

## Curriculum

### □ Undergraduate Course

Classification	Subject No.	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
Mandatory Major Courses	MAE 200	Basic Mechanical Practice	2:3:3(3)	Spring	
	MAE 308	Aerospace Engineering Laboratory I	1:3:2(3)	Spring	
	MAE 210	Thermodynamics	3:0:3(6)	Spring	
	MAE 220	Fluid Mechanics	3:0:3(6)	Fall	
	MAE 230	Solid Mechanics	3:0:3(6)	Spring	
	MAE 250	Dynamics	3:0:3(6)	Fall	
	MAE 309	Aerospace Engineering Laboratory II	1:3:2(3)	Fall	
	MAE 405	Aerospace System Design I	2:3:3(8)	Spring	
Elective Major Courses	MAE 285	Software Application in Aerospace Engineering I	1:6:3(8)	Fall	
	MAE 292	Introductory Aerospace Projects	2:4:3(8)	Spring	
	MAE 301	Numerical Methods	3:0:3(6)	Spring	
	MAE 307	Applied Electronics	2:3:3(6)	Spring	
	MAE 311	Heat Transfer	3:0:3(6)	Spring	
	MAE 315	Aerospace Propulsion System	3:0:3(6)	Fall	
	MAE 325	Aerodynamics	3:0:3(6)	Spring	
	MAE 326	Compressible Aerodynamics	3:0:3(6)	Fall	
	MAE 335	Aerospace Structures	3:0:3(6)	Spring	
	MAE 351	Mechanical Vibration	3:0:3(6)	Spring,Fall	
	MAE 365	Flight Mechanics	3:0:3(6)	Fall	
	MAE 466	Spacecraft Systems	3:0:3(6)	Spring	
	MAE 406	Aerospace System Design II	1:6:3(6)	Fall	
	MAE 415	Combustion Engineering	3:0:3(6)	Spring	
	MAE 425	Viscous Aerodynamics	3:0:3(6)	Spring	
	MAE 435	Computational Methods in Aerospace Structural Analysis	3:0:3(8)	Fall	
	MAE 463	Global Positioning System	3:0:3(6)	Spring	
	MAE 464	Fundamentals of Control Theory and Practice	3:1:3(6)	Spring	
	MAE 465	Flight Dynamics and Control	3:0:3(6)	Fall	
	MAE 467	Aerospace Sensors and Actuators	3:0:3(6)	Fall	
MAE 485	Software Application in Aerospace Engineering II	1:6:3(8)	Fall		
MAE 492	Special Lectures in Aerospace Engineering	3:0:3(6)	Spring or Fall		
Research	MAE 490	Thesis Study	0:6:3	Spring or Fall	
	MAE 495	Individual Study	0:6:1	Spring or Fall	
	MAE 496	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	
	CC 510	Introduction to Computer Application	2:3:3(10)	Spring/Fall	
	CC 511	Probability and Statistics	2:3:3(6)	Spring/Fall	
	CC 512	Introduction to Materials Science and Engineering	3:0:3(3)	Spring/Fall	
	CC 513	Engineering Economy and Cost Analysis	3:0:3(6)	Spring	
	CC 522	Introduction to Instruments	2:3:3(6)	Spring/Fall	
	CC 530	Entrepreneurship and Business Strategies	3:0:3(6)	Spring/Fall	
	CC 532	Collaborative System Design and Engineering	4:0:4	Spring	
Elective Major Course	MAE 500	Mathematical Methods in Mechanical Engineering	3:0:3(6)	Spring	
	MAE 518	Rocket System Engineering	3:0:3(6)	Fall	
	MAE 522	Advanced Aerodynamics	3:0:3(6)	Spring	
	MAE 523	Helicopter Aeromechanics	3:0:3(6)	Spring	
	MAE 524	Computational Fluid Dynamics	3:0:3(8)	Fall	
	MAE 527	Experimental Methods in Aerodynamics	1:6:3(6)	Spring	
	MAE 528	Aeroacoustics	3:0:3(6)	Fall	
	MAE 538	Flight Vehicle Structures	3:0:3(6)	Spring	
	MAE 540	Structural Dynamics	3:0:3(6)	Fall	
	MAE 542	Mechanics of Composite Materials	3:0:3(6)	Fall	
	MAE 566	Spacecraft Trajectory Guidance and Control	3:0:3(6)	Spring	
	MAE 584	Smart Composite Lab.	2:3:3(6)	Fall	
	MAE 593	Aerothermochemistry and Combustion	3:0:3(6)	Fall	
	MAE 594	Radiation and Combustion Phenomena	3:0:3(6)	Fall	
	MAE 595	Introduction to Optimal Flight Control	3:0:3(6)	Spring	
	MAE 596	Advanced Flight Stability and Control	3:0:3(6)	Fall	
	MAE 597	Spacecraft Attitude Dynamics and Control	3:0:3(6)	Spring	
	MAE 618	Kinetic Theory of Gases	3:0:3(6)	Fall	
	MAE 622	Compressible Shear Flows	3:0:3(6)	Fall	
	MAE 624	Advanced Computational Fluid Dynamics	3:0:3(8)	Spring	
	MAE 625	Advanced Gas Dynamics	3:0:3(6)	Spring	
	MAE 626	Hypersonics Aerodynamics	3:0:3(6)	Spring	
	MAE 627	Nonlinear Wave Theory	3:0:3(6)	Spring	
	MAE 628	Unsteady Fluid Flows	3:0:3(6)	Fall	
	MAE 629	Biomedical Fluid Dynamics	3:0:3(6)	Fall	
	MAE 636	Theory of Plates and Shells	3:0:3(6)	Fall	
	MAE 637	Aeroelasticity	3:0:3(6)	Fall	
	MAE 663	Experiments in Flight Control	2:3:3(6)	Spring	
	MAE 664	Navigation and Guidance	3:0:3(6)	Spring	
	MAE 726	Equilibrium Hypersonic Aerothermodynamics	3:0:3(6)	Spring	
	MAE 727	Nonequilibrium Hypersonic Aerothermodynamics	3:0:3(6)	Fall	
	MAE 728	Reentry Aerothermodynamics	3:0:3(6)	Fall	
MAE 820	Special Topics in Aerodynamics	3:0:3(6)	Fall		
MAE 840	Special Topics in Flight Vehicle Structures	3:0:3(6)	Fall		
MAE 860	Special Topics in Propulsion and Combustion	3:0:3(6)	Fall		
MAE 880	Special Topics in Flight Mechanics and Control	3:0:3(6)	Fall		
MAE 890	Special Topics in Aerospace Engineering	3:0:3(6)	Spring or Fall		
Research	MAE 960	Thesis / Dissertation Research (Master)		Spring or Fall	
	MAE 980	Thesis / Dissertation Research (Doctoral)		Spring or Fall	
	MAE 966	Seminar (Master)	1:0:1	Spring or Fall	
	MAE 986	Seminar (Doctoral)	1:0:1	Spring or Fall	

Note: 500-level courses are mutually recognizable between bachelor's and master's courses.