FACULTY OF ENGINEERING AND TECHNOLOGY, SRM UNIVERSITY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

B.TECH COMPUTER SCIENCE AND ENGINEERING CHOICE BASED FLEXIBLE CREDIT SYSTEM (CBFCS) Curriculum Under Regulations 2015 (For students admitted from 2015-16 onwards)

L Lecture Hours / Week; T Tutorial Hours / Week; C Credits; P Practical Hours / Week; L Laboratory Course; E Elective Courses; J Theory jointly with Lab; M Course with Multidisciplinary content

Category	Category - wise % of Credits	Year 1 – 1st Semester: Course Code	Course Title	L	T	P	C	Year 1 – 2nd Semester: Course Code	Course Title	L	T	P	C	Year 2 – 1st Semester: Course Code	Course Title	L	T	P	C	Year 2 – 2nd Semester: Course Code	Course Title	L	T	P	C
Arts & Humanities-G	8.33%	15LE101	English	2	0	0	2	15LE102	Value Education	2	0	0	2	15LE201E	German Language I	2	0	0	2	15LE207E	German Language II	2	0	0	2
		15PD101	Soft Skills - I	1	1	0	1	15PD102	Soft Skills - II	1	1	0	1	15LE202E	French Language I					15LE208E	French Language II				
								15NC101	NCC- National Cadet Corps	0	0	1	1	15LE203E	Japanese Language I					15LE209E	Japanese Language II				
								15NS101	NSS- National Service Scheme					15LE204E	Korean Language I					15LE210E	Korean Language II				
								15SP101	NSO- National Sports Organization					15LE205E	Chinese Language I					15LE211E	Chinese Language II				
								15YG101	Yoga					15PD201	Quantitative Aptitude & Logical Reasoning –I	1	1	0	1	15PD202	Verbal Aptitude	1	1	0	1
	15		Total	3	1	0	3		Total	3	1	1	4		Total	3	1	0	3		Total	3	1	0	3
Basic Sciences - B	19.44%	15MA101	Calculus And Solid Geometry	3	1	0	4	15MA102	Advanced Calculus And Complex Analysis	3	1	0	4	15MA201	Transforms And Boundary Value Problems	4	0	0	4	15MA207	Probability And Queuing Theory	4	0	0	4
		15PY101	Physics	3	0	0	3	15PY102L	Materials Science	2	0	2	3												
		15PY101L	Physics Laboratory	0	0	2	1	15CY102	Principles Of Environmental Science	2	0	0	2												
		15CY101	Chemistry	3	0	0	3																		
		15CY101L	Chemistry Laboratory	0	0	2	1																		
		15BT101	Biology For Engineers	2	0	0	2																		
	35		Total	11	1	4	14		Total	7	1	2	9		Total	4	0	0	4		Total	4	0	0	4
Engineering Sciences -E	11.67%	15CE101	Basic Civil Engineering	2	0	0	2	15ME101	Basic Mechanical Engineering	2	0	0	2	15EE208	Electron Devices and Circuits	3	0	0	3	15EE232	Electrical Engineering And Control Systems	3	0	0	3
		15EE101	Basic Electrical Engineering	2	0	0	2	15EC101	Basic Electronics Engineering	2	0	0	2												
		15ME105L	Engineering Graphics	1	0	4	3	15IT101L	Computer Hardware and Troubleshooting Laboratory	0	0	3	2												
		15CS101L	Programming Laboratory	1	0	2	2																		
	21		Total	6	0	6	9		Total	4	0	3	6		Total	3	0	0	3		Total	3	0	0	3
Prof/Core -P	37.22%							15IT102	Program Design And Development	3	0	0	3	15CS202	Digital System Design	3	0	0	3	15SE205J	Programming In Java	3	0	2	4
								15IT102L	Program Design And Development Laboratory	0	0	2	1	15CS201J	Data Structures	3	0	2	4	15CS204J	Algorithm Design And Analysis	3	0	2	4
														15SE201J	Object Oriented Programming Using C++	3	0	2	4	15CS205J	Microprocessors And Microcontrollers	3	0	2	4
														15CS203	Computer System Architecture	3	0	0	3	15SE203	Object Oriented Analysis And Design	2	2	0	3
	67		Total	0	0	0	0		Total	3	0	2	4		Total	12	0	4	14		Total	11	2	6	15
Prof/Elective	8.33%																								
	18		Total	0	0	0	0		Total	0	0	0	0		Total	0	0	0	0		Total	0	0	0	0
Project / Seminar / Internship-P	8.33%																								
	18		Total	0	0	0	0		Total	0	0	0	0		Total	0	0	0	0		Total	0	0	0	0
Open Electives	.																								
	6		Total	0	0	0	0		Total	0	0	0	0		Total	0	0	0	0		Total	0	0	0	0
Total	180		Contact hours	20	2	10	26		Contact hours	17	2	8	23		Total contact hours	22	1	4	24		Total Contact hours	21	3	6	25

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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C Credits; P Practical Hours / Week

Category	Year 3 – 1st Semester: Course Code	Course Title	L	T	P	C	Year 3 – 2nd Semester: Course Code	Course Title	L	T	P	C	Year 4 – 1st Semester: Course Code	Course Title	L	T	P	C	Year 4 – 2nd Semester: Course Code	Course Title	L	T	P	C
Arts & Humanities-G																								
	15PD301	Communication & Reasoning Skills	1	1	0	1	15PD302	Quantitative Aptitude & Logical Reasoning –II	1	1	0	1												
	15	Total	1	1	0	1		Total	1	1	0	1		Total	0	0	0	0		Total	0	0	0	0
Basic Sciences - B	15MA302	Discrete Mathematics	4	0	0	4																		
	35	Total	4	0	0	4		Total	0	0	0	0		Total	0	0	0	0		Total	0	0	0	0
Engineering Sciences -E																								
	15CS302J	Operating Systems	3	0	2	4	15CS314J	Compiler Design	3	0	2	4	15IT304J	Web Programming	3	0	2	4						
	15CS301	Theory Of Computation	3	0	0	3	15SE202	Software Engineering Principles	3	0	0	3	15CS401	Artificial Intelligence	3	0	0	3						
	15IT303J	Computer Networks	3	0	2	4	15IT302J	Database Management Systems	3	0	2	4	15SE204	Professional Ethics And Software Economics	2	0	0	2						
							15CS303M	Multi Disciplinary Design	3	0	0	3												
		Total	9	0	4	11		Total	12	0	4	14		Total	8	0	2	9		Total	0	0	0	0
Prof/Elective		**Dept Elective-I**	**3**	**0**	**0**	**3**		**Dept Elective-III**	**3**	**0**	**0**	**3**		**Dept Elective-V**	**3**	**0**	**0**	**3**						
		Dept Elective-II	**3**	**0**	**0**	**3**		**Dept Elective-IV**	**3**	**0**	**0**	**3**		**Dept Elective-VI**	**3**	**0**	**0**	**3**						
		Total	6	0	0	6		Total	6	0	0	6		Total	6	0	0	6		Total	0	0	0	0
Project / Seminar / Internship-P	15CS375L / 15CS380L / 15CS385L / 15CS490L	Minor Project I / Seminar I / MOOCs 1 / Industrial Module I	0	0	3	2	15CS376L / 15CS381L / 15CS386L / 15CS491L	Minor Project II / Seminar II / MOOCs II / Industrial Module II	0	0	3	2							15CS496L	Major Project	0	0	24	12
	15CS390L	Industrial Training	0	0	3	2																		
		Total	0	0	6	4		Total	0	0	3	2		Total	0	0	0	0		Total	0	0	24	12
Open Electives								Open Elective I	3	0	0	3		Open Elective II	3	0	0	3						
								As per list / as taken by the student						As per list / as taken by the student										
		Total	0	0	0	0		Total	3	0	0	3		Total	3	0	0	3		Total	0	0	0	0
Total		Total Contact hours	20	1	10	26		Total contact hours	22	1	7	28		Total contact hours	17	0	2	18		Total contact hours	8	0	24	12

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List of subjects for Dept Elective - I and Dept Elective - II

COURSE CODE	Course Title	L	T	P	C
15CS320E	Computational Logic	3	0	0	3
15SE321E	Principles Of Programming Languages	3	0	0	3
15CS322E	Neuro Fuzzy And Genetic Programming	3	0	0	3
15CS323E	Distributed Computing	3	0	0	3
15IT345E	Linux Internals	3	0	0	3
15SE334E	Advanced Java Programming	2	2	0	3
15SE329E	Visual Programming	2	2	0	3
15IT322E	Python Programming	2	2	0	3
15SE328E	Programming In PHP	2	2	0	3
15IT323E	Game Programming	2	2	0	3
15IT324E	Mobile Application Development	2	2	0	3
15SE322E	E-Commerce	3	0	0	3
15CS324E	Machine Learning	3	0	0	3
15CS325E	Digital Image Processing	3	0	0	3
15CS326E	Visualization Techniques	3	0	0	3
15CS327E	Cellular Automata	3	0	0	3
15CS328E	Virtual Reality	3	0	0	3
15CS329E	Geographical Information Systems	3	0	0	3
15EC252	Principles Of Communication Systems	3	0	0	3
15EC323E	Embedded System Design	3	0	0	3

COURSES CUSTOMISED TO OTHER DEPARTMENTS

Course Code	Course Title	L	T	P	C	Offered to
15CS251E	Fundamentals of Data Structures	3	0	0	3	EEE
15CS252J	Data Structures And Algorithms	2	0	2	3	EIE
15CS253E	Speech Recognition System	3	0	0	3	ECE
15CS254E	Mobile And Pervasive Computing	3	0	0	3	ECE
15CS255E	Design And Analysis Of Algorithms	3	0	0	3	Mechatronics

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List of subjects for Dept Elective - III and Dept Elective - IV

COURSE CODE	Course Title	L	T	P	C
15CS330E	Human Computer Interface	3	0	0	3
15CS331E	Data Mining And Analytics	3	0	0	3
15IT326E	Cloud Computing	3	0	0	3
15CS332E	Wireless Sensor Networks	3	0	0	3
15IT327E	Cryptography	3	0	0	3
15IT362E	Information Storage And Management	3	0	0	3
15SE333E	Pervasive Computing	3	0	0	3
15IT328E	Parallel Programming Using OpenCL	3	0	0	3
15CS333E	Biometrics	3	0	0	3
15IT330E	Text Mining	3	0	0	3
15IT331E	Computer Graphics	2	2	0	3
15IT332E	Software Testing	3	0	0	3
15CS334E	Network Programming	3	0	0	3
15SE327E	Distributed Operating Systems	3	0	0	3
15CS335E	Computer Forensics	3	0	0	3
15CS336E	Network Routing Algorithms	3	0	0	3
15CS337E	High Performance Computing	3	0	0	3
15EC353	Digital Signal Processing Techniques	3	0	0	3
15CS338E	Database Security And Privacy	3	0	0	3
15MA317E	Optimization Techniques	3	0	0	3

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List of subjects for Dept Elective - V and Dept Elective - VI

COURSE CODE	Course Title	L	T	P	C
15CS421E	Natural Language Processing	3	0	0	3
15CS422E	Knowledge Based Decision Support Systems	3	0	0	3
15IT422E	Internet Of Things	2	2	0	3
15CS423E	Software Defined Networks	3	0	0	3
15SE323E	Design Patterns	3	0	0	3
15IT424E	Business Intelligence And Analytics	3	0	0	3
15CS424E	Semantic Web	3	0	0	3
15SE427E	Wireless And Mobile Communication	3	0	0	3
15IT426E	Parallel Architecures And Algorithms	3	0	0	3
15CS425E	Service Oriented Architecture	3	0	0	3
15CS426E	Pattern Recognition Techniques	3	0	0	3
15CS427E	Nature Inspired Computing Techniques	3	0	0	3
15CS428E	Optical Networks	3	0	0	3
15CS429E	Computational Linguistics	3	0	0	3
15CS430E	Bio Informatics	3	0	0	3
15IT423E	Data Science and Big Data Analytics	2	2	0	3
15CS432E	Data Centric Networks	3	0	0	3
15CS433E	Network Design And Management	3	0	0	3
15CS434E	Network Security	3	0	0	3
15EC352E	Introduction to VLSI Design	3	0	0	3