



ADAMAS UNIVERSITY
SCHOOL OF ENGINEERING & TECHNOLOGY

B.Tech. In Mechanical Engineering

Syllabus

W.e.f. AY 2020-21

ADAMAS UNIVERSITY
SCHOOL OF ENGINEERING & TECHNOLOGY
B.Tech. IN MECHANICAL ENGINEERING PROGRAMME

FIRST YEAR

Total Credit (First Year): 47

SEMESTER I								
S. No	Type	Course Code	Course Title	L	T	P	Contact Hrs/wk	Credits
1	Theory	SMA41101	Engineering Mathematics-I	3	1	0	4	4
2	Theory		Applied Science (Physics+Chemistry)	3	0	0	3	3
3	Theory	ECS41101 / EEE41102	Introduction to Programming / Electrical and Electronics Technology	3	0	0	3	3
4	Theory	HEN41117	HSSM –I (English Communication- I)	3	0	0	3	3
5	Theory	HEN41119 / SBT41108	HSSM –II (Human Values & Ethics and Psychology) / Life Sciences	3	0	0	3	3
6	Practical		Applied Science Lab	0	0	3	3	2
7	Practical	ECS41201 / EEE41202	Programming Lab / Electrical and Electronics Technology Lab	0	0	3	3	2
8	Practical	ECE41201/ EME41204	Engineering Drawing and CAD/Engineering Workshop	0	0	3	3	2
9	Practical	EMC41201	Communication and Collaboration Skill -I	0	0	2	2	1
10	Practical		Avant Garde Project-I	0	0	2	2	1
Total				15	1	13	29	24

SEMESTER II								
S. No	Type	Course Code	Course Title	L	T	P	Contact Hrs/wk	Credits
1.	Theory	SMA41102	Engineering Mathematics– II	3	1	0	4	4.0
2.	Theory	EEE41102 / ECS41101	Electrical and Electronics Technology/ Introduction to Programming	3	0	0	3	3.0
3.	Theory	SBT41108 / HEN41119	Life Sciences/HSSM –II (Human Values & Ethics and Psychology)	3	0	0	3	3.0
4.	Theory	EME41102	Engineering Mechanics	3	1	0	4	4.0
5.	Theory	SGY41113	Environmental Science	3	0	0	3	3
6.	Practical	EEE41202 / ECS41201	Electrical and Electronics Technology Lab/ Programming Lab	0	0	3	3	2.0
7.	Practical	EME41204/ ECE41201	Engineering Workshop/Engineering Drawing and CAD	0	0	3	3	2.0
8.	Practical	EMC41202	Communication and Collaboration Skill -II	0	0	2	2	1
9.	Practical		Avant Garde Project-II	0	0	2	2	1
Total				15	2	10	27	23

SECOND YEAR**Total Credit (Second Year): 52**

Semester-III								
S. No	Type	Course Code	Subject Name	L	T	P	Contact Hrs/week	Credits
1.	Theory	SMA42113	Engineering Mathematics– IIIA	3	1	0	4	4
2.	Theory	EME42109	Materials Engineering	3	0	0	3	3
3.	Theory	HEC42180	HSSM –IV (Economics for Engineers)	3	0	0	3	3
4.	Theory	EME42111	Prof. Core- I: Mechanics of Materials	3	0	0	3	3
5.	Theory	EME42113	Prof. Core- II: Fluid Mechanics	3	0	0	3	3
6.	Theory	EME42115	Prof. Core- III: Engg. Thermodynamics	3	0	0	3	3
7.	Practical	EME42209	Prof. Core Lab- Material Testing Lab	0	0	3	3	2
8.	Practical		Design Thinking-I	0	0	3	3	2
9.	Practical		Avant Garde Project-III	0	0	2	2	1
10.	Practical		#Adamas Foundation (Community Service)	--	--	-	--	1
Total				18	1	8	27	25

CSR Activity will be taken up during the summer break after 2nd semester, and will be evaluated in the 3rd semester.

Semester-IV								
S. No	Type	Course Code	Subject Name	L	T	P	Contact Hrs/week	Credits
1.	Theory	SMA42116	Numerical Techniques	2	1	0	3	3
2.	Theory	EME42112	Prof. Core-IV: Fluid Machinery	3	0	0	3	3
3.	Theory	EME42114	Prof. Core- V: Manufacturing Technology-I	3	0	0	3	3
4.	Theory	EME42116	Prof. Core- VI: Kinematics of Machines	3	0	0	3	3
5.	Theory	EME42118	Prof. Core- VII: Design of Machine Elements	3	0	0	3	3
6.	Practical	SMA42216	Numerical Techniques Lab	0	0	3	3	2
7.	Practical	EME42212	Prof. Core Lab- Fluid Mechanics & Hydraulic Machinery Lab	0	0	3	3	2
8.	Practical	EME42214	Prof. Core Lab- Manufacturing Technology-I Lab	0	0	3	3	2
9.	Practical		Interdisciplinary Project AU	0	0	5	5	3
10.	Practical		Design Thinking-II	0	0	3	3	2
11.	Practical		Avant Garde Project-IV	0	0	2	2	1
Total				14	1	19	34	27

THIRD YEAR**Total Credit (Third Year): 37**

Semester-V								
S. No	Type	Course Code	Subject Name	L	T	P	Contact Hrs/week	Credits
1.	Theory	EME43115	Prof. Core- VIII: Applied Thermodynamics	3	0	0	3	3
2.	Theory	EME43119	Prof. Core- IX: Manufacturing Technology-II	3	0	0	3	3
3.	Theory	EME43121	Prof. Core- X: Dynamics of Machines	3	0	0	3	3
4.	Theory		Prof. Elective- I (<i>Materials & Manufacturing Domain</i>)	3	0	0	3	3
5.	Practical	EME43219	Prof. Core Lab- Manufacturing Technology-II Lab	0	0	3	3	2
6.	Practical	EME43221	Prof. Core Lab- Kinematics & Dynamics of Machines Lab	0	0	3	3	2
7.	Practical	EME43223	Prof. Core Lab- Machine Drawing with AutoCAD	0	0	3	3	2
8.	Practical		Venture Ideation	0	0	2	2	1
9.	Practical		Avant Garde Project-V	0	0	2	2	1
Total				12	0	13	25	20

Semester-VI								
S. No	Type	Course Code	Subject Name	L	T	P	Contact Hrs/week	Credits
1.	Theory	EME43116	Prof. Core- XI: Heat Transfer	3	0	0	3	3
2.	Theory	EME43118	Prof. Core- XII: Metrology & Measurement	3	0	0	3	3
3.	Theory		Prof. Elective- II: (<i>Materials & Manufacturing/Thermal Domain</i>)	3	0	0	3	3
4.	Theory		Open Elective- I	2	0	0	2	2
5.	Practical	EME43216	Prof. Core Lab- Applied Thermodynamics & Heat Transfer Lab	0	0	3	3	2
6.	Practical	EME43218	Prof. Core Lab- Metrology & Measurement Lab	0	0	3	3	2
7.	Practical		Prof. Elective-II Lab	0	0	3	3	2
Total				11	0	09	20	17

FOURTH YEAR**Total Credit (Third Year): 29**

Semester-VII								
S. No	Type	Course Code	Subject Name	L	T	P	Contact Hrs/week	Credits
1.	Theory	MBA43144	HSSM –V (Industrial Management)	3	0	0	3	3
2.	Theory		Prof. Elective- III (<i>Design Domain</i>)	3	0	0	3	3
3.	Theory		Prof. Elective- IV (<i>Materials & Manufacturing/Thermal Domain</i>)	3	0	0	3	3
4.	Theory		Open Elective- II	3	0	0	3	3
5.	Theory		Open Elective- III	3	0	0	3	3
6.	Practical		Prof. Elective-IV Lab	0	0	3	3	2
7.	Practical	EME44601	Summer Internship [#]	--	--	--	--	2
8.	Practical	EME44403	Minor Project	0	0	6	6	3
Total				15	0	09	24	22

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	EME44602 / EME44604 /EME44404	Industry Work Experience / SIRE* / Major Project	0	0	9	09 (For Major Project work only)	5
2.	Practical	EME44502	Comprehensive Viva Voce	-----			-----	2
Total				0	0	9	12	07

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

Total Credits (Over four years): 47+52+37+29=165