

**DEPARTMENT OF
AEROSPACE ENGINEERING
(School of Mechanical Sciences)**

**Curriculum Details
M.Tech – Aerospace
2016-18**

CURRICULUM

M.Tech. (Aerospace Engineering) - 2016 Batch

COURSE COMPONENTS

Table -1

Course Code	PROGRAM CORE	Credits
	Name of the Course	
14MA3004	Advanced Calculus and Numerical Methods	3:0:0
14AE3001	Advanced Solid Mechanics	3:0:0
14AE3002	Advanced Computational Fluid Dynamics	3:0:0
14AE3003	Thermodynamics & Heat Transfer	3:0:0
14AE3004	Flight Performance and Dynamics	3:0:0
14AE3006	Advanced Aerodynamics	3:0:0
14AE3007	Advanced Propulsion	3:0:0
14AE3008	Aerospace Structural Analysis	3:0:0
14AE3009	Advanced Avionics (V-1.1)	3:0:0
14AE3010	Advanced Computational Fluid Dynamics Lab	0:0:1
14AE3011	Advanced Aerodynamics Lab	0:0:2
14AE3012	Structural Analysis Lab	0:0:2
14AE3013	Aircraft Modelling Lab	0:0:1
14AE3014	Aero Propulsion Lab	0:0:2
15AE3010	Advanced Avionics Lab	0:0:1
	Total Course Credits	36
16VE3001	Value Education	2:0:0
PSP3998	Part Semester Project	12
FSP3999	Full Semester Project	20
	TOTAL	70

Table -2

Course Code	PROFESSIONAL ELECTIVES	Credits
	Name of the Course	
16AE3001	Orbital Space Dynamics	3:0:0
14AE3015	Elements of Aerospace Engineering	3:0:0
15AE3001	Aero-elastic Theory	3:0:0
15AE3002	Boundary Layer Theory	3:0:0
15AE3003	Theory of Vibration	3:0:0
15AE3004	Aircraft Design	3:0:0
15AE3005	Flight Control System	3:0:0
15AE3006	Rocket Dynamics	3:0:0
15AE3007	Advanced Aircraft systems	3:0:0

15AE3008	Unmanned Aerial Systems	3:0:0
15AE3009	Finite Element Analysis in Aerospace Application	3:0:0
15AE3011	Linear and Regular Orbital Mechanics	3:0:0
15AE3012	Numerical Methods in Orbit Application	3:0:0

Total Credits requirement: 82