MAHENDRA ARTS & SCIENCE COLLEGE

(Autonomous)

Affiliated to Periyar University, Salem.

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Kalippatti – 637 501, Namakkal (Dt), Tamil Nadu.

DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS

COURSE OUTCOMES (COs)

B.Sc. COMPUTER SCIENCE

PRINCIPAL
MAHENDRA ARTS & SCIENCE COLLEGE
(Autonomous)
Kalippatti (PO) - 637 501. Namakkal (DT)

For the students admitted from the Academic Year 2019-2020 onwards

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS01**		**Core Course – I- Computer Organization and Architecture**		
Batch **2019-2020**	Semester **I**	Hours / Week **5**	Total Hours **75**	Credits **4**

Course Objectives

This course introduces the basic fundamental principles of digital computers, Logic Gates, Arithmetic circuits, Data processing circuits and Architecture principles.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember about the Number systems	K1
CO2	Remember the concept of Logic Gates.	K1
CO3	Understand the basics of simple arithmetic circuits.	K2
CO4	Analyze about the Filp flops and Convertors	K4
CO5	Apply the concepts of Computer Architecture.	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS02**		**Core Course– II** – Programming In C		
Batch **2019-2020**	Semester **I**	Hours / Week **5**	Total Hours **75**	Credits **4**

Course Objectives

This course introduces fundamental concepts such as arrays, structures. It covers concepts such as arrays, pointers and file handling methods. It provides technical skills to design and develop various applications.

Course Outcomes (CO)

CO	**Statement**	**Knowledge Level**
CO1	Remember the logic behind the execution of various applications	K1
CO2	Understand the concepts of C programming	K2
CO3	Analyze and discover bugs in the program	K4
CO4	Analyze application using memory management functions.	K4
CO5	Apply the concepts to solve a real-time problem	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSP01**		**Core Practical – I -** Programming in C		
Batch **2019-2020**	Semester **I**	Hours / Week **3**	Total Hours **45**	Credits **2**

Course Objectives

This course introduces the concepts of C programming. It provides technical skill, basic concepts like control statements, pointers, structures and file handling techniques.

Course Outcomes (CO)

CO	**Statement**	**Knowledge Level**
CO1	Remember the mathematical functions while creating a program.	K1
CO2	Understand the fundamental programming concepts.	K2
CO3	Understand the programming technique to analyze software problems.	K2
CO4	Apply the concepts to find solution for the problems.	K3
CO5	Apply and develop the simple application.	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS03**		**Core Course – III –** Data Structures		
Batch **2019-2020**	Semester **II**	Hours / Week **5**	Total Hours **75**	Credits **4**

Course Objectives

To understand the concepts of Data Structures and Algorithms using Stack, Queue, Linked List and trees.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the algorithm concepts	K1
CO2	Understand the Arrays representations	K2
CO3	Apply the concepts of linked list	K4
CO4	Understand Tree and its traversal methods	K2
CO5	Analyze sorting and searching techniques	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS04**		**Core Course – IV –** Object Oriented Programming With C++		
Batch **2019-2020**	Semester **II**	Hours / Week **5**	Total Hours **75**	Credits **4**

Course Objectives

This subject is designed to provide the graduates with why and how of Object-oriented programming in C++. It also presents the concept of Object-oriented programming with a brief discussion on the important elements of Object-oriented programming analysis and design of systems with its Object-oriented programming capabilities, C++ offers significant software engineering benefits over C.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the role of inheritance, polymorphism, and generic structures in building reusable codes.	K1
CO2	Understand classes and objects written by other programmers when constructing their system.	K2
CO3	Analyze C++ features to program design and implementation	K4
CO4	Apply the object oriented design for small/medium scale problems.	K3
CO5	Analyze the Managing console I/O operations.	K4

Programme Code : UCS		**B.Sc Computer Science**		
Course Code: **M19UCSP02**		**Core Practical - II–** Data Structures Using C++		
Batch **2019-2020**	Semester **II**	Hours / Week **3**	Total Hours **45**	Credits **2**

Course Objectives

This course introduces the concepts of C++ programming. It provides technical skill, basic concepts like control statements, pointers, structures and file handling techniques.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the mathematical functions while creating a program.	K1
CO2	Understand the fundamental programming concepts.	K2
CO3	Analyze the data structure technique to software problems.	K3
CO4	Apply the concepts to find solution for the problems.	K4
CO5	Analyze to design and develop the simple application.	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS05**		**Core Course – V –** Relational Database Management Systems.		
Batch **2019-2020**	Semester **III**	Hours / Week **5**	Total Hours **75**	Credits **4**

Course Objectives

This course provides students basic knowledge and skills on Data storing and retrieving. This course covers ER-Model, Aggregate Function, Normalization and PL/SQL statements.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the database architecture	K1
CO2	Understand the basic structure of SQL queries.	K2
CO3	Analyze Control Structures and Embedded SQL	K4
CO4	Apply PL/SQL Queries for making secure data backup	K3
CO5	Analyze Granting and Revoking Privileges and roles	K4

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSP03**		**Core Practical - III –** Oracle		
Batch **2019-2020**	Semester **III**	Hours / Week **3**	Total Hours **45**	Credits **2**

Course Objectives

Experience to the learners in SQL, PL/SQL programming based on concept learned with program course. Implementation of RDBMS commands such as DDL, DML, and DCL. Implementation of PL/SQL programming such as procedure, trigger and cursor.

Course Outcomes (CO)

CO	**Statement**	**Knowledge Level**
CO1	Remember the table creation and key Constraints.	K1
CO2	Understand and explain the underlying concepts of database technologies	K2
CO3	Analyze a database using SQL DML/DDL commands.	K4
CO4	Apply the PL/SQL Commands.	K3
CO5	Analyze the cursors& Exceptions, Composite Data types.	K4

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS06**		**Core Course - VI –** Programming in Java		
Batch **2019-2020**	Semester **IV**	Hours / Week **5**	Total Hours **75**	Credits **4**

Course Objectives

The course is an expository of the object-oriented programming methodology with emphasis on software design and code reuse as its core objectives. Language elements include loops, arrays, input/output structures, events, exceptions, and threads. It aims to develop the student's logical, critical thinking and problem solving skills on programming basics.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the basic Java language constants, variables and data types	K1
CO2	Analyze decision making branching and looping	K4
CO3	Apply the principles of classes, objects and methods	K3
CO4	Analyze interfaces , packages, multithreaded programming	K4
CO5	Apply the exception and Applets	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSP04**		**Core Practical – IV –** Programming in Java		
Batch **2019-2020**	Semester **IV**	Hours / Week **3**	Total Hours **45**	Credits **2**

Course Objectives

Implement object oriented programming concepts. Create package and interfaces in a Java program. Use graphical user interface in Java programs and create applets

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember about the operators.	K1
CO2	Understand the concept of Decision making	K2
CO3	Apply the principles of object and methods	K3
CO4	Analyze the multithreading, exception handling concepts	K4
CO5	Apply programming skills to applet	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS07**		**Core Course – VII –** Web Technology		
Batch **2019-2020**	Semester **V**	Hours / Week **5**	Total Hours **75**	Credits **4**

Course Objectives

This course gives the basic principle, strategies and methodologies of web application development. The Course is designed to develop dynamic web page using scripting languages and various styles with CSS and HTML5.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the knowledge about HTML document with element types, hyperlinks, images, list, tables and forms	K1
CO2	Understand the concept of CSS for dynamic presentation effect in HTML and XML documents	K2
CO3	Understand the mark-up languages for processing, identifying and presenting information in web pages.	K2
CO4	Analyze scripting languages in HTML document to add interactive components to web pages.	K3
CO5	Analyze the web technology concept to create schemas and dynamic web pages.	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS08**		**Core Course – VIII –** .Net Programming		
Batch **2019-2020**	Semester **V**	Hours / Week **5**	Total Hours **75**	Credits **4**

Course Objectives

This course introduces fundamental and advanced level concepts of .Net. It covers concepts such as fundamental concepts of the Application, various objects, controls used in VB.Net, ASP.Net and information retrieval from database using ADO.Net. It provides Project development skills to understand and develop various ideas about VB.Net and ASP.Net.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the concept of .Net Programming	K1
CO2	Understand the Web Programming basics	K2
CO3	Analyze the web page creation techniques	K3
CO4	Understand the Database connectivity using ADO.Net	K2
CO5	Apply the windows and web based programming	K4

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS09**		**Core Course – IX –** Data Communication and Networking		
Batch **2019-2020**	Semester **V**	Hours / Week **4**	Total Hours **60**	Credits **4**

Course Objectives

To understand the Design and Organization of Data Communication and Networking.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the Data Communication Network Concepts	K1
CO2	Understand the Data Link Layers	K2
CO3	Analyze the Network Layer Services	K3
CO4	Understand the Transport Layer	K2
CO5	Applying the Client Server Error detections	K4

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS10**		**Core Course –X –** Operating Systems		
Batch **2019-2020**	Semester **V**	Hours / Week **4**	Total Hours **60**	Credits **4**

Course Objectives

To provide the Fundamental Concepts of Operating System.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the concept of Operating Systems.	K1
CO2	Understanding the Process management.	K2
CO3	Applying the Process Synchronization.	K3
CO4	Analyze the Memory management.	K4
CO5	Apply the Storage, File Management.	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSP05**		**Core Practical – V – Web Technology**		
Batch **2019-2020**	Semester **V**	Hours / Week **3**	Total Hours **45**	Credits **2**

Course Objectives

To understand the Design of HTML with Java and VB Scripting languages

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the basic idea about HTML.	K1
CO2	Understand the concept of Web Page creation using scripting.	K2
CO3	Understand the basics of Java and vb scripting.	K3
CO4	Analyze the Various controls used in HTML and DHTML.	K4
CO5	Apply the concepts of real time web page.	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSP06**		**Core Practical – VI –** .Net Programming		
Batch **2019-2020**	Semester **V**	Hours / Week **3**	Total Hours **45**	Credits **2**

Course Objectives

This Lab introduces fundamental and advanced level concepts of .Net. It covers concepts such as fundamental concepts of the Application, various objects, controls used in VB.Net, ASP.Net and information retrieval from database using ADO.Net.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the basic idea about .Net.	K1
CO2	Understand the concept of Web Programming.	K2
CO3	Understand the basics of Database connectivity using ADO.Net.	K2
CO4	Analyze the Various controls used in VB.Net and ASP.Net.	K4
CO5	Apply the concepts of real time applications.	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS11**		**Core Coure – XI –** Python Programming		
Batch **2019-2020**	Semester **VI**	Hours / Week **5**	Total Hours **75**	Credits **4**

Course Objectives

To understand the concepts of Python Programming

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the Basic Concept of Python	K1
CO2	Understand the Conditional Execution, Iteration	K2
CO3	Applying the Mathematical functions, Writing Functions	K3
CO4	Analyze the List Processing	K4
CO5	Applying the object and Exception Handling	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS12**		**Core Coure – XII –** Data Mining		
Batch **2019-2020**	Semester **VI**	Hours / Week **5**	Total Hours **75**	Credits **4**

Course Objectives

To gain knowledge of data mining concepts, techniques in data mining. Web mining and open source tools to manipulate data mining applications. To provide knowledge on Data warehousing and machine learning applications.

Course Outcomes (CO)

CO	Statement	Knowledge level
CO1	Remember thedata mining techniques	K1
CO2	Apply the association rule like apriori algorithm	K3
CO3	Apply the clustering paradigms, hierarchical algorithms of data mining	K3
CO4	Analyze the data warehousing concepts	K4
CO5	Apply the OLAP and OLTP concepts	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS13**		**Core Coure – XIII –** Mobile Computing		
Batch **2019-2020**	Semester **VI**	Hours / Week **4**	Total Hours **60**	Credits **4**

Course Objectives

Learn the basics of networking theory -networking concepts relevant to modern wireless systems emerging mobile computing ideas and best practices - Get hands-on knowledge practice with mobile computing and cloud services.

Course Outcomes (CO)

K1	CO1	Remember the basic fundamentals of mobile computing
K2	CO2	Understand mobile computing through internet
K1	CO3	Remember Emerging technologies in mobile computing
K2	CO4	Understand about GPRS operations, Architecture to transfer of data
K4	CO5	Analyze the latest technologies like WiFi and CDMA

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCS14**		**Core Coure – XIII –** Software Engineering		
Batch **2019-2020**	Semester **VI**	Hours / Week **4**	Total Hours **60**	Credits **4**

Course Objectives

This course provides the basic concepts of software engineering to design a new software project and develops skills to construct software of high quality. This Course also covers the fundamental techniques for modeling software requirements, analysis and design.

Course Outcomes (CO)

CO	Statement	Knowledge level
CO1	Remember the basics of Software engineering and Life cycle models	K1
CO2	Understand the concept of requirement analysis and specification	K2
CO3	Understand the concept of function oriented software design and SA/SD methodologies	K2
CO4	Apply the concept of user interface design and coding and testing	K3
CO5	Analyze the concept of software reliability and quality management	K4

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSP07**		**Core Practical – VII – Python Programming**		
Batch **2019-2020**	Semester **VI**	Hours / Week **3**	Total Hours **45**	Credits **2**

Course Objectives

To understand the concepts of Python Programming

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the basic operators	K1
CO2	Understanding the Conditional Statements	K2
CO3	Applying the Lists & Functions	K3
CO4	Analyzing the Sorting	K4
CO5	Apply the Exception Handling	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSP08**		**Core Practical – VIII –** Data Mining Using Rapid Miner		
Batch **2019-2020**	Semester **VI**	Hours / Week **3**	Total Hours **45**	Credits **2**

Course Objectives

This lab provides the concept of data process and retrieval techniques. It covers the basic concepts such as the data analysis storage and filtering concepts when retrieve the exact data using various algorithms.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the basic concepts of Database storage	K1
CO2	Understand the concepts of information storage and retrieval	K2
CO3	Analyze How the Information can be stored and apply some algorithms when try to retrieve the data	K4
CO4	Analyze algorithm for filtering data when it is fetched from data store	K4
CO5	Apply the concept of algorithm for eliminating unwanted data's	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSPR1**		**Project Work and Viva-Voce**		
Batch **2019-2020**	Semester **VI**	Hours / Week **-**	Total Hours **-**	Credits **2**

Course Objectives

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.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Identify and formulate the problem	K1
CO2	Analyze the problem and collect necessary data.	K2
CO3	Design and develop the project using appropriate software by applying the programming skills.	K3
C04	Implement, evaluate and generate reports.	K4

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19USS01**		**SEC – I –** MS Office		
Batch **2019-2020**	Semester **III**	Hours / Week **2**	Total Hours **30**	Credits **2**

Course Objectives

This course covers the concepts of Ms-Word, Excel, Power point and Access

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Understand the fundamental of Ms-Office	K2
CO2	Remember the basics in Ms-Word	K1
CO3	Apply the functions and formulas in Ms-Excel	K3
CO4	Understand the working of Presentation	K2
CO5	Apply Ms-Access to create database	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSS02**		SEC - II - Shell Programming		
Batch **2019-2020**	Semester **IV**	Hours / Week **2**	Total Hours **30**	Credits **2**

Course Objectives

This course introduces the basic commands and I/O Redirection, tools of the trade, quotes and passing arguments, concepts of decision status, reading and writing data.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember about the basic commands and I/O Redirection	K1
CO2	Understand the tools of the trade	K2
CO3	Understand the quotes and passing arguments	K2
CO4	Analyze the concepts of decision status	K4
CO5	Apply the concepts of reading and writing data	K3

Programme Code :**UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSS03**		**SEC – III** – Open Source Technology		
Batch **2019-2020**	Semester **V**	Hours / Week **2**	Total Hours **30**	Credits **2**

Course Objectives

This course provides the basic idea about the open source concepts in PHP. This will help the students to gain the in depth knowledge about the basic concepts in PHP and built-in functions.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the basic concepts of PHP and control statements	K1
CO2	Understand function parameters and Strings	K2
CO3	Apply the string manipulation function	K3
CO4	Analyze the applications with mathematical functions	K4
CO5	Apply the file concepts in PHP	K5

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSS04**		**SEC – IV**– Perl Programming		
Batch **2019-2020**	Semester **VI**	Hours / Week **2**	Total Hours **30**	Credits **2**

Course Objectives

To provide an understanding of application of Perl programming in general as well as in biological problem solving in addition to the basic Perl working environment.

Course Outcomes (CO)

CO	Statement	Knowledge level
CO1	Understand the basic Perl –control structures, subroutines and modules	K1
CO2	Understand the thorough understanding of protein structure in detail	K2
CO3	Analyze the students to get aware of Perl modules.	K3
CO4	Apply and solve Perl regular expressions using Perl language	K3
CO5	Apply about the Control structures of Perl Programming	K1

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSE01**		**Elective – I** – Compiler Design		
Batch **2019-2020**	Semester **V**	Hours / Week **4**	Total Hours **60**	Credits **4**

Course Objectives

This course introduces the basic principle concepts in compiler design analysis of source program, role of parser top down and bottom up parsing, intermediate languages, code generator representation of basic blocks, principles of optimization.

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Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the compiler design analysis of source program	K1
CO2	Analyze the role of parser top down and Bottom up parsing	K4
CO3	Understand the intermediate languages	K2
CO4	Understand the concepts of code generator representation of basic blocks	K2
CO5	Apply the concepts of principles of optimization	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSE02**		**Elective – I** – Artificial Intelligence		
Batch **2019-2020**	Semester **V**	Hours / Week **4**	Total Hours **60**	Credits **4**

Course Objectives

This course introduces the basic principle concepts in artificial intelligence like simple representation schemes, problem solving paradigms, constraint propagation, and search strategies. It also covers the areas of application such as knowledge representation, natural language processing and expert systems.

Course Outcomes (CO)

CO	**Statement**	**Knowledge Level**
CO1	Remember the artificial intelligence problem and The characteristics of the problem space.	K1
CO2	Understand the fundamentals of heuristic search Techniques and reasoning for problem solving.	K2
CO3	Understand the problem solving using predicates.	K2
CO4	Analyze the concepts of expert systems with case Studies for game playing various applications.	K2
CO5	Apply the concepts of various application techniques.	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSE03**		**Elective – I** – Distributed Computing		
Batch **2019-2020**	Semester **V**	Hours / Week **4**	Total Hours **60**	Credits **4**

Course Objectives

This course provides students basic knowledge and skills on the Resource sharing. This course covers Remote invocation, Distributed file system, shared memory, transaction and resource management.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Identify the nature of shared resources and network management	K1
CO2	Understand the foundations of distributed systems.	K2
CO3	Analyze system level and support required for distributed system.	K4
CO4	Develop design process and resource management systems.	K3
CO5	Apply remote method invocation and network virtualization.	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSE04**		**Elective – I** – Ruby On Rails		
Batch **2019-2020**	Semester **V**	Hours / Week **4**	Total Hours **60**	Credits **4**

Course Objectives

This course introduces the basic knowledge of HTML with Ruby programming. It covers concept such as arrays, variables, debugging, forms and cookies. It provides technical skills to design and develop various applications and understanding the ruby programming.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember about the basics of Ruby and arrays and variables.	K1
CO2	Understand the role of first step with rails and debugging.	K2
CO3	Analyze and Understanding the databases.	K3
CO4	Analyze the concepts of Scaffolding and rest.	K4
CO5	Apply the concepts of Forms and cookies in various applications.	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSE05**		**Elective – II** – Network Security		
Batch **2019-2020**	Semester **VI**	Hours / Week **4**	Total Hours **60**	Credits **4**

Course Objectives

This course presents the principles of cryptography and Network Security. It also includes the classical and advanced encryption standards and techniques, message authentication codes, digital signatures, email security, IP security, web security, firewalls and Mobile Network Security.

Course Outcomes (CO)

CO	**Statement**	**Knowledge Level**
CO1	Remember the OSI Security Architecture and Encryption Techniques	K1
CO2	Apply the principles of block ciphers and DES	K3
CO3	Analyze the Key management and Cryptosystems	K4
CO4	Understand the concepts of digital signatures and authentication protocols	K2
CO5	Remember to design the IP security and Web security	K1

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSE06**		**Elective – II** – Cloud Computing		
Batch **2019-2020**	Semester **VI**	Hours / Week **4**	Total Hours **60**	Credits **4**

Course Objectives

This course provides students basic knowledge and skills in the fundamental of accessing the cloud applications. This course will provide a basic introduction to cloud computing services, benefits, limitations and security concerns.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Identify the application services, benefits and security concerns	K1
CO2	Understand the hardware and infrastructure, cloud storage and standards	K2
CO3	Analyze the service, best practices and migration	K4
CO4	Develop applications, troubleshooting and application management	K3
CO5	Apply the web applications, web APIs and web browsers	K3

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSE07**		**Elective – II** – Multimedia Systems		
Batch **2019-2020**	Semester **VI**	Hours / Week **4**	Total Hours **60**	Credits **4**

Course Objectives

This course presents the principles of Multimedia systems and its applications. It also includes the Multimedia software and authoring tools, Multimedia building blocks, multimedia image and video and the internet.

Course Outcomes (CO)

CO	**Statement**	**Knowledge Level**
CO1	Understand the concepts of multimedia and training skills	K2
CO2	Apply the basic software tools in multimedia	K3
CO3	Remember to design the fonts using text in multimedia	K1
CO4	Understand the principle of animations	K2
CO5	Analyze the concept of multimedia and the internet	K4

Programme Code : **UCS**		**B.Sc Computer Science**		
Course Code: **M19UCSE08**		**Elective – II** – Bioinformatics		
Batch **2019-2020**	Semester **VI**	Hours / Week **4**	Total Hours **60**	Credits **4**

Course Objectives

By studying this course the students will get an idea about the basic understanding about Bioinformatics, tools, sequences, algorithms and the analysis of phylogenetic tree.

Course Outcomes (CO)

CO	Statement	Knowledge Level
CO1	Remember the basics of Bioinformatics	K1
CO2	Understand the concept of sequences	K2
CO3	Analyze the tools of content.	K3
CO4	Apply the idea related dynamic programming.	K4
CO5	Apply the model of Phylogenetic Analysis	K4

M. Sreenath

Head of the Department

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Principal

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Kalippatti – 637 501, Namakkal (Dt), Tamil Nadu.

DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS

PROGRAMME OUTCOMES (POs) OF B.Sc COMPUTER SCIENCE

Academic year 2020-2021

PO1: Understand the basic concepts, fundamental principles and scientific theories that are needed for higher learning and research.

PO2: Identify, formulate and analyze the complex situations to arrive acceptable Solutions by applying domain specific knowledge, acquired through the programme.

PO3: Learn moral and ethical values and commit to professional ethics and responsibilities in the associated disciplines. Exercise social concern with the ability to act with awareness of issues in diversified domains to participate in the national development

PO4: Ability to design, implement and evaluate a computational system to meet the desired needs within realistic constraints.

PO5: Realize the need for self and life-long learning to move along with the scientific and technological developments.

PO6: Ability to communicate and engage effectively with diverse stakeholders.

PO7: Analyze the impacts of computing on individuals, organizations and society.

PO8: Acquire skills of observing and drawing logical inferences from the scientific facts.

Head of the Department

Head of the Department,
Department of Computer Science,
Mahendra Arts & Science College
Kalippatti (PO.) Pin-637 501.

Principal

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DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS

PROGRAMME SPECIFIC OUTCOMES (PSOs) OF B.Sc COMPUTER SCIENCE

Academic year 2020-2021

PSO 1: Impart the core knowledge in the areas such as Software Engineering, Data Communication Network, Network Security, Database Management Systems, Web Technology, Operating Systems, Ruby on rails and other emerging areas in Computer Science.

PSO 2: Provide well trained professionals to industries by enhancing the programming skills and new computing technologies through theoretical and practical knowledge.

PSO 3: Train to solve real world problems by selecting appropriate techniques and best logic.

PSO 4: Enhance the ability to design and develop software applications, to understand the basic concepts of hardware and to comprehend and apply mathematical and accounting principles.

PSO 5: Make use of Computer Science techniques to one's own work as a member or a leader in a team to arrive conclusions and carryout projects.

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