bject	This schedule is subject to change at any time based on instructor availability and registration of the course. Title	Curriculum Type		023-20		2	024-20	25	20)25-20 Spr	26	20	26-202	27	20	27-20	28		028-202 Spr			29-2030 Spr S
OE	2001 Introduction to Mechanics (Statics)	Required	X	х	х	х	х	х	х	х	х	Х	х	х	х	Х	х	х	Х	х	Х	х
OE AE	3001 Deformable Bodies 1355 Design Competition I	Required Elective	X	X	X	X		х	x	X	х	X	x	х	X	X	х	X	X	X	x	X
AE AE	1601 Introduction to AE 2010 Thermodynamics and Fluids Fundamentals	Required Required	X	X	х	X	X	X	X	X	х	X	x	х	x	x	х	X	X	х	x	x
AE AE	2011 Fluids Fundamentals 2220 Dynamics	Required (Bridge) Required	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
AE AE	2221 3D Dynamics 2355 Aerospace Systems Design Competition II	Required (Bridge) Elective	X	x	х	X	x	х	X	X	х	x	x	х	x	x	х	x	X	Х	x	x
AE AE	2610 Introduction to Experimental Methods in Aerospace 2611 Technical Communications for Aerospace Engineers	Required Required	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	X X	x
AE AE	3030 Aerodynamics 3140 Structural Analysis	Required Required	x	x	x x	X	x	x	x	x	x	x	x x	x	x	x	x	x	x	x	x x	x
AE AE	3330 Introduction to Aerospace Vehicle Performance 3355 Aerospace Systems Design Competition III	Required Elective	X	×	х	X	x	х	X	X	х	x	x x	х	x	x	х	x	X X	х	X X	X X
AE AE	3530 System Dynamics and Vibration 3531 Control System Analysis and Design	Required Required	X	X	X	X	х	x	x	X	x	X	x	x	X	x	x	X	X	X	x	X X
AE AE	3610 Experiments in Fluid and Solid Mechanics 4040 Computational Fluid Dynamics	Required AE Option	X	x	_	X	x	x	x	x		х	х	_	X	x		х	x		x	x
λE	4071 Rotorcraft Aeromechanics	AE Option	X			х			х			X			х			X			х	
AE AE	4080 Aerothermodynamics 4132 Finite Element Analysis	AE Option AE Option	х	х		х	х		х	х		х	х		х	х		х	х		х	х
AE AE	4220 Structural Dynamics and Aeroelasticity 4311 Aircraft Design I	AE Option Required (FW)	х	x		х	x		х	x		х	x		х	x		х	X		х	x
AE AE	4312 Aircraft Design II 4321 Space System Design I	Required (FW) Required (Space)	х	X		X			X	X		X	x		x	X		X	X		X	x
AE AE	4322 Space System Design II 4331 Rotorcraft Design I	Required (Space) Required (RC)	x	x		x	x		x	x		x	x		x	x		x	x		X X	x
AE AE	4332 Rotorcraft Design II 4355 Aerospace Systems Design Competition IV	Required (RC) Elective	×	x		X	X		X X	X		X	X X		x	X X		X	X X		X	x
AE AE	4361 Space Flight Operations 4451 Jet and Rocket Propulsion	AE Option Required	×	x	×	x	X	×	×	x	×	×	x	¥	х	X	×	×	x	×	×	x
λE	4453 Advanced Aircraft Propulsion 4531 Aircraft Flight Dynamics	AE Option Required (FW)	X			х			X			X			х	~		X			X	
AE AE	4532 Spacecraft Flight Dynamics 4580 Introduction to Avionics Integration	Required (Space) AE Option	X	X		X	X	X	X X	X		X	x		X X	X		X	X		X X	x
AΕ	4610 Dynamics and Control Laboratory	Required	X	х		х	х	x	X	х		х	х		x	х		х	х		X	х
ΛΕ ΑΕ	4701 Wind Engineering 4760 Engineering Acoustics and Noise Control	AE Option AE Option	х		х	х		х	х		х	х		Х	х		х	х		X	х	
λE	4791 Mechanical Behavior of Composites 4793 Composite Materials and Processes	AE Option AE Option	Х	х		Х	x	x	х	х		х	х		х	х		Х	х		х	х
AE AE	4803 Configuration Aerodynamics and Flight Performance 4803 Flight Test Engineering	AE Option AE Option		x			x			x			x x			X X			X X			X X
AE AE	4803 Introduction to Safety by Design and Accident Causation 4803 Numerical Analysis and Algorithms	AE Option AE Option	х	х	L	х	×		х	_ x		х	×		х	x		Х	×		х	х
VE VE	4803 Robotics and Autonomy 4803 Robotics and Autonomy	AE Option AE Option	x			X			x			×			x			×			x	
YE YE	4803 Space Instrumentation for Life Detection 4806 Space Hardware Laboratory	AE Option AE Option	X	х		X	х		X			X	х		x			X	х		x	#
٩E	4806 Space Hardware Laboratory 6009 Viscous Fluid Flow 6012 Turbulent Flows	PhD Quals	x-DL	u =>		x-DL	V 51		x-DL			x-DL	x-DI		x-DL	× F:		x-DL	w 51		x-DL	w Pi
AE AE	6015 Advanced Aerodynamics	PhD Quals		x-DL x-DL			x-DL x-DL			x-DL x-DL			x-DL x-DL			x-DL x-DL			x-DL x-DL			x-DL x-DL
ΛΕ ΛΕ	6030 Unsteady Aerodynamics 6042 Computational Fluid Dynamics	Elective Elective	x-DL	x-DL			x-DL		x-DL	x-DL			x-DL		x-DL	x-DL			x-DL		x-DL	x-DL
AE AE	6050 Gas Dynamics 6060 Aeroacoustics	PhD Quals Elective		x-DL		x-DL	x-DL			x-DL		x-DL	x-DL			x-DL		x-DL	x-DL			x-DL
AE AE	6072 Advanced Aerodynamics for Vertical Lift 6080 Dynamics of Turbulence	Elective Elective	E	x-DL	E	×	E	L	L	x-DL		×				x-DL		х		ੂ∄	=1	X-DL
VE VE	6100 Structural Stability I 6114 Fundamentals of Solid Mechanics	Elective PhD Quals	x-DL			χ <u>-</u> ΠΙ			x-DL x-DL			x-DL			x-DL x-DL			x-DL			x-DL x-DL	
AE AE	6115 Fundamentals of Aerospace Structural Analysis 6170 Structural Optimization	PhD Quals Elective	x-DL	x-DL			x-DL		x-DL	x-DL			x-DL		x-DL	x-DL			x-DL		x-DL	x-DL
AΕ	6200 Advanced Agroelasticity I 6210 Advanced Dynamics I	Elective Elective PhD Quals	A-DL	V P1			x-DL		A-DL	v F:			x-DL		A-UL	v Di			x-DL	J	A-UL	v Di
AE AE	6220 Rotorcraft Structural Dynamics and Aeroelasticity	Elective		x-DL x-DL			x-DL			x-DL x-DL			x-DL			x-DL x-DL			x-DL			x-DL x-DL
AE AE	6330 Structural Dynamics 6310 Optimization for the Design of Engineered Systems	PhD Quals PhD Quals	x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL
AE AE	6333 Rotorcraft Design I 6334 Rotorcraft Design II	PhD Quals Elective	x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL
AE AE	6343 Aircraft Design I 6344 Aircraft Design II	PhD Quals Elective	x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL
AE AE	6353 Orbital Mechanics 6355 Planetary Entry, Descent and Landing	PhD Quals Elective	x-DL		x-DL	x-DL	x-DL		x-DL	x-DL	x-DL	x-DL	x-DL		x-DL	x-DL	x-DL	x-DL	x-DL		x-DL	x-DL
AE AE	6356 Spacecraft Attitude Estimation and Control 6357 Satellite Orbit Determination	Elective Elective				x-DL	x-DL					x-DL	x-DL					x-DL	x-DL	\dashv	\dashv	-
AE AE	6361 Air Breathing Propulsion System Design I 6362 Safety by Design	Elective Elective		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DI		x-DL
AE AE	6372 Aerospace Systems Engineering 6373 Advanced Design Methods I	Elective Elective	x-DL x-DL		x-DL	x-DL x-DL		x-DL	x-DL x-DL		x-DL	x-DL x-DL		x-DL	x-DL x-DL		x-DL	x-DL x-DL			x-DL x-DL)
λE	6383 Applied Design Laboratory	Elective	x-DL			x-DL			x-DL			x-DL			x-DL			x-DL			x-DL	#
AE AE	6393 Introduction to System of Systems Engineering Principles 6394 System of Systems Engineering Applications	Elective Elective	x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL
AE AE	6410 Combustion Dynamics 6412 Turbulent Combustion	Elective Elective		x-DL						x-DL						x-DL						x-DL
AE AE	6450 Rocket Propulsion 6451 Electric Propulsion	Elective Elective	x-DL			x-DL	x-DL					x-DL	x-DL					x-DL	x-DL	\dashv	\dashv	-
AE AE	6503 Rotorcraft Stability and Control 6505 Random Processes and Kalman Filtering	Elective Elective	E	x-DL	E	x-DL	E	Ŀ		x-DL		x-DL				x-DL		x-DL	H	٦	=	x-DL
VE VE	6511 Optimal Guidance and Control 6513 Mathematical Principles of Planning and Decision-Making for Autonomy	Elective Elective	x-DL						x-DL x			×			x-DL	×		×	H	H	x-DL	Х
AE AE	6520 Advanced Flight Dynamics 6520 Advanced Flight Dynamics 6530 Multivariable Linear Systems and Control	PhD Quals	x-DL	x-DL		x-DI	x-DL		x-DI	x-DL		x-DI	x-DL		x-DI	x-DL		x-DI	x-DL		x-DI	x-DL
١E	6530 Multivariable Linear Systems and Control 6551 Cognitive Engineering 6580 Nonlinear Control	Elective	∧-UL			x-DL x-DL			∧-UL			x-DL x-DL			∧-UL			x-DL x-DL			χ-υL	
ΛΕ	6701 Wind Engineering	PhD Quals Elective		x-DL x-DL	x-DL		x-DL	x-DL		x-DL x-DL	x-DL		x-DL			x-DL x-DL	x-DL		x-DL			x-DL >
ΙE	6705 Introduction to Mechatronics 6721 Evaluation of Human Integrated Systems	Elective Elective	x x-DL			х			x x-DL			х			x x-DL			х			x x-DL	_
λE	6760 Acoustics I 6761 Acoustics II	Elective Elective	x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL		x-DL	x-DL	ا	x-DL	x-DL
ΛΕ ΛΕ	6762 Applied Acoustics 6765 Kinetics and Thermodynamics of Gases	Elective PhD Quals	x-DL		F	x-DL	F		x-DL			x-DL			x-DL			x-DL	J	1	x-DL	J
VE VE	6766 Combustion 6769 Linear Elasticity	PhD Quals Elective		x-DL x			x-DL x			x-DL x			x-DL x			x-DL x			x-DL x	=		x-DL x
VE VE	7741 Robotics Professional Preparation I 7742 Robotics Professional Preparation II	Elective Elective	х	×		х	Û		х	Ĵ		х	×		x			х		=	х	
VE VE	7742 Robotics Professional Preparation III 7773 Robotics Professional Preparation III 7772 Fundamentals of Fracture Mechanics	Elective Elective	x	x		x	X		x	x		x	x		x	x		X	x	#	x x	x
١E	7774 Fatigue of Materials and Structures	Elective	×	X		×	x		х	X			x			X		Х	X	〓		x
ΛΕ ΛΕ	7775 Topics in Fracture and Fatigue of Metallic and Composite Structures 7785 Introduction to Robotics Research	Elective Elective	х	х		х	x		х	х		X	х		х	х		X	х		x	x
λE	8002 AE Graduate Seminar 8741 Robotics Capstone Project	Required Elective	x	X		X			x			x	x		x	X		X			x	x
λE	8750 Robotics Research Foundation I 8751 Robotics Research Foundation II	Elective Elective	x	x		x	x		x	x		X X	x x		x	X X		X X	X X		x x	X X
λE	8801 Bioastronautics 8803 Advanced Nonlinear Control	Elective Elective	H		F	х	x		H			H		\exists	-7	_			х	1	7	-
VE VE	8813 Aerospace Propulsion Laboratory 8803 Airline Revenue Management	Elective Elective	х	х		У	x		×	х		×	х		х	х		×	x	\dashv	x	х
λE	8803 Hamiltonian Mechanics in Space Dynamics	Elective	X			Ĺ	v Di		x			Ê	v Di		x			^	v Di	=	x	#
ΛΕ ΑΕ	8803 Hydrokinetic Turbine Systems 8803 Intelligent Cyber Physical Systems	Elective Elective					x-DL x-DL						x-DL x-DL						x-DL x-DL		=	_
AE.	8803 Logistical Planning Methods and Their Application in Space Mission Design 8803 Low Gravity Fluid Mechanics	Elective Elective		x-DL		x-DL				x-DL		x-DL				x-DL		x-DL		ฮ	\exists	x-DL
λE λΕ	8803 Model Reduction 8803 Numerical Analysis and Algorithms	Elective Elective		x x-DL			x-DL			x x-DL			x-DL			x x-DL			x-DL	{	<u></u>	x x-DL
λE λE	8803 Optical Navigation 8803 Optimal Transport Theory and Applications	Elective Elective	х				x-DL		х				x-DL		x				x-DL	H	х	4
VE VE	8803 Optimization Based Learning Control and Games 8803 Planetary Spacecraft Development	Elective Elective	x-DL			x-DL			x-DL			x-DL			x-DL			x-DL	51	=	x-DL	#
λE	8803 Rotorcraft Aeromechanics	Elective	x-DL			x-DL			x-DL			x-DL			x-DL			x-DL			x-DL	#
λE	8803 Smart Cities Workshop 8803 Space Instrumentation for Life Detection	Elective Elective	x-DL	x-DL		x-DL	x-DL		x-DL			x-DL	x-DL		x-DL			x-DL	x-DL		x-DL	=
Æ	8803 Structural Failure Mechanics	Elective	ı	l .	1	l .	1	l .	1	x-DL	i 1		x-DL				i 1		1			