SCHOOL
OF
INFORMATION AND COMMUNICATION TECHNOLOGY

COURSE STURCTURE

5 YEARS DUAL DEGREE B.TECH. (CSE) + M. TECH. / MBA

SPECIALIZATION:

INTELLIGENT SYSTEMS AND ROBOTICS

GAUTAM BUDDHA UNIVERSITY
GAUTAM BUDH NAGAR, GREATER NOIDA
2014-2015

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

Effective from: 2014 -2015

SEMESTER I

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	CY101 / PH102	Engineering Chemistry / Engineering Physics	3-1-0	4
2	MA101	Mathematics - I	3-1-0	4
3	CS103	Fundamentals of Information Security	3-0-0	3
4	CS101	Computer Programming - I	2-0-0	2
5	EC101 / EE102	Basic Electronics / Electrical Technology	2-0-0	2
6	HU101	English Proficiency	2-0-0	2
7	SS101	Human Values & Buddhist Ethics	2-0-0	2
8	CY103 / PH104	Engg. Chemistry Lab / Engg. Physics Lab	0-0-2	1
9	CS183	Cyber Security Lab	0-0-3	2
10	CS181	Computer Programming Lab - I	0-0-3	2
11	EC181 / EE104	Basic Electronics Lab / Electrical Technology Lab	0-0-2	1
12	GP101	General Proficiency	------	1
		Total Credits		**26**
		Total Contact Hours	**16-3-10 =**	**29**

SEMESTER II

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	PH102 / CY101	Engineering Physics/ Engineering Chemistry	3-1-0	4
2	MA102	Mathematics - II	3-1-0	4
3	CE106	Ecology and Environment	2-1-0	3
4	CS102	Computer Programming - II	2-0-0	2
5	EE102 / EC101	Electrical Technology / Basic Electronics	2-0-0	2
6	HU102	Professional Communication	2-0-0	2
7	SS102	History of Science & Technology	2-0-0	2
8	PH104 / CY103	Engg.. Physics Lab/ Engg.. Chemistry Lab	0-0-2	1
9	CS182	Computer Programming Lab - II	0-0-3	2
10	EE104 / EC181	Electrical Technology Lab/ Basic Electronics Lab	0-0-2	1
11	ME102	Workshop Practices	0-0-3	2
12	GP102	General Proficiency	------	1
		Total Credits		**26**
		Total Contact Hours	**16-3-10 =**	**29**

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SEMESTER – III

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	MA201	Quantitative Techniques	3-1-0	4
2	EC201 / EC431	Digital Electronics	3-0-0	3
3	CS201	Internet Technology	3-0-0	3
4	CS203 / CS431	Operating System	3-0-0	3
5	CS205	Data Structure & Algorithms	2-1-0	3
6	CS207	System Analysis and Design	3-0-0	3
7	EC281 / EC483	Digital Electronics Lab	0-0-3	2
8	CS281	Internet Technology Lab	0-0-3	2
9	CS283	Data Structure and Algorithms Lab	0-0-3	2
10	GP201	General Proficiency	------	1
		Total Credits		**26**
		Total Contact Hours	**17-2-9 =**	**28**

SEMESTER – IV

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	MA202	Numerical Methods of Analysis	3-1-0	4
2	EC210	Principles of Communication	2-1-0	3
3	CS202 / CS433	Software Engineering	3-0-0	3
4	CS204	Discrete Structure	3-1-0	4
5	CS206 / CS436	Data Base Management System	3-0-0	3
6	CS208	Principles of Programming Language	2-0-0	2
7	EC282	Analog Communication Lab	0-0-3	2
8	CS282	Software Engineering Lab	0-0-3	2
9	CS284	Database Management System Lab	0-0-3	2
10	GP202	General Proficiency	------	1
		Total Credits		**26**
		Total Contact Hours	**16-3-9 =**	**28**

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SEMESTER – V

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	CS301	Theory of Automata	3-1-0	4
2	CS303	Web Development	3-1-0	4
3	CS305	Computer Graphics	3-1-0	4
4	CS307	Analysis and Design of Algorithms	3-1-0	4
5	CS309 / CS438	Computer Organization & Architecture	3-0-0	3
6	CS311	E Commerce	2-0-0	2
7	CS381	Web Development Lab	0-0-3	2
8	CS383	Computer Graphics Lab	0-0-3	2
9	GP301	General Proficiency	------	1
		Total Credits		**26**
		Total Contact Hours	**17-4-6 =**	**27**

SEMESTER – VI

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	CS302	Distributed Operating System	3-1-0	4
2	CS304	Concepts of Artificial Intelligence	3-1-0	4
3	CS306	Advanced Computer Architecture	3-1-0	4
4	CS308	Computer Networks	3-1-0	4
5	EC304 / EC559	Microprocessor and Interfacing	3-0-0	3
6	CE318	Disaster Management	2-0-0	2
7	EC384/EC587	Microprocessor and Interfacing Lab	0-0-3	2
8	CS382	Computer Networks Lab	0-0-3	2
9	GP302	General Proficiency	------	1
		Total Credits		**26**
		Total Contact Hours	**17-4-6 =**	**27**

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SEMESTER – VII

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	SS401	Social Aspects of Engineering	2-1-0	3
2	CS401	Compiler Design	3-1-0	4
3	CS403	Object-Oriented Analysis	3-0-0	3
4	CS405	Formal Methods	3-1-0	4
5	CS407	Software Project Management	3-0-0	3
6	CS481	Compiler Design Lab	0-0-3	2
7	CS491	Seminar	0-0-2	2
8	CS493	Minor Project	0-0-8	4
9	GP401	General Proficiency	------	1
		Total Credits		**26**
		Total Contact Hours	**14-3-13 =**	**30**

SEMESTER VIII

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	MA402	Simulation & Modeling	3-1-0	4
2	CS562	Knowledge Engineering	3-0-0	3
3	CS564	Soft Computing Techniques	3-0-0	3
4	CS566	Natural Language Processing	3-0-0	3
5		**Elective-1**	3-0-0	3
6	CS584	Artificial Intelligence Programming Lab	0-0-3	2
7	CS592	Major Project	0-0-10	5
8	GP532	General Proficiency	------	1
		Total Credits		**24**
		Total Contact Hours	**15-1-13 =**	**29**

Electives (1)		
1	CS568 / CS462	Machine Translation and Learning
2	CS568/CS464	Digital Image Processing
3	CS570 / CS466	IT Law
4	CS586	AI and Neural Networks

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SEMESTER IX

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	CS661	Expert System Design	3-0-0	3
2	CS699	Robotics	3-0-0	3
3		**Elective 2**		
4		**Elective 3**		
5	CS683	Expert System Design Lab	0-0-3	2
6	CS691	Dissertation Part - I	0-0-14	7
7	GP631	General Proficiency	------	1
		Total Credits		**22**
		Total Contact Hours	**12-0-17 =**	**29**

Electives (2 & 3)		
1	CS663 / CS563	Intelligent Information Retrieval
2	CS568	Pattern Matching
3	CS667 / CS567	Speech Processing
4	CS679	Fuzzy Set Theory
5	CS675	Multimedia and Computer Graphics
6	CS545	Information Security

SEMESTER X

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	CS690	Dissertation Part - II	------	21
2	GP632	General Proficiency	------	1
		Total Credits		**22**

GRAND TOTAL CREDITS = 260