

**DEPARTMENT OF INFORMATION TECHNOLOGY
B.I.T., MESRA, RANCHI**

Course Structure for BE(Information Technology)

BE(IT) - I SEMESTER

CODE	THEORY	CREDIT (L-T-P)
	Technical English/Principles of Electronics Engineering	3 (3-0-0)
	Physics	4 (3-1-0)
	Engineering Chemistry	3 (3-0-0)
	Engineering Mathematics	4 (3-1-0)
	Engineering Mechanics/ Principles of Electrics Engineering	4 (3-1-0)
CODE	SESSIONAL	CREDIT (L-T-P)
	Engineering Graphics	3 (1-0-3)
CS 1302	Fundamentals of Unix & C Programming	3(1-0-3)
	Physics Lab. / Chemistry Lab	2 (0-0-3)
	Work Shop Practice	2 (0-0-3)
	NCC/NSS/PT & Games/ Creative Arts	1(0-0-2)

Credit Hours 29

BE(IT) - II SEMESTER

CODE	THEORY	CREDIT (L-T-P)
	Advanced Engineering Maths	4 (3-1-0)
	Principal of Electrical Engineering /Engineering Mechanics	4 (3-1-0)
	Environmental Science	3 (3-0-0)
CS 2301	Fundamentals of Data Structures	4 (3-1-0)
	Principles of Electronics Engineering/Technical English	3 (3-0-0)
	Principles of Mechanical Engineering	3 (3-0-0)
CODE	SESSIONAL	CREDIT (L-T-P)
	Physics Lab/Chemistry Lab	2 (0-0-3)
	Basic Electrical Engineering Lab/Engineering Mechanics Lab	2 (0-0-3)
	Fundamentals of Data Structure Lab	2(0-0-3)
	Basic Electronics Lab	2 (0-0-3)
	NCC/NSS/PT & Games/Creative Arts	1(0-0-2)

Credit Hours 30

BE(IT) - III SEMESTER

CODE	THEORY	CREDIT (L-T-P)
	Biological Science/Language (French/German/ Russian etc)	3 (3-0-0)
IT 3021	Discrete Mathematics and Graph Theory	3 (3-0-0)
IT 3023	Java Programming	3 (3-0-0)
EC 3201	Digital Electronics	4 (3-1-0)
IT 3025	Computer Organization and Architecture	4 (3-1-0)
CODE	SESSIONAL	CREDIT (L-T-P)
IT 3024	Java Programming Lab.	2.0 (0-0-3)
	Basic Electrical Engineering Lab/Engineering Mechanics Lab	2.0 (0-0-3)
	NCC.NSS/P.T. /Games/ Creative Arts	1.0 (0-0-2)

Credit Hours 22

BE(IT) - IV SEMESTER

CODE	THEORY	CREDIT (L-T-P)
	Language (French/German/ Russian etc)/Biological Science	3 (3-0-0)
IT 4021	Database System Concepts	4 (3-1-0)
IT 4023	Operating System Concepts	3 (3-0-0)
IT 4025	Theory of Computations	3 (3-0-0)
IT 4027	Scientific Computing	3 (3-0-0)
CODE	SESSIONAL	CREDIT (L-T-P)
IT 4022	Database System Lab.	2 (0-0-3)
IT 4024	Operating System Lab.	2 (0-0-3)
IT 4028	Scientific Computing Lab.	2 (0-0-3)
	NCC.NSS/P.T. /Games/ Creative Arts	1 (0-0-2)

Credit Hours 23

BE(IT) – V SEMESTER

CODE	THEORY	CREDIT (L-T-P)
	Principle of Management	3 (3-0-0)
IT 5021	Data Communications	3 (3-0-0)
IT 5023	Software Engineering Principles	4 (3-1-0)
IT 5025	Principles of Soft Computing	3 (3-0-0)
IT 5027	Design of Computer Algorithms	4 (3-1-0)
CODE	SESSIONAL	CREDIT (L-T-P)
IT 5024	Software Engineering Principles Lab.	2 (0-0-3)
IT 5026	Principles of Soft Computing Lab.	2 (0-0-3)
IT 5028	Computer Algorithms Lab.	2 (0-0-3)

Credit Hours 23

BE(IT) – VI SEMESTER

CODE	THEORY	CREDIT (L-T-P)
	Business Economics	3 (3-0-0)
IT 6021	Communication Theory	4 (3-1-0)
IT 6023	Computer Network and Security	3 (3-0-0)
IT 6025	Information & Coding Theory	3 (3-0-0)
IT 6027	Optimization Techniques	3 (3-0-0)
CODE	SESSIONAL	CREDIT (L-T-P)
IT 6022	Communication System Lab	2 (0-0-3)
IT 6024	Network Security Lab.	2 (0-0-3)
IT 6026	Information & Coding Theory Lab	2 (0-0-3)

Credit Hours 22

BE(IT) – VII SEMESTER

CODE	THEORY	CREDIT (L-T-P)
	Project Management/ Entrepreneurship	3 (3-0-0)
IT 7021	Data Mining Concepts and Techniques	3 (3-0-0)
	Elective – I	3 (3-0-0)
IT 7041	Parallel & Distributed Computing	3 (3-0-0)
IT 7043	Compiler Design	3 (3-0-0)

CODE	SESSIONAL	CREDIT (L-T-P)
IT 7022	Data Mining Concepts and Techniques Lab	2 (0-0-3)
	Lab on Elective-I	2 (0-0-3)
IT 7044	Compiler Design Lab	2 (0-0-3)

Credit Hours 21

List of Electives-I

IT 7023 Simulation & Modeling
 IT 7025 Artificial Intelligence
 IT 7027 Digital Image Processing
 IT 7029 Object Oriented Design
 IT 7031 System Programming
 IT 7033 Web Technology

List of Lab on Electives-I

IT 7024 Simulation & Modeling Lab
 IT 7026 Artificial Intelligence Lab
 IT 7028 Digital Image Processing Lab
 IT 7030 Object Oriented Design Lab
 IT 7032 System Programming Lab
 IT 7034 Web Technology Lab

BE(IT) – VIII SEMESTER

CODE	THEORY	CREDIT (L-T-P)
	Elective-II	3 (3-0-0)

CODE	SESSIONAL	CREDIT (L-T-P)
IT 8020	Project	6(0-0-9)

Credit Hours 9

List of Electives-II

IT 8025 Enterprise Resource Planning
 IT 8027 Decision Support Systems
 IT 8029 Embedded Systems

IT 8031 Pattern Recognition
IT 8033 Computing & Complexity Theory
IT 8035 Software Reliability & Testing
IT 8037 Distributed Database System
IT 8039 Computer Graphics & Multimedia
IT 8041 Information System Project Management
IT 8043 Distributed Systems
IT 8045 Advance Computer Graphics
IT 8047 Real Time Systems
IT 8049 Modern Telecommunication Systems
IT 8051 Neural Networks & Applications
IT 8053 E-Commerce

Total Credits semesterwise

Semester	Credits Hours
I	29
II	30
III	22
IV	23
V	23
VI	22
VII	21
VIII	9
Total Credit	179