

**THAPAR UNIVERSITY**

**Course Scheme**

**&**

**Syllabus**

**For**

**B.E.**

**Electronics**

**&**

**Computer Engineering**

**2017**

**BE IN ELECTRONICS AND COMPUTER ENGINEERING 2017 BATCH****ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT****2017****SEMESTER-I**

<b>Sr. No.</b>	<b>Course No.</b>	<b>Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Cr</b>
1	UCB008	APPLIED CHEMISTRY	3	1	2	4.5
2	UTA007	COMPUTER PROGRAMMING - I	3	0	2	4.0
3	UEE001	ELECTRICAL ENGINEERING	3	1	2	4.5
4	UEN002	ENERGY AND ENVIRONMENT	3	0	0	3.0
5	UMA003	MATHEMATICS-I	3	1	0	3.5
6	UES009	MECHANICS ^	2	1	2 ^	2.5
		<b>TOTAL</b>	<b>17</b>	<b>4</b>	<b>8</b>	<b>22.0</b>

**SEMESTER-II**

<b>Sr. No.</b>	<b>Course No.</b>	<b>Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Cr</b>
1	UPH004	APPLIED PHYSICS	3	1	2	4.5
2	UTA009	COMPUTER PROGRAMMING-II	3	0	2	4.0
3	UEC001	ELECTRONIC ENGINEERING	3	1	2	4.5
4	UTA015	ENGINEERING DRAWING	2	4	0	4.0
5	UHU003	PROFESSIONAL COMMUNICATION	2	0	2	3.0
6	UMA004	MATHEMATICS-II	3	1	0	3.5
		<b>TOTAL</b>	<b>16</b>	<b>7</b>	<b>8</b>	<b>23.5</b>

**SEMESTER-III**

<b>Sr. No.</b>	<b>Course No.</b>	<b>Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Cr</b>
1	UTA013	ENGINEERING DESIGN PROJECT-I (6 Self-Effort Hours) (Mangonel)	1	0	2	5.0
2	UES012	ENGINEERING MATERIALS	3	1	2	4.5
3	UMA007	NUMERICAL ANALYSIS	3	1	2	4.5
4	UEC407	MICROPROCESSOR AND THEIR APPLICATIONS	3	1	2	4.5
5	UEC503	NETWORK ANALYSIS & SYNTHESIS	3	1	0	3.5
6	UEC404	SIGNALS AND SYSTEMS	3	1	2	4.5
		<b>TOTAL</b>	<b>16</b>	<b>5</b>	<b>10</b>	<b>26.5</b>

**BE IN ELECTRONICS AND COMPUTER ENGINEERING 2017 BATCH****SEMESTER-IV**

Sr. No.	Course No.	Title	L	T	P	Cr
1	UTA014	ENGINEERING DESIGN PROJECT-II (6 Self-Effort Hours) (Buggy)	1	0	4	6
2	UTA002	MANUFACTURING PROCESSES	2	0	3	3.5
3	UMA031	OPTIMIZATION TECHNIQUES	3	1	0	3.5
4	UES010	SOLIDS AND STRUCTURES *	3	1	2	4.5
5	UES011	THERMO-FLUIDS *	3	1	2	4.5
6	UEC301	ANALOG ELECTRONIC CIRCUITS	3	1	2	4.5
		<b>TOTAL</b>	<b>15</b>	<b>4</b>	<b>13</b>	<b>26.5</b>

^ Only one Lab session per semester

\* The lab sessions will be on every alternate week

**SEMESTER-V**

Sr. No.	Course No.	Title	L	T	P	Cr
1	UEC401	ANALOG COMMUNICATION SYSTEMS	3	1	2	4.5
2	UEC509	COMPUTER ARCHITECTURE	3	1	0	3.5
3	UCS406	DATA STRUCTURES AND ALGORITHMS (WITH 2 SELF EFFORT HOURS)	3	0	4	6
4	UEC502	DIGITAL SIGNAL PROCESSING	3	1	2	4.5
5	UEC612	DIGITAL SYSTEM DESIGN	3	1	2	4.5
6	UCS303	OPERATING SYSTEMS	3	0	2	4
		<b>TOTAL</b>	<b>18</b>	<b>4</b>	<b>12</b>	<b>27.0</b>

**SEMESTER-VI**

Sr. No.	Course No.	Title	L	T	P	Cr
1	UEC607	DIGITAL COMMUNICATION	3	0	2	4
2	UEC608	EMBEDDED SYSTEMS	2	0	2	3
3	UCS304	INFORMATION MANAGEMENT SYSTEMS (WITH 2 SELF EFFORT HOURS)	3	0	4	6
4	UTA012	INNOVATION AND ENTREPRENEURSHIP (5 SELF EFFORT HOURS)	1	0	2	4.5
5	UEC609	MOS CIRCUIT DESIGN	3	1	2	4.5
6	UEC750	SOFT COMPUTING	3	1	2	4.5
7	UEC797	CAPSTONE PROJECT (STARTS) (4 SELF EFFORT HOURS)	-	-	2	-
8		GENERIC ELECTIVE	3	0	0	3.0
		<b>TOTAL</b>	<b>18</b>	<b>2</b>	<b>14</b>	<b>29.5</b>

**BE IN ELECTRONICS AND COMPUTER ENGINEERING 2017 BATCH****SEMESTER-VII**

Sr. No.	Course No.	Title	L	T	P	Cr
1	UEC706	DATA COMMUNICATION AND PROTOCOL	3	1	0	3.5
2	UEC705	IMAGE PROCESSING AND COMPUTER VISION	3	1	0	3.5
3	UEC711	MACHINE LEARNING	3	1	0	3.5
4	UHU005	HUMANITIES FOR ENGINEERS	2	0	2	3
5		ELECTIVE –I	3	0	2	4
6		ELECTIVE –II	3	0	2	4
7	UEC797	CAPSTONE PROJECT (COMPLETION) (8 SELF EFFORT HOURS)	-	-	2	8
		<b>TOTAL</b>	<b>17</b>	<b>3</b>	<b>8</b>	<b>29.5</b>

**SEMESTER-VIII**

Sr. No.	Course No.	Title	L	T	P	Cr
1	UEC892	PROJECT SEMESTER				20
		OR				
2		ELECTIVE –III	3	1	0	3.5
3		ELECTIVE –IV	2	1	2	3.5
4	UEC894	PROJECT	-	-	#	13
		<b>Total</b>				<b>20</b>
		OR				
5	UEC896	START-UP SEMESTER	0	0	0	20

**List of Electives****Department Elective –I**

Sr. No.	Course No.	Course Name	L	T	P	Cr.
1	UEC709	FIBER OPTICS COMMUNICATION	3	0	2	4.0
2	UCS608	PARALLEL & DISTRIBUTED COMPUTING	3	0	2	4.0
3	UEC747	ANTENNA & WAVE PROPAGATION	3	0	2	4.0
4	UEC512	LINEAR INTEGRATED CIRCUIT ANALYSIS	3	0	2	4.0
5	UCS523	COMPUTER AND NETWORK SECURITY	3	0	2	4.0

**BE IN ELECTRONICS AND COMPUTER ENGINEERING 2017 BATCH****Department Elective –II**

Sr. No.	Course No.	Course Name	L	T	P	Cr.
1	UCS503	SOFTWARE ENGINEERING	3	0	2	4.0
2	UEC625	DSP PROCESSORS	3	0	2	4.0
3	UEC626	VIDEO SIGNAL PROCESSING	3	0	2	4.0
4	UCS811	MOBILE APPLICATION DEVELOPMENT	3	0	2	4.0
5	UEC627	WIRELESS COMMUNICATION	3	0	2	4.0

**Department Elective –III**

Sr. No.	Course No.	Course Name	L	T	P	Cr.
1	UEC854	ASIC AND FPGA	3	1	0	3.5
2	UEC861	CLOUD COMPUTING	3	1	0	3.5
4	UEC860	POWER ELECTRONICS	3	1	0	3.5

**Department Elective –IV**

Sr. No.	Course No.	Course Name	L	T	P	Cr.
1.	UEC855	SPEECH PROCESSING	2	1	2	3.5
2.	UEC865	IC FABRICATION	3	1	0	3.5
3.	UEC742	MEMS	3	1	0	3.5
4.	UEI718	VIRTUAL INSTRUMENTATION	2	1	2	3.5

**GENERIC ELECTIVE**

S.NO	CODE	TITLE	L	T	P	CR
1	UHU006	INTRODUCTORY COURSE IN FRENCH	3	0	0	3.0
2.	UCS001	INTRODUCTION TO CYBER SECURITY	3	0	0	3.0
3.	UHU007	EMPLOYABILITY DEVELOPMENT SKILLS	2	2	0	3.0
4.	UEN004	TECHNOLOGIES FOR SUSTAINABLE DEVELOPMENT	3	0	0	3.0
5.	UHU008	INTRODUCTION TO CORPORATE FINANCE	3	0	0	3.0
6.	UHU009	INTRODUCTION TO COGNITIVE SCIENCE	3	0	0	3.0
7.	UPH063	NANO SCIENCE AND NANO-MATERIALS	3	0	0	3.0
8	UMA066	GRAPH THEORY AND APPLICATIONS	3	0	0	3.0

**Total Credits: 201.0**