Table of Curriculum(Undergraduate)

Classification		Subject No.	Subject Code	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
Elective Basic		AE100	B8.100	Sky and Space	3:0:3(6)	Fall	
Manda-tory major courses		AE210	B8.210	Aerospace Thermodynamics	3:0:3(6)	Spring	
		AE220	B8.220	Aerodynamics I	3:0:3(6)	Fall	
		AE300	B8.230	Flight Mechanics Project	3:1:3(6)	Spring	
		AE208	**B8.208**	**Aerospace Engineering Laboratory I**	**2:3:3(3)**	**Fall**	
		AE307	**B8.309**	**Aerospace Engineering Laboratory II**	**1:6:3(3)**	**Fall**	
		AE330	B8.330	Aerospace Structures I	3:0:3(6)	Spring	
		AE400	B8.400	Aerospace System Design I	2:3:3(6)	Spring	
Elective major courses		AE200	B8.200	Introductory Space Projects	2:3:3(6)	Fall	
		AE230	B8.230	Mechanics of Aerospace Materials	3:0:3(6)	Spring	
		AE250	B8.250	Aerospace Dynamics	3:0:3(6)	Fall	
		AE280	B8.280	Software Application in Aerospace Engineering	2:3:3(6)	Spring	
		AE310	B8.310	Propulsion System	3:0:3(6)	Fall	
		AE311	B8.311	Aerospace Heat Transfer	3:0:3(6)	Spring	
		AE320	B8.320	Aerodynamics II	3:0:3(6)	Spring	
		AE350	B8.350	Aerospace Control Engineering	3:1:3(6)	Fall	
		AE370	B8.370	Numerical Methods	3:0:3(6)	Spring	
	Advanced Major	AE321	B8.321	Compressible Aerodynamics	3:0:3(6)	Fall	
		AE331	B8.331	Aerospace Structures II	3:0:3(6)	Fall	
		AE401	B8.401	Aerospace System Design II	2:3:3(6)	Fall	◎
		AE405	B8.405	Satellite Systems	3:0:3(6)	Fall	◎
		AE410	B8.410	Combustion Engineering	3:0:3(6)	Spring	◎
		AE420	B8.420	Viscous Aerodynamics	3:0:3(6)	Fall	◎
		AE435	B8.435	Vibration & Basic Aeroelasticity	3:0:3(6)	Spring	◎
		AE450	B8.450	Flight Dynamics and Control	3:0:3(6)	Fall	◎
		AE455	B8.455	Global Positioning System	3:0:3(6)	Fall	◎
		AE480	B8.480	Aerospace Applied Electronics	2:3:3(6)	Spring	◎
		AE492	B8.492	Special Lectures in Aerospace Engineering	3:0:3(6)	Spring and Fall	◎
		AE493	B8.493	Special Lectures in Aerospace Engineering II	2:0:2(3)	Fall	◎
Research		AE490	B8.490	Thesis Study	0:6:3	Fall	
		AE495	B8.495	Individual Study	0:6:1	Fall	
		AE496	B8.496	Seminar	1:0:1	Spring and Fall	

Table of Curriculum(Graduate)

Classification		Subject No.	Subject Code	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
Mandatory General Courses	Mandatory	CC010	11.010	Special Lecture on Leadership	1:0:0	Fall	
		CC020	11.020	Ethics and Safety I	1AU	Spring and Fall	
	Choose 1	CC510	11.510	Introduction to Computer Application	2:3:3	Spring and Fall	
		CC511	11.511	Probability and Statistics	2:3:3	Spring and Fall	
		CC512	11.512	Introduction to Materials Science and Engineering	3:0:3	Spring and Fall	
		CC513	11.513	Engineering Economy and Cost Analysis	3:0:3	Fall	
		CC522	11.522	Introduction to Instruments	2:3:3	Fall	
		CC530	11.530	Entrepreneurship and Business Strategies	3:0:3	Spring and Fall	
		CC532	11.532	Collaborative System Design and Engineering	4:0:4	Spring	
Selective Major Course		AE500	B8.500	Synthetic Design of Aerospace Systems	3:1:3(6)	Fall	◎
		AE501	B8.501	Multidisciplinary Design Optimization for Aerospace Systems	3:0:3(6)	Spring	◎
		AE505	B8.505	Appraisal of Engineering Projects under Uncertainty	3:0:3(6)	Spring	◎
		AE510	B8.510	Aerothermochemistry and Combustion	3:0:3(6)	Fall	◎
		AE511	B8.511	Radiation and Combustion Phenomena	3:0:3(6)	Fall	◎
		AE515	B8.515	Advanced Space Propulsion Systems	3:0:3(6)	Spring	◎
		AE516	B8.516	Rocket System Engineering	3:0:3(6)	Fall	◎
		AE520	B8.520	Advanced Aerodynamics	3:0:3(6)	Spring	◎
		AE521	B8.521	Helicopter Aeromechanics	3:0:3(6)	Spring	◎
		AE522	B8.522	Computational Fluid Dynamics	3:0:3(6)	Fall	◎
		AE523	B8.523	Aeroacoustics	3:0:3(6)	Fall	◎
		AE525	B8.525	Experimental Aerodynamics	1:6:3(6)	Spring	◎
		AE530	B8.530	Flight Vehicle Structures	3:0:3(6)	Spring	◎
		AE531	B8.531	Structural Dynamics	3:0:3(6)	Spring	◎
		AE532	B8.532	Mechanics of Composite Materials	3:0:3(6)	Fall	◎
		AE535	B8.535	Smart Composite Lab	2:3:3(6)	Fall	◎
		AE550	B8.550	Spacecraft Attitude Dynamics and Control	3:0:3(6)	Spring	◎
		AE551	B8.551	Introduction to Optimal Control	3:0:3(6)	Spring	◎
		AE552	B8.552	Advanced Linear Stability and Control	3:0:3(6)	Fall	◎
		AE555	B8.555	Spacecraft Trajectory Guidance and Control	3:0:3(6)	Spring	◎
		AE580	B8.580	GNSS Remote Sensing	3:0:3(6)	Spring	◎
		AE590	**B8.590**	**Special Topics in Aerospace Engineering Ⅱ**	**3:0:3(6)**	**Spring and Fall**	◎
		AE620	B8.620	Advanced Gas Dynamics	3:0:3(6)	Spring	
		AE621	B8.621	Hypersonics Aerodynamics	3:0:3(6)	Spring	
		AE623	B8.623	Unsteady Fluid Flows	3:0:3(6)	Fall	
		AE630	B8.630	Theory of Plates and Shells	3:0:3(6)	Fall	
		AE631	B8.631	Aeroelasticity	3:0:3(6)	Fall	
		AE650	B8.650	Navigation and Guidance	3:0:3(6)	Spring	
		AE651	B8.651	Advanced Navigation Systems and Applications	3:1:3(6)	Fall	
		AE655	B8.655	Experiments in Flight Control	2:3:3(6)	Spring	
		AE810	B8.810	Special Topics in Propulsion and Combustion	3:0:3(6)	Fall	

Classification	Subject No.	Subject Code	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
	AE820	B8.820	Special Topics in Aerodynamics	3:0:3(6)	Fall	
	AE830	B8.830	Special Topics in Flight Vehicle Structures	3:0:3(6)	Fall	
	AE850	B8.850	Special Topics in Flight Mechanics and Control	3:0:3(6)	Fall	
	AE890	B8.890	Special Topics in Aerospace Engineering	3:0:3(6)	Spring and Fall	
Research	AE960	B8.960	Thesis(M.S. Program)		Spring and Fall	
	AE980	B8.966	Seminar(M.S. Program)		Spring and Fall	
	AE966	B8.980	Thesis(Ph.D Program)	1:0:1	Spring and Fall	
	AE986	B8.986	Seminar(Ph.D Program)	1:0:1	Spring and Fall	

Substitute Course List

Substitute courses in the department					
Category	Courses currently offered		Courses not currently offered		
	Course no.	Course title	Course no.	Course title	Remark
Under-graduate	AE100	Sky and Space	MAE107	Sky and Space	Abolition
Under-graduate	AE200	Introductory Space Projects	MAE291	Introductory Space Projects	Abolition
Under-graduate	AE208	Aerospace Engineering Laboratory I	MAE308	Aerospace Engineering Laboratory I	Abolition
			AE308	Aerospace Engineering Laboratory I	Abolition
Under-graduate	AE210	Aerospace Thermodynamics	MAE210	Thermodynamics	Abolition
Under-graduate	AE220	Aerodynamics I	MAE220	Fluid Mechanics	Abolition
Under-graduate	AE230	Mechanics of Aerospace Materials	MAE230	Solid Mechanics	Abolition
Under-graduate	AE250	Aerospace Dynamics	MAE250	Dynamics	Abolition
Under-graduate	AE280	Software Application in Aerospace Engineering	MAE285	Software Application in Aerospace Engineering	Abolition
Under-graduate	AE300	Flight Mechanics Project	MAE292	Introductory Aeronautical Projects	Abolition
			MAE365	Flight Mechanics	Abolition
Under-graduate	AE307	Aerospace Engineering Laboratory II	MAE309	Aerospace Engineering Laboratory II	Abolition
			AE309	Aerospace Engineering Laboratory II	Abolition
Under-graduate	AE310	Propulsion System	MAE315	Propulsion System	Abolition
Under-graduate	AE311	Aerospace Heat Transfer	MAE311	Heat Transfer	Abolition
Under-graduate	AE320	Aerodynamics II	MAE325	Aerodynamics	Abolition
Under-graduate	AE321	Compressible Aerodynamics	MAE326	Compressible Aerodynamics	Abolition
Under-graduate	AE330	Aerospace Structures I	MAE335	Aerospace Structures	Abolition
Under-graduate	AE331	Aerospace Structures II	MAE435	Computational Methods in Aerospace Engineering	Abolition
Under-graduate	AE350	Aerospace Control Engineering	MAE464	Fundamentals of Control Theory and Practice	Abolition
Under-graduate	AE370	Numerical Methods	MAE301	Numerical Methods	Abolition
Under-graduate	AE400	Aerospace System Design I	MAE405	Aerospace System Design I	Abolition
Under-graduate	AE401	Aerospace System Design II	MAE406	Aerospace System Design II	Abolition
Under-graduate	AE405	Satellite Systems	MAE466	Satellite Systems	Abolition
Under-graduate	AE410	Combustion Engineering	MAE415	Combustion Engineering	Abolition
Under-graduate	AE420	Viscous Aerodynamics	MAE425	Viscous Aerodynamics	Abolition
Under-graduate	AE450	Flight Dynamics and Control	MAE465	Flight Dynamics and Control	Abolition

	Substitute courses in the department				
Category	**Courses currently offered**		**Courses not currently offered**		
	Course no.	**Course title**	**Course no.**	**Course title**	**Remark**
Under-graduate	AE455	Global Positioning System	MAE463	Synthetic Design of Aerospace Systems	Abolition
Under-graduate	AE480	Aerospace Applied Electronics	MAE300	Multidisciplinary Design Optimization for Aerospace Systems	Abolition
			MAE467	Appraisal of Engineering Projects under Uncertainty	Abolition
Under-graduate	AE493	Special Lectures in Aerospace Engineering II	MAE499	Aerothermochemistry and Combustion	Abolition
Graduate	AE500	Synthetic Design of Aerospace Systems	MAE565	Radiation and Combustion Phenomena	Abolition
Graduate	AE501	Multidisciplinary Design Optimization for Aerospace Systems	MAE558	Advanced Space Propulsion Systems	Abolition
Graduate	AE505	Appraisal of Engineering Projects under Uncertainty	MAE557	Rocket System Engineering	Abolition
Graduate	AE510	Aerothermochemistry and Combustion	MAE593	Advanced Aerodynamics	Abolition
Graduate	AE511	Radiation and Combustion Phenomena	MAE594	Helicopter Aeromechanics	Abolition
Graduate	AE515	Advanced Space Propulsion Systems	MAE555	Computational Fluid Dynamics	Abolition
Graduate	AE516	Rocket System Engineering	MAE518	Aeroacoustics	Abolition
Graduate	AE520	Advanced Aerodynamics	MAE522	Experimental Aerodynamics	Abolition
Graduate	AE521	Helicopter Aeromechanics	MAE523	Flight Vehicle Structures	Abolition
Graduate	AE522	Computational Fluid Dynamics	MAE524	Structural Dynamics	Abolition
Graduate	AE523	Aeroacoustics	MAE528	Mechanics of Composite Materials	Abolition
Graduate	AE525	Experimental Aerodynamics	MAE527	Smart Composite Lab	Abolition
Graduate	AE530	Flight Vehicle Structures	MAE538	Spacecraft Attitude Dynamics and Control	Abolition
Graduate	AE531	Structural Dynamics	MAE540	Introduction to Optimal Control	Abolition
Graduate	AE532	Mechanics of Composite Materials	MAE542	Advanced Linear Stability and Control	Abolition
Graduate	AE535	Smart Composite Lab	MAE584	Spacecraft Trajectory Guidance and Control	Abolition
Graduate	AE550	Spacecraft Attitude Dynamics and Control	MAE597	GNSS Remote Sensing	Abolition
Graduate	AE551	Introduction to Optimal Control	MAE595	Advanced Gas Dynamics	Abolition
Graduate	AE552	Advanced Linear Stability and Control	MAE596	Advanced Linear Stability and Control	Abolition
Graduate	AE555	Spacecraft Trajectory Guidance and Control	MAE566	Spacecraft Trajectory Guidance and Control	Abolition
Graduate	AE580	GNSS Remote Sensing	MAE556	GNSS Remote Sensing	Abolition
Graduate	AE620	Advanced Gas Dynamics	MAE625	Advanced Gas Dynamics	Abolition

Substitute courses in the department					
Category	Courses currently offered		Courses not currently offered		
	Course no.	Course title	Course no.	Course title	Remark
Graduate	AE621	Hypersonics Aerodynamics	MAE626	Hypersonics Aerodynamics	Abolition
			MAE726	Equilibrium Hypersonic Aerothermodynamics	Abolition
			MAE727	Nonequilibrium Hypersonic Aerothermodynamics	Abolition
			MAE728	Reentry Aerothermodynamics	Abolition
Graduate	AE623	Unsteady Fluid Flows	MAE628	Unsteady Fluid Flows	Abolition
Graduate	AE630	Theory of Plates and Shells	MAE636	Theory of Plates and Shells	Abolition
Graduate	AE631	Aeroelasticity	MAE637	Aeroelasticity	Abolition
Graduate	AE650	Navigation and Guidance	MAE663	Navigation and Guidance	Abolition
Graduate	AE651	Advanced Navigation Systems and Applications	MAE665	Advanced Navigation Systems and Applications	Abolition
Graduate	AE655	Experiments in Flight Control	MAE663	Experiments in Flight Control	Abolition
Graduate	AE810	Special Topics in Propulsion and Combustion	MAE860	Special Topics in Propulsion and Combustion	Abolition
Graduate	AE820	Special Topics in Aerodynamics	MAE820	Special Topics in Aerodynamics	Abolition
Graduate	AE830	Special Topics in Flight Vehicle Structures	MAE840	Special Topics in Flight Vehicle Structures	Abolition
Graduate	AE850	Special Topics in Flight Mechanics and Control	MAE880	Special Topics in Flight Mechanics and Control	Abolition

Substitute courses in the department					
Category	Course offered by the department		Course offered by other departments		
	Course no.	Course title	Course no.	Course title	Remark
Under-graduate	AE210	Aerospace Thermodynamics	ME211	Thermodynamics	unidirectional
Under-graduate	AE230	Mechanics of Aerospace Materials	ME231	Solid Mechanics	unidirectional
Under-graduate	AE311	Aerospace Heat Transfer	ME311	Heat Transfer	unidirectional
Under-graduate	AE370	Numerical Methods	ME301	Numerical Methods	unidirectional