

ANNA UNIVERSITY, CHENNAI
AFFILIATED INSTITUTIONS
R - 2013
B.E. AERONAUTICAL ENGINEERING
I – VIII SEMESTERS CURRICULUM AND SYLLABUS

SEMESTER I

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	HS6151	<u>Technical English – I</u>	3	1	0	4
2.	MA6151	<u>Mathematics – I</u>	3	1	0	4
3.	PH6151	<u>Engineering Physics – I</u>	3	0	0	3
4.	CY6151	<u>Engineering Chemistry – I</u>	3	0	0	3
5.	GE6151	<u>Computer Programming</u>	3	0	0	3
6.	GE6152	<u>Engineering Graphics</u>	2	0	3	4
PRACTICALS						
7.	GE6161	<u>Computer Practices Laboratory</u>	0	0	3	2
8.	GE6162	<u>Engineering Practices Laboratory</u>	0	0	3	2
9.	GE6163	<u>Physics and Chemistry Laboratory - I</u>	0	0	2	1
TOTAL			17	2	11	26

SEMESTER II

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	HS6251	<u>Technical English – II</u>	3	1	0	4
2.	MA6251	<u>Mathematics – II</u>	3	1	0	4
3.	PH6251	<u>Engineering Physics – II</u>	3	0	0	3
4.	CY6251	<u>Engineering Chemistry – II</u>	3	0	0	3
5.	GE6252	<u>Basic Electrical and Electronics Engineering</u>	4	0	0	4
6.	GE6253	<u>Engineering Mechanics</u>	3	1	0	4
PRACTICALS						
7.	GE6261	<u>Computer Aided Drafting and Modeling Laboratory</u>	0	1	2	2
8.	GE6262	<u>Physics and Chemistry Laboratory - II</u>	0	0	2	1
TOTAL			19	4	4	25

SEMESTER III

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	MA6351	<u>Transforms and Partial Differential Equations</u>	3	1	0	4
2.	ME6352	<u>Manufacturing Technology</u>	3	0	0	3
3.	AE6301	<u>Aero Engineering Thermodynamics</u>	3	0	0	3
4.	CE6451	<u>Fluid Mechanics and Machinery</u>	3	0	0	3
5.	CE6452	<u>Solid Mechanics</u>	3	0	0	3
6.	AE6302	<u>Elements of Aeronautics</u>	3	0	0	3
PRACTICAL						
7.	CE6315	<u>Strength of Materials Laboratory</u>	0	0	3	2
8.	CE6461	<u>Fluid Mechanics and Machinery Laboratory</u>	0	0	3	2
9.	AE6311	<u>Thermodynamics Laboratory</u>	0	0	3	2
10.	AE6312	<u>CAM and Manufacturing Laboratory</u>	0	0	3	2
TOTAL			18	1	12	27

SEMESTER IV

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	MA6459	<u>Numerical Methods</u>	3	1	0	4
2.	AE6401	<u>Aerodynamics - I</u>	3	0	0	3
3.	AE6402	<u>Aircraft Systems and Instruments</u>	3	0	0	3
4.	AT6302	<u>Mechanics of Machines</u>	3	1	0	4
5.	AE6403	<u>Aircraft Structures - I</u>	3	1	0	4
6.	AE6404	<u>Propulsion - I</u>	3	0	0	3
PRACTICAL						
7.	AE6411	<u>Aircraft Structures Laboratory - I</u>	0	0	3	2
8.	AE6412	<u>Aerodynamics Laboratory</u>	0	0	3	2
9.	AE6413	<u>CAD and Aircraft Component Drawing</u>	0	0	4	2
TOTAL			18	3	10	27

SEMESTER V

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	AE6501	<u>Flight Dynamics</u>	3	1	0	4
2.	AE6502	<u>Aircraft Structures - II</u>	3	1	0	4
3.	AE6503	<u>Aerodynamics - II</u>	3	1	0	4
4.	AE6504	<u>Propulsion - II</u>	3	0	0	3
5.	AE6505	<u>Control Engineering</u>	3	0	0	3
6.	GE6351	<u>Environmental Science and Engineering</u>	3	0	0	3
PRACTICAL						
7.	AE6511	<u>Aircraft Structures Laboratory - II</u>	0	0	3	2
8.	AE6512	<u>Propulsion Laboratory</u>	0	0	3	2
9.	GE6674	<u>Communication and Soft Skills- Laboratory Based</u>	0	0	4	2
TOTAL			18	3	10	27

SEMESTER VI

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	MG6851	<u>Principles of Management</u>	3	0	0	3
2.	AE6601	<u>Finite Element Methods</u>	3	1	0	4
3.	AE6602	<u>Vibrations and Elements of Aeroelasticity</u>	3	0	0	3
4.	AE6603	<u>Composite Materials and Structures</u>	3	0	0	3
5.	AE6604	<u>Aircraft Materials and Processes</u>	3	0	0	3
6.		Elective – I	3	0	0	3
PRACTICAL						
7.	AE6611	<u>Aero Engine and Airframe Laboratory</u>	0	0	3	2
8.	AE6612	<u>Aircraft Design Project - I</u>	0	0	3	2
9.	AE6613	<u>Computer Aided Simulation Laboratory</u>	0	0	3	2
TOTAL			18	1	9	25

SEMESTER VII

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	GE6757	<u>Total Quality Management</u>	3	0	0	3
2.	AE6701	<u>Avionics</u>	3	0	0	3
3.	ME6014	<u>Computational Fluid Dynamics</u>	3	0	0	3
4.	AE6702	<u>Experimental Stress Analysis</u>	3	0	0	3
5.		Elective – II	3	0	0	3
6.		Elective – III	3	0	0	3
PRACTICAL						
7.	AE6711	<u>Aircraft Design Project - II</u>	0	0	3	2
8.	AE6712	<u>Aircraft Systems Laboratory</u>	0	0	3	2
9.	AE6713	<u>Flight Integration Systems and Control Laboratory</u>	0	0	3	2
TOTAL			18	0	9	24

SEMESTER VIII

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	AE6801	<u>Wind Tunnel Techniques</u>	3	0	0	3
2.		Elective – IV	3	0	0	3
PRACTICAL						
3.	AE6811	<u>Project Work</u>	0	0	12	6
TOTAL			6	0	12	12

TOTAL NUMBER OF CREDITS TO BE EARNED FOR AWARD OF THE DEGREE = 193

ELECTIVES FOR M.E. AERONAUTICAL ENGINEERING

SEMESTER VI ELECTIVE – I

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
1.	AE6001	<u>Theory of Elasticity</u>	3	0	0	3
2.	AE6002	<u>Aircraft General Engineering and Maintenance Practices</u>	3	0	0	3
3.	AE6003	<u>Space Mechanics</u>	3	0	0	3
4.	AE6004	<u>Heat Transfer</u>	3	0	0	3
5.	GE6084	Human Rights	3	0	0	3

SEMESTER VII ELECTIVES– II

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
1.	AE6005	<u>Helicopter Theory</u>	3	0	0	3
2.	AE6006	<u>Theory of Plates and Shells</u>	3	0	0	3
3.	AE6007	<u>Fatigue and Fracture</u>	3	0	0	3
4.	AE6008	<u>UAV Systems</u>	3	0	0	3
5.	GE6083	Disaster Management	3	0	0	3

ELECTIVES – III

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
1.	AE6009	<u>Industrial Aerodynamics</u>	3	0	0	3
2.	AE6010	<u>Airframe Maintenance and Repair</u>	3	0	0	3
3.	AE6011	<u>Aero Engine Maintenance and Repair</u>	3	0	0	3
4.	AE6012	<u>Air Traffic Control and Planning</u>	3	0	0	3

SEMESTER VIII ELECTIVES – IV

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
1.	AE6013	<u>Hypersonic Aerodynamics</u>	3	0	0	3
2.	AE6014	<u>Experimental Aerodynamics</u>	3	0	0	3
3.	AE6015	<u>Rockets and Missiles</u>	3	0	0	3
4.	AE6016	<u>Structural Dynamics</u>	3	0	0	3