

B. Tech. COURSE STRUCTURE
COMPUTER SCIENCE & ENGINEERING
NIT SILCHAR

3rd Semester:

Code	Subject	L-T-P	Credit
MA 201	Mathematics-III	3-1-0	8
MA 202	Probability Theory & Stochastic Processes	3-1-0	8
HU 201	Humanities - II (Industrial Sociology and Accountancy)	3-0-0	6
EC 201	Electrical Science - II	3-1-0	8
EC 202*	Electrical Science Lab	0-0-2	2
CS 201	Data Structure	3-1-2	10
CS 202	Introduction to Switching Theory	3-0-0	6
TOTAL			48

4th Semester:

Code	Subject	L-T-P	Credit
MA 203	Discrete Mathematics	3-1-0	8
EC 210	Signals & Systems	3-1-0	8
EC 204	Digital Electronic Circuits	3-1-0	8
EC 209	Digital Electronics Circuits Lab	0-0-2	2
CS 203	Graph Theory	3-1-0	8
CS 204	Principles of Programming Languages	3-1-0	6
CS 205	Formal Language and Automata Theory	3-1-0	8
TOTAL			48

5th semester

Code	Subject	L-T-P	Credit
MA 301	Numerical Methods and Computations	2-1-0	6
EC 303	Microprocessors and Microcontrollers	3-0-0	6
EC 313	Microprocessors and Microcontrollers Lab	0-0-2	2
EC 321	Data Communication	3-0-0	6
CS 301	System Programming	3-1-0	8
CS 302	Computer Graphics	3-1-2	10
CS 303	Computer Organization and Architecture	3-1-0	8
Total		17-4-4	46

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6th semester

Code	Subject	L-T-P	Credit
HU 301	Humanities - III (Managerial Economics)	3-1-0	8
CS 304	Design and Analysis of Algorithms	3-1-0	8
CS 305	Compiler Design	3-1-0	8
CS 306	Computer Networks	3-1-0	8
CS 307	Database Management Systems	3-0-2	8
CS 308	Operating Systems	3-0-2	8
Total		18-4-4	48

7th semester

Code	Subject	L-T-P	Credit
EC 401	VLSI Design	3-0-2	8
CS 401	Software Engineering	3-0-2	8
CS 402	Advanced Computer Architecture	3-1-0	8
CS 403	Theory of Computation	3-1-0	8
XX 4XX	Elective I	3-0-0	6
CS 404	Project - I	0-0-6	10
CS 405	Industrial Training	0-0-2	2
Total		15-2-12	50

8th semester

Code	Subject	L-T-P	Credit
HU 401	Management and Economics of Globalisation	3-0-0	6
CE 414	Environmental Studies	3-0-0	6
XX 4XX	Elective II	3-0-0	6
XX 4XX	Elective III	3-0-0	6
XX 44X	<i>Institutional Elective</i>	3-0-0	6
CS 406	Project - II	0-0-15	10
Total		15-0-15	40

Grand total credit points: 378

Electives:

Elective I:

- CS 421 Digital Image Processing
- CS 422 Information Theory and Coding
- CS 423 Distributed Systems
- CS 424 Mobile Adhoc Networks
- CS 425 Data Warehousing and Data Mining
- CS 426 Parallel Algorithms
- CS 427 Artificial Intelligence

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Electives II & III:

CS 431 Pattern Recognition
CS 432 Advanced topics in Distributed Systems
CS 433 Topics in Multimedia Technology
CS 434 Topics in Network Security
CS 435 System Analysis and Design
CS 436 Wireless Sensor Networks
CS 437 Enterprise Resource Planning
CS 438 Distributed Algorithms
CS 439 Linux Operating System
CS 440 Human Computer Interaction
EC 433 Wireless Communication
EC 435 Fault Tolerant Systems

Institutional Elective:

CS 441 Neural Network
CS 442 Object-Oriented System Design

* To be shared between Electrical and Electronics & Communication Engineering Departments