

MVP's
COMMERCE MANAGEMENT & COMPUTER SCIENCE (CMCS) COLLEGE,
Gangapur Road, Nashik-13
Course Outcomes- CBCS 2019 Pattern
BSC (CS)

	Problem Solving Using Computer and 'C' Programming - I
CO1	Explore algorithmic approaches to problem solving.
CO2	Develop modular programs using control structures and arrays in 'C'.
	Database Management Systems
CO1	Solve real world problems using appropriate set, function, and relational models.
CO2	Design E-R Model for given requirements and convert the same into database tables.
CO3	Use SQL.
	Practical course on Problem Solving using Computer and 'C' programming and Database Management Systems
CO1	Devise pseudo codes 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
	Advanced 'C' Programming
CO1	Develop modular programs using control structures, pointers, arrays, strings and structures .
CO2	Design and develop solutions to real world problems using C.
	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

	Practical Course on Advanced 'C' Programming and 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.
	Semiconductor Devices and Basic Electronic Systems
CO1	To study various types of semiconductor devices
CO2	To study elementary electronic circuits and systems
	Principles of Digital Electronics
CO1	To get familiar with concepts of digital electronics
CO2	To learn number systems and their representation
CO3	To understand basic logic gates, Boolean algebra and K-maps
CO4	To study arithmetic circuits, combinational circuits and sequential circuits
	Instrumentation Systems
CO1	To study Instrumentation System
CO2	To study various blocks of Instrumentation System
CO3	To study Smart Instrumentation System
	Basics of Computer Organization
CO1	To get familiar digital sequential circuits
CO2	To study Basic computer Organization
CO3	To study Memory architecture
	ELECTRONICS LAB IA, Electronics Lab IB
CO1	To provide indepth knowledge of scientific and technological aspects of electronics
CO2	To familiarize with current and recent technological developments
CO3	To enrich knowledge through programmes such as industrial visits, hobby projects, market survey, projects etc.
CO4	To help students build-up a progressive and successful career in Electronics
CO5	To train students in skills related to electronics industry and market.
CO6	To create foundation for research and development in Electronics
CO7	To develop analytical abilities towards real world problems

	Descriptive Statistics 1
CO1	To compute various measures of central tendency, dispersion, skewness and kurtosis. .
	Mathematical Statistics
CO1	To acquaint students with some basic concepts in Statistics
CO2	To analyze data pertaining to attributes and to interpret the results.
	Methods of Applied Statistics
CO1	To compute the correlation coefficient for bivariate data and interpret it
CO2	To fit linear, quadratic and exponential curves to the bivariate data to investigate relation between two variables.
	Countinuous Probability Distributions and Testing Hypothesis
CO1	To acquaint the statistical distributions for countinuous variable.
CO2	To learn the application of hypothesis testing
	Statistics Practical(SEM1)
CO1	To tabulate and make frequency distribution of the given data.
CO2	To use various graphical and diagrammatic techniques and interpret.
CO3	To compute various measures of central tendency, dispersion, Skewness and kurtosis.
CO4	To fit the Binomial and Poisson distributions.
CO5	To compute the measures of attributes.
CO6	The process of collection of data, its condensation and representation for real life data.
CO7	To study free statistical software's and use them for data analysis in project.
	Statistics Practical(SEM2)
CO1	To understand the relationship between two variables using scatter plot.
CO2	To compute coefficient of correlation, coefficient of regression.
CO3	To fit various regression models and to find best fit.
CO4	To fit the Normal distribution.
CO5	To understand the trend in time series and how to remove it.
CO6	To apply inferential methods for real data sets.

CO7	To generate model sample from given distributions.
CO8	To understand the importance and functions of different statistical organizations in the development of nation.
	Matrix Algebra
CO1	This course will help the students to achieve explanation about different types of matrices and their application.
CO2	Solve example on a linear equation system and its application.
	Discrete Mathematics
CO1	To study fundamentals mathematical concept of logic set and function.
CO2	To develop problem solving skills for enumeration.
CO3	Further develop the mathematical concept and technique which should serve as a preparation for more advanced quantitative courses.
	Mathematics Practical
CO1	Student learn maxima software
CO2	Try to solve example on matrix using maxima software.
CO3	Knowledge about application of mathematics.
	Linear Algebra
CO1	Student should able to learn about calculate eigen values and eigen vectors.
CO2	Find kernel,range,rank & nullity of linear.
CO3	Able to find change of basic matrix,determine, if a matrix is diagonalizable.
	Graph Theory
CO1	Student should able to understand the concept of graph and its application in real life situation.
CO2	Student learn about types of graph, eulerian and hamiltonian graph and circuit.
	Mathematics Practical
CO1	Students solve example on linear algebra and plotting graphs in maxima software.
CO2	Students should learn mathematical concept practically.