develop data visualization options in Google Sheets, as well as how to use Google Forms	K4
CO5	Illustrate the concept of GMail and drives	K4

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	L	H	H	H
CO2	H	M	H	M	H	H	M	H	M	H	M	L
CO3	H	M	H	M	H	L	M	H	M	H	M	H
CO4	M	H	L	H	M	M	H	M	H	M	H	M
CO5	H	L	H	M	H	H	M	H	M	L	M	H

*H-High; M-Medium; L-Low

Programme Code:	B.Sc.			Programme Title:	Computer Technology	
Course Code:	22UCT622			Title	Batch:	2022 – 2025
Lecture Hrs./Week or Practical Hrs./Week	-	Tutorial Hrs./Sem.	-	Project	Semester:	VI
					Credits:	2

Course Objective

1. To understand and select the task based on their core skills.
2. To get the knowledge about analytical skill for solving the selected task.
3. To get confidence for implementing the task and solving the real time problems.
4. Express technical and behavioral ideas and thought in oral settings.
5. Prepare and conduct oral presentations

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To recollect the programming language concepts to think objectively, analytically, critically in developing industry oriented applications	K3
CO2	To comprehend about the data base connectivity using front end and back end tools	K4
CO3	To validate the application software by various types of testing and its implementation in real environment	K5
CO4	Design engineering solutions to complex problems utilizing a systems approach.	K4
CO5	Demonstrate the knowledge, skills and attitudes of a professional engineer.	K5/K6

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	H	H	H	H
CO2	H	M	H	M	H	M	H	H	H	M	H	M
CO3	H	M	H	M	H	M	H	H	H	M	H	M
CO4	M	H	M	H	M	H	M	H	H	H	M	H
CO5	H	M	H	M	H	M	H	H	H	M	H	M

* H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT6S3			Title	Batch:	2022 - 2025	
Lecture Hrs./Week or Practical Hrs./Week	2	Tutorial Hrs./Sem	0	SEC: Naan Mudhalvan: DESKTOP PUBLISHING LAB	Semester:	VI	
					Credits:	02	

Course Objective

To provide the students understanding of the techniques essential to build their career in desktop publishing using suitable hardware and software tools.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	To keep in mind about the formatted text and graphics.	K3
CO2	To realize about the Print Industry, Printing technology	K4
CO3	To validate the Designing standards, Print layout Design and creative visualization for intuitive layout	K5
CO4	Visualize the special effects, Exporting drawings, outlining & filling objects	K4
CO5	Drawing lines, shapes .inserting pictures, objects, tables, templates	K6

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	M	H	H	H	H	M	H	H	H	H
CO2	H	H	H	H	H	H	H	H	L	H	H	M
CO3	H	H	H	M	H	L	H	H	H	M	H	H
CO4	L	H	L	H	L	H	M	M	L	H	M	H
CO5	H	H	H	H	M	H	H	H	H	M	H	L

* H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Computer Technology		
Course Code:	22UCT6S4			Title	Batch:	2022 - 2025	
				SEC: Naan Mudhalvan: ANIMATION LAB	Semester:	VI	
Practical Hrs./Week	2	Tutorial Hrs./Sem	0		Credits:	02	

Course Objective

To focus on using Photoshop and Flash to become expertise in life-drawing and related techniques.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Gained basic concepts and understanding of tools related to 3D production	K2
CO2	To familiarize with various approaches, methods and techniques of Animation Technology.	K3
CO3	Emphasis will be on conceptualization, creativity, and visual aesthetics	K4
CO4	Developing concepts, storyboarding and production of several 2 dimensional animations will be accomplished.	K5
CO5	Takes through various aspects of animation using a variety of 2 dimensional software.	K6

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
	CO1	H	H	M	H	H	H	H	M	H	H	M
CO2	H	M	H	L	H	H	H	H	L	H	H	M
CO3	H	H	H	M	H	L	H	H	H	M	H	H
CO4	M	H	L	H	L	H	M	H	H	H	H	H
CO5	H	H	H	H	M	H	H	H	H	M	L	H

* H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT			Programme Title:	Bachelor of Science (Computer Technology)	
Course Code:	22UCT6AL			Title	Batch:	2022 – 2025
Lecture Hrs./Week or Practical Hrs./Week	SS	Tutorial Hrs./Sem.	SS	Advanced Learner Course - II : DIGITAL MARKETING	Semester:	VI
					Credits:	04*

Course Objective

This course provides an overall understanding of the various digital marketing platforms and tools available for creating an effective digital marketing strategy. It provides technical skills to design and develop an integrated digital marketing plan for an organization.

Course Outcomes

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

CO Number	CO Statement	Knowledge Level
CO1	Understand the role of digital marketing in marketing strategy	K2
CO2	Identify the key elements of a digital marketing strategy	K1
CO3	Analyze the role that social marketing plays in the digital marketing	K3
CO4	Demonstrate common digital marketing tools such as SEO and Social media	K4
CO5	Apply conceptual frame works of digital marketing	K5

22UCT6AL

Mapping

PO /PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO1	H	H	H	H	H	H	H	H	M	H	H	H
CO2	H	M	H	L	H	H	H	M	L	M	H	M
CO3	H	H	M	H	L	H	M	H	H	H	L	H
CO4	H	H	H	M	H	M	H	L	H	M	H	H
CO5	H	H	H	H	M	H	L	H	H	H	H	M

*H-High; M-Medium; L-Low

Programme Code:	B.Sc. CT		Programme Title:	Bachelor of Science (Computer Technology)	
Course Code:	22UCT6VA		Title	Batch:	2022 – 2025
Lecture Hrs./Week or Practical Hrs./Week	-	Tutorial Hrs./Sem.	2	VAC-II: PC ASSEMBLY AND CCTV INSTALLATION	Semester: VI
					Credits: 2

Course Objective

This course enables the students to understand the fundamentals of PC Assembly and CCTV Installation

Course Outcomes

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

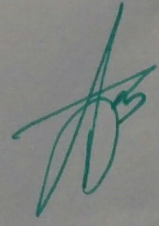
CO Number	CO Statement	Knowledge Level
CO1	Understand the basic concepts of Assemble/setup and upgrade personal computer systems	K2
CO2	Knowledge of CCTV components with modern equipments	K3
CO3	Identify and Optimize system performance techniques	K3
CO4	Know about Install and connect peripherals among different devices	K4
CO5	Diagnose and isolate faulty components of the devices	K5

Mapping

PO/PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
C01	H	H	H	H	H	H	H	H	L	H	H	H
C02	H	M	H	M	H	H	M	H	M	H	M	L
C03	H	M	H	M	H	L	M	H	M	H	M	H
C04	M	H	L	H	M	M	H	M	H	M	H	M
C05	H	L	H	M	H	H	M	H	M	L	M	H

*H-High; M-Medium; L-Low




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