Annexure-3

Indian Institute of Information Technology

Curriculum of syllabi for BTech Programme (2018-19)

Table 1: Credit Requirements

	Description	Recommended Credits	% of Total	Allotted Credits
CS	Core – Department	45-51	28-32%	48
ES	Basic Engineering Sciences	16-22	10-14%	20
MS	Basic Mathematical Sciences	26-32	16-20%	28
SS	Social Sciences & Soft Skills	13-16	08-10%	14
CE	Core Electives	19-22	12-14%	20
OE	Open Electives	13-19	08-12%	16
PR	B.Tech Project	11-14	07-09%	12
ST	Special Topic (optional, 1 credit course available in 5th, 6th,7th & 8th Semesters)	-	-	-
Total Mandated Credits		**160±5% : (152-168)**	**100%**	**158**
Total Minimum Required Credits		**158**		

Computer Science and Engineering

Table 2 Courses and credit

IIIT-Dharwad: CSE Curriculum

Course Title	L	T	P	Credits	CS	ES	MS	SS	CE	OE	PR	ST
SEMESTER 1												
Mathematics-I	3	1		4			4					
Digital Design	3		2	4		4						
Introduction to Programming	2		4	4		4						
Environmental Studies/ Basic Circuit Theory	3		2	4				4				
Physics/ Professional Communication	3		2	4			4					
Semester Total Credits				**20**	**0**	**8**	**8**	**4**	**0**	**0**	**0**	**0**
SEMESTER 2												
Mathematics-II	3	1		4			4					
Data Structures & Algorithms	3		2	4	4							
Computer Architecture	3		2	4		4						
Basic Circuit Theory/ Environmental Studies	3		2	4		4						
Professional Communication/ Physics	2		4	4				4				
Semester Total Credits				**20**	**4**	**8**	**4**	**4**	**0**	**0**	**0**	**0**
SEMESTER 3												
Mathematics-III	3	1		4			4					
Discrete Mathematics	3	1		4			4					
Programming-II: OO Programming	3		2	4	4							
Microprocessors & Microcontrollers	3		2	4		4						
Design & Analysis of Algorithms	3		2	4	4							
Engineering Economics & Accounting / Ethics	3			3				3				
Semester Total Credits				**23**	**8**	**4**	**8**	**3**	**0**	**0**	**0**	**0**
SEMESTER 4												
Mathematics-IV	3	1		4			4					
Theory of Computation	3	1		4	4							
Operating Systems	3		2	4	4							
Software Engineering	3		2	4	4							
Graph Theory	3	1		4	4							
Ethics / Engineering Economics & Accounting	3			3				3				
Semester Total Credits				**23**	**16**	**0**	**4**	**3**	**0**	**0**	**0**	**0**
SEMESTER 5												
Compiler Design & Construction	3		2	4	4							
Database Systems	3		2	4	4							
Computer Networks	3		2	4	4							
Artificial Intelligence	3	1		4	4							

Statistics for CS	3	1		4			4					
Special Topic (optional)				1								1
Semester Minimum Total Credits				**20**	**16**	**0**	**4**	**0**	**0**	**0**	**0**	**1**
SEMESTER 6												
Machine Learning	3		2	4	4							
Core Elective 1				4					4			
Core Elective 2				4					4			
Open Elective 1				4						4		
Open Elective 2				4						4		
Mini Project			4	2							2	
Special Topic (optional)				1								1
Semester Minimum Total Credits				**22**	**4**	**0**	**0**	**0**	**8**	**8**	**2**	**1**
SEMESTER 7												
Core Elective 3				4					4			
Core Elective 4				4					4			
Core Elective 5				4					4			
Open Elective 3				4						4		
Open Elective 4				4						4		
Mini Project			4	2							2	
Special Topic (optional)				1								1
Semester Minimum Total Credits				**22**	**0**	**0**	**0**	**0**	**12**	**8**	**2**	**1**
SEMESTER 8												
BTech Project			32	8							8	
Special Topic (optional)				1								1
Semester Minimum Total Credits				**8**	**0**	**0**	0	0	0	0	8	1
Cumulative Program Credits				**158**	**48**	**20**	**28**	**14**	**20**	**16**	**12**	**4**

Curriculum of syllabi for FIRST to EIGHT Semesters

Electronics and Communication Engineering

Course Title	L	T	P	Credits	EC	ES	MS	SS	CE	OE	PR	ST
SEMESTER 1												
Mathematics-I	3	1		4			4					
Digital Design	3		2	4		4						
Introduction to Programming	2		4	4		4						
Environmental Studies/ Basic Circuit Theory	3		2	4				4				
Physics/ Professional Communication	3		2	4			4					
Semester Total Credits				**20**	**0**	**8**	**8**	**4**	**0**	**0**	**0**	
SEMESTER 2												
Mathematics-II	3	1		4			4					
Data Structures & Algorithms	3		2	4		4						
Computer Architecture	3		2	4		4						
Basic Circuit Theory/ Environmental Studies	3		2	4		4						
Professional Communication/ Physics	2		4	4				4				
Semester Total Credits				**20**	**0**	**12**	**4**	**4**	**0**	**0**	**0**	
SEMESTER 3												
Mathematics-III	3	1		4			4					
Electromagnetic Theory	3	1		4	4							
Analog Electronics I	3		2	4	4							
Control Systems	3		2	4	4							
Microprocessors & Micro-controllers	3		2	4	4							
Ethics / Engineering Economics & Accounting	3			3				3				
Semester Total Credits				**23**	**16**	**0**	**4**	**3**	**0**	**0**	**0**	
SEMESTER 4												
Mathematics-IV	3	1		4			4					
Signals & Systems	3		2	4	4							
Analog Electronics II	3		2	4	4							
Analog & Digital Communication	3		2	4	4							
Probability & Random Process	3	1		4			4					
Engineering Economics & Accounting /Ethics	3			3				3				
Semester Total Credits				**23**	**12**	**0**	**8**	**3**	**0**	**0**	**0**	
SEMESTER 5												
VLSI Design	3		2	4	4							

Information Theory & Coding	3		2	4	4							
Computer Networks	3		2	4	4							
Embedded Systems	3	1		4			4					
Digital Signal Processing				4					4			
Special Topic (optional)				1							0	1
Semester Minimum Total Credits				**20**	**12**	**0**	**4**	**0**	**4**	**4**	**0**	1
SEMESTER 6												
Wireless Communication	3		2	4	4							
Sensors & Internet of Things	3		2	4	4							
Core Elective 1				4					4			
Core Elective 2				4					4			
Open Elective 1				4						4		
Mini Project 1			8	2							2	
Special Topic (optional)				1								1
Semester Minimum Total Credits				**22**	**8**	**0**	**0**	**0**	**8**	**4**	**2**	1
SEMESTER 7												
Core Elective 3				4					4			
Core Elective 4				4					4			
Core Elective 5				4								
Open Elective 2				4						4		
Open Elective 3				4						4		
BTech Project phase I			8	2							2	
Special Topic (optional)												1
Semester Minimum Total Credits				**22**	**0**	**0**	**0**	**0**	**8**	**8**	**2**	1
SEMESTER 8												
BTech Project Phase II or Internship			32	8							8	
Special Topic (optional)				1								1
Semester Minimum Total Credits				**8**							**8**	1
Cumulative Program Credits				**158**	**48**	**20**	**28**	**14**	**20**	**16**	**12**	4