

SEMESTER - III

BSC-DS301: Applied Mathematics

Course Outcomes:

- CO1: Describe the statistical data numerically by using Lines of regression and Curve fitting
- CO2: Solve basic problems in probability theory, including problems involving the binomial, Poisson, and normal distributions.
- CO3: Analyze problems using mathematics
- CO4: Define fuzzy sets using linguistic words and represent these sets by membership functions, convexity, Normality, support, etc.
- CO5: Solve examples on the principle in performing fuzzy number arithmetic operations such as Addition, Multiplication & fuzzy equation.
- CO6: Solve assignment problems by using different techniques of operation research.

PCC-DS302: Discrete Mathematics & Structures

Course Outcomes:

- CO1: Apply logic concepts in designing a program.
- CO2: Illustrate basic set concepts & apply operations on set.
- CO3: Minimize the Boolean Function.
- CO4: Apply basic concepts of probability to solve real world problem.
- CO5: Represent data structures using graph concepts.
- CO6: Design abstract machine, detect deadlocks.

PCC-CS303: Data Structures

Course Outcomes:

- CO1: Identify the appropriate data structure for specific application.
- CO2: Design and analyze programming problem statements.
- CO3: Chose appropriate sorting and searching algorithms.
- CO4: Outline the solution to the given software problem with appropriate data structure.

PCC-CS304: Computer Networks

Course Outcomes:

- CO1: Student will understand the fundamental concepts of Computer Networks.
- CO2: Student will able to differentiate OSI and TCP/IP layered architecture
- CO3: Student will apply practical knowledge of network and will able to form network,
- CO4: Student will apply the principals of socket programming in the networks.

PCC-DS305: Microprocessors & Microcontrollers

Course Outcomes:

- CO1: Describe the Architecture of 8085 microprocessors and microcontroller
- CO2: Write simple assembly language programs
- CO3: Implement simple interfacing experiments on Arduino
- CO4: Programs Arduino platforms
- CO5: Understand ADC and interfacing mechanism
- CO6: Develop simple applications using microcontrollers

PCC-CS306: C Programming

Course Outcomes:

- CO1: Articulate the principles of procedure-oriented problem solving and programming.
- CO2: Explain programming fundamentals including statements, control flow and recursion
- CO3: Able to formulate problems and implement algorithms in C
- CO4: Analyze and use data structures to solve the complex problem statements.
- CO5: Demonstrate file operations using file handling concepts through developing applications.

HM-DS307: Soft Skills

Course Outcomes:

- CO1: Effectively communicate through verbal/oral communication and improve the listening skills
- CO2: Actively participate in group discussion / meetings/interviews and prepare & deliver presentations.
- CO3: Function effectively in multi-disciplinary and heterogeneous teams through the knowledge of team work, Inter-personal relationships, conflict management and leadership quality.

SEMESTER - IV

PCC-DS-401: Automata Theory

Course Outcomes:

- CO1: Understand basic concepts of Regular Language and Regular Expressions
- CO2: Select appropriate abstract machine to recognize a given formal language.
- CO3: Generate complex languages by applying Union, Intersection, Complement, Concatenation and Kleene * operations on simple languages.
- CO4: Apply parsing concepts for syntax analysis.
- CO5: Be familiar with thinking analytically and intuitively for problem solving situations in related areas of theory in computer science.

PCC-CS-402: Computer Networks Protocols

Course Outcomes:

- CO1: Program the client server model using sockets
- CO2: Apply next generation protocol and addressing model
- CO3: Elaborate the fundamentals of Domain Name Systems
- CO4: Apply the concepts of Remote login and FTP in network applications
- CO5: Learn fundamentals of web, HTTP and e-mail communication protocols.
- CO6: Understand multimedia streaming and relevant protocols.

BSC-DS403: Statistic for Data Science

Course Outcomes:

- CO1: Apply the number theory concepts to cryptography domain
- CO2: Apply the concepts of probability and distributions to some case studies
- CO3: Correlate the material of one unit to the material in other units
- CO4: Resolve the potential misconceptions and hazards in each topic of study.

PCC-CS-404: Operating System

Course Outcomes:

- CO1: Understand operating systems functions
- CO2: Write simple systems calls using fork()
- CO3: Understand synchronization and critical section problems
- CO4: Remember Concept of dead locks
- CO5: Understand memory management concepts

PCC-DS-405: Software Engineering

Course Outcomes:

- CO1: Comprehend systematic methodologies of SDLC (Software Development Life Cycle)
- CO2: Discriminate competing and feasible system requirements indicating correct real world problem scope and prepare stepwise system conceptual model using stakeholder analysis and requirement validation.
- CO3: Prepare SRS document for a project
- CO4: Apply software design and development techniques
- CO5: Develop a quality software project through effective team-building, planning, scheduling and risk
- CO6: Understand testing methods at each phase of SDLC

PCC-DS-406: Python for Data Science

Course Outcomes:

- CO1: Identify the need for data science and solve basic problems using Python built-in data types and their methods.
- CO2: Design an application with user-defined modules and packages using OOP concept
- CO3: Employ efficient storage and data operations using NumPy arrays.
- CO4: Apply powerful data manipulations using Pandas.
- CO5: Do data preprocessing and visualization using Pandas

PW-DS407: Mini Project

Course Outcomes:

- CO1: Define the problem statement.
- CO2: Organize, Plan and prepare the detailed project activities.
- CO3: Construct Flowchart, System Architecture based on the project description
- CO4: Implement the solution for their problem.