PRATHYUSHA ENGINEERING COLLEGE, CHENNAI
AN AUTONOMOUS INSTITUTION
REGULATIONS 2023
B. E. COMPUTER SCIENCE AND ENGINEERING (CYBER SECURITY)
CHOICE BASED CREDIT SYSTEM
CURRICULUM AND SYLLABI FOR SEMESTERS I TO VIII
SEMESTER I

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1.	IP23101	Induction Programme	-	-	-	-	-	0
THEORY								
2.	HS23101	Heritage of Tamil	HSMC	1	0	0	1	1
3.	PH23101	Engineering Physics	BSC	3	0	0	3	3
4.	CH23101	Engineering Chemistry	BSC	3	0	0	3	3
5.	MA23101	Matrices and Calculus	BSC	4	0	0	4	4
6.	GE23101	Engineering Graphics	ESC	3	0	0	3	3
PRACTICALS								
7.	LBS23101	Physics and Chemistry Laboratory	BSC	0	0	3	3	1.5
8.	LHS23101	Communication Skills Laboratory	HSMC	0	0	3	3	1.5
9.	MC23102	Idea Laboratory	MC	0	0	3	3	0
10.	MC23101	Mandatory Course (NSS/NSO/YRC)	MC	0	0	2	2	0
TOTAL				**14**	**0**	**11**	**25**	**17**

$ NSS / NCC / NSO / YRC / CLUB ACTIVITIES

SEMESTER II

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	HS23202	Professional English	HSMC	3	0	0	3	3
2.	HS23203	Tamils and Technology	HSMC	1	0	0	1	1
3.	MA23202	Differential Equations and Transform Techniques	BSC	4	0	0	4	4
4.	CS23201	Problem Solving Using 'C'	ESC	3	0	0	3	3
5.	BE23201	Basic of Electrical and Electronics Engineering	ESC	3	0	0	3	3
PRACTICALS								
6.	LES23201	Engineering Practices Laboratory	ESC	0	0	3	3	1.5
7.	LCS23201	Problem Solving Uisng C Laboratory	ESC	0	0	3	3	1.5
8.	MC23201	Design Thinking	MC	0	0	2	2	0
9.	MC23202	Digital Marketing And Social Media Skills	MC	0	0	2	2	0
		TOTAL		14	0	10	24	17

S. NO.	COURSE CODE	COURSETITLE	CATE GORY	PERIODS PERWEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	MA23303	Discrete Mathematics	BSC	4	0	0	4	4
2.	CS23301	Digital Principles and Computer Organization	PCC	3	0	2	5	4
3.	CS23302	Data Structures	PCC	3	0	0	3	3
4.	CS23303	Object Oriented Programming	PCC	3	0	0	3	3
5.	AD23301	Data Science Using Python	PCC	3	0	0	3	3
6.	MC23301	Mandatory Course	MC	2	0	0	2	0
PRACTICALS								
7.	LCS23301	Data Structures Laboratory	PCC	0	0	3	3	1.5
8.	LCS23302	Object Oriented Programming Laboratory	PCC	0	0	3	3	1.5
9.	LAD23301	Data Science Using Python Laboratory	PCC	0	0	3	3	1.5
10.	EEC23301	Aptitude Skills	EEC	0	1	0	1	1
			TOTAL	**18**	**1**	**11**	**30**	**22.5**

$MOOC/SWAYAM/NPTEL/COURSERA/CER TIFICATIONCOURSES

SEMESTER IV

S. NO.	COURSE CODE	COURSETITLE	CATE GORY	PERIODS PERWEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	CS23402	Computer Networks	PCC	3	0	2	5	4
2.	CS23404	Algorithms	PCC	3	0	2	5	4
3.	CB23401	Database Management Systems and Security	PCC	3	0	0	3	3
4.	CB23402	Operating Systems and Security	PCC	3	0	2	5	4
5.	CB23403	Cryptography and Cyber Security	PCC	3	0	2	5	4
6.	GE23402	Environmental Sciences and Sustainability	BSC	2	0	0	2	2
7.	MC23401	Mandatory Course	MC	2	0	0	2	0
PRACTICALS								
8.	LCB23401	Database Management Systems and Security Laboratory	PCC	0	0	3	3	1.5
9.	EEC23401	Foreign Language/Advanced Aptitude Skills	EEC	0	1	0	1	1
10.	LCB23402	MINIPROJECT	EEC	0	0	2	2	1
			TOTAL	**19**	**1**	**13**	**33**	**24.5**

PRATHYUSHA ENGINEERING COLLEGE
(An Autonomous Institution)
CURRICULUM

| B.E .-CSE-CYBER SECURITY | | | SEMESTER - V | | | | REGULATIONS - 2023 | | |

S.No	Course Code	Course Title	CAT	Periods / Week				Credit	Maximum Marks		
				L	T	P	R	C	CA	FE	TOTAL
Theory											
1	CB23501	Information security	PC	3	-	-	-	3	40	60	100
2	IT23502	Embedded Systems And IoT	PC	2	-	2	-	3	50	50	100
3	IT23503	Artificial Intelligence And Machine Learning	PC	3	-	2	-	3	50	50	100
4		Professional Elective I $	PE	2	-	2	-	3	50	50	100
5		Professional Elective II $	PE	2	-	2	-	3	50	50	100
6		Open Elective I $	OE	3	-	-	-	3	40	60	100
Laboratory											
7	LCB23501	Information security Laboratory	PC	-	-	3	1	2	60	40	100
8	EEC23502	Industry Supported Courses	EEC	-	-	2	-	1	60	40	100
	Total - 31 Periods			17	-	13	1	21			

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

L – Lecture, T – Tutorial, P – Practical, R – Research, CA – Continuous Assessment, FE – Final Examination, CAT – Category ; BS – Basic Sciences; HS – Humanities and Social Sciences; ES – Engineering Sciences ; PC – Professional Core ; PE – Professional Electives; OE – Open Electives; EEC – Employability Enhancement Courses; MC – Mandatory Courses

PRATHYUSHA ENGINEERING COLLEGE
(An Autonomous Institution)
CURRICULUM

B.E .-CSE-CYBER SECURITY				**SEMESTER - VI**					**REGULATIONS - 2023**		
S.No	**Course Code**	**Course Title**	**CAT**	**Periods / Week**				**Credit**	**Maximum Marks**		
				L	**T**	**P**	**R**	**C**	**CA**	**FE**	**TOTAL**
Theory											
1	CB23601	Application of Cyber Forensics and Cyber Laws	PC	3	-	2	-	4	50	50	100
2	CB23602	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	EEC23502	Industry Supported Courses	EEC	-	-	2	-	1	60	40	100
7	LCB23602	Network Security Lab	PC	-	-	3	1	2	60	40	100
Total - 24 Periods				15	-	7	2	19			

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SEMESTER VII

S. NO.	COURSE CODE	COURSETITLE	CATEGORY	PERIODS PERWEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	CB23701	Vulnerability Assessment & Penetration Testing	PCC	3	0	2	5	4
2.	CB23702	Digital and Mobile Forensics	PCC	3	0	2	5	4
3.		Elective Management	HSMC	3	0	0	3	3
4.		Open Elective–II**	OEC	3	0	0	3	3
5.		Open Elective–III**	OEC	3	0	0	3	3
6.		Professional Elective VI	PEC	-	-	-	-	3
7.	MC23701	Mandatory Course**&**	MC	2	0	0	2	0
PRACTICALS								
8.	ECB23701	Summer internship	EEC	0	0	0	0	2
			TOTAL	-	-	-	-	**22**

Internship from ABROAD UNIVERSITIES / INDUSTRIES

*IfstudentsundergointernshipinSemesterVII,thenthecoursesofferedduringsemesterVIIwillbe offered during semester VIII.
**OpenElectiveII-IV(ShallbechosenfromthelistofopenelectivesofferedbyotherProgrammes).
#Elective-ManagementshallbechosenfromtheElectiveManagementcourses.
&MOOC/SWAYAM/NPTEL/COURSERA/CERTIFICATIONCOURSES

SEMESTER VIII/VII*

S. NO.	COURSE CODE	COURSETITLE	CATEGORY	PERIODS PERWEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	HS23804	Professional Ethics and Human Values	HSMC	3	0	0	3	3
2.		Professional Elective VII	PEC	-	-	-	-	3
PRACTICALS								
3.	LCB23801	Project Work / Internship	EEC	0	0	20	20	10
			TOTAL	-	-	-	-	**16**

*If students under go intern ship in Semester VII,then the courses offered during semester VII will be offered during semester VIII.