



SRM
UNIVERSITY AP
—————Andhra Pradesh

SCHOOL OF ENGINEERING AND SCIENCES

M.Tech in Cyber Security

2023-25 Batch

Semester Wise Course Credit Distribution Under Various Categories

Category	S1	S2	S3	S4	Total	%age
Value Added Courses (UG Common) (VAC)	02	-	-	-	02	2.5%
Skill Enhancement Courses (SEC)	2	2	-	-	04	5%
Multidisciplinary / Interdisciplinary / Foundation Core (FIC)	3	3	-	-	06	7.5%
Major Core (CC) + Specialization (SE) + Core Elective (CE)	18	18	-	-	36	45%
Research / Design / Industrial Practice / Project (RDIP)	-	-	17	15	32	40%
Grand Total			17	15	80	100%

VAC- Community Engagement & Social Responsibility

SEC-Problem Solving or Entrepreneurial mindset or Design Thinking

FIC- Mathematics or AIML or Project Management

M.Tech in Cyber Security

Semester-1						
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits
VAC	University AEC	Community Engagement & Social Responsibility	-	-	1	01*
VAC	University AEC	Research Seminar	-	-	1	01*
SEC1	SEC	Design Thinking	1	-	1	02
CC	CORE	Network Security and Programming	3	0	1	4
CC	CORE	Web Application Penetration Testing	3	0	1	4
CC	CORE	Advance Algorithm and Analysis	3	0	1	4
CC	CORE	Applied Cryptography	3	0	1	4
CC	CORE	Advanced Python Programming Lab	0	0	2	2
Multidisciplinary	School (Engg./Sc.)	Advanced Probability, Linear Algebra and Optimization Techniques	2	0	1	3
Semester Total						23
Semester-2						
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits
VAC	University AEC	Community Engagement & Social Responsibility	-	-	1	1
VAC	University AEC	Research Seminar	-	-	1	1
SEC2	SEC	Entrepreneurial mindset	1	-	1	2
CE	Core Elective	Industry - Core Elective - 1	3	0	0	4
CE	Core Elective	Industry - Core Elective - 2	3	0	0	4
CC	Core	Security in Cloud Computing and IoT	3	0	1	4
CC	Core	Digital Forensics and Incident Response	3	0	1	4
CC	Core	Blockchain Technology and Applications	3	0	1	4
Multidisciplinary	University (PSB)	Project Management	-	2	1	3
Semester Total						25

Semester-3						
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits
RDIP	Research / Design / Industrial Practice / Project	Thesis (Project)	-	-	14	14
RDIP	Research / Design / Industrial Practice / Project	Industrial Practice			3	3
Semester Total						17
Semester-4						
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits
RDIP	Internship / Research / Thesis	Thesis	-	-	15	15
Semester Total						15

List of Core Electives

- 1 Information Theory and Coding
- 2 Network and Wireless Security
- 3 Biometric Security
- 4 Intrusion Detection and Prevention Systems
- 5 Information Storage Management
- 6 Software & System Security
- 7 Complex Network Analysis
- 8 Big Data Security and Privacy
- 9 Digital Watermarking and Steganography
- 10 Ethical Hacking
- 11 Intellectual Property Rights
- 12 Internet of Things and Security
- 13 Software Vulnerability Analysis
- 14 Security Analysis of Protocols
- 15 Banking Technology and Management
- 16 Machine Learning Techniques
- 17 Big Data Analytics
- 18 Information Retrieval
- 19 Pattern Recognition
- 20 Distributed System Security
- 21 Web development for blockchain applications
- 22 Advanced tools & Techniques for Big Data Analytics
- 23 Deep Learning Methodologies and Techniques
- 24 Data Warehousing and Pattern mining
- 25 Optimization Paradigms: Exploring Methods and Strategic Fundamentals