Maulana Abul Kalam Azad University of Technology, WB
(Formerly known as West Bengal University of Technology)
Syllabus of B.Sc. in Computer Science
Effective from academic session 2023-24

Graduate Attribute:

Computer science is one of the most useful and booming discipline of study in today's world.
Applications of computer science exist in almost all the segments of human society.
Studying B.Sc in computer science is demand of the time. Within a given time bound frame work there are a number of points which can be considered as outcomes of the course.

After completion of the course, the learners should be able

(i)   To gain knowledge and skills about computer science, computer software, hardware and peripheral systems.

(ii)   To learn various techniques to solve the problems

(iii)   To have good idea about different organs of computer systems

(iv)   To use computers in real life necessities.

(v)   To discover the possibilities of the facts which are beneficial for mankind.

(vi)   To help learners choosing their right paths for making their careers.

(vii)   To prepare the learners to be familiar with the current practices of the industries.

(viii) To find the ways for self- employment and entrepreneurships.

(ix)   To make the learners prepared for higher studies and researches.

(x)   To remain updated about current trends and practices in IT industries.

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Curriculum Structure

1ˢᵗ Semester

Sl No.	Subject Type	Subject Code	Subject Name	Credit Point	Credit Distribution		
					L	P	T
1	DSC	CS 101	Programming Fundamental – using C Language	3	3		
2		CS 191	Programming using C	2		2	
3		CS 102	Digital Electronics	3	3		
4		CS 192	Digital Electronics Lab	2		2	
5	DSE	MIM101	Principles of Management	3	3		
6	GE		Any one from GE baskets A or D	3	3		
7	AECC	AECC101	English & Professional Communication	2	2		
8	SEC	SEC181	Life Skills & Personality Development	2		2	
9	VAC	VAC181A/B/C	Yoga/ Health & Wellness/ Sports	2		2	
Total Credit				**22**			

2ⁿᵈ Semester

Sl No.	Subject Type	Subject Code	Subject Name	Credit Point	Credit Distribution		
					L	P	T
1	DSC	CS 201	Data Structures	3	3		
2		CS 291	Data Structures Lab	2		2	
3		CS 202	Computer Organization	3	3		
4		CS 292	Computer Organization Lab.	2		2	
5	DSE	MIM201	Organization Behaviour	3	3		
6	GE		Any one from GE baskets B or E	3	3		
7	AECC	AECC201	Modern Indian Languages and Literature	2	2		
8	SEC	SEC201	IT Skills	2		2	
9	VAC	VAC281A/B/C/D	Critical Thinking/ NSS/ Mental Health/Environmental Studies	2		2	
Total Credit				**22**			

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3rd Semester

Sl No.	Subject Type	Subject Code	Subject Name	Credit Point	L	P	T
1		CS 301	Design and Analysis ofAlgorithm	3	3		
2		CS 391	Design and Analysis ofAlgorithm Lab	2		2	
3		CS302	Database ManagementSystems	3	3		
4	DSC	CS 392	Database ManagementSystems Laboratory	2		2	
5	DSE	MIM301	Principles of Marketing	4	3		1
6	GE		Any one from GE baskets C or F	3	3		
7	AECC	AECC 301	The Constitution, Human Rights and Law	2	2		
8	SEC	SEC 301	Understanding basics of Cyber Security	2		2	
Total Credit				21			

4th Semester

Sl No.	Subject Type	Subject Code	Subject Name	Credit Point	L	P	T
1		CS 401	Object Oriented Programming using JAVA	3	3		
2		CS 491	OOP using Java	2		2	
3	DSC	CS 402	Data Communicationand Computer Networks	4	3		1
4		CS 403	Software Engineering	4	3		1
5	DSE	MIM401	Human resource Management	4	3		1
6		MIM402	E-Commerce	4	3		1
7	AECC	AECC 401	Society Culture and Human Behavior	2	2		
Total Credit				23			

5th Semester

Sl No.	Subject Type	Subject Code	Subject Name	Credit Point	L	P	T
1		CS 501	Operating Systems	3	3		
2		CS 591	Operating SystemsLab.	2		2	
3	DSC	CS502	Computer Graphics	3	3		
4		CS 592	Computer Graphics Lab	2		2	
5	DSE	MIM501	Entrepreneurship	4	3		1
6		MIM502	Financial management	4	3		1
7	SEC	SEC581	Internship	4		4	
Total Credit				22			

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6th Semester

Sl No.	Subject Type	Subject Code	Subject Name	Credit Point	Credit Distribution		
					L	P	T
1	DSC	CS 601	Artificial Intelligence	3	3		
2		CS 691	Artificial IntelligenceLab	2		2	
3		CS602	Python Programming	3	3		
4		CS 692	Python Programming Lab	2		2	
5		CS 603	E-Commerce	4	3		1
6	DSE	MIM601	Customer relationship management	4	3		1
7		MIM602	Career planning and management	4	3		1
Total Credit				22			

7th Semester

Sl No.	Subject Type	Subject Code	Subject Name	Credit Point	Credit Distribution		
					L	P	T
1	DSC	CS 701	Cloud Computing	3	3		
2		CS 791	Cloud Computing Lab	2		2	
3		CS 702	Web Technology	3	3		
4		CS 792	Web Technology Lab	2		2	
5		CS 703	Cryptography and Information Security	4	3		1
6	DSE	MIM701	Consumer Behaviour	4	3		1
7		MIM702	Strategic management	4	3		1
Total Credit				22			

8th Semester

Sl No.	Subject Type	Subject Code	Subject Name	Credit Point	Credit Distribution		
					L	P	T
1	DSC	CS 801	Advanced Java Programming	3	3		
2		CS 891	Advanced Java Programming Lab	2		2	
3		CS802	Machine Learning	3	3		
4		CS 892	Machine Learning Lab.	2		2	
5	SEC	SEC881	Research Project	12		12	
Total Credit				22			