



Department of Information Technology

IV B. Tech I Semester

SUBJECT: Information Security (C401)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C401.1	Identify services that enhance the security and its mechanism.	2-Understand
C401.2	Classify security attacks on information over network. Describe and apply classical encryption techniques.	3-Apply
C401.3	Explain and apply modern block cipher with modes	3-Apply
C401.4	Compare conventional encryption algorithms & public key cryptography	4-Analyze
C401.5	Understand the concept of hash function with application and message authentication code in security system	2-Understand

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C401.1	2	2				3		3					3	2	3
C401.2	3	3	2			3		2						3	2
C401.3	3	3	3			2		3					3	3	2
C401.4	3	3	3			2		2					2		3
C401.5	3	3	3			2							3	3	3
Average	2.8	2.8	2.75			2.4		2.5					2.75	2.75	2.6



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SUBJECT: DATA MINING (C402)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C402.1	Ability to understand the types of the data to be mined and present a general classification of tasks and primitives to integrate a data mining system.	2-Understand
C402.2	Apply preprocessing methods for any given raw data.	3-Apply
C402.3	Extract interesting patterns from large amounts of data and Discover the role played by data mining in various fields	4-Analyze
C402.4	Choose and employ suitable data mining algorithms to build analytical applications	3-Apply
C402.5	Evaluate the accuracy of supervised and unsupervised models and algorithms	5-Evaluate

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C402.1	3	2	2	2	3				2	2			3	3	
C402.2	3	3	3	3	3				2	2	2		3	3	
C402.3	3	3	3	3	3				3	2	2		3	3	
C402.4	3	3	3	3	3				3	3	3		3	3	
C402.5	2	2	2	2	2				3	3	3		2	2	
Average	2.8	2.6	2.6	2.6	2.8				2.6	2.4	2.5		2.8	2.8	



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SUBJECT: CLOUD COMPUTING (C403)

After going through this course, the students will be able to

S. No..	COURSE OUTCOMES	BT Level
C403.1	Understand cloud computing fundamentals, architecture, and service models	2-Understand
C403.2	Analyze virtualization technologies and cloud infrastructure	4-Analyze
C403.3	Apply cloud programming models and APIs	3-Apply
C403.4	Evaluate cloud resource management and scheduling techniques	5-Evaluate
C403.5	Demonstrate teamwork, documentation, and ethical responsibility in cloud-based projects	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C403.1	3	2			2								2	3	2
C403.2	3	3	3	2	3								3	3	2
C403.3	3	3	3	2	3								3	2	3
C403.4	3	3	3	2	3								2	3	2
C403.5	3	3	3	2	3								3	3	2
Average	3	2.8	3	2	2.8								2.6	2.8	2.2



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SUBJECT: SOFTWARE PROCESS & PROJECT MANAGEMENT (C404)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C404.1	Understand software economics, life cycle phases, and project organization	2-Understand
C404.2	Analyze milestones, artifacts, and metrics from technical and managerial perspectives	4-Analyze
C404.3	Design and manage software projects using planning and control techniques	6-Create
C404.4	Apply risk management, quality assurance, and configuration management practices	3-Apply
C404.5	Demonstrate teamwork, documentation, and communication in project environments	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C404.1	2	3	2	2	2	2			2	2	3	2	3	2	
C404.2	2	3	3	2	2	2		2	2	2	3		3	2	
C404.3	2	3	3	2	2	2		3	3		3	2	3	2	3
C404.4	2	3	2	3	2	2		2	3	3	3		3	3	2
C404.5	2	3	3	2	3	2		2	3	3	3	3	3	2	2
Average	2	3	2.6	2.2	2.2	2		2.25	2.6	2.5	3	2.3	3	2.2	2.3



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SUBJECT: PRINCIPLES OF ENTREPRENEURSHIP (C405)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C405.1	Understand the concept of entrepreneur and entrepreneurship and known's about resource used for preparing a business plan.	2-Understand
C405.2	Understands the financing and managing of a business enterprise.	2-Understand
C405.3	Understands financial Institutional assistance and support given to MSME's.	2-Understand
C405.4	Demonstrate strong conceptual knowledge in the functional area of production and marketing management.	3-Apply
C405.5	Knows about the development and the judicial setup of Labor Laws.	2-Understand

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C405.1	2					1	2	2	2		2				2
C405.2	2					2	2	2	2		3				2
C405.3	3								2		2				3
C405.4	2								2		2				2
C405.5	2					3	2	2	2		2				2
Average	2.2					2.0	2.0	2.0	2		2.2				2.25



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SUBJECT: Information Security Lab (C406)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C406.1	Gain hands-on experience in implementing encryption and decryption algorithms using symmetric and asymmetric cryptographic techniques.	3-Apply
C406.2	Generate and verify digital signatures to ensure message authenticity and integrity.	3-Apply
C406.3	Implement cryptographic hash functions and use them to compute message digests for data integrity verification.	3-Apply
C406.4	Understand key management practices, including key generation, distribution, and storage.	2-Understand
C406.5	Configure firewalls and other network security devices to control network traffic and protect against unauthorized access.	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C406.1	3	2	2	2	3								2	3	2
C406.2	3	3	3	3	2								3	2	3
C406.3	3	3	3	3	2									3	2
C406.4	3	3	3	3	3								3		3
C406.5	3	3	3	3	3								3	2	3
Average	3	2.8	2.8	2.8	2.6								2.75	2.5	2.6



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SUBJECT: Industrial Oriented Mini Project/ Summer Internship (C407)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C407.1	Apply theoretical knowledge to solve real-world problems in an industrial environment	3-Apply
C407.2	Demonstrate technical skills and use of modern tools in a professional setting	3-Apply
C407.3	Exhibit professional ethics, teamwork, and communication in an industrial environment	3-Apply
C407.4	Document project outcomes and present findings effectively	6-Create
C407.5	Analyze and reflect on the internship experience to identify areas of personal and professional growth	4-Analyze

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C407.1	2	2	2	2		3	2	3	3	3	3	3	3	3	3
C407.2	3	3	3	2		2		2	3	2		2	3	2	2
C407.3	3	3	3	2	3	2	2		3	2	3	2	3		2
C407.4	3	3	3	3	3	2		2	2	3	3		3	3	3
C407.5	2	2	2		2	3	2	3	3		3	3	2	3	3
Average	2.6	2.6	2.6	2.25	2.67	2.4	2	2.5	2.8	2.5	3	2.5	2.8	2.75	2.6



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SUBJECT: Seminar (C408)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C408.1	Identify and explore emerging technologies or research topics in computer science	4-Analyze
C408.2	Analyze technical literature and synthesize key findings for presentation	4-Analyze
C408.3	Prepare seminar content using appropriate tools and visual aids	6-Create
C408.4	Deliver effective oral presentations and respond to audience queries	3-Apply
C408.5	Demonstrate professionalism, ethics, and teamwork during seminar activities	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C408.1	3	3	2			2		2	2	2			3	2	2
C408.2	3	3	2			2		2	2	2			2	2	2
C408.3	2	2	2			2		3	2	3			2	2	2
C408.4	2	2	2			2		2	2	3			2	2	
C408.5	2	3	2			2		2	2	3			2	2	3
Average	2.4	2.6	2			2		2.2	2	2.6			2.2	2	2.25



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SUBJECT: Project Stage – I (C409)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C409.1	Identify and define a real-world problem suitable for project development	4-Analyze
C409.2	Conduct literature survey and feasibility analysis to support project planning	4-Analyze
C409.3	Design system architecture and select appropriate tools and technologies	6-Create
C409.4	Work effectively in teams and demonstrate professional ethics and responsibility	3-Apply
C409.5	Document project objectives, methodology, and expected outcomes clearly and professionally	6-Create

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C409.1	3	3	2	3	2			2		2	2	3	3	2	
C409.2	3	3	3	3	2			2		2	3	2	3	3	
C409.3	3	3	3	2	3			2		2	3	2		3	
C409.4	3	3	3	2	3			2			3	2	3		
C409.5	2	2	2	2	2			2	3	3	3	2	3	2	
Average	2.8	2.8	2.6	2.4	2.4			2	3	2.25	2.8	2.2	3	2.5	