

**Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly known as West Bengal University of Technology)
Syllabus for B. Tech in Computer Science and Engineering
(Cyber Security)
(Applicable from the academic session 2022-2023)**

Curriculum Structure

Semester III (Second year)								
Sl No		Type of Course	Code	Course Title	Hours per week			Credits
					L	T	P	
1	THEORY	Engineering Science Course	ESC301	Analog and Digital Electronics	3	0	0	3
2		Professional Core Course	PCC-CS301	Data Structure and Algorithms	3	0	0	3
3		Professional Core Course	PCC-CS302	Computer Organization	3	0	0	3
4		Basic Science Course	BSC-CS301	Discrete Mathematics	2	0	0	2
5		Humanities Social Science including Management Course	HSMC301	Economics for Engineers (Humanities II)	3	0	0	3
6	PRACTICAL	Professional Core Course	PCC-CS391	Data Structure and Algorithms	0	0	4	2
7		Engineering Science Course	ESC391	Analog and Digital Electronics	0	0	4	2
8		Professional Core Course	PCC-CS392	Computer Organization	0	0	4	2
9		Professional Core Course	PCC-CS393	IT Workshop (Python/Matlab/R)	0	0	4	2
TOTAL CREDITS								22

(Applicable from the academic session 2022-2023)

Semester IV (Second year)

(Applicable from the academic session 2022-2023)

Semester V (Third year)								
Sl No		Type of Course	Code *	Course Title	Hours per week			Credits
					L	T	P	
1	THEORY	Professional Core Course	PCCCS501	Cyber Security	3	0	0	3
2		Professional Core Course	PCCCS502	Cyber Law & Cyber Crime	3	0	0	3
3		Professional Core Course	PCCCS503	Operating System	3	0	0	3
4		Professional Core Course	PCCICB502	Object Oriented Programming	3	0	0	3
5		Humanities and Social Sciences including Management	HSMC501	Industrial Management	2	0	0	2
6		Professional Elective	PECICB501 (A/B/C)	Mobile Computing/ Internet Technology/Smart Sensors and IoT	3	0	0	3
7		Mandatory Course	MC-501	Constitution of India / Essence of Indian Knowledge Tradition	2	0	0	0
8	PRACTICAL	Professional Core Course	PCCCS591	System Security Lab	0	0	4	2
9		Professional Core Course	PCCCS592	Operating System Lab	0	0	4	2
10		Professional Core Course	PCCICB593	Object Oriented Programming Lab	0	0	4	2
TOTAL CREDITS								23

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Semester VI (Third year)								
Sl No		Type of Course	Code*	Course Title	Hours per week			Credits
					L	T	P	
1	Theory	Professional Core Course	PCCCS601	Cryptography and Network Security	2	1	0	3
2		Professional Core Course	PCCCS602	Infrastructure Security	3	0	0	3
3		Professional Core Course	PCCCS603	Database Management System	3	0	0	3
4		Professional Elective	PECICB601 (A/B/C /D/E)	Cloud Computing/ Software Engineering/ Ethical Hacking	3	0	0	3
5		Open Elective	OECICB601 (A/B/C/D)	Human Resource Development/ Design Thinking/ Economic Policies India/Organizational Behaviour	3	0	0	3
6		Project	PROJ-CS601	Research Methodology	2	0	0	2
7	PRACTICAL	Professional CoreCourse	PCCCS691	Network Security Lab	0	0	4	2
8		Professional Elective Course	PCCCS692	Database Management System lab	0	0	4	2
TOTAL CREDITS								21

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Semester VII (Fourth year)								
SINo		Type of Course	Code*	Course Title	Hours per week			Credits
					L	T	P	
1	T H E	Professional Elective Course	PECICB701 (A/B/C)	Digital Forensics/ Information Theory and Coding/ Blockchain Technology	3	0	0	3
		Professional Elective Course	PECICB702 (A/B/C)	AI&ML/ Malware Analysis/ Mobile Application and Services	3	0	0	3
2								
3		Open ElectiveCourse	OECICB701 (A/B/C)	Soft skill and Interpersonal Communication/Bio Informatics/ Business Analytics	3	0	0	3
4		Humanities and Social Sciences including Management	HSMC701	Project Management andEntrepreneurship	2	0	0	2
5		Sessional	PROJICB7 81	Project I	0	0	12	6
TOTAL CREDITS								17

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Semester VIII (Fourth year)								
SlNo		Type of Course	Code*	Course Title	Hours per week			Credits
					L	T	P	
1	T H E C	Professional Elective Course	PECICB801 (A/B)	Information Security Management System (ISMS)/ Distributed System	3	0	0	3
2		Open Elective Course	OECICB801(A/ B /C)	Security Operations Management/ E-commerce and Digital Payment System/Operations Research	3	0	0	3
3		Open Elective Course	OECICB802 (A /B/C)	Management Information System(MIS)/ Multimedia Technology/ Introduction to Arts and Aesthetics	3	0	0	3
4		Sessional-1	PROJICB881	Project II	0	0	12	6
TOTAL CREDITS								15