KVRSS`S

SHIVRAJ COLLEGE GADHINGLAJ

Department of computer science

(B.Sc computer science)

Program Outcomes(PO)

1. Apply computer science theory and software development fundamentals to produce computing–based solution.
2. The education **objectives** of the major to produce graduates who possess: A sound technical foundation in **computer science** and the ability to creatively apply **computer** and related technologies to practical problems.
3. An ability to Communication and soft skills to function as an effective professional.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Students will be prepared for a career in an information technology oriented business or industry, or for graduate study in computer science.
6. An understanding of professional, ethical, legal, security, and social issues and responsibilities for the computing profession.
7. An ability to analyze impacts of computing on individuals, organizations, and society.
8. An ability to apply knowledge of **computing** and mathematics appropriate to the discipline.

B.Sc-I Semester-I (Computer Science)

DSC-11A : PROBLEM SOLVING USING COMPUTERS

Theory: 30 hrs. (38 lectures of 48 minutes)

Course outcomes:

At the end of the course student should be in a position to

1. Describe the basics of computer and understand the problem solving aspect.
2. Ability to develop programs of 'C' using Ubuntu Linux Operating System
3. Design and develop C program to evaluate simple expressions and logical operations.
4. Demonstrate the algorithm and flow chart for the given problem.
5. Design programs using operators available in C.
6. Understand the need for data types in programming.
7. Write modular programs using suitable control structure.

DSC-12A:Course title: - Database Management System

Theory - 30 hours (38 lectures of 48 minutes)

Course Outcomes:-

1. Knowing the concepts of data, information, database and database systems.
2. Knowing DBMS Architecture.
3. Knowing the different database models used in current scenario and appreciate the applications of database systems.
4. Ability to know Entity Relationship modeling.
5. Ability to Know basics of SQL-99.

B.Sc-I Semester-II (Computer Science)

DSC-11B : PROBLEM SOLVING USING COMPUTERS

Theory: 30 hrs. (38 lectures of 48 minutes)

Course outcomes:

At the end of the course student should be in a position to

1. Develop & Implement C programs with suitable modules to solve the given problem.
2. Develop structured programs using function.
3. Demonstrate the concept of pointer and perform I/O operations in files.
4. Design and develop solutions to real world.

B.Sc. Computer Science (Optional) part-I

Course code:- DSC-12B

course title: - Relational Database Management System

Total hours: - 30 hours (38 lectures of 48 minutes)

Course Outcomes:-

1. Knowing the concepts relational constraints.
2. Knowing relational algebra.
3. Knowing basic SQL Queries .
4. Ability to know SQL operator , Clauses and Function.
5. Ability to Know construction of ERD.
6. Ability to Know Functional Dependencies and Normal forms.

B.Sc. Computer Science (Optional) part-II

Semester-III

Course code:- DSC-11C

Course title: - PHP And MySQl

Total contact hours: - 36 hours (45 lectures of 48 minutes)

Course Outcomes:-

1. Students will able to understand basic concept of PHP
2. Students will able to understand Constants , operator, Functions.
3. Students will able to understand Decision , Iterative statement working.
4. Students will able to understand Arrays.
5. Students will able to understand Basics Of HTML and HTML Forms.
6. Students will able to understand MySQL Connectivity.
7. Students will able to learn how to develop various application using PHP and MySQL .
8. Students will able to learn various PHP technology application meets the current industry needs.

B.Sc. Computer Science (Optional) Part II

Semester-III

Course code:- DSC-12C

Course title: - Object Oriented Programming using C++

Total contact hours: - 36 Hrs (45 Lectures of 48 Min.)

Course Outcomes:

Perform object oriented programming to develop solutions to problems demonstrating usage of control structures, modularity, I/O and other standard language constructs.

Students will be able

1. To understand how C++ improves C with object oriented features
2. To learn syntax and semantics of C++ programming language
3. To learn how to write inline functions for efficiency and performance.
4. To learn how to overload functions and operators in C++.
5. To learn how to design C++ classes for code reuse.
6. To learn how inheritance promote code reuse in C++.
7. To learn how inheritance and virtual functions implement dynamic binding with polymorphism.

B.Sc. Computer Science (Optional) part-II

Semester-IV

Course code:- DSC-11D

Course title: - Cyber Security Essentials -I

Total contact hours: - 36 hours (45 lectures of 48 minutes)

Course Outcomes:-

1. Introducing and understanding an importance of Cyber Security and management.
2. Student will able to understand concept of information security management.
3. Student will able to learn different access controls method.
4. Student will able to understand wireless network security.
5. Student will able to learn cyber security law and important of security audit.

B.Sc. Computer Science (Optional) Semester- IV

Course code:- DSC-12D

Course title: - Data Structure using C++

Total contact hours: - 36 Hrs (45 Lectures of 48 Min.)

Course Outcomes: Students will be able to

1. Understand the basic concepts such as Abstract Data Types, Linear and Non Linear Data structures.

2. Ability to choose appropriate data structures to represent data items in real world problems.

3. Ability to analyze the time and space complexities of algorithms.

4. Ability to design programs using a variety of data structures such as array, stacks, queues, linked list

5. Able to analyze and implement various kinds of searching and sorting techniques.

B.Sc. Part –III Computer Science Optional (Semester– V)

Course Code: DSE-21E Paper IX

Course Title: Core Java

Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)

Course Outcomes: At the end of the course student should be in a position to

1. Understand Object oriented programming concepts using Java.
2. Getting Knowledgeof input, its processing and getting suitable output.
3. Understand, design, implement and evaluate classes and applets
4. Understand concept of Multiprogramming and Exception Handling

Course Code: DSE-22E Computer Paper X

Course Title: C# Programming

Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)

Course Outcomes: At the end of the course student should be in a position to

1. This course will cover the practical aspects C#.NET framework.

2. The goal of this course is to introduce the students to the basics of OOPs and windows application program.

Course code:-DSE-23E : computer science paper XI

Course title: - Linux Part I

Total contact hours: -36 hours(45 lectures of 48 minutes)

Course Outcomes:-

1. Understanding the History and Architecture of Linux, use of basic command , knowing the concept of shell and kernel, understand basics of File systems.
2. Knowing the different General Purpose Utilities.
3. Understanding the directory commands, file and Directory Manipulation commands.
4. Leaning the changing file permission and directory permission.
5. Understanding how to create process and waiting process termination
6. Understanding VI editor basics, types of editors and special variables.

Course Code: DSE-24E Paper XII

Course Title: Python part -I

Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)

Teaching Scheme: Theory – 03 Lect. / Week Credits: 02

Course Outcomes: At the end of the course student should be in a position to

1. Understand why Python is useful scripting language for developing.
2. To learn how to write loop and decision statement.
3. To learn how use list and tuple in python

B.Sc. Part –III Computer Science Optional (Semester– VI)

Course Code: DSE-21F Paper XIII

Course Title: Advanced Java

Course Outcomes: At the end of the course student should be in a position to

1. He will be able to develop distributed business applications, develop web pages using advanced server-side programming through servlets and Java server pages.
2. Demonstrate approaches for performance and effective coding.
3. To learn database programming using Java.
4. To study web development concept using Servlet and JSP.

Course Code: DSE-22F Computer Paper XIV

Course Title- ASP .NET

Course Outcomes:

1. This course will cover the practical aspects of multi-tier web based application development using the .NET framework.
2. The goal of this course is to introduce the students to the basics of distributed Web application development.

Course code:-DSE-23F : Computer science paper XV

Course title: -Linux Part II

Course Outcomes:-

1. Understanding the Memory management and advanced vi , knowing the mode in vi ,Use of swapping and demand paging
2. Understanding advanced shell programming .
3. Understanding shell basics, connecting commands and Basics, the grep and grep options and exporting shell variables.
4. Leaning the Networking Tools.
5. Understanding the Network Management Tools and Firewall .

Course Code: DSE-24F Paper XVI

Course Title: Python part-II

Course Outcomes: At the end of the course student should be in a position to

1. To learn how to write functions and pass arguments.
2. To learn build package in Python.
3. To learn exception handling in Python.
4. To study web development concept using Servlet and JSP.