

Maulana Azad National Institute of Technology, Bhopal – 462003
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

SCHEME FOR B. TECH. (CSE)
(Revised in December 2020)

Third Semester:

Course Number	Subject	Scheme of Studies Periods per week			Total Credits
		L	T	P	
MTH 5301	Mathematics-3	3	1	-	4
CS 5302	Digital Circuit Design	3	-	-	3
CS 5303	Data Structures	3	-	-	3
CS 5304	Principles of Programming Languages	3	-	-	3
CS 5305	Data Base Management Systems	3	-	-	3
CS 5306	Digital Circuit Design Lab	-	-	2	1
CS 5307	Data Structures Lab	-	-	2	1
CS 5308	Principles of Programming Languages Lab	-	-	2	1
CS 5309	Data Base Management Systems Lab	-	-	2	1
CS 5310	Python, Java Lab & Projects	-	1	2	2
CS 5311	Professional Practice-1		1		1
CS 5305	Minor-1 Data Base Management Systems*	3	-	-	3* (Extra)
Total Hours = 28		15	3	10	23
Total Credits (Cumulative)					68

* (Minor-1 Extra for other dept. not for parent)

Fourth Semester:

Course Number	Subject	Scheme of Studies Periods per week			Total Credits
		L	T	P	
CS 5401	Software Engineering	3	-	-	3
HUM 5402	Fundamentals of Entrepreneurship	3	1	-	4
CS 5403	Theory of Computation	3	1	-	4
CS 5404	Computer System Organization	3	-	-	3
CS 5405	Algorithm Design & Analysis	3	-	-	3
CS 5406	Software Engineering Lab	-	-	2	1
CS 5407	Computer System Organization Lab	-	-	2	1
CS 5408	Algorithm Design & Analysis Lab	-	-	2	1
CS 5409	Android/Matlab based Lab & Projects	-	1	2	2
CS 5410	Professional Practice-2	-	1	-	1
CS 5404	Minor-2 Computer System Organization*	3	-	-	3* (Extra)
Total Hours = 27		15	4	8	23
Total Credits (Cumulative)					91

* (Minor-2 Extra for other dept. not for parent)

Fifth Semester:

Course Number	Subject	Scheme of Studies Periods per week			Total Credits
		L	T	P	
CS 5501	Data Communication	3	-	-	3
CS 5502	Statistical Models for Data Interpretation and Analysis	3	-	-	3
CS 5503	Machine Learning	3	-	-	3
CS 5504	Operating Systems	3	-	-	3
CS 5505	Compiler Design	3	-	-	3
CS 5506	Operating Systems Lab	-	-	2	1
CS 5507	Compiler Design Lab	-	-	2	1
CS 5508	Machine Learning Based Project lab	-	-	2	1
CS 5509	Project-1, Phase-1			4	2
CS 5509	Internship/Training/Tour	-	-	-	1
CS 5504	Minor-3 Operating Systems*	3	-	-	3* (Extra)
Total Hours = 25		15	-	10	21
Total Credits (Cumulative)					112

* (Minor-3 Extra for other dept. not for parent)

Sixth Semester:

Course Number	Subject	Scheme of Studies Periods per week			Total Credits
		L	T	P	
ME 5601	Engineering Management	3	1	-	4
CS 5602	Computer Networks	3	-	-	3
CS 5603	Artificial Intelligence	3	-	-	3
CS 5604	Data Warehousing & Mining	3	-	-	3
	Department Elective-1 (A)	3	-	-	3
CS 5605	Computer Networks Lab	-		2	1
CS 5606	Artificial Intelligence Lab	-		2	1
CS 5607	Data Warehousing & Mining Lab	-	-	2	1
CS 5607	Project -1 Phase-2	-		4	2
CS 5602	Minor-4 Computer Networks*	3	-	-	3* (Extra)
Total Hours = 26		15	1	10	21
Total Credits (Cumulative)					133

* (Minor-4 Extra for other dept. not for parent)

**MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY
BHOPAL – 462003**

REVISED SCHEME FOR BATCH ADMITTED IN 2020

(49th Senate, Item S-49.2022-I-2.7)

Department of Computer Science and Engineering

B. Tech. (Computer Science and Engineering)

SEVENTH SEMESTER

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
HUM 5701	Engineering Economics & IPR	3	-		3
CS 5702	Network & System Securities	3	-	-	3
CS 5703	Digital Image Processing	3	-	-	3
	Department Elective-2(A)	3	-	-	3
	Department Elective-3(A)	3	-	-	3
	Open Elective-1(C)	3	-	-	3
CS 5704	Network & System Securities Lab	-	-	2	1
CS 5705	Digital Image Processing Lab	-	-	2	1
CS 5706	Project 2 Phase 1	-	1	2	2
CS 5707	Educational Tour & Training	-	-	2	1
CS 5702	Minor-5 Network & System Securities*	3	-	3	3* (Extra)
Total Hours =27		18	1	8	23

* (Minor-5 Extra for other dept. not for parent)

EIGHTH SEMESTER

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
	Department Elective-4(A)	3	-	-	3
	Department Elective-5(A)	3	-	-	3
	Department Elective-6(A)	3	-	-	3
CS 7801 / CS 7802	Project 2 Phase 2 / Internship	-	-	12	6
CS 7803	General Proficiency	-	-	-	1
	Minor-6 Any of the Electives from above	3	-	3	3* (Extra)
Total Hours =21		9	-	12	16

* (Minor-6 Extra for other dept. not for parent)

**MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY
BHOPAL – 462003**

REVISED SCHEME FOR BATCH ADMITTED IN 2020

(49th Senate, Item S-49.2022-I-2.7)

List of Electives
Group A - Department Electives
CS 501 Advanced Computer Architecture
CS 502 Parallel & Distributed Algorithms
CS 503 Advanced Data Structures
CS 504 Computer Graphics
CS 505 UNIX Internals & Shell Programming
CS 506 Cryptography
CS 507 Ethical Hacking
CS 508 Big Data Technologies
CS 509 Internet of Things
CS 510 Web Search and IR
CS 511 TCP/IP and Web Technology
CS 512 Computer Vision
CS 514 Mobile Computing
CS 515 Information Theory & Coding
CS 516 Distributed System
CS 517 Randomized Algorithms
CS 518 High Performance Computing
CS 519 Embedded Systems
CS 520 Data Science
CS 521 Natural Language Processing
CS 522 Quantum Computing
CS 523 Object-Oriented Design & Modelling
CS 524 Software Testing
CS 525 Optimization Techniques
CS 526 Cybercrime and Information Warfare
CS 527 Wireless Networks
CS 528 Biometrics