

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

**3<sup>rd</sup> 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
<b>TOTAL</b>			<b>48</b>

**4<sup>th</sup> 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
<b>TOTAL</b>			<b>48</b>

**5<sup>th</sup> 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
<b>Total</b>		<b>17-4-4</b>	<b>46</b>

## B. Tech. COURSE STRUCTURE

### 6<sup>th</sup> 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
<b>Total</b>		<b>18-4-4</b>	<b>48</b>

### 7<sup>th</sup> 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
<b>Total</b>		<b>15-2-12</b>	<b>50</b>

### 8<sup>th</sup> 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
<b>XX 44X</b>	<b><i>Institutional Elective</i></b>	3-0-0	6
CS 406	Project - II	0-0-15	10
<b>Total</b>		<b>15-0-15</b>	<b>40</b>

**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

## B. Tech. COURSE STRUCTURE

### **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

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