

PRATHYUSHA ENGINEERING COLLEGE

(An Autonomous Institution)

CURRICULUM



B.E CSE-CYBER SECURITY				SEMESTER - I					REGULATIONS-2024		
S.No	Course Code	Course Title	CAT	Periods / Week				Credit	Maximum Marks		
				L	T	P	R	C	CA	FE	TOTAL
Theory											
1	241LEH103T	Professional English - I	HS	3	-	-	-	3	40	60	100
2	241MAB103T	Matrices and Calculus	BS	3	2	-	-	4	40	60	100
3	241PYB103T	Engineering Physics	BS	3	-	-	-	3	40	60	100
4	241CYB103T	Engineering Chemistry	BS	3	-	-	-	3	40	60	100
5	241GES101T	Programming in C	ES	3	-	-	-	3	40	60	100
6	241LEH102T	Heritage of Tamils/தமிழர் மரபு	HS	1	-	-	-	1	40	60	100
Laboratory											
7	241GEB111L	Physics & Chemistry Laboratory	BS	-	-	2	-	1	60	40	100
8	241LEA112L	Communication Skills Laboratory	EEC	-	-	2	-	1	60	40	100
9	241GES111L	Programming in C Laboratory	ES	-	-	3	1	2	60	40	100
Mandatory Course											
10	241GEM113L	IDEA Laboratory	MC	-	-	2	2	2	60	40	100
11	241GEM112L	Induction Training*	MC	-	-	4	-	0			
Total - 32 Periods				16	2	11	3	23			

* As per AICTE Norms; Grade : Completed / Not Completed ; Not Counted for CGPA

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B.E .-CSE-CYBER SECURITY				SEMESTER - II					REGULATIONS-2024		
S.No	Course Code	Course Title	CAT	Periods / Week				Credit	Maximum Marks		
				L	T	P	R	C	CA	FE	TOTAL
Theory											
1	24ILEH203T	Professional English - II	HS	3	-	-	-	3	40	60	100
2	241MAB201T	Linear Algebra and Numerical Methods	BS	3	2	-	-	4	40	60	100
3	241PYB201T	Physics for Information Science	BS	3	-	-	-	3	40	60	100
4	241GEB201T	Environmental Science for Computer Science Engineering	MC	2	-	-	-	2	40	60	100
5	241GES201T	Problem Solving Using Python	ES	3	-	-	-	3	40	60	100
6	241LEH202T	Tamils and Technology/ தமிழரும் தொழில் நுட்பமும்	HS	1	-	-	-	1	40	60	100
Laboratory											
7	241GES211L	Basic Electrical and Electronics Engineering Laboratory	ES	-	-	4	-	2	60	40	100
8	241GES214L	Problem Solving Using Python Laboratory	ES	-	-	3	1	2	60	40	100
9	241GES212L	Visualization of Design and Drawing Laboratory	ES	-	-	3	1	2	60	40	100
Total - 29 Periods					15	2	10	2	22		

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B.E .-CSE-CYBER SECURITY			SEMESTER - III						REGULATIONS-2024		
S.No	Course Code	Course Title	CAT	Periods / Week				Credit	Maximum Marks		
				L	T	P	R	C	CA	FE	TOTAL
Theory											
1	241MAB301T	Discrete Mathematics	BS	3	1	-	-	4	40	60	100
2	241GES301J	Digital Principles And Computer Organization	ES	2	-	2	-	3	50	50	100
3	241ITC301T	Data Structures And Algorithms	PC	3	-	-	-	3	40	60	100
4	241GES302T	Object Oriented Programming	ES	3	-	-	-	3	40	60	100
5	241GES303T	AI Essentials For Engineers	ES	3	-	-	-	3	40	60	100
6	241ITC302J	Data Science Using Python	PC	2	-	2	-	3	50	50	100
Laboratory											
7	241ITC311L	Data Structures And Algorithms Laboratory	PC	-	-	3	1	2	60	40	100
8	241GES311L	Object Oriented Programming Laboratory	ES	-	-	3	1	2	60	40	100
Total - 29 Periods				16	1	10	2	23			

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B.E .-CSE-CYBER SECURITY			SEMESTER - IV						REGULATIONS-2024		
S.No	Course Code	Course Title	CAT	Periods / Week				Credit	Maximum Marks		
				L	T	P	R	C	CA	FE	TOTAL
Theory											
1	241MAB401T	Probability And Statistics	BS	3	2	-	-	4	40	60	100
2	241CBC403T	AI For Cyber Security	PC	3	-	-	-	3	40	60	100
3	241CBC401T	Database Management Systems And Security	PC	3	-	-	-	3	40	60	100
4	241CBC402T	Applied Cryptography And Cyber Security	PC	3	-	2	-	4	50	50	100
5	241CSC404T	Operating Systems	PC	2	-	2	-	3	50	50	100
Laboratory											
6	241CBC411L	Database Management Systems And Security Laboratory	PC	-	-	4	-	2	60	40	100
7	241CBC413T	AI For Cyber Security Laboratory	PC	-	-	3	1	2	60	40	100
Mandatory Course											
8	241GEM902T	Innovation and startup	MC	2	-	-	-	2	40	60	100
Total 30 Periods				16	2	11	1	23			

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B.E .-CSE-CYBER SECURITY				SEMESTER - V					REGULATIONS-2024		
S.No	Course Code	Course Title	CAT	Periods / Week				Credit	Maximum Marks		
				L	T	P	R	C	CA	FE	TOTAL
Theory											
1	241CBC501T	Information security	PC	3	-	-	-	3	50	50	100
2	241CSC602T	Embedded Systems And IoT	PC	2	-	2	-	3	50	50	100
3	241CSC402T	Computer Networks	PC	3	-	-	-	3	40	60	100
4		Professional Elective I ^{\$}	PE	3	-	-	-	3	40	60	100
5		Professional Elective II ^{\$}	PE	3	-	-	-	3	40	60	100
6		Open Elective I ^{\$}	OE	3	-	-	-	3	40	60	100
Laboratory											
7	241CSC511L	Information security Laboratory	PC	-	-	3	1	2	60	40	100
8	241INM511I	Industry Supported Courses	EEC	-	-	2	-	1	60	40	100
Mandatory Course											
9	241GEM901T	Essence Of Indian Knowledge Tradition*	MC	2	-	-	-	-	40	60	100
Total - 27 Periods					19	-	7	1	21		

^{\$}Open Elective / Professional Elective courses (maximum of 3) can be dropped upon the Completion/Certification of NPTEL / SWAYAM online courses.

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B.E .-CSE-CYBER SECURITY			SEMESTER - VI						REGULATIONS-2024		
S.No	Course Code	Course Title	CAT	Periods / Week				Credit	Maximum Marks		
				L	T	P	R	C	CA	FE	TOTAL
Theory											
1	241CBC601T	Application of Cyber Forensics and Cyber Laws	PC	3	-	2	-	4	40	60	100
2	241CBC602T	Network Security	PC	3	-	-	-	3	40	60	100
3		Professional Elective III ^{\$}	PE	3	-	-	-	3	40	60	100
4		Professional Elective IV ^{\$}	PE	3	-	-	-	3	40	60	100
5		Open Elective II ^{\$}	OE	3	-	-	-	3	40	60	100
Laboratory											
6	241INM611I	Industry Supported Courses	EEC	-	-	2	-	1	60	40	100
7	241CBC611L	Network Security Lab	PC	-	-	3	1	2	60	40	100
Total - 24 Periods				15	-	7	2	19			

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B.E .-CSE-CYBER SECURITY			SEMESTER - VII						REGULATIONS-2024		
S.No	Course Code	Course Title	CAT	Periods / Week				Credit	Maximum Marks		
				L	T	P	R	C	CA	FE	TOTAL
Theory											
1	241CBC701T	Vulnerability Assessment and Penetration Testing	PC	3	-	-	-	3	40	60	100
2	241MBH701T	Total Quality Management	HS	3	-	-	-	3	40	60	100
3		Professional Elective V ^{\$}	PE	3	-	-	-	3	40	60	100
4		Professional Elective VI ^{\$}	PE	3	-	-	-	3	40	60	100
5		Open Elective III ^{\$}	OE	3	-	-	-	3	40	60	100
Laboratory											
6	241CBC711L	Vulnerability assessment and Penetration Testing Laboratory	PC	-	-	4	-	2	60	40	100
7	241INM711I	Industry Supported Courses	EEC	-	-	2	-	1	60	40	100
8	241CBP711L	Mini Project	EEC	-	-	2	2	2	60	40	100
9	241CBA711L	Internship*	EEC	-	-	-	-	2	60	40	100
Total 25 Periods				15	-	8	2	22			

*Internship Mark provided to COE at the end of Seventh Semester.

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S.No	Course Code	Course Title	CAT	Periods / Week				Credit	Maximum Marks		
				L	T	P	R	C	CA	FE	TOTAL
Theory											
1	241CBP811L	Project Work / Startup	EEC	-	-	-	24	12	60	40	100
Total 24 Periods				-	-	-	24	12			

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NAME OF THE PROGRAMME: B.E. CSE – CYBER SECURITY											
S.NO	SUBJECT AREA	CREDITS PER SEMESTER								Total credits	% of Credits
		I	II	III	IV	V	VI	VII	VIII		
1	HS	4	4					3		11	6.67
2	BS	11	7	4	4					26	15.76
3	ES	5	9	11						26	15.15
4	PC			8	17	11	9	5		50	30.30
5	PE					6	6	6		18	10.91
6	OE					3	3	3		9	5.45
7	EEC	1				1	1	5	12	20	12.12
8	MC	2	2		2					6	3.64
TOTAL		23	22	23	23	21	19	22	12	165	100

* Total Credits in each semester must be in between **19 and 24**.

* Total Cumulative Credits must be in between **161 and 165**.