5 Year Dual Degree B. Tech. (Computer Science & Engineering)+ M.Tech. / MBA

Effective from: 2015 -2016   ISR

SEMESTER I

Sr. No.	Courses Code	Courses	L-T-P		Credits
1	CY101	Engineering Chemistry	3-1-0	FC-C1	4
2	MA101	Engineering Mathematics – I	3-1-0	FC-C2	4
3	ES 101	Environmental studies	2-1-0	AECC1	3
4	CS101	Computer Programming – I	2-0-0	FC-C3	2
5	EC101	Basic Electronics	2-1-0	FC-C4	3
6	EN101	English Proficiency	2-0-0	AECC2	2
7	BS101	Human Values & Buddhist Ethics	2-0-0	AECC3	2
8	CY103	Engineering. Chemistry Lab	0-0-2	FC-C5	1
9	CS 181	Computer Programming Lab1	0-0-2	FC-C6	1
10	CE103	Engineering Graphics	0-0-3	FC-C7	2
11	EC181	Basic Electronics Lab	0-0-2	FC-C8	1
12	GP	General Proficiency	------	Non Credit	
		Total Credits			25
		Total Contact Hours	16-4-9	29	

Ability Enhancement Compulsory Course (AECC):

1. EN101 English Proficiency
2. ES 101 Environmental studies
3. BS101 Human Values & Buddhist Ethics

SEMESTER II

Sr. No.	Courses Code	Courses	L-T-P		Credits
1	PH102	Engineering Physics	3-1-0	FC- C9	4
2	MA102	Engineering Mathematics – II	3-1-0	FC-C10	4
3	ME 101	Engineering Mechanics	2-1-0	FC-C11	3
4	CS102	Computer Programming – II	2-0-0	FC-C12	2
5	EE102	Electrical Technology	2-1-0	FC-C13	3
6	HU102	Professional Communication	2-0-0	AECC4	2
7	--	Open Elective 1	2-0-0	OE 1	2
9	PH104	Engineering Physics Lab	0-0-2	FC-C14	1
10	CS182	Computer Programming Lab - II	0-0-2	FC-C15	1
11	EE104	Electrical Technology Lab	0-0-2	FC-C16	1
12	ME102	Engineering Workshop	0-0-3	FC-C17	2

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13	GP	General Proficiency	------	Non Credit	
					25
		Total Credits			
		Total Contact Hours	16-3-10	29	

Ability Enhancement Compulsory Course (AECC):

1.   HU 102 Professional Communication

Open Elective I (OE) Courses offered from other school

SEMESTER – III

Sr. No.	Courses Code	Courses	L-T-P		Credits
1	MA201	Engineering Mathematics III	3-1-0	FC-C18	4
2	EC201	Digital Electronics	3-0-0	FC-C19	3
3	CS201	Internet Technology	3-0-0	C20	3
4	CS203	Operating Systems	3-0-0	C21	3
5	CS205	Data Structure & Algorithms	2-1-0	C22	3
6	CS207	System Analysis and Design	3-0-0	C23	3
7	EC281	Digital Electronics Lab	0-0-3	FC-C24	2
8	CS281	Internet Technology Lab	0-0-3	C25	2
9	CS283	Data Structure and Algorithms Lab	0-0-3	C26	2
10	GP	General Proficiency	------	Non Credit	
		Total Credits			25
		Total Contact Hours	17-2-9	28	

SEMESTER – IV

Sr. No.	Courses Code	Quantitative Techniques	L-T-P		Credits
1	MA202	Numerical and Statistical Analysis	3-1-0	C27	4
2	EC210	Principles of Communication	2-1-0	C28	3
3	CS202	Software Engineering	3-0-0	C29	3
4	CS204	Discrete Structure	3-0-0	FC-C30	3
5	CS206	Data Base Management System	3-0-0	C31	3
6	CS208	Principles of Programming Language	2-0-0	C32	2

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7	EC282	Analog Communication Lab	0-0-3	C33	2
8	CS282	Software Engineering Lab	0-0-3	C34	2
9	CS284	Database Management System Lab	0-0-3	C35	2
10	GP	General Proficiency	------	Non Credit	0
					24
Total Credits					
		Total Contact Hours	16-2-9	28	

SEMESTER – V

Sr. No.	Courses Code	Courses	L-T-P		Credits
1	CS301	Theory of Automata	3-1-0	C36	4
2	CS303	Web Development	3-1-0	C37	4
3	CS305	Computer Graphics	2-1-0	C38	3
4	CS307	Analysis and Design of Algorithms	2-1-0	C39	3
5	CS309	Computer Organization & Architecture	3-0-0	C40	3
6		Open Elective	2-0-0	OE2	2
7	CS381	Web Development Lab	0-0-3	C41	2
8	CS383	Computer Graphics Lab	0-0-3	C42	2
9	GP	General Proficiency	------	Non Credit	
					23
Total Credits					
		Total Contact Hours	15-4-6	25	

Open Elective (OE):

1. CS311 Ecommerce
2. CE311 Engineering Economics

SEMESTER – VI

Sr. No.	Courses Code	Courses	L-T-P		Credits
1	CS302	Distributed Operating System	3-1-0	C43	4
2	CS304	Concepts of Artificial Intelligence	3-0-0	C44	3
3	CS306	Advanced Computer Architecture	3-0-0	C45	3
4	CS308	Computer Networks	3-1-0	C46	4

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5	EC304	Microprocessor and Interfacing	3-0-0	C47	3
6	CS 312	Management Information System	2-0-0	SEC2	2
7	EC384	Microprocessor and Interfacing Lab	0-0-3	C48	2
8	CS382	Computer Networks Lab	0-0-3	C49	2
9	GP	General Proficiency	------	Non Credit	
					23
		Total Credits	Total	17-2-6	25
		Contact Hours			

Skill Enhancement Course (SEC):

1. CS312 Management Information System

SEMESTER – VII

Sr. No.	Courses Code	Courses	L-T-P		Credits
1.		Generic Elective	3-1-0	GE 1	4
2	CS401	Compiler Design	3-0-0	C50	3
3	CS403	Object-Oriented Analysis	3-0-0	C51	3
4		Elective 1	3-0-0	DSE1	3
5		Elective 2	3-0-0	DSE2	3
6	CS481	Compiler Design Lab	0-0-3	C52	2
7	CS491	Seminar	0-0-2	DP1	1
8	CS493	Minor Project	0-0-8	DP2	4
9	GP	General Proficiency	------	Non Credit	
			Total		23
		Credits	Total Contact	14-3-13	30
		Hours			

		Electives			
1.	CS405	Formal Methods			
2.	CS451	Wireless Technologies			
3.	EC405	Wireless Mobile Communication			
4.	EC443	Telecommunication Security and Networks			
5.	CS441	Software project management.			

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Generic Elective (GEI)

1. MA406 Operation Research Techniques
2. MA507 Optimization Techniques
3. MA417 Number Theory

SEMESTER VIII

Sr. No.	Courses Code	Courses	L-T-P		Credits
1		Generic Elective	3-1-0	GE1	4
2	CS562	Knowledge Engineering	3-0-0	C53	3
3	CS 564	Soft Computing Techniques	3-0-0	C54	3
4	CS 572	Introduction to Embedded System	3-0-0	C55	3
		Elective-1	3-0-0	DSE1	3
6	CS584	Soft Computing lab	0-0-3	C56	2
7	CS592	Major Project	0-0-10	DP1	5
8	GP	General Proficiency	------	NCC	
		Total Credits			23
		Total Contact Hours		15-1-13 =	29

		Electives (1)	
1	CS568	Machine Translation and Learning	
2	CS 570	Speech Processing	
3	EC477	Digital Image Processing	
4	CS 566	Natural Language Processing	
5	CS574	Any skill based course by NSDC*credits will be decided when the course is run.	

Generic Elective (GE2)

1. MA 402 Modeling and Simulation
   MA416 Probability and Stochastic Process

		Summer Semester (After 8th Semester)			
Sr. No.	Courses Code	Courses	L-T-P		Credits
1	CS490	Summer Project / Industrial Training		DP4	5
		Total Credits			05
		Total Contact Hours		4-6 week	

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SEMESTER IX

Sr. No.	Courses Code	Course	L-T-P		Credits
1	CS661	Expert System Design	3-0-0	C57	3
2	CS699	Robotics	3-0-0	C58	3
3		Elective 2	3-0-0	DSE2	3
4		Elective 3	3-0-0	DSE3	3
5	CS683	Expert System Design Lab	0-0-3	C59	2
6	CS691	Dissertation Part - I	0-0-14	DP2	7
7	GP	General Proficiency	------	NCC	
		Total Credits			21
		Total Contact Hours	12-0-17		29

Electives (2 & 3)

1	CS663	Intelligent Information Retrieval
2	CS665	Pattern Matching
3	CS 667	Evolutionary Computation
4	CS669	Fuzzy Set Theory
5	CS671	Multimedia and Computer Graphics
6	CS673	Any skill based course by NSDC*credits will be decided when the course is run.

SEMESTER X

Sr. No.	Courses Code	Courses			Credits
1	CS690	Dissertation Part – II		DP3	23
2	GP	General Proficiency			0
		Total Credits			23

GRAND TOTAL CREDITS = 240