

Revised Curriculum for Bachelor of Computer Science & Engineering, 2011

FIRST YEAR FIRST SEMESTER

Theoretical Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Paper-I	Hum/ T / 111A	Humanities	4			100		3
Paper-II	Ph /CSE/T/ 112A	Physics - I	3			100		3
Paper-III	Math /CSE/ T/ 113A	Mathematics - I	4			100		3
Paper – IV	Math /CSE/ T/ 114A	Mathematics - II	4			100		3
Paper – V	CSE/T/ 115A	Digital Logic	3			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Sessional-I	BED/ME/CSE/S / 111	Engineering Drawing			3		100	3
Sessional-II	WS/ME/CSE/ S / 112	Workshop Practice			3		100	3
Sessional-III	CSE/S/113	Digital Logic Lab			3		100	3
			18		9	500	300	24

Total Period/Week = 27

Total Marks = 800

FIRST YEAR SECOND SEMESTER

Theoretical Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Paper-VI	Math/CSE / T / 121A	Mathematics - III	4			100		3
Paper-VII	EM/ME/CSE / T/ 122A	Engineering Mechanics	3			100		3
Paper-VIII	CSE /ET / T/ 123A	Basic Electronics	3			100		3
Paper – IX	CSE/ET/T/124A	Circuit Theory	3			100		3
Paper – X	CSE/T/125A	Introduction to Computer Programming	3			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Sessional-IV	AED/ME/CSE/S / 121	Advanced Engineering Drawing			3		100	3
Sessional-V	CSE /ET/ S / 122	Electronics Lab			3		100	3
Sessional-VI	CSE/S/123	Programming Practice			3		100	3
Sessional-VII	Hum/CSE/S/124	Communicative English			3		100	3
			16		12		500	400

Total Period/Week = 28

Total Marks = 900

SECOND YEAR FIRST SEMESTER

Theoretic al Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Paper-XI	Math/CSE /T/ 211A	Mathematics – IV	4			100		3
Paper-XII	CSE /T/ 212A	Digital Circuit	3			100		3
Paper-XIII	CSE/T/ 213A	Data Structures and Algorithms	3			100		3
Paper – XIV	CSE/T/ 214A	Numerical Methods	3			100		3
Paper – XV	CSE/T/ 215A	Computer Organisation	3			100		3
Paper – XVI	ETech/EE/CSE/T/216A	Electrical Technology	3			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Sessional-VIII	CSE/ S/ 211	Data Structures Lab			3		100	3
Sessional-IX	CSE/ S/ 212	Digital Systems Lab			3		100	3
Sessional-X	CSE/ S/ 213	Numerical Methods Lab			3		100	3
			19		9	600	300	27

Total Period/Week = 28

Total Marks = 900

SECOND YEAR SECOND SEMESTER

Theoretical Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Paper-XVII	Math/CSE/ T / 221A	Mathematics – V	4			100		3
Paper-XVIII	CSE / T/ 222A	Object Oriented Programming	3			100		3
Paper-XIX	CSE / T/ 223A	Microprocessors and Assembly Language Programming	3			100		3
Paper – XX	CSE / T/ 224A	Graph Theory and Combinatorics	3			100		3
Paper – XXI	CSE / T/ 225A	Computer Architecture	3			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Sessional-XI	EE /CSE/ S / 221	Electrical Engineering Lab			3		100	3
Sessional-XII	CSE/ S / 222	Object Oriented Programming Lab			3		100	3
Sessional-XIII	CSE/S/223	Microprocessor Lab			3		100	3
			16		9	500	300	24

Total Period/Week = 25

Total Marks = 800

THIRD YEAR FIRST SEMESTER

Theoretic al Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Paper- XXII	CSE / T / 311A	Computer Graphics	3			100		3
Paper- XXIII	CSE / T / 312A	System Programming	3			100		3
Paper- XXIV	CSE / T / 313A	Operating System	3			100		3
Paper – XXV	CSE / T / 314A	Formal Language and Automata Theory	3			100		3
Paper – XXVI	CSE / T / 315A	Digital Communication System	3			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Sessional- XIV	CSE / S / 311	Computer Graphics Lab			3		100	3
Sessional- XV	CSE / S / 312	System Programming Lab			3		100	3
Sessional- XVI	CSE / S / 313	Operating System Lab			3		100	3
			15		9	500	300	24

Total Period/Week = 24

Total Marks = 800

THIRD YEAR SECOND SEMESTER

Theoretical Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Paper-XXVII	CSE / T / 321A	Database Management Systems	3			100		3
Paper-XXVIII	CSE / T / 322A	Principles of Programming Languages	3			100		3
Paper-XXIX	CSE / T / 323A	Compiler Design	3			100		3
Paper-XXX	CSE / T / 324A	Computer Networks	3			100		3
Paper-XXXI	CSE / T / 325A	Design and Analysis of Algorithms	3			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Sessional-XVII	CSE / S / 321	Database Management System Lab			3		100	3
Sessional-XVIII	CSE / S / 322	Compiler Lab			3		100	3
Sessional-XIX	CSE / S / 323	Computer Networks Lab			3		100	3
			15		9	500	300	24

Total Period/Week = 24

Total Marks = 800

FOURTH YEAR FIRST SEMESTER

Theoretic al Courses	Subjects		Periods/Weeks			Marks		Credit Points
			L	T	P	Examination	Sessional	
Paper- XXXII	CSE / T / 411A	Software Engineering	3			100		3
Paper- XXXIII	CSE / T / 412A	Artificial Intelligence	3			100		3
Paper- XXXIV	CSE / T / 413A	Internet Technologies	3			100		3
Paper- XXXV	CSE / T / 414	Elective - I	3			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points
			L	T	P	Examination	Sessional	
Sessional- XX	CSE / S / 411	Project - I			3		100	3
Sessional- XXI	CSE / S / 412	Seminar - I			3		100	3
Sessional- XXII	CSE / S / 413	Internet Technology Lab			3		100	3
			12		9	400	300	21

Total Period/Week = 21

Total Marks = 700

FOURTH YEAR SECOND SEMESTER

Theoretic al Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Paper- XXXVI	CSE / T / 421A	VLSI Systems	3			100		3
Paper- XXXVII	CSE / T / 422A	Optimization Techniques and Operations Research	3			100		3
Paper- XXXVIII	CSE / T / 423	Elective – II	3			100		3
Ppaer- XXXIX	CSE / T / 424	Elective – III	3			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Sessional- XXIII	CSE / S / 421	Project - II			6		200	4
Sessional- XXIV	CSE / S / 422	Seminar - II			3		100	3
Sessional- XXV	CSE / S / 423	VLSI Lab			3		100	3
			12		12	400	400	22

Total Period/Week = 24

Total Marks = 800

	<u>Elective 1</u>		<u>Elective II</u>
CSE / T / 414A	Pattern Recognition	CSE / T / 423A	Bioinformatics
CSE / T / 414B	Mobile Computing	CSE / T / 423B	Natural Language Processing
CSE / T / 414C	Distributed Systems	CSE / T / 423C	Distributed Computing
CSE / T / 414D	Machine Learning	CSE / T / 423D	Embedded Systems
CSE / T / 414E	Computer and Network Security	CSE / T / 423E	Programming Environment and User Interface Design
CSE / T / 414F	Information and Coding Theory	CSE / T / 423F	Image Processing
CSE / T / 414G	Data Mining	CSE / T / 423G	Biometric Systems
	<u>Elective III</u>		
CSE / T / 424A	Cryptography		
CSE / T / 424B	Computational Geometry		
CSE / T / 424C	Big Data Analytics		
CSE / T / 424D	Multimedia Technology		
CSE / T / 424E	Information Storage and Retrieval		
CSE / T / 424F	Service Oriented Architecture		
CSE / T / 424G	Soft Computing		