



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

[Sponsored by Lavu Educational Society]

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad.)

Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301 Phone: +91 96529 10002/3



Department of Computer Science and Engineering

II B. Tech I Semester

SUBJECT: Analog and Digital Electronics (CS301ES)

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

S.No.	COURSE OUTCOMES	BT Level
CO1	Understand the fundamentals of semiconductor devices and their characteristics	1
CO2	Analyze and design basic analog circuits using diodes, transistors, and amplifiers	2
CO3	Apply Boolean algebra and logic simplification techniques to design digital circuits	3
CO4	Design combinational and sequential logic circuits for real-time applications	4
CO5	Demonstrate awareness of electronic system applications and communicate technical concepts effectively	5

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	2	1	-	-	-	-	-	-	-	1	1	3	1
CO2	3	3	3	2	-	-	-	-	1	-	-	1	2	3	1
CO3	3	3	3	2	-	-	-	-	1	-	-	2	2	3	2
CO4	3	3	3	3	-	-	-	-	1	-	-	2	2	3	2
CO5	3	2	3	2	-	-	-	-	2	-	-	2	3	3	2
Average	3	2.6	2.8	2	-	-	-	-	1.3	-	-	1.6	2	3	1.6



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SUBJECT: Data Structures (CS302PC)

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

S.No.	COURSE OUTCOMES	BT Level
CO1	Understand basic data structures like arrays, linked lists, stacks, and queues	1
CO2	Apply operations such as insertion, deletion, and traversal on linear and non-linear structures	2
CO3	Implement searching, sorting, and hashing techniques for efficient data access	3
CO4	Design and analyze algorithms for trees and graphs	4
CO5	Demonstrate problem-solving skills and teamwork through programming assignments and projects	5

MAPPING

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



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SUBJECT: Computer Oriented Statistical Methods (MA303BS)

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

S.No.	COURSE OUTCOMES	BT Level
CO1	Understand probability concepts and apply them to real-world problems	1
CO2	Analyze discrete and continuous probability distributions including Binomial, Poisson, and Normal	2
CO3	Apply statistical methods such as hypothesis testing and estimation	3
CO4	Use correlation and regression techniques for data analysis	4
CO5	Implement statistical algorithms using computational tools and interpret results	5

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	-	-	-	-	-	-	3	3	3	-
CO2	3	3	3	3	3	-	-	-	-	-	-	3	3	3	-
CO3	3	3	-	-	-	-	-	-	-	-	-	2	3	2	-
CO4	3	3	2	2	-	-	-	-	-	-	-	3	3	2	-
CO5	3	3	2	2	-	-	-	-	-	-	-	3	3	3	-
Average	3	3	2.5	2.5	3	-	-	-	-	-	-	2.8	3	2.6	-



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SUBJECT: Computer Organization and Architecture (CS304PC)

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

S.No.	COURSE OUTCOMES	BT Level
CO1	Understand the basic structure and operation of digital computers	1
CO2	Analyze instruction sets and their impact on processor design	2
CO3	Design and evaluate arithmetic and logic units	3
CO4	Explore control unit design including microprogramming and hardwired control	4
CO5	Understand memory organization, I/O systems, and multiprocessor architectures	5

MAPPING

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



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SUBJECT: Object Oriented Programming Using C++ (CS305PC)

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

S.No.	COURSE OUTCOMES	BT Level
CO1	Understand object-oriented programming concepts such as classes, objects, inheritance, and polymorphism	1
CO2	Apply encapsulation and abstraction principles to develop modular programs	3
CO3	Implement file handling and exception handling mechanisms in C++	3
CO4	Develop reusable and maintainable code using templates and standard libraries	4
CO5	Demonstrate teamwork and communication skills through collaborative coding projects	5

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	3	2	1	1	3	-	-	-	3	-	1	3	2	1
CO2	3	3	3	2	2	2	-	-	-	2	-	2	2	2	1
CO3	3	3	3	2	2	3	-	-	-	1	-	2	3	3	2
CO4	2	3	3	3	2	2	-	-	-	2	-	2	3	3	2
CO5	1	2	3	3	3	2	-	-	-	2	-	3	3	3	3
Average	2.2	2.8	2.8	2.2	2	2.4	-	-	-	2	-	2	2.8	2.6	1.8



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SUBJECT: Analog and Digital Electronics Lab (CS306ES)

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

S.No.	COURSE OUTCOMES	BT Level
CO1	Demonstrate practical knowledge of electronic components and circuits	1
CO2	Design and implement analog circuits such as amplifiers and oscillators	2
CO3	Construct and test digital circuits including logic gates, flip-flops, and counters	4
CO4	Apply troubleshooting techniques and interpret experimental data	3
CO5	Exhibit teamwork, communication, and safety practices in lab environments	5

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	2	2	1	2	-	-	2	-	-	2	1	3	2
CO2	3	3	3	2	2	1	-	-	2	-	-	2	2	3	2
CO3	3	3	3	3	2	2	-	-	2	-	-	2	2	3	2
CO4	3	3	3	3	3	2	-	-	2	-	-	3	2	3	2
CO5	2	3	3	3	3	1	-	-	2	-	-	3	3	3	3
Average	2.8	2.8	2.8	2.6	2.2	1.6	-	-	2	-	-	2.4	2	3	2.2



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SUBJECT: Data Structures Lab (CS307PC)

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

S.No.	COURSE OUTCOMES	BT Level
CO1	Implement linear data structures such as arrays, stacks, and queues	2
CO2	Apply linked lists for dynamic memory management and manipulation	3
CO3	Develop programs using trees and graphs for hierarchical and networked data	3
CO4	Implement searching, sorting, and hashing techniques for efficient data access	4
CO5	Demonstrate teamwork, debugging, and documentation skills in lab assignments	5

MAPPING

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



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SUBJECT: IT Workshop Lab (CS308PC)

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

S.No.	COURSE OUTCOMES	BT Level
CO1	Identify and use basic computer hardware and software tools	1
CO2	Create and format documents, spreadsheets, and presentations using office tools	2
CO3	Develop basic web pages using HTML and CSS	3
CO4	Use productivity tools and internet resources for academic and professional tasks	4
CO5	Demonstrate teamwork, communication, and documentation skills in lab activities	5

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	2	-	2	-	-	-	2	-	-	2	2	3	-
CO2	3	3	3	-	2	-	-	-	1	-	-	2	3	2	-
CO3	3	2	2	-	2	-	-	-	1	-	-	1	3	2	-
CO4	2	2	2	-	2	-	-	-	3	-	-	1	2	3	-
CO5	1	1	2	-	2	-	-	-	2	-	-	2	1	1	-
Average	2.4	2	2.2	-	2	-	-	-	1.8	-	-	1.6	2.2	2.2	-



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SUBJECT: C++ Programming Lab (CS309PC)

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

S.No.	COURSE OUTCOMES	BT Level
CO1	Apply object-oriented programming concepts to solve real-world problems using C++	1
CO2	Implement classes, objects, constructors, and destructors for modular programming	2
CO3	Use inheritance, polymorphism, and operator overloading to enhance code reusability	3
CO4	Develop programs using file handling and templates for data management	4
CO5	Demonstrate debugging, teamwork, and communication skills in lab assignments	5

MAPPING

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



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SUBJECT: Gender Sensitization Lab (MC309)

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

S.No.	COURSE OUTCOMES	BT Level
CO1	Develop awareness of gender roles and social constructs	1
CO2	Understand the impact of gender on personal and professional relationships	2
CO3	Analyze gender-based discrimination and inequalities in various contexts	3
CO4	Demonstrate sensitivity and empathy in communication and behavior	4
CO5	Engage in group discussions and activities promoting gender equality	5

MAPPING

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