DEPARTMENT OF COMPUTER APPLIATIONS SCS GOVT DEGREE COLLEGE MENDHAR

FYUGP NEP 2020
Program Outcomes:

After completing BA/B.Sc. Computer Science Program students will be able to:

PO1: To develop problem solving abilities using a computer.;

PO2: To prepare necessary knowledge base for research and development in Computer Science.

PO3: To build the necessary skill set and analytical abilities for developing computer-based solutions for real life problems.

PO4: communicate scientific information in a clear and concise manner both orally and in writing.

PO5: To train students in professional skills related to Software Industry.

PO6: Have developed their critical reasoning, logic judgment and communication skills.

PO7: Augment the recent developments in the field of IT and relevant fields of Research and Development.

PO8: Enhance the scientific temper among the students so that to develop a research culture and Implementation the policies to tackle the burning issues at global and local level.

Program Specific Outcomes

PSO1: Students get knowledge and training of technical subjects so that they will be technical professional by learning C programming, Relational Database Management, Data Structure, Software Engineering, Graphics, Java, PHP, Networking, Theoretical Computer Science, System programming, Object Oriented Software Engineering.

PSO2: Students understand the concepts of software application and projects.

PSO3: Students understand the computer subjects with demonstration of all programming and theoretical concepts with the use of ICT.

PSO4: Development of in-house applications in terms of projects

PSO5: Students will build up programming, analytical and logical thinking abilities.

PS06: Aware them to publish their work in reputed journals

PS07: To make them employable according to current demand of IT Industryand responsible citizen.

Course Outcomes

Problem Solving using Computer and 'C' Programming

CO1: Students will understand algorithms and flowchart for solving problems using computers.

CO2: Students will understand and can choose the loops and decision-making statements to solve the problem.

C03: Student will implement different Operations on arrays and will use functions to solve thegiven problem.

CO4: To enrich the students in logic development required for programming.

CO5: To help the students to build carrier in various branches of software development.

Database Management Systems

CO1: Will understand the fundamental concepts of database.

CO2: Will understand user requirements and frame it in data model.
CO3: Will understand creations, manipulation and querying of data in databases
CO4: Solve real world problems using appropriate set, function, and relational models.
CO5: Design E-R Model for given requirements and convert the same into database tables.
CO6:Use SQL.

Practical course on Problem Solving using Computer and 'C' programming and Database Management Systems

CO1: Devise pseudocodes and flowchart for computational problems.

CO2: Write, debug and execute simple programs in 'C'.
CO3: Create database tables in postgre SQL.

CO4: Write and execute simple, nested queries.

Relational Database Management Systems

CO1: Design E-R Model for given requirements and convert the same into database tables.
CO2: Use database techniques such as SQL & PL/SQL.
CO3: Explain transaction Management in relational database System.
CO4: Use advanced database Programming concepts

Data Structures using 'C'

CO1: Students will understand system related Programming such as Operating System functioning.
CO2: Students will capable to develop problem solving abilities using a computer.
CO3: To build the necessary skill set and analytical abilities for developing computer based solutions for real life problems.
CO4: To imbibe quality software development practices. To create awareness about process and product standards.
CO5: Students will train in professional skills related to Software Industry.
CO6: To prepare necessary knowledge which is related to operating system and base for research and development in Computer Science.

Practical Course on Relational Database Management Systems

CO1: Write, debug and execute programs using advanced features in'C'.
CO2: To use SQL & PL/SQL.
CO3: To perform advanced database operations.

Discrete Mathematics

CO1: Develop the logical thinking of students.
CO2: Improve an ability to apply mathematical foundations to design computer-based algorithms.
CO3: Improve an ability to develop algorithms.
CO4: Help to understand programming languages and software development.CO5: Help in solving a very wide variety of practical problems.

System Analysis and Design:

CO1: Analyse the existing Systems
CO2: Gathering data requirements and functional requirements
CO3: Design the Proposed System.

Linear Algebra

CO1: Students will get equipped with the knowledge of various spacesand the functioning on those spaces.
CO2: Students will be able to perform operations on spaces which aredifferent from the usual spaces that they have studied till now.
CO3: Students will also learn how linear algebra helps in solving real life problems using computers.
CO4: Students will develop an appreciation for the literature on thesubject and be able to read and present results from the literature.
CO5: Students will be able to write cohesive and comprehensivesolutions to exercises and be able to defend their arguments.

Graph Theory

CO1: Able to work with graphs and identify certain parameters.
CO2: Develop the skill of converting mathematical problem graphically and vice-versa.
CO3: Motivates to solve real life problems.
CO4: Develop suitable techniques of analysis of problems.
CO5: Enable students to develop a positive attitude towards mathematics as aninteresting and valuable subject to study.

Operating System

CO1: Design and implement System programs with minimal features to understand theircomplexity.
CO2: Design and implement simulations of operating system level procedures.

Basics of Computer Organization

CO1: To understand the working of different Sequential logic circuits
CO2: To understand working operations of different types of Flip flops as a basic building block.
CO3: To know the operations of shift registers and Binary Counters
CO4: To understand the basic Computer System and general organization of different blocks.
CO5: To understand the organization of memory in the computer system and know differenttypes of Memories.

Digital Electronics

CO1: To analyze performance parameters based on study of characteristics of electronic deviceslike diode, transistors, MOSFETs.
CO2: To design, analyze the Regulated Power supply using discrete components and using ICs
CO3: To analyze the signal generating circuits: Oscillators and their applications.
CO4: To build and test Data converters such as Analog to Digital and Digital to analog converters.

Principles of Digital Electronics:

CO1: To solve problems based on inter conversion of number systems

CO2: To reduce the expression using Boolean theorems

CO3: To reduce expressions using K maps in SOP and POS forms

CO4: To Understand the operation of all types of Logic Gates, their families etc.
CO4: To understand how to use Combinational Logic circuits using Logic Gates and using ICs.

Mathematical Statistics

CO1: Students will understand the concept of Probability. They will understand how to determine deterministic and non-deterministic models, events, random experiment and how to calculate numerical problems using real life data.

CO 2: Students will learn conditional probability and Bayes theorem which is useful for calculating posterior probabilities.

CO 3: Students will understand the concept random variables and types of random variables.

CO 4: Students will be able to obtain the probability distributions of random variables.

CO 5: Students will understand the concept of discrete random variables and will be able to apply the standard discrete probability distributions like Binomial, Poisson, Geometric to different real life situations knowledge about different statistical entities and computations during practical sessions using MS-Excel.

Computer Networks :

CO1: Students will get acquainted with fundamentals of Networking like PAN, LAN, MAN, WAN, topologies and Home & Business applications of Networks.

CO2: Students will clear their basic concepts about the standards, their need & types ofstandards.

CO3: Students will know the design issues for the layers, layered architecture of the Network Models & functions performed at each layer.

CO4: Students will come to know the role played by different addresses at different layers ofthe network models.

CO5: Students will understand very basic networking hardware like transmission media types& tools description.

CO6: Students will be able to understand the need and importance of protocols at each layerin the communicating computers.

Internet Programming

CO1: Students will gain deep understanding of the use and implementation of HTML 5 andPHP language.

CO2: Students will be able to write well-structured, easily maintained, standards-compliant, responsive HTML code.

CO3: Students will get acquainted with Object Oriented Web applications.

CO4: Students will be able to create PHP programs that use various PHP library functions,files and directories manipulations.

CO5: Students will understand database connection & information retrieval from database.

CO6: Students will be able to apply a structured approach to identifying needs, interests, and functionality of a website.

Methods of Applied Statistics:

CO1: Students will understand the concept of Correlation of two or more variables.

CO 2: Students will understand the concept of Regression of two interrelated variables

CO 3: Students will able to Concept of Multiple Regression and Multiple & Partial Correlation.

CO 4: Students will able to Solve the problems based on Multiple Regression and Multiple & Partial Correlation.

CO 5: Students will be able to understand the concept of Time Series.