

M.E AEROSPACE TECHNOLOGY

FULL TIME MODE (4 Semester)

SEMESTER I

(Common to Launch Vehicle Technology (LVT) & Satellite Technology (ST))

SL.NO	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1	MA 9115	Applied Mathematics	3	1	0	4
2	AV 9115	Aircraft Engineering	3	0	0	3
3	AE 9113	Aerospace Propulsion	3	1	0	4
4	AE 9112	Aircraft Structures	3	1	0	4
5	AV 9113	Flight Instrumentation	3	0	0	3
PRACTICAL						
6	AE 9115	Structures Laboratory	0	0	4	2
		TOTAL	15	3	4	20

SEMESTER II

SEMESTER II						
Launch Vehicle Technology (LVT)						
SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1	AE 9169	Composite Materials & Structures	3	0	0	3
2	AE 9122	Finite Element Methods	3	0	2	4
3	AS 9125	Launch Vehicle Aerodynamics	3	0	0	3
4	AE 9168	Rocketry and Space Mechanics	3	0	0	3
5		Elective 1	3	0	0	3
6		Elective 2	3	0	0	3
PRACTICALS						
7	AE 9124	Aerodynamics Lab	0	0	4	2
		Total	18	0	6	21

SEMESTER II						
Satellite Technology (ST)						
SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1	AS9121	Elements of Satellite Technology	3	0	0	3
2	AS9122	Spacecraft Navigation Systems	3	0	0	3
3	AS9123	Spacecraft Power Systems	3	0	0	3
4	AS9124	Spacecraft Communication Systems	3	0	0	3
5		Elective 1	3	0	0	3
6		Elective 2	3	0	0	3
PRACTICALS						
7	AV9127	Flight Control Lab	0	0	4	2
		Total	18	0	4	20

SEMESTER III

SEMESTER III Launch Vehicle Technology (LVT)						
SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1		Elective - 3	3	0	0	3
2		Elective- 4	3	0	0	3
3		Elective - 5	3	0	0	3
4	AS 9162	Project work Phase - I	6	0	0	6
		Total	15	0	0	15

SEMESTER III Satellite Technology (ST)						
SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1		Elective - 3	3	0	0	3
2		Elective- 4	3	0	0	3
3		Elective - 5	3	0	0	3
4	AS 9162	Project work Phase - I	6	0	0	6
		Total	15	0	0	15

SEMESTER IV

SEMESTER IV						
Launch Vehicle Technology (LVT)						
SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1	AS 9163	Project work Phase - II	12	0	0	12
		Total	12	0	0	12

SEMESTER IV						
Satellite Technology (ST)						
SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1	AS 9163	Project work Phase - II	12	0	0	12
		Total	12	0	0	12

Total number of credits earned

i) Launch vehicle Technology : 20 + 21 + 15 + 12 = 68

ii) Satellite Technology : 20 + 20 + 15 + 12 = 67

List of electives

Electives for Launch Vehicle Technology stream

S.No.	Code No.	Subject Name	L	T	P	C
1.	AE 9151	NUMERICAL HEAT TRANSFER	3	0	0	3
2.	AE 9157	STRUCTURAL DYNAMICS	3	0	0	3
3.	AE 9160	FATIGUE AND FRACTURE MECHANICS	3	0	0	3
4.	AE 9162	HYPersonic AERODYNAMICS	3	0	0	3
5.	AE 9164	ADVANCED PROPULSION SYSTEMS	3	0	0	3
6.	AS 9151	CFD FOR AEROSPACE APPLICATIONS	3	0	0	3
7.	AS 9152	MISSILE GUIDANCE AND CONTROL	3	0	0	3
8.	AS 9155	CHEMICAL ROCKET TECHNOLOGY	3	0	0	3
9.	AS 9156	SPACE WEAPONS AND WARFARE	3	0	0	3

Electives for Satellite Technology stream

10.	AV 9123	MATHEMATICAL MODELLING AND SIMULATION	3	0	0	3
11.	AV 9151	DIGITAL FLY-BY WIRE CONTROL	3	0	0	3
12.	AV 9154	FAULT TOLERANT COMPUTING	3	0	0	3
13.	AV 9178	ELECTROMAGNETIC INTERFERENCE AND COMPATIBILITY	3	0	0	3
14.	AV 9180	SOFT COMPUTING	3	0	0	3
15.	AE 9168	ROCKETRY AND SPACE MECHANICS	3	0	0	3
16.	AS 9153	SPACECRAFT GUIDANCE AND CONTROL	3	0	0	3
17.	AS 9157	DIGITAL IMAGE PROCESSING FOR AEROSPACE APPLICATIONS	3	0	0	3
18.	AS 9158	MANNED SPACE MISSIONS	3	0	0	3

Common electives

19.	AS 9154	SYSTEMS ENGINEERING	3	0	0	3
20.	AS 9159	RELIABILITY & QUALITY ASSURANCE	3	0	0	3
21.	AS 9160	AEROSPACE MATERIALS	3	0	0	3
22.	AS 9161	TESTING & INSTRUMENTATION OF AEROSPACE SYSTEMS	3	0	0	3