

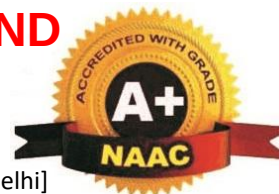


VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)

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Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301. Phone: 96529 10002/3



COMPUTER SCIENCE & ENGINEERING (DATA SCIENCE)

VR25 – II B.Tech I Semester : Course Outcomes & CO-PO/PSO Mapping

25MA301BS: MATHEMATICAL AND STATISTICAL FOUNDATIONS

At the end of the course, the student will be able to

CO. No.	COURSE OUTCOMES	BT Level
CO1	Apply the number theory concepts to cryptography domain.	3
CO2	Apply the concepts of probability and distributions to some case studies.	3
CO3	Correlate the material of one unit to the material in other units.	4
CO4	Resolve the potential misconceptions and hazards in each topic of study.	5
CO5	Fit the curve, correlation and regression for the given data.	3

MAPPING:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	3	3	2	2	2	1	-	-	-	-	1	3	2	1
CO2	3	3	2	3	2	1	-	1	1	-	1	3	2	1
CO3	2	3	2	2	1	-	-	1	1	-	2	2	1	1
CO4	2	3	2	3	2	1	1	2	2	1	2	2	1	1
CO5	3	3	3	3	2	1	-	1	1	1	2	3	2	1
Average	2.6	3.0	2.2	2.6	1.8	0.8	0.2	1.0	1.0	0.4	1.6	2.6	1.6	1.0

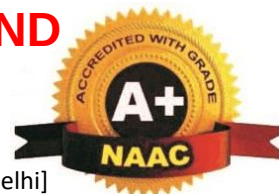


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25EC302PC: COMPUTER ORGANIZATION AND ARCHITECTURE

At the end of the course, the student will be able to

CO. No.	COURSE OUTCOMES	BT Level
CO1	Apply the number theory concepts to cryptography domain.	3
CO2	Apply the concepts of probability and distributions to some case studies	3
CO3	Correlate the material of one unit to the material in other units.	4
CO4	Resolve the potential misconceptions and hazards in each topic of study	5
CO5	Fit the curve, correlation and regression for the given data.	3

MAPPING:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	3	2	1	1	2	-	-	-	-	-	1	3	2	1
CO2	3	3	1	2	2	-	-	-	-	-	1	3	2	1
CO3	2	3	1	2	1	-	-	-	-	-	2	2	1	1
CO4	2	3	2	3	1	1	2	1	1	-	2	2	1	1
CO5	3	3	2	3	2	-	-	-	-	-	1	3	2	2
Average	2.6	2.8	1.4	2.2	1.6	0.2	0.4	0.2	0.2	0.0	1.4	2.6	1.6	1.2

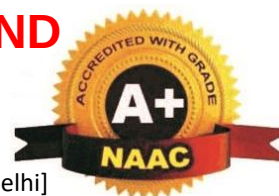


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25CS303PC: OBJECT ORIENTED PROGRAMMING THROUGH JAVA

At the end of the course, the student will be able to

CO. No.	COURSE OUTCOMES	BT Level
CO1	Demonstrate the behavior of programs involving the basic programming constructs like control structures, constructors, string handling and garbage collection.	2
CO2	Demonstrate the implementation of inheritance (multilevel, hierarchical and multiple) by using extend and implement keywords	3
CO3	Use multithreading concepts to develop inter process communication.	3
CO4	Understand the process of graphical user interface design and implementation using AWT or swings.	2
CO5	Develop applets that interact abundantly with the client environment and deploy on the server.	3

MAPPING:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	3	2	1	1	2	-	-	-	-	-	1	3	2	1
CO2	3	3	2	1	2	-	-	-	-	-	1	3	3	1
CO3	3	3	3	2	3	-	-	1	-	-	1	3	3	2
CO4	2	2	3	1	3	-	-	1	1	-	1	2	3	2
CO5	3	3	3	2	3	-	-	1	1	-	2	3	3	3
Average	2.8	2.6	2.4	1.4	2.6	0.0	0.0	0.6	0.4	0.0	1.2	2.8	2.8	1.8

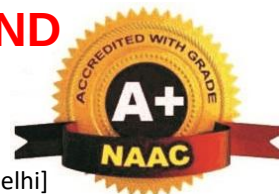


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25IT304PC: SOFTWARE ENGINEERING

At the end of the course, the student will be able to

CO. No.	COURSE OUTCOMES	BT Level
CO1	Demonstrate the behavior of programs involving the basic programming constructs like control structures, constructors, string handling and garbage collection.	2
CO2	Demonstrate the implementation of inheritance (multilevel, hierarchical and multiple) by using extend and implement keywords	3
CO3	Use multithreading concepts to develop inter process communication.	3
CO4	Understand the process of graphical user interface design and implementation using AWT or swings.	2
CO5	Develop applets that interact abundantly with the client environment and deploy on the server.	3

MAPPING:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	3	2	1	1	2	-	-	-	-	-	1	3	2	1
CO2	3	3	2	1	2	-	-	-	-	-	1	3	3	1
CO3	3	3	3	2	3	-	-	1	1	-	1	3	3	2
CO4	2	2	3	1	3	-	-	1	1	-	1	2	3	2
CO5	3	3	3	2	3	-	-	1	1	-	2	3	3	3
Average	2.8	2.6	2.4	1.4	2.6	0.0	0.0	0.6	0.4	0.0	1.2	2.8	2.8	1.8

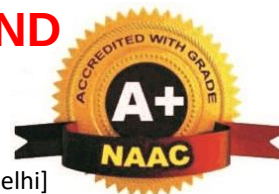


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25CS305PC: DATABASE MANAGEMENT SYSTEM

At the end of the course, the student will be able to

CO. No.	COURSE OUTCOMES	BT Level
CO1	Demonstrate the behavior of programs involving the basic programming constructs like control structures, constructors, string handling and garbage collection.	2
CO2	Demonstrate the implementation of inheritance (multilevel, hierarchical and multiple) by using extend and implement keywords	3
CO3	Use multithreading concepts to develop inter process communication.	3
CO4	Understand the process of graphical user interface design and implementation using AWT or swings.	2
CO5	Develop applets that interact abundantly with the client environment and deploy on the server.	3

MAPPING:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	3	2	1	1	2	–	–	–	–	–	1	3	2	1
CO2	3	3	2	1	2	–	–	–	–	–	1	3	3	1
CO3	3	3	3	2	3	–	–	1	1	–	1	3	3	2
CO4	2	2	2	1	3	–	–	1	1	–	1	2	3	2
CO5	3	3	3	2	3	–	–	1	1	–	2	3	3	3
Average	2.8	2.6	2.2	1.4	2.6	0.0	0.0	0.6	0.	0.0	1.2	2.8	2.8	1.8

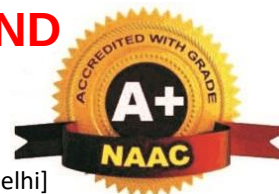


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25MA306PC: COMPUTATIONAL MATHEMATICS LAB

At the end of the course, the student will be able to

CO. No.	COURSE OUTCOMES	BT Level
CO1	Develop the code to find the Eigen values and Eigen Vectors using Python/MATLAB.	3
CO2	Develop the code find solution of Algebraic and Transcendental Equations and Linear system of equations using Python/MATLAB	3
CO3	Write the code to solve problems of First-Order ODEs Higher order linear differential equations with constant coefficients	3
CO4	Analyze numerical accuracy, convergence, and computational efficiency of algorithms used for eigenvalue problems, equation solving, and differential equations while implementing them using Python/MATLAB.	4
CO5	Apply numerical methods using Python/MATLAB to model, solve, and interpret real-world engineering problems involving linear algebra and differential equations.	3

MAPPING:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	3	2	2	2	3	–	–	–	–	–	1	3	3	2
CO2	3	3	2	2	3	–	–	–	–	–	1	3	3	2
CO3	3	3	2	2	3	–	–	–	–	–	1	3	3	2
CO4	3	3	2	3	2	–	–	–	–	–	2	3	2	2
CO5	3	3	3	3	3	1	–	1	1	–	2	3	3	3
Average	3.0	2.8	2.2	2.4	2.8	0.2	0.0	0.2	0.2	0.0	1.4	3.0	2.8	2.2

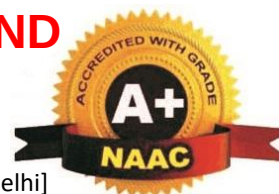


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25CS307PC: OBJECT ORIENTED PROGRAMMING THROUGH JAVA LAB

At the end of the course, the student will be able to

CO. No.	COURSE OUTCOMES	BT Level
CO1	Able to write programs for solving real world problems using the java collection framework.	3
CO2	Able to write programs using abstract classes.	3
CO3	Able to write multithreaded programs.	3
CO4	Able to write GUI programs using swing controls in Java.	3
CO5	Apply exception handling, file handling, and Java Collection Framework concepts to develop robust and efficient Java applications.	3
CO1	Design and implement event-driven and concurrent Java applications using GUI components, multithreading, and inter-thread communication.	6

MAPPING:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	3	3	2	1	3	–	–	–	–	–	1	3	3	2
CO2	3	2	2	1	2	–	–	–	–	–	1	3	3	1
CO3	3	3	3	2	3	–	–	1	–	–	1	3	3	2
CO4	2	2	3	1	3	–	–	1	1	–	1	2	3	2
CO5	3	3	3	2	3	–	–	1	1	–	1	3	3	2
CO1	3	3	3	3	3	–	–	2	2	1	2	3	3	3
Average	2.83	2.67	2.67	1.67	2.83	0.00	0.00	0.83	0.67	0.17	1.17	2.83	3.00	2.00

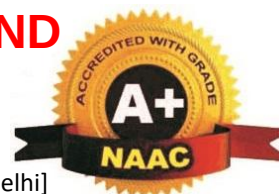


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25IT308PC: SOFTWARE ENGINEERING LAB

At the end of the course, the student will be able to

CO. No.	COURSE OUTCOMES	BT Level
CO1	Ability to translate end-user requirements into system and software requirements	3
CO2	Ability to generate a high-level design of the system from the software requirements	6
CO3	Will have experience and/or awareness of testing problems and will be able to develop a simple testing report	3
CO4	Prepare and maintain software engineering documents including SRS, design specifications, configuration management, and risk management documents following standard practices.	6
CO5	Apply CASE tools and software testing techniques to design systems and to develop unit, integration, white-box, and black-box test cases.	3

MAPPING:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	3	3	2	1	1	–	–	1	2	–	1	3	2	1
CO2	3	3	3	2	2	–	–	1	2	1	1	3	3	2
CO3	2	3	2	3	2	–	–	1	1	–	1	2	3	2
CO4	2	2	3	2	1	–	1	1	3	2	2	2	2	1
CO5	3	3	3	3	3	–	–	1	1	–	1	3	3	2
Average	2.6	2.8	2.6	2.2	1.8	0.0	0.2	1.0	1.8	0.6	1.2	2.6	2.6	1.6

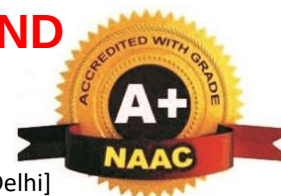


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25CS309PC: DATABASE MANAGEMENT SYSTEMS LAB

At the end of the course, the student will be able to

CO. No.	COURSE OUTCOMES	BT Level
CO1	Design database schema for a given application and apply normalization	6
CO2	Acquire skills in using SQL commands for data definition and data manipulation.	3
CO3	Develop solutions for database applications using procedures, cursors and triggers	6
CO4	Apply advanced SQL concepts including joins, subqueries, aggregate functions, views, and constraints to efficiently retrieve and manage relational data.	3
CO5	Design and implement database programs using triggers, stored procedures, and cursors to enforce business rules and support database-driven applications.	6

MAPPING:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	3	3	3	2	2	–	–	–	–	–	1	3	3	2
CO2	3	2	2	1	3	–	–	–	–	–	1	3	3	2
CO3	3	3	3	2	3	–	–	1	–	–	1	3	3	3
CO4	3	3	2	2	3	–	–	–	–	–	1	3	3	2
CO5	3	3	3	3	3	–	–	1	1	–	2	3	3	3
Average	3.0	2.8	2.6	2.0	2.8	0.0	0.0	0.4	0.2	0.0	1.2	3.0	3.0	2.4

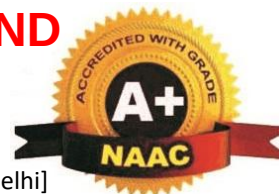


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25ML310SD: NODE JS/ REACT JS/ DJANGO

At the end of the course, the student will be able to

CO. No.	COURSE OUTCOMES	BT Level
CO1	Build a custom website with HTML, CSS, and Bootstrap and little JavaScript.	6
CO2	Demonstrate Advanced features of JavaScript and learn about JDBC	3
CO3	Develop Server – side implementation using Java technologies	6
CO4	Develop the server – side implementation using Node JS.	6
CO5	Design a Single Page Application using React.	6

MAPPING:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	3	2	3	1	3	–	–	1	1	–	1	3	3	2
CO2	3	3	2	1	3	–	–	–	–	–	1	3	3	2
CO3	3	3	3	2	3	–	–	1	–	–	1	3	3	3
CO4	3	3	3	2	3	–	–	1	–	–	1	3	3	3
CO5	3	3	3	2	3	–	–	1	1	–	2	3	3	3
Average	3.0	2.8	2.8	1.6	3.0	0.0	0.0	0.8	0.4	0.0	0.4	3.0	3.0	2.6