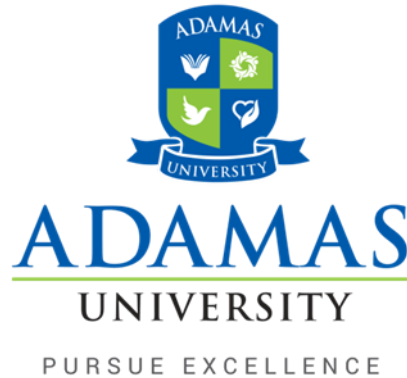


Department of ELECTRICAL ENGINEERING



ADAMAS UNIVERSITY
SCHOOL OF ENGINEERING & TECHNOLOGY
Department of Electrical Engineering
B.Tech. Programme

Course Structure and Syllabus
effective from
2019-20 Academic Year

Modified Course Structure of B. Tech. Programme for A.Y. 2019-20

First Year:

Semester I								
Sl. No.	Type	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits
1	Theory BSC	SMA41101	Engineering Mathematics – I	3	1	0	4	4
2	Theory BSC	SPH41109/ SCY41106	Engineering Physics/ Engineering Chemistry	3	0	0	3	3
3	Theory ESC	ECS41101/ EEE41102	Programming and Data Structure/ Electrical and Electronic Technology	3	0	0	3	3
4	Theory HSSM	HEN41117	HSSM – I (English Communication – I)	3	0	0	3	3
5	Theory HSSM/ BSC	HEN41119/ SBT41108	HSSM – II (Engineering Ethics, Values and the Laws)/ Life Sciences	3	0	0	3	3
6	Practical BSC	SPH41209/ SCY41206	Engineering Physics Lab/ Engineering Chemistry Lab	0	0	3	3	2
7	Practical ESC	ECS41201/ EEE41202	Data Structure Lab/ Electrical and Electronic Technology Lab	0	0	3	3	2
8	Practical ESC	ECE41201/ EME41204	Engineering Drawing and CAD/ Engineering Workshop	0	0	3	3	2
9	Practical MC	EMC41201	Communication and Collaboration Skill – I	0	0	2	2	1
Total				15	1	11	27	23

HSSM: Humanities, Social Sciences & Management

BSC: Basic Science

ESC: Engg. Science

MC: Mandatory Course

First Year:

Semester II								
Sl. No.	Type	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits
1	Theory BSC	SMA41102	Engineering Mathematics – II	3	1	0	4	4
2	Theory BSC	SCY41106/ SPH41109	Engineering Chemistry/ Engineering Physics	3	0	0	3	3
3	Theory ESC	EEE41102/ ECS41101	Electrical and Electronic Technology/ Programming and Data Structure	3	0	0	3	3
4	Theory BSC/ HSSM	SBT41108/ HEN41119	Life Sciences/ HSSM – II (Engineering Ethics, Values and the Laws)	3	0	0	3	3
5	Theory ESC	EME41102	Engineering Mechanics	3	0	0	3	3
6	Practical HSSM	HEN41212	HSSM – III (Professional Communication in English)	0	0	3	3	2
7	Practical BSC	SCY41206/ SPH41209	Engineering Chemistry Lab/ Engineering Physics Lab	0	0	3	3	2
8	Practical ESC	EEE41202/ ECS41201	Electrical and Electronic Technology Lab/ Data Structure Lab	0	0	3	3	2
9	Practical ESC	EME41202/ ECE41201	Engineering Workshop/ Engineering Drawing and CAD	0	0	3	3	2
10	Practical MC	EMC41202	Communication and Collaboration Skill – II	0	0	2	2	1
Total				15	1	14	30	25

HSSM: Humanities, Social Sciences & Management**BSC:** Basic Science**ESC:** Engg. Science**MC:** Mandatory Course

Total Credits for 1st Year: (23+25)=48

Second Year:

Semester III								
Sl. No.	Type	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits
1	Theory BSC	SMA42109	Engineering Mathematics – III (Transform Calculus and Special Functions)	3	0	0	3	3
2	Theory HSSM	HEC42180	HSSM – IV (Economics for Engineers)	3	0	0	3	3
3	Theory PC	EEE42101	Professional Core – I Electric Circuits	3	1	0	4	4
4	Theory PC	EEE42103	<i>Choice of Department</i> Electrical and Electronic Measurement	3	0	0	3	3
5	Theory PC	EEE42105	Professional Core – III Electrical Machine – I	3	0	0	3	3
6	Practical PC	EEE42201	Professional Core – I Lab Electric Circuits Lab	0	0	3	3	2
7	Practical PC	EEE42203	Professional Core – II Lab Electrical and Electronic Measurement Lab	0	0	3	3	2
8	Practical PC	EEE42205	Professional Core – III Lab Electrical Machine – I Lab	0	0	3	3	2
9	Theory	EMC42101	Design Thinking for Engineers	2	0	0	2	2
10	Practical	SET42403	Capstone Project-A	0	0	2	2	1
Total				17	1	11	29	25

HSSM: Humanities, Social Sciences & Management

BSC: Basic Science

ESC: Engg. Science

PC: Professional Core

MC: Mandatory Course

Second Year:

Sl. No.	Type	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits
1	Theory BSC	SMA42116	Engineering Mathematics – IV (Numerical Techniques)	3	0	0	3	3
2	Practical PC	EEE42302	Technical Seminar	0	0	3	3	2
3	Theory PC	EEE42102	Professional Core – IV Electrical Machine – II	3	0	0	3	3
4	Theory PC	EEE42104	Professional Core – V Microprocessor and Microcontroller	3	0	0	3	3
5	Theory PC	EEE42106	Professional Core – VI Analog and Digital Electronics	3	0	0	3	3
6	Practical BSC	SMA42211	Numerical Methods Lab	0	0	3	3	2
7	Practical PC	EEE42202	Professional Core – IV Lab Electrical Machine Lab	0	0	3	3	2
8	Practical PC	EEE42204	Professional Core – V Lab Microprocessor and Microcontroller Lab	0	0	3	3	2
9	Practical PC	EEE42206	Professional Core – VI Lab Analog and Digital Electronics Lab	0	0	3	3	2

10	Practical	SET42404	Capstone Project -B	0	0	2	2	1
11	Practical	SET42406	Interdisciplinary Project Work	0	0	5	5	3
Total				12	0	22	34	26

BSC: Basic Science

ESC:Engg. Science

PC: Professional Core

MC: Mandatory Course

Total Credits for 2nd Year: (25+26)= 51

Third Year:

Semester V								
Sl. No	Type	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits
1	Theory PC	EEE43101	Professional Core – VII Power System – I	3	0	0	3	3
2	Theory PC	EEE43103	Professional Core – VIII Control Systems	3	0	0	3	3
3	Theory PC	EEE43105	Professional Core – IX Power Electronics	3	0	0	3	3
4	Theory	EEE43109	Professional Core – X Electrical Machine Design	3	0	0	3	3
5	Theory PE	EEE43111/ EEE43113/ EEE43115	Professional Elective – I A. Special Electrical Machines B. Electromagnetic Field Theory C. Electric Vehicle	3	0	0	3	3
6	Practical PC	EEE43201	Professional Core – VII Lab Power System – I Lab	0	0	3	3	2
7	Practical PC	EEE43203	Professional Core – VIII Lab	0	0	3	3	2

			Control Systems Lab					
8	Practical PC	EEE43205	Professional Core – IX Lab Power Electronics Lab	0	0	3	3	2
9	Theory	SET43101	Venture Ideation for Beginners	2	0	0	2	2
10	Practical	SET43403	Capstone Project -C	0	0	2	2	1
Total				17	0	11	28	24

PC:Professional Core
PE:Professional Elective
OE: Open Elective
MC: Mandatory Course

Third Year:

Semester VI								
Sl. No .	Type	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits
1	Theory PC	EEE43102	Professional Core – XI Power System – II	3	0	0	3	3
2	Theory PC	EEE43104	Professional Core – XII Modern Control Systems	3	0	0	3	3
3	Theory PE	EEE43112 / EEE43114 / EEE43116	Professional Elective – II A. Power Generation Economics B. Digital Signal Processing C. Sensors and Transducers	3	0	0	3	3
4	Theory PE	EEE43117 / EEE43118 / EEE43119	Professional Elective – III A. HVDC Transmission Systems B. Power System Dynamics C. Advanced Power Electronics	3	0	0	3	3
5	Theory OE		Open Elective – I	2	0	0	2	2

6	Practical PC	EEE43202	Professional Core – XI Lab Power System – II Lab	0	0	3	3	2
7	Practical PC	EEE43204	Professional Core – XII Lab Modern Control Systems Lab	0	0	3	3	2
8	Practical PE	EEE43212 / EEE43214 / EEE43216	Professional Elective – II Lab A. Power Generation Economics B. Digital Signal Processing C. Sensors and Transducers	0	0	3	3	2
Total				14	0	9	23	20

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

PC:Professional Core

PE:Professional Elective

OE: Open Elective

MC: Mandatory Course

Total Credits for 3rd Year: (24+22) = 46

Forth Year:

Semester VII								
Sl. No	Type	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits
1	Theory	MBA43144	HSSM –V (Industrial Management)	3	0	0	3	3
2	Theory PC	EEE44101	Professional Core – XIII Electric Drives	3	0	0	3	3
4	Theory OE		Open Elective – II	3	0	0	3	3
6	Practical PC	EEE44201	ProfessionalCore – XII Lab	0	0	3	3	2

			Electric Drives Lab					
7	Practical	EME44601	Summer Internship [#]	--	--	--	--	2
8	Practical	EME44403	Minor Project	0	0	6	6	3
Total				9	0	9	18	16

HSSM: Humanities, Social Sciences & Management

PC: Professional Core

PE: Professional Elective

OE: Open Elective

Forth Year:

Semester-VIII								
S. No	Type	Course Code	Subject Name	L	T	P	Contact Hrs/week	Credits
1.	Practical	EME44602 / EME44604 / EME44404	Industry Work Experience / SIRE* / Major Project	0	0	9	09 (For Major Project work only)	4
2.	Practical	EME44502	Comprehensive Viva Voce	-----			-----	2
Total				0	0	9	9	6

***SIRE: Scientific Investigation & Research Experience**

Total Credits for 4th Year: (16+6) = 22

Total Credits (Over four years): 48+51+44+22 = 165 (Regular)

PC: Professional Core

MC: Mandatory Course

Open Electives: (For students of other departments)

1. Introduction to Automatic Control
2. Fundamentals of Electrical Machines

3. Elements of Measurement and Instruments
4. Sensors and Transducers
5. Renewable Energy Sources.