



**TECHNO INDIA UNIVERSITY**  
WESTBENGAL

**4-Years B.Tech. in Computer Science and Business Systems  
(CSBS)**

**Course Curriculum**



**Department of Computer Science and Business  
Systems (CSBS)**

**Techno India University, West Bengal  
EM-4, EM Block, Sector V, Bidhannagar,  
Kolkata -700091, West Bengal**



## 4-Years B.Tech in Computer Science and Business Systems (CSBS)

### Course Curriculum

#### Semester I

Sl. No.	Course Code	Course Title	Contact Hrs./ Week			Credit
			L	T	P	
1	TIU-UCBMA-T101	DISCRETE MATHEMATICS	03	01	00	4
2	TIU-UCBMA-T103	INTRODUCTORY TOPICS IN STATISTICS, PROBABILITY AND CALCULUS	03	00	00	3
3	TIU-UCBCS-C101	FUNDAMENTALS OF COMPUTERS SCIENCE+ LAB	03	01	02	5
4	TIU-UCBEE-C101	PRINCIPLES OF ELECTRICAL ENGINEERING+LAB	02	00	02	3
5	TIU-UCBPH-C101	PHYSICS FOR COMPUTING SCIENCE + LAB	02	00	02	3
6	TIU-UCBEN-C101	BUSINESS COMMUNICATION & VALUE SCIENCE-I	02	00	00	2
7	TIU-UCBCS-S101	INDUCTION PROGRAM	02	00	00	0
<b>Total Credit</b>						<b>20</b>



**Semester II**

Sl. No.	Course Code	Course Title	Contact Hrs./ Week			Credit
			L	T	P	
1	TIU-UCBMA-T102	LINEARALGEBRA	03	01	00	4
2	TIU-UCBCS-C102	STATISTICAL METHODS+LAB	03	00	02	4
3	TIU-UCBCS-C104	DATASTRUCTURES&ALGORITHMS + LAB	03	01	02	5
4	TIU-UCBEC-C102	PRINCIPLES OF ELECTRONICS+LAB	02	00	02	3
5	TIU-UCBEM-T102	FUNDAMENTALS OF ECONOMICS	02	00	00	2
6	TIU-UCBEN-C102	BUSINESS COMMUNICATION& VALUESCIENCE-II	02	00	00	2
7	TIU-UCBOG-T102	ENVIRONMENTAL SCIENCES	02	00	00	0
<b>Total Credit</b>						20



**Semester III**

Sl. No.	Course Code	Course Title	ContactHrs./ Week			Credit
			L	T	P	
1	TIU-UCBCS-T201	FORMAL LANGUAGE AND AUTOMATA THEORY	03	00	00	3
2	TIU-UCBCS-C201	COMPUTER ORGANIZATION & ARCHITECTURE+ LAB	03	01	02	5
3	TIU-UCBCS-C203	OBJECT ORIENTED PROGRAMMING+LAB	03	00	02	4
4	TIU-UCBCS-C205	COMPUTATIONAL STATISTICS+LAB	03	00	02	4
5	TIU-UCBCS-C209	DATABASE MANAGEMENT SYSTEMS + LAB	03	00	02	4
6	TIU-UCBLL-T201	INDIAN CONSTITUTION	02	00	00	0
<b>Total Credit</b>						20



**Semester IV**

Sl. No.	Course Code	Course Title	Contact Hrs./ Week			Credit
			L	T	P	
1	TIU-UCBCS-C202	OPERATINGSYSTEMS+ LAB (UNIX)	03	00	02	4
2	TIU-UCBCS-C212	DESIGN&ANALYSIS OF ALGORITHMS + LAB	03	01	02	5
3	TIU-UCBCS-C214	SOFTWARE ENGINEERING+LAB	03	00	02	4
4	TIU-UCBMG-T202	MARKETING RESEARCH& MARKETING MANAGEMENT	02	00	02	2
5	TIU-UCBCS-T202	INTRODUCTION TO INNOVATION, IP MANAGEMENT & ENTREPRENEURSHIP	03	00	00	3
6	TIU-UCBCS-S208	DESIGNTHINKING	00	01	02	2
7	TIU-UCBCS-C210	OPERATIONSRESEARCH+ LAB	02	00	02	3
8	TIU-UCBCS-T206	ESSENCEOFINDIAN TRADITIONAL KNOWLEDGE	02	00	00	0
<b>TotalCredit</b>						<b>23</b>



**Semester V**

Sl. No.	Course Code	Course Title	Contact Hrs./ Week			Credit
			L	T	P	
1	TIU-UCBCS-C307	Software Design with UML+ Lab	03	00	02	3
2	TIU-UCBCS-C303	CompilerDesign+Lab (LEX & YACC)	03	01	02	5
3	TIU-UCBMG-T301	Fundamentals of Management	02	00	00	2
4	TIU-UCBMG-T303	BusinessStrategy	02	00	00	2
5	TIU-UCBEN-T301	BusinessCommunication&Value Science III	02	00	00	2
6	TIU-UCBCS-C351B/ TIU-UCBCS-C351C/ TIU-UCBCS-C351	ConversationalSystems/ Cloud, Microservices & Application / MachineLearning(ElectiveI) +Lab	03	00	02	4
7	TIU-UCBEM-E301A/ TIU-UCBEM-E301B/ TIU-UCBEM-E301C	ComputationalFinance& Modeling/ BehavioralEconomics/ Psychology(ElectiveII)	03	00	00	3
8	TIU-UCBCS-P301	MiniProject	00	01	00	1
<b>Total Credit</b>						<b>22</b>



**Semester VI**

Sl. No.	CourseCode	CourseTitle	ContactHrs./ Week			Credit
			L	T	P	
1	TIU-UCBCS-C302	Computer Networks+ Lab	03	01	02	5
2	TIU-UCBCS-C304	InformationSecurity+ Lab	03	00	02	4
3	TIU-UCBCS-C306	ArtificialIntelligence+ Lab	02	00	02	4
4	TIU-UCBMG-T302	Financial&Cost Accounting	02	00	00	2
5	TIU-UCBEN-T302	BusinessCommunication& Value Science – IV	02	00	00	2
6	TIU-UCBCS-C354A/ TIU-UCBCS-C354B/ TIU-UCBCS-C354C	ModernWebApplications (Elective III) + Lab / Robotics and Embedded Systems / DataMiningandAnalytics (ElectiveIII)+Lab]	02	00	02	3
7	TIU-UCBCS-C356A/ TIU-UCBCS-C356B/ TIU-UCBCS-C356C	ImageProcessingandPattern Recognition (Elective IV) + Lab/ EnterpriseSystems/ AdvanceFinance(Elective IV) + Lab	02	01	02	4
<b>TotalCredit</b>						<b>24</b>



**Semester VII**

Sl. No.	Course Code	Course Title	Contact Hrs./ Week			Credit
			L	T	P	
1	TIU-UCBCS-L401	ITWorkshopSkylab/Matlab Lab	00	01	02	2
2	TIU-UCBCS-C403	UsabilityDesignof Software Applications Lab	00	01	03	2.5
3	TIU-UCBMG-T401	FinancialManagement	02	00	01	2.5
4	TIU-UCBMG-T403	HumanResource Management	02	00	00	2
5	TIU-UCBCS-C405	ServicesScience&Service OperationalManagement+ Lab	03	00	02	4
6	TIU-UCBCS-L405	ITProjectManagementLab	00	01	02	2
7	TIU-UCBCS-C453A/ TIU-UCBCS-C453B/ TIU-UCBCS-C453C	CognitiveScience&Analytics / IntroductiontoIoT/ Cryptology(ElectiveV)+ LAB	03	00	02	4
8	TIU-UCBCS-C455A/ TIU-UCBCS-C455B/ TIU-UCBCS-C455C	Quantum Computation & Quantum Information / AdvancedSocial,Textand Media Analytics / MobileComputing(Elective VI)+Lab	03	00	02	4
<b>Total Credit</b>						<b>23</b>



**Semester VIII**

Sl. No.	CourseCode	CourseTitle	ContactHrs./ Week			Credit	Page No.
			L	T	P		
1	TIU-UCBCS-P404	ProjectEvaluation	00	01	06	4	
<b>Total Credit</b>						<b>4</b>	