## 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

## Model curriculum structure for 4 year Non-AICTE UG programs for B. Sc. In Computer Science

Sem	Major (Offline)	Minor (Blended Mode)	Inter Disciplinary (Offline)	Ability Enhancement (Offline)	Skill Enhancement (Online /Sessional)	Common Value added Course (SESSIONAL)	Total credits
Ι	Programming Fundamental – using C Language  5 credits(3L+2P)	Principles Of Management  3 credits	Any one from GE baskets Basket A or D (3 credits)	English & Professional Communication (2 credits)	Life Skills & Personality Development (2 credits)	Yoga/ Health & Wellness/ Sports  (2 credits)	22
	Digital Electronics 5 credits(3L+2P)						
II	Data Structures  5 credits(3L+2P)	Organization Behaviour	Any one from GE baskets Basket B or E (3 credits)	Modern Indian Languages and Literature (2 credits)	IT Tools for Business (2 credits)	Critical Thinking / NSS/ Mental Health/ Environmental Studies (2 credits)	22
<b>,</b>	Computer Organization 5 credits(3L+2P)	3 credits					
III	Design and Analysis of Algorithm 5 credits(3L+2P) Database Management Systems	Principles of Marketing 4 credits(3L+1T)	Any one from GE baskets Basket C or F (3 credits)	The Constitution, Human Rights and Law (2 credits)	Understanding basics of Cyber Security (2 credits)		21

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5 credits(3L+2P)					
Object Oriented Programming using JAVA 5 credits(3L+2P)	1. Human resource Management 4 credits(3L+1T)	Society Cultur and Human Behaviour (2 credits)	е		23
Data Communication and Computer Networks 4credits(3L+1T)	2. E-Commerce 4 credits(3L+1T)				
Software Engineering 4 credits(3L+1T)					
Operating Systems 5 credits(3L+2P)	1.Entrepreneurship 4 credits(3L+1T)		Internship to be started after exam of 4 <sup>th</sup> sem (sem break) and completed within 5 <sup>th</sup> sem (weekends) (4 credits)		22
Computer Graphics 5 credits(3L+2P)	2. Financial management 4 credits(3L+1T)				
Artificial Intelligence 5 credits(3L+2P)	1. Customer relationship management 4 credits(3L+1T)				22
	Object Oriented Programming using JAVA 5 credits(3L+2P)  Data Communication and Computer Networks 4credits(3L+1T)  Software Engineering 4 credits(3L+1T)  Operating Systems 5 credits(3L+2P)  Computer Graphics 5 credits(3L+2P)  Artificial Intelligence	Object Oriented Programming using JAVA 5 credits(3L+2P)  Data Communication and Computer Networks 4credits(3L+1T)  Software Engineering 4 credits(3L+1T)  Operating Systems 5 credits(3L+2P)  Computer Graphics 5 credits(3L+2P)  Artificial Intelligence  1. Human resource Management 4 credits(3L+1T)  2. E-Commerce 4 credits(3L+1T)  1. Entrepreneurship 4 credits(3L+1T)  2. Financial management 4 credits(3L+1T)	Object Oriented Programming using JAVA 5 credits(3L+2P)  Data Communication and Computer Networks 4 credits(3L+1T)  Software Engineering 4 credits(3L+1T)  Operating Systems 5 credits(3L+2P)  Computer Graphics 5 credits(3L+2P)  Computer Graphics 5 credits(3L+2P)  Artificial Intelligence Inte	Object Oriented Programming using JAVA 5 credits(3L+2P)  Data Communication and Computer Networks 4 credits(3L+1T)  Software Engineering 4 credits(3L+1T)  Operating Systems 5 credits(3L+2P)  Computer Graphics 5 credits(3L+2P)  Computer Graphics 5 credits(3L+2P)  Artificial Intelligence Society Culture and Human Behaviour (2 credits)  Internship to be started after exam of 4th sem (sem break) and completed within 5th sem (weekends) (4 credits)  Internship to be started after exam of 4th sem (sem break) and completed within 5th sem (weekends) (4 credits)	Object Oriented Programming using JAVA 5 credits(3L+2P)  Data Communication and Computer Networks 4 credits(3L+1T)  Software Engineering 4 verdits(3L+1T)  Operating Systems 5 credits(3L+2P)  Computer Graphics 5 credits(3L+2P)  Computer Graphics 5 credits(3L+2P)  Artificial Intelligence Inte

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	Python Programming 5 credits(3L+2P)	2. Career planning and management 4 credits(3L+1T)					
	E-Commerce						
	4 credits(3L+1T)						
VII	Cloud Computing	1. Consumer behaviour					22
	5 credits(3L+2P)	4 credits(3L+1T)					
	Web Technology						
	5 credits(3L+2P)						
	Cryptography and	2. Strategic management					
	Information Security	4 credits(3L+1T)					
	4 credits(3L+1T)						
VIII	Advanced Java Programming 5 credits(3L+2P)				Research project 12 credits		22
	Machine						
	Learning 5 credits(3L+2P)						
	19 sub - 91 credits	11 sub – 42 credits	3 sub – 09 credits	4 sub – 08 credits	3 sub & Int & Proj - 22 credits	2 sub – 4 credits	176