B.Tech Computer Science and Engineering 2011-2015 Batch
Subject Components

Sub. Code	I. GENERAL (5-10%)	Credits
	SUBJECTS	10 / 20
09CH201	Environmental Studies	3:0:0
10EN201 / 11EN202/ 11EN203	Professional English -1 / Basic French Language / Basic German Language	2:0:0
10EN202	Professional English-II	2:0:0
10EN203	Advanced English	2:0:0
09DE101	Introduction to National Youth Programmes	2:0:0
09MS209	Managerial Skills	2:0:0
10MS202	Business Environment	2:0:0
10EN211	English Language Lab	0:0:2
10VE201/ 10VE202	Value Education	2:0:0
	Total	**19**

Subject Code	II. BASIC SCIENCES (15-25%)	Credits
	SUBJECTS	30 / 50
11CH101	Applied Chemistry	3:0:0
09CH104	Applied Chemistry Lab	0:0:2
09PH101	Applied Physics Lab	0:0:2
11PH201	Applied Physics	3:0:0
11PH202	Engineering Physics	2:0:0
11MA201	Algebra, Differential Calculus and Analytical Geometry	3:1:0
11MA202	Multiple Integrals, Differential Equations and Laplace Transforms	3:1:0
11MA208	Complex Analysis, Statistics and Z-Transforms	4:0:0
11MA209	Fourier Series Transforms and Partial Differential Equations	4:0:0
11MA211	Discrete Mathematics	4:0:0
11ME207	Principles of Resource and Quality management	3:1:0
	Total	**36**

Subject Code	III. ENGINEERING SCIENCES AND TECHNICAL ARTS (15-25%)	Credits
	SUBJECTS	30 / 50
11ME101	Basic Engineering Drawing	0:0:2
10MS201	Engineering Project Costing	2:1:0
11CS101	Programming in C	4:0:0
09CS217	Programming in C Lab	0:0:2
09EE101	Basic Electrical Engineering	3:0:0
09EC218	Basic Electronics	3:0:0
09IT207	Signals and Systems	4:0:0
09CS203	Programming in C++	3:0:0
11ME102	Computer Aided Graphics	0:0:2
09CS218	Programming in C++ Lab	0:0:2
09ME101	Basic Mechanical Engineering	2:0:0
10ME101	Workshop Practice	0:0:2
	Total	**32**

Subject Code	IV. PROFESSIONAL CORE	Credit
	SUBJECTS	
09CS207	Analysis of Algorithms	3:0:0
09IT201	Computer Architecture	3:0:0
11CS202	Software Engineering	3:0:0
09IT210	Computer Graphics	3:0:0
09IT214	Computer Networks	3:0:0
09CS208	Data Structures	3:0:0
09CS201	Database Systems	3:0:0
09IT204	Digital Principles and System Design	3:0:0
09CS213	Intelligent Systems	3:0:0
09IT206	Microprocessors and Interfacing	3:0:0
09CS202	Object Oriented Analysis and Design	3:0:0
09CS212	Operating System	3:0:0
09CS214	Principles of Compiler Design	3:0:0
09CS204	Programming in Java	3:0:0
09CS209	System Software	3:0:0
09CS206	Unix Architecture	3:0:0
09CS216	Visual Programming	3:0:0
09IT208	Web Technology	3:0:0
09IT236	CASE Tools Lab	0:0:2
09CS225	Data Structures in C++ Lab	0:0:2
09CS221	Database Systems Lab	0:0:2
09IT239	Digital Design Lab	0:0:2
09CS222	Java Programming Lab	0:0:2
09IT241	Microprocessors and Interfacing Lab	0:0:2
09IT242	Networking Lab	0:0:2
09CS220	System Software and Compiler Lab	0:0:2
09CS219	Unix and Linux Lab	0:0:2
09CS226	Visual Programming Lab	0:0:2
09IT238	Web Technology and Multimedia Lab	0:0:2
	Total	**76**

Curriculum for B.Tech. COMPUTER SCIENCE AND ENGINEERING 2011-2015

During the first two semesters students complete all the subjects given in the table below
Semester 1 & 2

Code	Name of the Subject	Credits
10EN201 11EN202/11EN203	Professional English I / Basic French Language/Basic German Language	2:0:0
10EN202	Professional English II	2:0:0
11MA201/ 11MA203*	Algebra, Differential Calculus and Analytical Geometry / Algebra, Analytical Geometry and Calculus I *	3:1:0/ 4:0:0
11MA202/ 11MA204*	Multiple Integrals, Differential Equations and Laplace Transforms / Matrices, Differential Equations and Calculus II*	3:1:0/ 4:0:0
11PH201	Applied Physics	3:0:0
09PH101	Applied Physics Lab	0:0:2
11PH202	Engineering Physics	2:0:0
11CH101	Applied Chemistry	3:0:0
09CH104	Applied Chemistry Lab	0:0:2
09CH201	Environmental Studies	3:0:0
09ME101	Basic Mechanical Engineering	2:0:0
09EC218	Basic Electronics	3:0:0
09EE101	Basic Electrical Engineering	3:0:0
11CS101	Programming in C	4:0:0
09CS217	Programming in C Lab	0:0:2
11ME101	Basic Engineering Drawing	0:0:2
11ME102	Computer Aided Graphics	0:0:2
10ME101	Workshop Practice	0:0:2
09DE101	Introduction to National Youth Programmes	2:0:0
10EN211	English Language Lab	0:0:2
	Total no. of credits	51

*for B.Tech. Biotech, Bioinformatics & Food Processing and Engineering Programmes.

Common core for B.Tech. Lateral Entry students

Sub. Code	Name of the Subject	Credits
10EN205	Communicative English	2:0:0
11MA206	Mathematical Foundation	3:0:0
11CS101	Programming in C	4:0:0
09CS217	Programming in C Lab	0:0:2
	Total	11

Sub. Code	Name of the Subject	Credits
	Semester 3	
	Theory	
10EN203	Advanced English	2:0:0
11MA208	Complex Analysis, Statistics and Z-Transforms	4:0:0
09CS203	Programming in C++	3:0:0
09IT204	Digital Principles and System Design	3:0:0
09CS212	Operating System	3:0:0
09IT201	Computer Architecture	3:0:0
09IT207	Signals and Systems	4:0:0
	Practical	
09CS218	Programming in C++ Lab	0:0:2
09IT239	Digital Design Lab	0:0:2
	Total	26
	Semester 4	
	Theory	
11MA209	Fourier Series Transforms and Partial Differential Equations	4:0:0
09IT206	Microprocessors and Interfacing	3:0:0
09CS202	Object Oriented Analysis and Design	3:0:0
09CS208	Data Structures	3:0:0
09CS204	Programming in Java	3:0:0
10VE201/202	Value Education	2:0:0
	Practical	
09CS225	Data Structures in C++ Lab	0:0:2
09IT241	Microprocessors and Interfacing Lab	0:0:2
09IT236	CASE Tools Lab	0:0:2
09CS222	Java Programming Lab	0:0:2
	Total	26
	Semester 5	
	Theory	
09CS207	Analysis of Algorithms	3:0:0
11MA211	Discrete Mathematics	4:0:0
09CS209	System Software	3:0:0
09CS214	Principles of Compiler Design	3:0:0
09CS206	Unix Architecture	3:0:0
09IT214	Computer Networks	3:0:0
10MS202	Business Environment	2:0:0
09CS220	System Software and Compiler Lab	0:0:2
09CS219	Unix and Linux Lab	0:0:2
09IT242	Networking Lab	0:0:2
	Total	**27**
	Semester 6	
	Theory	
10MS201	Engineering Project Costing	2:1:0
11ME207	Principles of Resource and Quality Management	3:1:0
09CS201	Database Systems	3:0:0
11CS202	Software Engineering	3:0:0
09IT208	Web Technology	3:0:0
	Free Elective 1	3:0:0
	Free Elective 2	3:0:0
	Practical	

09CS221	Database Systems Lab	0:0:2
09IT238	Web Technology and Multimedia Lab	0:0:2
*xxCS951	Mini Project (during the summer Vacation) – optional	3
	Total	**29**
	Semester 7	
	Theory	
09CS213	Intelligent Systems	3:0:0
09CS216	Visual Programming	3:0:0
09IT210	Computer Graphics	3:0:0
09MS209	Managerial Skills	2:0:0
	Elective 1	3:0:0
	Elective 2	3:0:0
	Free Elective 3	3:0:0
	Practical	
09CS226	Visual Programming Lab	0:0:2
	Elective 3	0:0:2
	Elective 4	0:0:2
	Total	**26**
	Semester 8	
	Theory	
	Elective 5	3:0:0
	Elective 6 (For students who have not done Mini-Project)	3:0:0
	Project	
*xxCS998	Half Semester Project	0:0:12
	Or	
*xxCS999	Full Semester Project	0:0:20
	Total	**15/20**
	Total Credits (Regular/Lateral Entry)	**min. 200/160**

* - **"xx"** can be replaced with the **"year of pursuing"** the subject (E.g. **11**CS998 - for Half Semester Project done during 20**11**)