Curriculum

❒ **Undergraduate Course**

Classification	Subject No.	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
Elective Basic Courses	MAE107	Sky and Space	3:0:3(6)	Fall	
Mandatory Major Courses	MAE210	Thermodynamics	3:0:3(6)	Spring	
	MAE220	Fluid Mechanics	3:0:3(6)	Fall	
	MAE230	Solid Mechanics	3:0:3(6)	Spring	
	MAE250	Dynamics	3:0:3(6)	Fall	
	MAE308	Aerospace Engineering Laboratory Ⅰ	1:3:2(3)	Spring	
	MAE309	Aerospace Engineering Laboratory II	1:3:2(3)	Fall	
	MAE405	Aerospace System Design I	2:3:3(8)	Spring	
Elective Major Courses	MAE200	Basic Mechanical Practice	2:3:3(3)	Spring	
	MAE260	Elementary mathematics for Aerospace Mechanics	3:0:3	Spring, Fall	
	MAE285	Software Application in Aerospace Engineering Ⅰ	1:6:3(8)	Fall	
	MAE291	Introductory Space Projects	2:2:2	Spring	
	MAE292	Introductory Aeronautical Projects	2:2:2(4)	Fall	
	MAE301	Numerical Methods	3:0:3(6)	Fall	
	MAE307	Applied Electronics	2:3:3(6)	Spring	
	MAE311	Heat Transfer	3:0:3(6)	Spring	
	MAE315	Aerospace Propulsion System	3:0:3(6)	Fall	
	MAE325	Aerodynamics	3:0:3(6)	Spring	
	MAE326	Compressible Aerodynamics	3:0:3(6)	Fall	
	MAE335	Aerospace Structures	3:0:3(6)	Spring	
	MAE351	Mechanical Vibration	3:0:3(6)	Fall	
	MAE365	Flight Mechanics	3:0:3(6)	Fall	
	MAE406	Aerospace System Design II	1:6:3(6)	Fall	
	MAE415	Combustion Engineering	3:0:3(6)	Spring	
	MAE425	Viscous Aerodynamics	3:0:3(6)	Spring	
	MAE435	Computational Methods in Aerospace Structural Analysis	3:0:3(8)	Fall	
	MAE463	Global Positioning System	3:0:3(6)	Spring	
	MAE464	Fundamentals of Control Theory and Practice	3:1:3(6)	Spring	
	MAE465	Flight Dynamics and Control	3:0:3(6)	Fall	
	MAE466	Satellite Systems	3:0:3(6)	Spring	
	MAE467	Aerospace Sensors and Actuators	3:0:3(6)	Fall	
	MAE485	Software Application in Aerospace EngineeringⅡ	1:6:3(8)	Fall	
	MAE492	Special Lectures in Aerospace Engineering	3:0:3(6)	Spring or Fall	
Research	MAE490	Thesis Study	0:6:3	Spring or Fall	
	MAE495	Individual Study	0:6:1	Spring or Fall	
	MAE496	Seminar	1:0:1	Spring or Fall	

❒ **Graduate Course**

Classification	Subject No.	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
Mandatory General Courses	CC020	Ethics and Safety I	1AU	Spring/Fall	
	CC510	Introduction to Computer Application	2:3:3(10)	Spring/Fall	
	CC511	Probability and Statistics	2:3:3(6)	Spring/Fall	
	CC512	Introduction to Materials Science and Engineering	3:0:3(3)	Spring/Fall	
	CC513	Engineering Economy and Cost Analysis	3:0:3(6)	Spring	
	CC522	Introduction to Instruments	2:3:3(6)	Spring/Fall	
	CC530	Entrepreneurship and Business Strategies	3:0:3(6)	Spring/Fall	
	CC532	Collaborative System Design and Engineering	4:0:4	Spring	
Elective Major Course	MAE500	Mathematical Methods in Mechanical Engineering	3:0:3(6)	Spring	
	MAE518	Rocket System Engineering	3:0:3(6)	Fall	
	MAE522	Advanced Aerodynamics	3:0:3(6)	Spring	
	MAE523	Helicopter Aeromechanics	3:0:3(6)	Spring	
	MAE524	Computational Fluid Dynamics	3:0:3(8)	Fall	
	MAE527	Experimental Methods in Aerodynamics	1:6:3(6)	Spring	
	MAE528	Aeroacoustics	3:0:3(6)	Fall	
	MAE538	Flight Vehicle Structures	3:0:3(6)	Spring	
	MAE540	Structural Dynamics	3:0:3(6)	Fall	
	MAE542	Mechanics of Composite Materials	3:0:3(6)	Fall	
	MAE566	Spacecraft Trajectory Guidance and Control	3:0:3(6)	Spring	
	MAE584	Smart Composite Lab.	2:3:3(6)	Fall	
	MAE593	Aerothermochemistry and Combustion	3:0:3(6)	Fall	
	MAE594	Radiation and Combustion Phenomena	3:0:3(6)	Fall	
	MAE595	Introduction to Optimal Control	3:0:3(6)	Spring	
	MAE596	Advanced Flight Stability and Control	3:0:3(6)	Fall	
	MAE597	Spacecraft Attitude Dynamics and Control	3:0:3(6)	Spring	
	MAE618	Kinetic Theory of Gases	3:0:3(6)	Fall	
	MAE622	Compressible Shear Flows	3:0:3(6)	Fall	
	MAE624	Advanced Computational Fluid Dynamics	3:0:3(8)	Spring	
	MAE625	Advanced Gas Dynamics	3:0:3(6)	Spring	
	MAE626	Hypersonics Aerodynamics	3:0:3(6)	Spring	
	MAE627	Nonlinear Wave Theory	3:0:3(6)	Spring	
	MAE628	Unsteady Fluid Flows	3:0:3(6)	Fall	
	MAE629	Biomedical Fluid Dynamics	3:0:3(6)	Fall	
	MAE636	Theory of Plates and Shells	3:0:3(6)	Fall	
	MAE637	Aeroelasticity	3:0:3(6)	Fall	
	MAE663	Experiments in Flight Control	2:3:3(6)	Spring	
	MAE664	Navigation and Guidance	3:0:3(6)	Spring	
	MAE726	Equilibrium Hypersonic Aerothermodynamics	3:0:3(6)	Spring	
	MAE727	Nonequilibrium Hypersonic Aerothermodynamics	3:0:3(6)	Fall	
	MAE728	Reentry Aerothermodynamics	3:0:3(6)	Fall	
	MAE820	Special Topics in Aerodynamics	3:0:3(6)	Fall	
	MAE840	Special Topics in Flight Vehicle Structures	3:0:3(6)	Fall	
	MAE860	Special Topics in Propulsion and Combustion	3:0:3(6)	Fall	

Classification	Subject No.	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
	MAE880	Special Topics in Flight Mechanics and Control	3:0:3(6)	Fall	
	MAE890	Special Topics in Aerospace Engineering	3:0:3(6)	Spring or Fall	
Research	MAE960	Thesis / Dissertation Research (Master)		Spring or Fall	
	MAE980	Thesis / Dissertation Research (Doctoral)		Spring or Fall	
	MAE966	Seminar (Master)	1:0:1	Spring or Fall	
	MAE986	Seminar (Doctoral)	1:0:1	Spring or Fall	

※ Note: 400 and 500 level courses open to both undergraduate and graduate students