

KGiSL INSTITUTE OF TECHNOLOGY: COIMBATORE – 641 035
REGULATIONS 2024 (for students admitted from AY2024-25)
CHOICE BASED CREDIT SYSTEM
B.E. COMPUTER SCIENCE AND ENGINEERING (CYBER SECURITY)
CURRICULUM FOR SEMESTERS I -VIII

OVERVIEW OF CREDITS

Semester	HSMC	BSC	ESC	PCC	PEC	OEC	EEC	Total
I	4	10	9					23
II	4	9	9				3	25
III		4	4	12			2	22
IV		4		16			6	26
V	2			14	6		3	25
VI				4	9	3	4	20
VII	3			4		3	6	16
VIII							10	10
Total	13	27	22	50	15	6	34	167
% of Category	7.8%	16.2 %	13.2 %	30.5 %	9 %	3.6%	20.4 %	100%

CATEGORY OF COURSES

HSMC	Humanities Science and Management Course	OEC	Open Elective Course
BSC	Basic Science Course	PEC	Professional Elective Course
ESC	Engineering Science Course	EEC	Employability Enhancement Course
PCC	Professional Core Course	MC	Mandatory Courses

TYPE OF COURSES

LIT	Laboratory Integrated Theory	PCD	Personality Character Development
T	Theory	VC	Value Added Course
L	Laboratory Course	COT	Community Outreach and Intervention through Technical Activities
IP	Induction Programme	IT	Industrial Training/ Internship
MC	Mandatory Course	CC	Comprehension Course
NCC	NCC Credit Course	PW	Project Work

CREDIT ALLOCATION

S.No.	Category	Suggested Breakup of Credits	Credits
1	Humanities, Social Sciences and Management Courses (HSMC)	10-13	13
2	Basic Science Courses (BSC)	23 – 27	27
3	Engineering Science Courses (ESC)	18 - 22	22
4	Professional Core Courses (PCC)	50-62	51
5	Professional Elective Courses (PEC)	15-18	15
6	Open Elective Courses(OEC)	6	6
7	Employability Enhancement Courses(EEC)	30-36	34
8	Mandatory Courses (MC)	Non Credit	Non Credit
	Total	165 - 170	167

SEMESTER – I							
S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UTA161	தமிழர் மரபு / Heritage of Tamils	T	1-0-0	1	1	HSMC
2.	24UEN171	Communicative English for Engineers and Professionals - I	LIT	2-0-2	4	3	HSMC
3.	24UMA161	Calculus and Matrix Algebra	T	3-1-0	4	4	BSC
4.	24UPY171	Physics for Engineering and Technology	LIT	2-0-2	4	3	BSC
5.	24UCH171	Engineering Chemistry	LIT	2-0-2	4	3	BSC
6.	24UCS161	Computational Thinking	T	2-1-0	3	3	ESC
7.	24UCS171	Python Programming	LIT	3-0-2	5	4	ESC
8.	24UME266	Engineering Practices Laboratory	L	0-0-4	4	2	ESC
9.	24UPD191	Personality and Character Development	PCD	-	2	-	EEC
10.	24UIP181	Induction Programme	IP	-	-	-	MC
11.	24UMC001	Mandatory Course I - Yoga and Meditation Fundamentals	MC	1-0-0	1	-	MC
TOTAL CREDITS						23	

SEMESTER – II							
S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UTA261	தமிழரும் தொழில் நுட்பமும்/ Tamils and Technology	T	1-0-0	1	1	HSMC
2.	24UEN271	Communicative English for Engineers and Professionals - II	LIT	2-0-2	4	3	HSMC
3.	24UMA261	Statistics and Numerical Methods	T	3-1-0	4	4	BSC
4.	24UPY261	Physics for Information Science	T	3-0-0	3	3	BSC
5.	24UCH261	Environmental Sciences and Sustainability	T	2-0-0	2	2	BSC
6.	24UCS271	Programming in C	LIT	3-0-2	5	4	ESC
7.	24UEC272	Basic Electrical and Electronics Engineering	LIT	2-0-2	4	3	ESC
8.	24UME166	Engineering Graphics	L	0-0-4	4	2	ESC
9.	24USD296	Skill Development Course	LIT	2-0-2	4	3	EEC
10.	24UPD291	Personality and Character Development	PCD	-	2	-	EEC
11.	24UMC002	Mandatory Course II – Emotional Balance and Mental Wellness	MC	1-0-0	1	-	MC
12.	24UNC201	NCC Credit Course Level 1	NCC	-	-	1	-
TOTAL CREDITS						25	

SEMESTER – III							
S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UMA361	Algebra and Combinatorics	T	3-1-0	4	4	BSC
2.	24UEC341	Digital Principles and Computer Organization	LIT	3-0-2	5	4	ESC
3.	24UIT311	Data structures and Algorithms	LIT	3-0-2	5	4	PCC
4.	24UCS312	Object Oriented Programming	LIT	3-0-2	5	4	PCC
5.	24UCY311	Data Science for Cyber Security	LIT	3-0-2	5	4	PCC
6.		Skill Development Elective - I	L	0-0-4	4	2	EEC
7.	24UPD391	Personality and Character Development	PCD	-	2	-	EEC
8.	24UVC386	Value Added Course	VC	-	-	2	EEC
TOTAL CREDITS						22	

SEMESTER – IV							
S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UMA463	Optimization Techniques	T	3-1-0	4	4	BSC
2.	24UCS511	Computer Networks	LIT	3-0-2	5	4	PCC
3.	24UCY411	Database Management Systems with Security Perspective	LIT	3-0-2	5	4	PCC
4.	24UCY412	Operating Systems with Security Perspective.	LIT	3-0-2	5	4	PCC
5.	24UCS411	Artificial Intelligence and Machine Learning	LIT	3-0-2	5	4	PCC
6.		Career Progression Elective	T	3-0-0	3	3	EEC
7.		Skill Development Elective - II	L	0-0-4	4	2	EEC
8.	24UPD491	Personality and Character Development	PCD	-	2	-	EEC
9.	24UCO492	Community Outreach and Intervention through Technical Activities	COT	-	1	1	EEC
10.	24UVC486	Value Added Course	VC	-	-	2	EEC
11.	24UNC401	NCC Credit Course Level 2	NCC	-	-	2	-
TOTAL CREDITS						26	

SEMESTER – V							
S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UHV501	Universal Human Values	T	2-0-0	2	2	HSMC
2.	24UIT411	Web Technologies	LIT	2-0-2	4	3	PCC
3.	24UCY511	Engineering Secure Software Systems	LIT	3-0-2	5	4	PCC
4.	24UCY512	Cryptography and Cyber Security	LIT	3-0-2	5	4	PCC
5.	24UCY513	Secure Coding	LIT	2-0-2	4	3	PCC
6.		Professional Elective I	T/LIT	-	-	3	PEC
7.		Professional Elective II	T/LIT	-	-	3	PEC
8.		Skill Development Elective - III	L	0-0-4	4	2	EEC
9.	24UCY593	Industrial Training/ Internship	IT	-	-	1	EEC
10.	24UPD591	Personality and Character Development	PCD	-	2	-	EEC
11.	24UVC586	Value Added Course	VC	-	-	2	EEC
12.		Mandatory Course III	MC	2-0-0	2	-	MC
TOTAL CREDITS						25	

SEMESTER – VI							
S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UCY611	Network Security	LIT	3-0-2	5	4	PCC
2.		Professional Elective III	T/LIT	-	-	3	PEC
3.		Professional Elective IV	T/LIT	-	-	3	PEC
4.		Professional Elective V	T/LIT	-	-	3	PEC
5.		Open Elective – I	T/LIT	-	-	3	OEC
6.		Skill Development Elective - IV	L	0-0-4	4	2	EEC
7.	24UPD691	Personality and Character Development	PCD	-	2	-	EEC
8.	24UCO692	Community Outreach and Intervention through Technical Activities	COT	-	-	2	EEC
9.	24UVC686	Value Added Course	VC	-	-	2	EEC
10.		Mandatory Course IV	MC	2-0-0	2	-	MC
11.	24UNC601	NCC Credit Course Level 3	NCC	-	-	3	-

MANDATORY COURSES

S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1	24UMC001	Yoga and Meditation	T	1-0-0	1	-	MC
2	24UMC002	Emotional Balance and Mental Wellness	T	1-0-0	1	-	MC
3	24UMC003	Ethical behavior and code of conduct for Engineers	T	2-0-0	2	-	MC
4	24UMC004	Disaster Management	T	2-0-0	2	-	MC
5	24UMC005	Indian Constitution and Knowledge System	T	2-0-0	2	-	MC
6	24UMC006	Ergonomics and Industrial Safety	T	2-0-0	2	-	MC
7	24UMC007	Introduction to Women and Gender Studies	T	2-0-0	2	-	MC

CAREER PROGRESSION ELECTIVE

S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UCPE11	Entrepreneurship Development	T	3-0-0	3	3	EEC
2.	24UCPE12	Research Methodology	T	3-0-0	3	3	EEC
3.	24UCPE13	Career Development Course	T	3-0-0	3	3	EEC

PROFESSIONAL ELECTIVE COURSES: VERTICALS

VERTICAL 1: FULL STACK DEVELOPMENT							
S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UCSP01	Web Development	LIT	2-0-2	4	3	PEC
2.	24UCSP02	UI and UX Design	LIT	2-0-2	4	3	PEC
3.	24UCSP03	Responsive Web Design	T	3-0-0	3	3	PEC
4.	24UCSP04	Mobile Application Development	LIT	2-0-2	4	3	PEC
5.	24UCSP05	Software Testing and Automation	LIT	2-0-2	4	3	PEC
6.	24UCSP06	Agile Methodologies	T	3-0-0	3	3	PEC
7.	24UCSP07	IOT Concepts and Applications	T	3-0-0	3	3	PEC
8.	24UCSP08	Web Application Security	LIT	2-0-2	4	3	PEC
9.	24UCYP33	DevSecOps	LIT	2-0-2	4	3	PEC

VERTICAL 2: DETECTION ENGINEERING							
S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UCYP01	Threat Intelligence Technique	L	3-0-0	3	3	PEC
2.	24UCYP02	Security Information and Event Management (SIEM)	LIT	2-0-2	4	3	PEC
3.	24UCYP03	Intrusion Detection and Prevention Systems (IDPS)	L	3-0-0	3	3	PEC
4.	24UCYP04	Network Traffic Analysis	LIT	2-0-2	4	3	PEC
5.	24UCYP05	Endpoint Detection and Response (EDR)	LIT	2-0-2	4	3	PEC
6.	24UCYP06	Malware Analysis and Detection	LIT	2-0-2	4	3	PEC
7.	24UCYP07	Behavioral Analytics and Anomaly Detection	LIT	2-0-2	4	3	PEC
8.	24UCYP08	Threat Detection in SCADA and Industrial Control Systems	L	3-0-0	3	3	PEC

VERTICAL 3: CLOUD COMPUTING AND DATA CENTER TECHNOLOGIES							
S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UITP01	Cloud Computing and Virtualization	LIT	2-0-2	4	3	PEC
2.	24UITP02	Cloud Services Management	LIT	2-0-2	4	3	PEC
3.	24UITP03	Data Warehousing	LIT	2-0-2	4	3	PEC
4.	24UITP04	Storage Technologies	LIT	2-0-2	4	3	PEC
5.	24UITP05	Software Defined Networks	T	3-0-0	3	3	PEC
6.	24UITP06	Security and Privacy in Cloud	LIT	2-0-2	4	3	PEC
7.	24UITP07	Edge Computing and IoT	LIT	2-0-2	4	3	PEC
8.	24UITP08	Serverless Computing	LIT	2-0-2	4	3	PEC
9.	24UCYP34	Blockchain Technology	LIT	2-0-2	4	3	PEC

VERTICAL 4 : INFORMATION SECURITY AND PRIVACY							
S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UCYP09	Introduction to Information Security	T	3-0-0	3	3	PEC
2.	24UCYP10	Data Privacy and Protection	LIT	2-0-2	4	3	PEC
3.	24UCYP11	Information Security Governance	T	3-0-0	3	3	PEC
4.	24UCYP12	Access Control and Identity Management	T	3-0-0	3	3	PEC
5.	24UCYP13	Security Auditing and Compliance	T	3-0-0	3	3	PEC
6.	24UCYP14	Incident Response and Management	LIT	2-0-2	4	3	PEC
7.	24UCYP15	Security and Privacy Engineering	T	3-0-0	3	3	PEC
8.	24UCYP16	Ethical and Legal Issues in Information Security	T	3-0-0	3	3	PEC
9.	24UCYP17	Risk Management	T	3-0-0	3	3	PEC

VERTICAL 5 : DIGITAL FORENSICS							
S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UCYP18	Introduction to Digital Forensics	T	3-0-0	3	3	PEC
2.	24UCYP19	Forensic Data Recovery	LIT	2-0-2	4	3	PEC
3.	24UCYP20	Network Forensics	LIT	2-0-2	4	3	PEC
4.	24UCYP21	Mobile Forensics	LIT	2-0-2	4	3	PEC
5.	24UCYP22	File System and Memory Forensics	T	3-0-0	3	3	PEC
6.	24UCYP23	Cloud Forensics	LIT	2-0-2	4	3	PEC
7.	24UCYP24	Malware Forensics	LIT	2-0-2	4	3	PEC

VERTICAL 6 : OFFENSIVE CYBER OPERATIONS AND TECHNIQUES							
S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS	CATEGORY
				L-T-P	TCP		
1.	24UCYP25	Advanced Offensive Security	LIT	2-0-2	4	3	PEC
2.	24UCYP26	Vulnerability Assessment Techniques	LIT	2-0-2	4	3	PEC
3.	24UCYP27	Network Security Penetration Testing	LIT	2-0-2	4	3	PEC
4.	24UCYP28	Purple Team Operations	LIT	2-0-2	4	3	PEC
5.	24UCYP29	Malware Analysis and Exploitation	LIT	2-0-2	4	3	PEC
6.	24UCYP30	Web Application Security Testing	LIT	2-0-2	4	3	PEC
7.	24UCYP31	Cyber Attack and Defense Tactics	LIT	2-0-2	4	3	PEC
8.	24UCYP32	Mobile Security	LIT	2-0-2	4	3	PEC

VERTICAL 7 : MANAGEMENT							
S.NO.	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS / WEEK		CREDIT S	CATE GORY
				L-T-P	TCP		
1	24UCBP01	Customer Relation Management	T	3-0-0	3	3	HSMC
2	24UCBP02	Human Resource Management for Entrepreneurs	T	3-0-0	3	3	HSMC
3	24UCBP03	Supply Chain Management	T	3-0-0	3	3	HSMC
4	24UCBP04	IT Project Management	LIT	2-0-2	3	3	HSMC
5	24UCBP05	Behavioral Economics	T	3-0-0	3	3	HSMC
6	24UCBP06	E-Commerce	T	3-0-0	3	3	HSMC
7	24UCBP07	Enterprise Resource Planning	T	3-0-0	3	3	HSMC
8	24UCBP08	Financial Technology Innovations	T	3-0-0	3	3	HSMC

OPEN ELECTIVES

B. TECH. ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS
				L-T-P	TCP	
1.	24UADO01	Introduction to Artificial Intelligence and Machine Learning	T	3-0-0	3	3
2.	24UADO02	Introduction to Data Science	T	3-0-0	3	3
3.	24UADO03	Introduction to Big Data Analytics	T	3-0-0	3	3

4.	24UADO04	Data Visualization Techniques	T	3-0-0	3	3
5.	24UADO05	Introduction to Devops Tools	T	3-0-0	3	3
6.	24UADO06	Fundamentals of Storage Technologies	T	3-0-0	3	3
7.	24UADO07	Basics of Cloud Services	T	3-0-0	3	3

B.E. CSE (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS
				L-T-P	TCP	
1.	24UAMO01	Fundamentals of Artificial Intelligence	T	3-0-0	3	3
2.	24UAMO02	Principles of Machine Learning	T	3-0-0	3	3
3.	24UAMO03	Fundamentals of Deep Learning	LIT	2-0-2	4	3
4.	24UAMO04	Virtualization and Container Technologies	LIT	2-0-2	4	3
5.	24UAMO05	Python Frameworks for Web Applications	LIT	2-0-2	4	3
6.	24UAMO06	Fundamentals of Natural Language Processing	T	3-0-0	3	3
7.	24UAMO07	AI for Mechanical Engineering	T	3-0-0	3	3
8.	24UAMO08	AI for food processing	T	3-0-0	3	3
9.	24UAMO09	AI for Game Development	T	3-0-0	3	3

B. TECH. COMPUTER SCIENCE AND BUSINESS SYSTEMS

S.NO	COURSE CODE	COURSE NAME	COURSE TYPE	PERIODS/ WEEK		CREDITS
				L-T-P	TCP	
1.	24UCBO01	Modern Web Applications	T	3-0-0	3	3
2.	24UCBO02	Applied Design Thinking	T	3-0-0	3	3
3.	24UCBO03	Human Computer Interaction	T	3-0-0	3	3
4.	24UCBO04	Social Information Network	T	3-0-0	3	3
5.	24UCBO05	Artificial Intelligence and Expert Systems	T	3-0-0	3	3
6.	24UCBO06	Usability Design of Software Applications	T	3-0-0	3	3

7.	24UCBO07	Data Mining and Analytics	T	3-0-0	3	3
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B.E Computer Science and Engineering

S.NO.	COURSE CODE	COURSE TITLE	COURSE TYPE	PERIODS / WEEK		CREDIT S
				L-T-P	TCP	
1	24UCSO01	Fundamentals of Data Structures	LIT	2-0-2	4	3
2	24UCSO02	Principles of Computer Networks	LIT	2-0-2	4	3
3	24UCSO03	Video Creation and Editing	LIT	2-0-2	4	3
4	24UCSO04	Fundamentals of Database Systems	LIT	2-0-2	4	3
5	24UCSO05	Basics of Web Development	LIT	2-0-2	4	3
6	24UCSO06	Introduction to Digital Currency	T	3-0-0	3	3

B.E. ELECTRONICS AND COMMUNICATION ENGINEERING

S.NO.	COURSE CODE	COURSE TITLE	COURSE TYPE	PERIODS / WEEK		CREDITS
				L-T-P	TCP	
1	24UECO01	Remote Sensing Concepts	T	3-0-0	3	3
2	24UECO02	Sensors and Actuators	T	3-0-0	3	3
3	24UECO03	Concepts in Mobile Robots	T	3-0-0	3	3
4	24UECO04	Drone Technologies	T	3-0-0	3	3
5	24UECO05	Geographical Information System	T	3-0-0	3	3
6	24UECO06	Introduction to Embedded C	LIT	2-0-2	4	3
7	24UECO07	Fundamentals of Microprocessors and Microcontrollers	LIT	2-0-2	4	3
8	24UECO08	Energy Storing Devices	T	3-0-0	3	3
9	24UECO09	Semiconductor and Devices	T	3-0-0	3	3

B.Tech. INFORMATION TECHNOLOGY

S.NO	COURSE CODE	COURSE TITLE	COURSE TYPE	PERIODS/ WEEK		CREDITS
				L-T-P	TCP	
1.	24UITO01	Functional Programming	T	3-0-0	3	3
2.	24UITO02	Fundamentals of Cryptography	T	3-0-0	3	3
3.	24UITO03	Software Engineering	T	3-0-0	3	3
4.	24UITO04	Concepts of Object Oriented Programming	LIT	2-0-2	4	3
5.	24UITO05	Fundamentals of Computer Vision	T	3-0-0	3	3
6.	24UITO06	Foundations of Block chain	T	3-0-0	3	3

7.	24UITO07	Game Theory and Mechanism Design	T	3-0-0	3	3
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B.E. MECHANICAL ENGINEERING

S. NO	COURSE CODE	COURSE TITLE	COURSE TYPE	PERIODS / WEEK		CREDITS
				L-T-P	TCP	
1	24UMEO01	Fundamentals of Additive Manufacturing	T	3-0-0	3	3
2	24UMEO02	Renewable Energy Systems	T	3-0-0	3	3
3	24UMEO03	Principles of Safety Management	T	3-0-0	3	3
4	24UMEO04	Introduction to Mechatronics Systems	T	3-0-0	3	3
5	24UMEO05	Product Design and Development	T	3-0-0	3	3
6	24UMEO06	Fundamentals of Electrical Vehicle Technology	T	3-0-0	3	3

Guidelines for choosing Courses under PEC

	PEC- I	PEC- II		PEC- III		PEC- IV	PEC- V
	CC	ISP	DE	FSD	DF	OCOT	MGMT
Cluster A	24UITP01 Cloud Computing and Virtualization	24UCYP09 Introduction to Information Security	24UCYP01 Threat Intelligence Technique	24UCSP01 Web Development	24UCYP18 Introduction to Digital Forensics	24UCYP26 Vulnerability Assessment Techniques	24UCBP01 Customer Relation Management
	24UITP02 Cloud Services Management	24UCYP12 Access Control and Identity Management	24UCYP03 Intrusion Detection and Prevention Systems (IDPS)	24UCSP02 UI and UX Design		24UCYP31 Cyber Attack and Defense Tactics	24UCBP03 Supply Chain Management
	24UITP06 Security and Privacy in Cloud	24UCYP10 Data Privacy and Protection		24UCSP03 Responsive Web Design	24UCYP23 Cloud Forensics	24UCYP30 Web Application Security Testing	24UCBP06 E-Commerce
	24UITP08 Serverless Computing	24UCYP14 Incident Response and Management	24UCYP06 Malware Analysis and Detection	24UCSP08 Web Application Security	24UCYP24 Malware Forensics	24UCYP29 Malware Analysis and Exploitation	
	24UITP04 Storage Technologies				24UCYP19 Forensic Data Recovery		
Cluster B	24UITP05 Software Defined Networks	24UCYP15 Security and Privacy Engineering	24UCYP04 Network Traffic Analysis	24UCSP04 Mobile Application Development	24UCYP20 Network Forensics	24UCYP32 Mobile Security	24UCBP07 Enterprise Resource Planning

		24UCYP13 Security Auditing and Compliance	24UCYP07 Behavioral Analytics and Anomaly Detection		24UCYP21 Mobile Forensics	24UCYP27 Network Security Penetration Testing	24UCBP08 Financial Technology Innovations
		24UCYP11 Information Security Governance	24UCYP02 Security Information and Event Management (SIEM)				
		24UCYP16 Ethical and Legal Issues in Information Security					
Cluster C	24UITP07 Edge Computing and IoT		24UCYP05 Endpoint Detection and Response (EDR)	24UCSP06 Agile Methodologies			24UCBP02 Human Resource Management for Entrepreneurs
				24UCSP05 Software Testing and Automation			24UCBP05 Behavioral Economics
Cluster D	24UITP03 Data Warehousing			24UCSP07 IOT Concepts and Applications	24UCYP22 File System and Memory Forensics		24UCBP04 IT Project Management
Cluster E		24UCYP17 Risk Management	24UCYP08 Threat Detection in SCADA and Industrial Control Systems	24UCYP33 DevSecOps	24UCYP25 Advanced Offensive Security	24UCYP28 Purple Team Operations	
Pre-requisite Courses	24UEC341 Digital Principles and Computer Organization		24UCY311 Data Science for Cyber Security	24UCS312 Object Oriented Programming	24UCY412 Operating Systems with Security Perspective.		
	24UCS511 Computer Networks		24UCS411 Artificial Intelligence and Machine Learning	24UIT311 Data structures and Algorithms	24UCY513 Secure Coding		
	24UCY411 Database Management Systems with			24UIT411 Web Technologies	24UCY512 Cryptography and Cyber Security		

	Security Perspective						
				24UCY511 Engineering Secure Software Systems			

Criteria for Choosing Courses for Professional Electives

PEC – I : Any course from any cluster is fine

PEC – II: Any course from any cluster is fine

PEC – III: Any course from any cluster is fine

PEC – IV: Any course from any cluster is fine

PEC – V: Any course from any cluster is fine

*** It is better to choose Courses from a Cluster in the prescribed order**

Open elective - Course Preferences List

S.No	Departments	Course Preference
1	CSE	24UCSO06
2	AI & DS	24UADO03 24UADO04
3	CSBS	24UCBO03 24UCBO04 24UCBO07
4	AI & ML	24UAMO03 24UAMO06
5	ECE	24UECO06 24UECO07 24UECO09
6	IT	24UITO05
7	Mechanical	24UMEO05