



ADAMAS UNIVERSITY
SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
B.Tech (Electronics and Communication Engineering)
Course Structure for AY 2024-2025

FIRST YEAR

SEMESTER I								
S. No	Type	Course Code	Course Title	L	T	P	Contact Hrs/wk	Credits
1	Theory (BSC)	MTH11501	Engineering Mathematics-I	3	1	0	4	4
2	Theory (BSC)	PHY11201	Applied Science	2	0	0	2	2
3	Theory (ESC)	CSE11001	Introduction to Programming	2	0	0	2	2
		GEE11001	Electrical and Electronics Technology	2	0	0	2	
4	Theory (HSSM)	ENG11053	English Communication	1	0	2	3	2
	Theory	GEE11012	Disruptive Technology Innovations	1	0	2	3	
5	Theory (BSC)	BIT11003	Life Sciences	2	0	0	2	2
6	Theory	DGS11001	Design Thinking	1	0	2	3	2
	Theory (ESC)	MEE11002	Engineering Mechanics	2	1	0	3	3
7	Practical (BSC)	PHY12202	Applied Science Lab	0	0	4	4	2
8	Practical (ESC)	CSE12002	Programming Lab	0	0	4	4	2
		GEE12002	Electrical and Electronics Technology Lab	0	0	4	4	
9	Practical (ESC)	CEE12001	Engineering Drawing and CAD	0	0	4	4	2
		MEE12001	Engineering Workshop	0	0	4	4	
Total				11/12	1/2	14/16	28	20/21

SEMESTER II								
S. No	Type	Course Code	Course Title	L	T	P	Contact Hrs/wk	Credits
1.	Theory (BSC)	MTH11502	Engineering Mathematics– II	3	1	0	4	4
2.	Theory (ESC)	MEE11002	Engineering Mechanics	2	1	0	3	3
	Theory	DGS11001	Design Thinking	1	0	2	3	2
3.	Theory (BSC)	EVS11112	Environmental Science	2	0	0	2	2
4.	Theory (ESC)	GEE11001	Electrical and Electronics Technology	2	0	0	2	2
		CSE11001	Introduction to Programming	2	0	0	2	
5.	Theory	GEE11012	Disruptive Technology Innovations	1	0	2	3	2
	Theory (HSSM)	ENG11053	English Communication	1	0	2	3	
6.	Theory	EIC11001	Venture Ideation	2	0	0	2	2
7.	Practical (ESC)	GEE12002	Electrical and Electronics Technology Lab	0	0	4	4	2
		CSE12002	Programming Lab	0	0	4	4	
8	Practical (ESC)	MEE12001	Engineering Workshop	0	0	4	4	2
		CEE12001	Engineering Drawing and CAD	0	0	4	4	
Total				11/12	1/2	10/12	24	18/19

Total Credits (First Year): 39

SECOND YEAR

Semester-III								
S. No	Type	Course Code	Subject Name	L	T	P	Contact Hrs/wk	Credits
1.	Theory (BSC)	MTH11535	Engineering Mathematics– III B (Z Transform, Laplace Transform, Special function etc)	3	1	0	4	4
2.	Theory (ESC)	ECE11001	Prof. Core- I (Electronic Devices)	3	0	0	3	3
3.	Theory (PCC)	ECE11002	Prof. Core- II (Analog Electronics)	3	1	0	4	4
4.	Theory (PCC)	ECE11003	Prof. Core- III (Signals and Networks)	3	1	0	4	4
5.	Theory (PCC)	CSE11104	Data Structure & Algorithm	3	0	0	3	3
6.	Practical (PCC)	ECE12004	Prof. Core-II Lab (Analog Electronics Lab)	0	0	2	2	1
7.	Practical (PCC)	ECE12005	Prof. Core-III Lab (Signals and Networks Lab)	0	0	2	2	1
8.	Practical (PCC)	CSE12107	Data Structure Algorithm Lab	0	0	2	2	1
9.	Practical (Mandatory)	IDP14001	Interdisciplinary Project	0	0	5	5	3
10.	Practical (Mandatory)	SOC14100	Community Service	0	0	2	2	1
Total				15	3	13	31	25

Community Service will be taken up during the summer vacation of II Semester and evaluated in III Semester.

SEMESTER-IV

S. No	Type	Course Code	Subject Name	L	T	P	Contact Hrs/wk	Credits
1.	Theory (PCC)	ECE11006	Prof. Core- IV (Electromagnetic Fields)	3	1	0	4	4
2.	Theory (PCC)	ECE11007	Prof. Core- V (Digital Electronics)	3	0	0	3	3
3.	Theory (PCC)	ECE11008	Prof. Core- VI (Communication Systems-I)	3	1	0	4	4
4.	Theory (PCC)	ECE11009	Prof. Core- VII (Digital Signal Processing)	3	1	0	4	4
5.	Theory (PCC)	PSG11021	Human Values and Professional Ethics	2	0	0	2	2
6.	Theory (PCC)	ECE12010	Prof. Core- IV Lab (Communication Systems-I Lab)	0	0	2	2	1
7.	Practical (PCC)	ECE12011	Prof. Core- V Lab (Digital Electronics Lab)	0	0	2	2	1
8.	Practical (PCC)	ECE12012	Prof. Core- VII Lab (Digital Signal Processing Lab)	0	0	2	2	1
Total				14	3	6	23	20

Total Credits (Second Year): 45

THIRD YEAR**SEMESTER –V**

S. No	Type	Course Code	Subject Name	L	T	P	Contact Hrs /week	Credits
1.	Theory (PCC)	ECE11013	Prof. Core – VIII (Microcontrollers & Interfacing)	3	1	0	4	4
2.	Theory (PCC)	ECE11014	Prof. Core – IX (Communication Systems-II)	3	1	0	4	4
3.	Theory (PCC)	ECE11015	Prof. Core – X (VLSI System Design)	3	1	0	4	4
4.	Theory (PEC)	1.ECE11016 2.ECE11017 3.ECE11018	Prof. Elective – I 1. Antenna and Wave Propagation 2.Foundation on Artificial Intelligence and Machine Learning 3. Data Communication and Computer Networks	3	0	0	3	3
5.	Theory (PEC)	1.ECE11019 2.ECE11020 3.ECE11021	Prof. Elective – II 1. Optical Fiber Communication 2. Introduction to Machine Learning 3. Introduction to IoT	3	0	0	3	3
6.	Theory (HSSM)	ECO11505	Economics for Engineers	3	0	0	3	3
7.	Practical (PCC)	ECE12022	Prof. Core – VIII Lab (Communication Systems-II Lab)	0	0	2	2	1

8.	Practical (PCC)	ECE12023	Prof. Core – IX Lab (VLSI Systems Design Lab)	0	0	2	2	1
9.	Practical (PCC)	ECE12024	Prof. Core – X Lab (Microcontrollers & Interfacing Lab)	0	0	2	2	1
10.	Seminar (P/S/I)	ECE15033	Technical Seminar	0	0	2	2	1
Total				18	3	8	29	25

SEMESTER –VI

S. No	Type	Course Code	Subject Name	L	T	P	Contact Hrs/wk	Credits
1.	Theory (PCC)	ECE11025	Prof. Core – XI (Embedded Systems Design)	3	1	0	4	4
2.	Theory (PCC)	ECE11026	Prof. Core – XII (Control Systems)	3	1	0	4	4
3.	Theory (PCC)	ECE11027	Prof. Core – XIII (Microwave Engineering)	3	1	0	4	4
4.	Theory (PEC)	1.ECE11028 2.ECE11029 3.ECE11030	Prof. Elective – III 1.Sensors and Actuators for IOT 2.Introduction to Artificial Intelligence 3. Wireless Communication	3	0	0	3	3
5.	Theory (PEC)	1.ECE11031 2.ECE11032 3.ECE11033	Prof. Elective – IV 1. Data Acquisition 2.Advanced Machine Learning 3. Information Theory and Coding	3	0	0	3	3
6.	Theory (OEC)		Open Elective – I	3	0	0	3	3
7.	Practical (PCC)	ECE12034	Prof. Core – XI Lab (Embedded Systems Design Lab)	0	0	2	2	1
8.	Practical (Sessional) (PCC)	ECE12035	Prof. Core – XII Lab (Control Systems Lab)	0	0	2	2	1
9.	Practical (PCC)	ECE12036	Prof. Core – XIII Lab (Microwave Engineering Lab)	0	0	2	2	1
10.	Practical (PEC)	1.ECE12037 2.ECE12038 3.ECE12039	Prof. Elective – III Lab 1. Sensors and Actuators for IOT Lab 2.Introduction to Machine Learning Lab 3. Wireless Communication Lab	0	0	2	2	1
Total				18	3	8	29	25

Total Credits (Third Year): 50

FOURTH YEAR

SEMESTER-VII								
S. No	Type	Course CODE	Subject Name	L	T	P	Contact Hrs/week	Credits
1.	Theory (HSSM)	MGT11402	HSSM –V (Industrial Management)	3	0	0	3	3
3.	Theory (PEC)	1.ECE11040 2.ECE11041 3.ECE11042	Prof. Elective – V 1. Applications of IOT 2. AI for Robotics 3. Advanced Communication	3	0	0	3	3
4.	Theory (OEC)		Open Elective – II	3	0	0	3	3
5.	Theory (OEC)		Open Elective – III	3	0	0	3	3
7.	Practical (PEC)	1.ECE12043 2.ECE12044 3.ECE12045	Prof. Elective V Lab 1. Application of IOT Lab 2. Introduction to Artificial Intelligence Lab 3. Advanced Communication Lab	0	0	2	2	1
8.	Practical (PCC)	ECE14040	Summer Internship [#]	-	-	-	-	2
9.	Practical (PCC)	ECE14041	Minor Project	0	0	6	6	3
Total				12	0	8	20	18

Summer Internship for 30 days will be taken at the end of 6th semester and will be evaluated in the 7th semester.

Semester-VIII								
S. No	Type	Course Code	Subject Name	L	T	P	Contact Hrs/week	Credits
1.	Practical (PCC)	ECE14042	Industry Work Experience / SIRE* / Major Project	0	0	12	12 (For Major Project only)	6
2.	Practical (PCC)	ECE15045	Comprehensive Viva Voce	-----			-----	2
Total				0	0	12	12	8

*SIRE: Scientific Investigation & Research Experience

Total Credits Distribution Semester wise: (B. Tech)

Semester	I	II	III	IV	V	VI	VII	VIII	Total
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									Credits
Credits	20/21	18/19	25	20	25	25	18	08	160