

**BE (COE-MBA) 2017 Scheme**

**SEMESTER-I**

S. N.	COURSE NO.	TITLE	L	T	P	CR
1	UMA003	MATHEMATICS – I	3	1	0	3.5
2	UTA007	COMPUTER PROGRAMMING-1*	3	0	2	4.0
3	UCB008	APPLIED CHEMISTRY	3	1	2	4.5
4	UES001	ELECTRONIC ENGINEERING	3	1	2	4.5
5	UES009	MECHANICS	2	1	2	2.5
6	UTA011	ENGINEERING DESIGN PROJECT-1 (6 Self Effort Hours)	1	0	4	6.0
		<b>TOTAL</b>		<b>31</b>		<b>25.0</b>

**SEMESTER-II**

S. N.	COURSE NO.	TITLE	L	T	P	CR
1	UMA004	MATHEMATICS – II	3	1	0	3.5
2	UTA009	COMPUTER PROGRAMMING-II*	3	0	2	4.0
3	UPH004	APPLIED PHYSICS	3	1	2	4.5
4	UEE001	ELECTRICAL ENGINEERING	3	1	2	4.5
5	UHU003	PROFESSIONAL COMMUNICATION	2	0	2	3.0
6	UTA008	ENGINEERING DRAWING	2	4	0	4.0
		<b>TOTAL</b>		<b>31</b>		<b>23.5</b>

**SEMESTER-III**

S. N.	COURSE NO.	TITLE	L	T	P	CR
1	UMA007	NUMERICAL ANALYSIS	3	1	2	4.5
2	UES012	ENGINEERING MATERIALS	3	1	2	4.5
3	UTA011	ENGINEERING DESIGN PROJECT-II (5 Self Effort Hours)	1	0	3	5.0
4		DISCRETE MATHEMATICAL STRUCTURES	3	1	0	3.5
5		OPERATING SYSTEMS	3	0	2	4.0
6		COMPUTER NETWORKS	3	0	2	4.0
7	UEN002	ENERGY AND ENVIRONMENT	3	0	0	3.0
		<b>TOTAL</b>		<b>33</b>		<b>28.5</b>

**SEMESTER-IV**

S. N.	COURSE NO.	TITLE	L	T	P	CR
1	UMA031	OPTIMIZATION TECHNIQUES	3	1	0	3.5
2	UES010	SOLIDS AND STRUCTURES	3	1	2	4.5
3	UES011	THERMO-FLUIDS	3	1	2	4.5
4	UTA002	MANUFACTURING PROCESSES	2	0	3	3.5
5		DATA STRUCTURES & ALGORITHMS (4 self effort hours)	3	0	2	6.0
6		INVENTIONS & INNOVATIONS IN COMPUTING	2	0	0	2.0
7		DATABASE MANAGEMENT SYSTEMS	3	0	2	4.0
		<b>TOTAL</b>		<b>33</b>		<b>28.0</b>

**SUMMER SEMESTER AFTER SECOND YEAR**

1		ADVANCED DATA STRUCTURES & ALGORITHMS	3	0	2	4.0
2		SOFTWARE ENGINEERING	3	0	2	4.0
3		THEORY OF COMPUTATION	3	1	0	3.5
		<b>TOTAL</b>	<b>9</b>	<b>1</b>	<b>4</b>	<b>11.5</b>

**SEMESTER-V**

S. N.	COURSE NO.	TITLE	L	T	P	CR
1		COMPUTER ARCHITECTURE AND ORGANIZATION	3	0	2	4.0
2		ARTIFICIAL INTELLIGENCE	3	1	0	3.5
4		PROFESSIONAL PRACTICES	0	1	2	1.5
5		ELECTIVE I	3	0	2	4.0
6		MICROPROCESSOR BASED SYSTEMS DESIGN	3	0	2	4.0
7		EMBEDDED SYSTEMS DESIGN	3	0	2	4.0
8		CAPSTONE PROJECT* (STARTS) SEH 6	0	0	2	
		<b>TOTAL</b>		<b>29</b>		<b>21.0</b>

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

**SEMESTER-VI**

S. N.	COURSE NO.	TITLE	L	T	P	CR
1		IMAGE PROCESSING	3	0	2	4.0
2		COMPILER CONSTRUCTION	3	0	2	4.0
3		ELECTIVE II	3	0	2	4.0
4		ELECTIVE III	3	0	2	4.0
5		ELECTIVE IV	3	0	2	4.0
6		CAPSTONE PROJECT (CONTINUED) SEH-14	0	0	2	12.0
7		INNOVATION AND ENTREPRENEURSHIP (5 SELF EFFORT HOURS)	1	0	2	4.5
8		HUMANITIES FOR ENGINEERS	2	0	2	3.0
		<b>TOTAL</b>		<b>34</b>		<b>39.5</b>

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**

Ist Semester of MBA program
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**SEMESTER-VIII**

S. N.	COURSE NO.	TITLE	L	T	P	CR
1		PROJECT SEMESTER/ START-UP SEMESTER	-	-	-	20.0
<b>OR</b>						
1		CAPSTONE PROJECT II SEH-20	0	0	4	12.0
2		SOFTWARE PROJECT MANAGEMENT	3	0	2	4.0
3		ETHICAL HACKING	3	0	2	4.0

**HIGH PERFORMANCE COMPUTING**

ELECTIVE I	PARALLEL & DISTRIBUTED COMPUTING	3	0	2	4.0
ELECTIVE II	GPU COMPUTING	3	0	2	4.0
ELECTIVE III	CLOUD COMPUTING	3	0	2	4.0
ELECTIVE IV	SIMULATION & MODELLING	3	0	2	4.0

**MACHINE LEARNING AND DATA ANALYTICS**

ELECTIVE I	MACHINE LEARNING	3	0	2	4.0
ELECTIVE II	DATA ANALYTICS & VISUALIZATION	3	0	2	4.0
ELECTIVE III	NATURAL LANGUAGE PROCESSING	3	0	2	4.0
ELECTIVE IV	DEEP LEARNING	3	0	2	4.0

**COMPUTER ANIMATION AND GAMING**

ELECTIVE I	COMPUTER VISION	3	0	2	4.0
ELECTIVE II	3D MODELLING AND ANIMATION	3	0	2	4.0
ELECTIVE III	AUGMENTED AND VIRTUAL REALITY	3	0	2	4.0
ELECTIVE IV	GAME DESIGN AND DEVELOPMENT	3	0	2	4.0

**INFORMATION AND CYBER SECURITY**

ELECTIVE I	COMPUTER & NETWORK SECURITY	3	0	2	4.0
ELECTIVE II	SECURE CODING	3	0	2	4.0
ELECTIVE III	CYBER FORENSICS	3	0	2	4.0
ELECTIVE IV	ADVANCED COMPUTER NETWORKS	3	0	2	4.0

**SOFTWARE ENGINEERING**

ELECTIVE I	ENGINEERING SOFTWARE AS A SERVICE	3	0	2	4.0
ELECTIVE II	SOFTWARE METRICS AND QUALITY MANAGEMENT	3	0	2	4.0
ELECTIVE III	SOFTWARE VERIFICATION AND VALIDATION	3	0	2	4.0
ELECTIVE IV	ADVANCED TOPICS IN SOFTWARE ENGINEERING	3	0	2	4.0