		JES		

4 year BTech Curricula for Information Technology

BTech I semester (B1)

SN	Sub Code	Subject	Contact hours	Credits	Remarks
1	PD	Professional Dev – I	3	3	
2	MA	Mathematics-I	4	4	
3	PH	Physics-I	4	4	
4	EC	Electrical Circuit Analysis	4	4	
5	CS	Introduction to Computers and Programming	4	4	
6	PH	Physics Lab-I	2	1	
7	EC	Electrical Circuits Lab	2	1	
8	CS	Computer Programming Lab	4	2	
9		Institutional Orientation	2	0	
		Total	29	23	

		JES		

4 year BTech Curricula for Information Technology

BTech II semester (B2)

SN	Sub Code	Subject	Contact hours	Credits	Remarks
1	PD	Professional Dev – II	3	3	
2	MA	Mathematics-II	4	4	
3	PH	Physics-II	4	4	
4	EC	Basic Electronic Devices and Circuits	4	4	
5	CS	Data Structures	4	4	
6	PH	Physics Lab-II	2	1	
7	EC	Basic Electronics Lab	2	1	
8	CS	Data Structures and Computer Programming Lab	4	2	
9	IT	Departmental Orientation	2	0	
		Total	29	23	

		JES		

4 year BTech Curricula for Information Technology

BTech III semester (B3)

SN	Sub Code	Subject	Contact hours	Credits	Remarks
1	PD	Professional Dev – III	3	3	
2	MA	Mathematics-III	4	4	
3	EC	Digital Electronics	4	4	
4	CS	Object Oriented Programming	4	4	
5	CS	Database Systems	4	4	
6	EC	Digital Electronics Lab	2	1	
7	CS	Object Oriented Programming Lab	2	1	
8	CS	Database Systems Lab	2	1	

9	CS	Unix Programming Lab	2	1	
		Total	**27**	**23**	

		JES			
		4 year BTech Curricula for Information Technology			
		BTech IV semester (B4)			
SN	**Sub Code**	**Subject**	**Contact hours**	**Credits**	**Remarks**
1	PD	Professional Dev – IV	3	3	
2	MA	Mathematics-IV	4	4	
3	EC	Signals and Systems	4	4	
4	IT	Computer Organisation	4	4	
5	CS	Fundamentals of Algorithms	4	4	
6	EC	Signals and Systems Lab	2	1	
7	CS	Computer Organisation Lab	2	1	
8	CS	Algorithms Lab	2	1	
9	IT	Multimedia Development Lab I	2	1	
10	Civ	Environmental Studies	3	3	
		Total	**30**	**26**	
		JES			
		4 year BTech Curricula for Information Technology			
		BTech V semester (B5)			
SN	**Sub Code**	**Subject**	**Contact hours**	**Credits**	**Remarks**
1	PD	Professional Dev – V	3	3	
2	EC	Communication Systems	4	4	
3	CS	Operating Systems	4	4	
4	CS	Software Engineering	4	4	
5	IT	Web Application Engineering	4	4	
6	EC	Communication Systems Lab	2	1	
7	CS	Operating Systems Lab	2	1	
8	CS	Software Engineering Lab	2	1	
9	IT	Web Technology Lab	2	1	
10	CS	Software Testing and Debugging	4	4	
11	CS	Software Testing and Debugging Lab	2	1	
		Total	**33**	**28**	
		JES			
		4 year BTech Curricula for Information Technology			
		BTech VI semester (B6)			
SN	**Sub Code**	**Subject**	**Contact hours**	**Credits**	**Remarks**
1	PD	Professional Dev – VI	3	3	
2	CS	Computer Networks	4	4	
3	IT	Information Systems	4	4	
4	PH	Material Science	4	4	
5	IT	Data Mining	4	4	
6	CS	Computer Networks Lab	2	1	

SN	Sub Code	Subject	Contact hours	Credits	Remarks
7	IT	Information Systems Lab	2	1	
8	IT	Multimedia Development Lab II	2	1	
9	IT	Data Mining Lab	2	1	
10	IT	Data Analysis and Simulation Techniques	4	4	
11	IT	Simulation Techniques Lab	2	1	
		Total	**33**	**28**	
		JES			
		4 year BTech Curricula for Information Technology			
		BTech VII semester (B7)			
SN	**Sub Code**	**Subject**	**Contact hours**	**Credits**	**Remarks**
1	PD	Professional Dev – VII	3	3	
2		DE-I	3	3	
3		DE-II	3	3	
4		DE-III	3	3	
5	IT	Project Part I	20	10	
		Total	**32**	**22**	
		List of Electives			
		(To be updated from time to time)			
1	MA	Abstract Algebra			
2	CS	Artificial Intelligence			
3	PH	Astrophysics			
4	BT	Biosciences			
5	IT	Computer Animation			
6	CS	Computer Graphics			
7	CS	Design of Database Sytems			
8	IT	Enterprise Application Development			
9	MA	Game Theory			
10	PH	General Theory of Relativity			
11	MA	Graph Theory			
12	IT	Human Computer Interaction			
13	CS	Multi-Dimensional Data Structures			
14	PH	Nano Science and Technology			
15	CS	Network Programming			
16	MA	Numerical Analysis			
17	IT	Research Methodology			
18	CS	Software Engineering Management			

SN	Sub Code	Subject	Contact hours	Credits	Remarks
		JES			
		4 year BTech Curricula for Information Technology			
		BTech VIII semester (B8)			
1	PD	Professional Dev – VIII	3	3	
2		DE-IV	3	3	
3		DE-V	3	3	
4		DE-VI	3	3	
5	IT	Project Part II	20	10	
		Total	**32**	**22**	
		List of Electives			
		(To be updated from time to time)			
1	MA	Algebraic Number Theory			
2	BT	Bio-informatics			
3	IT	Computer Games			
4	IT	Cryptography and Network Security			
5	IT	E-commerce			
6	IT	Geographic Information Systems			
7	IT	Human Aspects for Information Technology			
8	CS	Image Processing			
9	MA	Integral Transforms			
10	IT	Learning Sciences and Technology			
11	EC	Mobile Communications			
12	IT	Multimedia Content Creation			
13	MA	Operation Research			
14	MA	Partial Differential Equations			
15	PH	Quantum Computing			
16	PH	Special Theory of Relativity			
17	CS	Systems Programming			
		Credit Summary	Credits		
		Sem1	23		
		Sem2	23		
		Sem3	23		
		Sem4	26		
		Sem5	28		
		Sem6	28		
		Sem7	22		
		Sem8	**22**		
		Total	195		