B.E. (Computer Engineering) Scheme 2015

SEMESTER-I

S.No.	CODE	TITLE	L	T	P	Cr
1	UMA003	MATHEMATICS-I	3	1	0	3.5
2	UCB008	APPLIED CHEMISTRY	3	1	2	4.5
3	UEC001	ELECTRONIC ENGINEERING	3	1	2	4.5
4	UES009	MECHANICS	2	1	2*	2.5
5	UTA007	COMPUTER PROGRAMMING-I	3	0	2	4.0
6	UEN002	ENERGY & ENVIRONMENT	3	0	0	3.0
		TOTAL	17	4	6	22

* EACH STUDENT WILL ATTEND ONE LAB SESSION OF 2 HRS IN A SEMESTER FOR A BRIDGE PROJECT IN THIS COURSE (MECHANICS).

SEMESTER-II

S.No.	CODE	TITLE	L	T	P	Cr
1	UMA004	MATHEMATICS-II	3	1	0	3.5
2	UPH004	APPLIED PHYSICS	3	1	2	4.5
3	UHU003	PROFESSIONAL COMMUNICATION	2	0	2	3.0
4	UEE001	ELECTRICAL ENGINEERING	3	1	2	4.5
5	UTA009	COMPUTER PROGRAMMING-II	3	0	2	4.0
6	UTA008	ENGINEERING DESIGN-I	2	4	0	4.0
		TOTAL	16	7	8	23.5

SEMESTER-III

S.No.	CODE	TITLE	L	T	P	Cr
1	UMA007	NUMERICAL ANALYSIS	3	1	2	4.5
2	UES012	ENGINEERING MATERIALS	3	1	2	4.5
	UTA010	ENGINEERING DESIGN-II (6 SELF EFFORT HOURS)	1	0	2	5.0
4	UCS405	DISCRETE MATHEMATICAL STRUCTURES	3	1	0	3.5
5	UCS304	INFORMATION MANAGEMENT SYSTEM (2 SELF EFFORT HOURS)	3	0	4	6.0
6	UHU005	HUMANITIES FOR ENGINEERS	2	0	2	3.0
		TOTAL	15	3	12	26.5

SEMESTER-IV

S.No.	CODE	TITLE	L	T	P	Cr
1	UMA031	OPTIMIZATION TECHNIQUES	3	1	0	3.5
2	UES010	SOLIDS AND STRUCTURES	3	1	2	4.5
	UES011	THERMO-FLUIDS	3	1	2	4.5
4	UTA002	MANUFACTURING PROCESSES	2	0	3	3.5
5	UCS406	DATA STRUCTURES & ALGORITHMS (4 SELF EFFORT HOURS)	3	0	2	6.0
6	UCS407	INVENTIONS & INNOVATIONS IN COMPUTING	2	0	0	2.0
7	UTA011	ENGINEERING DESIGN-III (10 SELF	1	0	4	8.0

		EFFORT HOURS)				
		TOTAL	17	3	13	32.0

Summer Semester

UCS303: Operating Systems	3	0	2	4.0
UCS520: Computer Networks	3	0	2	4.0

Add 8.0 Cr

SEMESTER-V

S.No.	CODE	TITLE	L	T	P	Cr
1	UCS616	ADVANCED DATA STRUCTURES AND ALGORITHMS	3	0	2	4.0
2	UCS503	SOFTWARE ENGINEERING	3	0	2	4.0
	UCS507	COMPUTER ARCHITECTURE AND ORGANIZATION	3	0	2	4.0
4	UCS701	THEORY OF COMPUTATION	3	1	0	3.5
5	UCS525	PROFESSIONAL PRACTICES#	0	1	2	1.5
6	UCS521	ARTIFICIAL INTELLIGENCE	3	1	0	3.5
7		ELECTIVE-I	3	0	2	4.0
		TOTAL	18	3	10	24.5

#The course would consist of talks by working professionals from industry, government, academia & research organizations.

SEMESTER-VI

S.No.	CODE	TITLE	L	T	P	Cr
1	UCS617	MICROPROCESSOR-BASED SYSTEMS DESIGN	3	0	2	4.0
2	UCS614	EMBEDDED SYSTEMS DESIGN	3	0	2	4.0
	UCS615	IMAGE PROCESSING	3	0	2	4.0
4		ELECTIVE-II	3	0	2	4.0
5		ELECTIVE-III	3	0	2	4.0
6	UTA012	INNOVATION AND ENTREPRENEURSHIP (5 SELF EFFORT HOURS)	1	0	2	4.5
7	UCS794	CAPSTONE PROJECT* (STARTS) (6 SELF EFFORT HOURS)	0	0	2	-
		TOTAL	16	0	14	24.5

* Design / Fabrication / Implementation work under the guidance of a faculty member. Prior to registration, a detailed plan of work should be submitted by the student to the Course Coordinator for approval.

SEMESTER-VII

S.No.	CODE	TITLE	L	T	P	Cr
1	UCS802	COMPILER CONSTRUCTION	3	0	2	4.0
2		ELECTIVE IV	3	0	2	4.0
3	UCS781	INDEPENDENT STUDY	0	2	0	1.0
5	UCS794	CAPSTONE PROJECT (14 SELF EFFORT HOURS)	0	0	2	12.0
		TOTAL	6	2	6	21

SEMESTER-VIII

S.No.	CODE	TITLE	L	T	P	Cr
1	UCS895	PROJECT SEMESTER				20.0
		OR				
2	UCS897	START-UP SEMESTER				20.0
		OR				
3	UCS896	CAPSTONE PROJECT II (Self Effort Hours 20)	0	0	4	12.0
4	UCS801	SOFTWARE PROJECT MANAGEMENT	3	0	2	4.0
5	UCS806	ETHICAL HACKING	3	0	2	4.0
		TOTAL	6	0	8	20

LIST OF ELECTIVES

ELECTIVE-I

S.No.	CODE	TITLE	L	T	P	Cr
1	UCS608	PARALLEL & DISTRIBUTED COMPUTING	3	0	2	4.0
2.	UCS522	COMPUTER VISION	3	0	2	4.0
3.	UML501	MACHINE LEARNING	3	0	2	4.0
4.	UCS523	COMPUTER & NETWORK SECURITY	3	0	2	4.0
5.	UCS524	ENGINEERING SOFTWARE AS A SERVICE	3	0	2	4.0

ELECTIVE-II

S.No.	CODE	TITLE	L	T	P	Cr
1	UCS631	GPU COMPUTING	3	0	2	4.0
2.	UCS632	3D MODELLING AND ANIMATION	3	0	2	4.0
3.	UCS633	DATA ANALYTICS & VISUALIZATION	3	0	2	4.0
4.	UCS634	SECURE CODING	3	0	2	4.0
5.	USE401	SOFTWARE METRICS AND QUALITY MANAGEMENT	3	0	2	4.0

ELECTIVE-III

S.NO.	CODE	TITLE	L	T	P	CR
1	UCS641	CLOUD COMPUTING	3	0	2	4.0
2.	UCS642	AUGMENTED AND VIRTUAL REALITY	3	0	2	4.0
3.	UML602	NATURAL LANGUAGE PROCESSING	3	0	2	4.0
4.	UCS643	CYBER FORENSICS	3	0	2	4.0
5.	UCS644	SOFTWARE VERIFICATION AND VALIDATION	3	0	2	4.0

ELECTIVE-IV

S.NO.	CODE	TITLE	L	T	P	CR
1	UCS741	SIMULATION & MODELLING	3	0	2	4.0
2.	UCG731	GAME DESIGN & DEVELOPMENT	3	0	2	4.0
3.	UCS742	DEEP LEARNING	3	0	2	4.0
4.	UCS743	ADVANCED COMPUTER NETWORKS	3	0	2	4.0
5.	UCS709	ADVANCED TOPICS IN SOFTWARE ENGINEERING	3	0	2	4.0