

DEPARTMENT OF CSE, MANIT, BHOPAL
PROPOSED SCHEME FOR BTECH (CSE)

(Revised April 2020)

Third Semester:

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
MTH 5301	Mathematics-3	3	1	-	4
CS5302	Digital Circuit Design	3	1	-	4
CS5303	Data Structures	3	1	-	4
CS5304	Programming Languages	3	1	-	4
CS5305	Data Base Management Systems	3	1	-	4
CS5306	Data Structures Lab	-	-	2	1
CS5307	Data Base Management Systems Lab	-	-	2	1
CS5308	Python, Java Lab& Projects	-	1	2	2
CS5305	Minor-1 Data Base Management Systems*	3	1	-	4 (Extra)
Total Hours = 27		15	6	6	24
Total Credits (Cumulative)					69

*(Extra for other dept. not for parent)

Fourth Semester:

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
CS5401	Statistical Models for Data Interpretation and Analysis	3	1	-	4
HUM5402	Fundamentals of Entrepreneurship	3	1	-	4
CS5403	Theory of Computation	3	1	-	4
CS5404	Computer System Organization	3	1	-	4
CS5405	Algorithm Design & Analysis	3	1	-	4
CS5406	Algorithm Design & Analysis Lab	-	-	2	1
CS5407	Computer System Organization Lab	-	-	2	1
CS5408	Android/Matlab based Lab & Projects	-	1	2	2
CS5404	Minor-2 Computer System Organization*	3	1	-	4 (Extra)
Total Hours = 27		15	6	6	24
Total Credits (Cumulative)					93

*(Extra for other dept. not for parent)

Fifth Semester:

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
EC5501	Data Communication	3	1	-	4
CS5502	Machine Learning	3	1	-	4
CS5503	Software Engineering	3	1	-	4
CS5504	Operating Systems	3	1	-	4
CS5505	Compiler Design	3	1	-	4
CS5506	Operating Systems Lab	-	-	2	1
CS5507	Compiler Design Lab	-	-	2	1
CS5508	Machine Learning Based Project lab	-	2	-	2
CS5509	Internship/Training	-	2	-	1
CS5504	Minor-3 Operating Systems*	3	1	-	4 (Extra)
Total Hours = 28		15	9	4	25
Total Credits (Cumulative)					118

*(Extra for other dept. not for parent)

Sixth Semester:

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
ME5601	Engineering Management	3	1	-	4
CS5602	Computer Networks	3	1	-	4
CS5603	Artificial Intelligence	3	1	-	4
CS5604	Data Warehousing & Mining	3	1	-	4
	Department Elective-1(A)	3	1	-	4
CS5605	CN Lab	-		2	1
CS5606	Data Mining and AI Lab	-		2	1
CS5607	Project -1	-		4	2
CS5602	Minor-4 Computer Networks*	3	1	-	4 (Extra)
Total Hours = 28		15	5	8	24
Total Credits (Cumulative)					142

*(Extra for other dept. not for parent)

Seventh Semester:

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
HUM5701	Engineering Economics& IPR	3	1	-	4
CS5702	Network & System Securities	3	1	-	4
CS5703	Digital Image Processing	3	-	-	3
	Department Elective-2(A)	3	-	-	3
	Open Elective – 1(C)	3	-	-	3
CS5704	Digital Image Processing Lab	-	-	2	1
CS5705	Project-2 phase-1	-	-	2	1
CS5706	Internship/Training	-	2	-	1
CS5702	Minor-5Network & System Securities*	3	1	-	4 (Extra)
Total Hours = 23		15	4	4	20
Cumulative Credits (from 3rd semester)					162

*(Extra for other dept. not for parent)

Eighth Semester:

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
	Department Elective-3(A)	3	-	-	3
	Department Elective-4(A)	3	-	-	3
	Department Elective-5(A)	3	-	-	3
	Department Elective-6(A)	3	-	-	3
	Department Elective-7(A)	3	-	-	3
CS5801	Project-2 phase-2	-	-	4	2
CS5802	General Proficiency	-	-	2	1
	Minor-6 Elective	3	-	-	3 (Extra)
Total Hours = 21		15	-	6	18
Total Credits (Cumulative)					180

*(Extra for other dept. not for parent)

List of Electives

Group A Department Electives

1. CS501 Advanced Computer Architecture
2. CS502 Parallel & Distributed Algorithms
3. CS503 Advanced Data Structures
4. CS504 Computer Graphics
5. CS505 UNIX Internals & Shell Programming
6. CS506 Cryptography
7. CS507 Ethical Hacking
8. CS508 Big Data Technologies
9. CS509 Internet of Things
10. CS510 Web Search and IR
11. CS511 TCP/IP and Web Technology
12. CS512 Robotics
13. CS513 Computer Vision
14. CS514 Mobile Computing
15. CS515 Information Theory & Coding
16. CS516 Distributed System
17. CS517 Randomized Algorithms
18. CS518 High Performance Computing
19. CS519 Embedded Systems
20. CS520 Data Science
21. CS521 Natural Language Processing
22. CS522 Quantum Computing
23. CS523 Object-Oriented Design & Modelling
24. CS524 Software Testing
25. CS525 Optimization Techniques
26. CS526 Cybercrime and Information Warfare
27. CS527 Wireless Networks
28. CS528 Biometrics

Group C Open Electives (for other departments)

1. CS701 Algorithm Design and Analysis
2. CS702 Machine Learning
3. CS703 Soft Computing
4. CS704 Robotics
5. CS705 Data Science