



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)

[Sponsored by Lavu Educational Society, Affiliated to JNTUH & Approved by AICTE, New Delhi]
Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301. Phone: 96529 10002/3



Department of CSE (Artificial Intelligence & Machine Learning)

II B.Tech I Semester

Subject : CS301PC Mathematical and Statistical Foundations

CO	Course Outcome (CO) Statement
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.
CO5	Understand Stochastic Processes and Markov Chains

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	2	2	1							1	3	2	2
CO2	3	3	2	3	1							1	3	2	2
CO3	3	2	2	2								2	2	2	2
CO4	2	3	1	2		1	1	1				2	2	1	1
CO5	3	3	2	3	1							2	3	3	3
AVERA GE	2.8	2.8	1.8	2.4	1.0	1.0	1.0	1.0				1.6	2.6	2.0	2.0



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)

[Sponsored by Lavu Educational Society, Affiliated to JNTUH & Approved by AICTE, New Delhi]
Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301. Phone: 96529 10002/3



Subject : CS302PC Data Structures

CO	Course Outcome (CO) Statement
CO1	Ability to select the data structures that efficiently model the information in a problem.
CO2	Ability to assess efficiency trade-offs among different data structure implementations or combinations.
CO3	Implement and know the application of algorithms for sorting and pattern matching.
CO4	Design programs using a variety of data structures, including hash tables, binary and general tree structures, search trees, tries, heaps, graphs, and AVL-trees.
CO5	Demonstrate problem-solving skills and teamwork through programming assignments and projects

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	3	3	2	2			3		3	3	3	3	2
CO2	2	3	2	3	2	3			2		2	2	3	3	2
CO3	3	3	2	2	3	2			3		2	3	3	3	2
CO4	3	3	2	3	3	3			2		2	3	3	3	2
CO5	2	3	3	3	2	2			2		2	3	2	2	3
AVERAGE	2.6	2.8	2.4	2.8	2.4	2.4			2.4		2.2	2.8	2.8	2.8	2.2



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)

[Sponsored by Lavu Educational Society, Affiliated to JNTUH & Approved by AICTE, New Delhi]
Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301. Phone: 96529 10002/3



Subject : CS303PC Computer Organization and Architecture

CO	Course Outcome (CO) Statement
CO1	Understand the basics of instruction sets and their impact on processor design.
CO2	Demonstrate an understanding of the design of the functional units of a digital computer system.
CO3	Evaluate cost performance and design trade-offs in designing and constructing a computer processor including memory.
CO4	Design a pipeline for consistent execution of instructions with minimum hazards.
CO5	Recognize and manipulate representations of numbers stored in digital computers

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	2	2	3						2	2	2	3	2
CO2	3	3	3	2	2						2	2	2	3	2
CO3	3	3	3	3	2						2	2	3	3	2
CO4	3	3	3	3	3						2	2	3	3	3
CO5	3	3	3	3	3						3	2	3	3	2
AVERAGE	3	2.8	2.8	2.6	2.6						2.2	2	2.6	3	2.2



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)

[Sponsored by Lavu Educational Society, Affiliated to JNTUH & Approved by AICTE, New Delhi]
Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301. Phone: 96529 10002/3



Subject : CS304PC Software Engineering

CO	Course Outcome (CO) Statement
CO1	Ability to translate end-user requirements into system and software requirements, using e.g. UML, and structure the requirements in a Software Requirements Document (SRD).
CO2	Identify and apply appropriate software architectures and patterns to carry out high level design of a system and be able to critically compare alternative choices.
CO3	Will have experience and/or awareness of testing problems and will be able to develop a simple testing report.
CO4	Evaluate software testing strategies, quality assurance techniques, and maintenance practices.
CO5	Demonstrate teamwork, documentation, and ethical responsibility in software project development.

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	2	2							2	2	3	2	
CO2	3	3	3	3	2						3	3	3	2	
CO3	3	2	2	3	2						2	2	3	3	
CO4	2	2	2	3	2						3	3	2	3	
CO5				2							2	2	2		
AVERAGE	2.75	2.25	2.25	2.6	2						2.4	2.4	2.6	2.5	



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)

[Sponsored by Lavu Educational Society, Affiliated to JNTUH & Approved by AICTE, New Delhi]
Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301. Phone: 96529 10002/3



Subject : CS305PC Operating Systems

CO	Course Outcome (CO) Statement
CO1	Understand the structure and functions of operating systems
CO2	Will be able to control access to a computer and the files that may be shared
CO3	Demonstrate the knowledge of the components of computers and their respective roles in computing.
CO4	Ability to recognize and resolve user problems with standard operating environments.
CO5	Gain practical knowledge of how programming languages, operating systems, and architectures interact and how to use each effectively.

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	2	1	1			3	2	3		1	2	2	1
CO2	3	3	3	2	2			2	3	2		2	3	3	2
CO3	3	3	3	3	2			1	2	2		2	3	2	2
CO4	2	3	3	2	2			2	2	1		2	3	3	2
CO5	3	3	3	3	3			2	2	2		3	3	3	3
AVERAGE	2.6	2.8	2.8	2.2	2			2	2.2	2.0		2	2.8	2.6	2



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)

[Sponsored by Lavu Educational Society, Affiliated to JNTUH & Approved by AICTE, New Delhi]
Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301. Phone: 96529 10002/3



Subject : CS306PC Introduction to Data Structures Lab

CO	Course Outcome (CO) Statement
CO1	Implement linear data structures such as arrays, stacks, and queues
CO2	Apply linked lists for dynamic memory management and manipulation
CO3	Develop programs using trees and graphs for hierarchical and networked data
CO4	Implement searching, sorting, and hashing techniques for efficient data access
CO5	Demonstrate teamwork, debugging, and documentation skills in lab assignments

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	2	2	2	2			3		2	2	3	3	2
CO2	3	3	3	3	2	2			2		3	2	3	3	2
CO3	3	3	3	3	2	2			2		3	3	3	3	2
CO4	3	3	3	3	3	2			2		2	3	3	3	2
CO5	3	3	3	3	3	3			3		2	3	3	3	3
AVERAGE	3	3	2.8	2.8	2.4	2.2			2.4		2.4	2.6	3	3	2.2



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)

[Sponsored by Lavu Educational Society, Affiliated to JNTUH & Approved by AICTE, New Delhi]
Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301. Phone: 96529 10002/3



Subject : CS307PC Operating Systems Lab

CO	Course Outcome (CO) Statement
CO1	Simulate and implement operating system concepts such as scheduling, deadlock management, file management and memory management.
CO2	Able to implement C programs using Unix system calls
CO3	Apply memory management and file system operations using system calls
CO4	Develop shell scripts for automation and system administration tasks
CO5	Demonstrate teamwork, debugging, and documentation skills in lab assignments

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	2						2				2	2	2
CO2	3	3	3						2				3	3	2
CO3	3	3	3						2				3	3	3
CO4	3	3	3						2				3	3	2
CO5	3	3	3						2				3	3	3
AVERAGE	3	2.8	2.8						2				2.8	2.8	2.4



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)

[Sponsored by Lavu Educational Society, Affiliated to JNTUH & Approved by AICTE, New Delhi]
Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301. Phone: 96529 10002/3



Subject : CS308PC Software Engineering Lab

CO	Course Outcome (CO) Statement
CO1	Ability to translate end-user requirements into system and software requirements
CO2	Ability to generate a high-level design of the system from the software requirements
CO3	Will have experience and/or awareness of testing problems
CO4	will be able to develop a simple testing report
CO5	Ability to deploy a high-level design of the system from the software requirements

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	2	1						2	1	1	3	2	2
CO2	3	3	3	2	1					2	1	1	3	3	2
CO3	2	3	2	3	1			1				1	2	3	2
CO4	2	2	2	3	1			1		3	1	1	2	3	2
CO5	3	3	3	2	2	1			1	2	2	1	3	3	3
AVERAGE	2.6	2.8	2.4	2.2	1.2	1.0		1.0	1.0	2.2	1.2	1.0	2.6	2.8	2.2



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)

[Sponsored by Lavu Educational Society, Affiliated to JNTUH & Approved by AICTE, New Delhi]
Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301. Phone: 96529 10002/3



Subject : CS309PC Node JS/ React JS/ Django

CO	Course Outcome (CO) Statement
CO1	Build a custom website with HTML, CSS, and Bootstrap and little JavaScript.
CO2	Demonstrate Advanced features of JavaScript and learn about JDBC
CO3	Develop Server – side implementation using Java technologies like
CO4	Develop the server – side implementation using Node JS.
CO5	Design a Single Page Application using React.

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	2	2	2	2			3		2	2	3	3	2
CO2	3	3	3	3	2	2			2		3	2	3	3	2
CO3	3	3	3	3	2	2			2		3	3	3	3	2
CO4	3	3	3	3	3	2			2		2	3	3	3	2
CO5	3	3	3	3	3	3			3		2	3	3	3	3
AVERAGE	3	3	2.8	2.8	2.4	2.2			2.4		2.4	2.6	3	3	2.2