

Name:
Plan:
SubPlan/Option:
Min Units Require

Aerospace Engineering, B.S.	
Actuspace Eligilicatility, D.S.	

2020-2021 University Catalog Degree Curriculum Sheet

AROQ2011 - Introduction to Astrohautics and necker Profusion Laboratory (1) AROQ2011 - Introduction to Astrohautics and necker Profusion (3) AROQ2011 - Introduction to Aerospace Computational Methods Laboratory (1) AROQ2011 - Introduction to Aerospace Computational Methods Laboratory (1) AROQ2011 - Introduction to Aerospace Computational Methods (3) AROQ2011 - Internet Profusion (3) AROQ2011 - Internet Methods (3) AROQ2011 - Internet Internet of Avionics (2) AROQ3011 - Internet Internet of Avionics (2) AROQ3011 - Internet Internet of Avionics (2) AROQ3011 - Internet Intern	Major Required	89 units	Aeronautics Emphasis	6 units	<u>General</u>
RRO2011 - Fundamentals of Systems Engineering and Design Laboratory (1) RRO2021 - Introduction to Aerospace Computational Methods Laboratory (1) RRO2014 - Engineering Status (3) RRO2015 - Verbor Oynamics (3) RRO2015 - Verbor Oynamics (3) RRO2015 - Verbor Oynamics (3) RRO2016 - Elements of Avionics (2) RRO2017 - Elements of Avionics (3) RRO2017 - Elements of Avionics (3) RRO2018 - Printed Element Analysis of Structures (3) RRO2019 - Aircraft Jet Propulsion (3) RRO2029 - Aerospace Feedback Control Systems (2) RRO2019 - Aerospace Feedback Control Systems (2) RRO2019 - Aerospace Feedback Control Systems (3) RRO2019 - Aerospace Structures Mechanics (3) RRO2019 - Aircraft Stability and Control (3) or RRO2019 - Aircraft Stability and Control (3) RRO2019 - Aircraft Stability	ARO1011L - Introduction to Aeronautics and Air Propulsion Laboratory (1)		Emphasis Recommended	6 units	Students she
ARO2011 - Introduction to Aerospace Computational Methods Laboratory (1) ARO2014 - Engineering Saltias (3) ARO2015 - Vector Dynamics (3) ARO2015 - Vector Dynamics (3) ARO2016 - Vector Dynamics (3) ARO2017 - Introduction to Aerospace Computational Methods Laboratory (1) ARO2017 - Introduction to Aerospace Computational Methods Laboratory (1) ARO2017 - Introduction to Aerospace Computational Methods Laboratory (1) ARO2017 - Introduction to Aerospace Programs (4) ARO2018 - Aerospace Programs and High-Speed Aerodynamics (4) ARO2019 - Aerospace Programs (4) ARO2019 - Aerospace Programs (5) ARO210 - Aerospace Programs (5) ARO210 - Aerospace Programs (6) ARO210 - Aerospace Programs (7) ARO2019 - Aerospace Structural Mechanics (7) ARO2019 - Aerospace Structural Mechanics (8) ARO2019 - Aerospace Aerospace Aerospace Aerospace Aerospace	ARO2011 - Introduction to Astronautics and Nocket Propulsion Laboratory (1)		ARO3281 - Aerospace Structural Analysis and Design (3)		https
HRO2015 - Verbor Dynamics (3) HRO2150 - Verbor Dynamics (3) HRO2150 - Verbor Dynamics (3) HRO2150 - Verbor Dynamics (3) HRO2151 - Elements of Avionics (2) HRO2151 - Elements of Avionics (3) HRO2311 - Elements of Avionics (3) HRO3010 - Philad Bechanics (3) HRO3010 - Aviorat Hel Propulsion (3) HRO3010 - Aviorat Hel Propulsion (3) HRO3010 - Aviorate Helpingenting Mathematics (2) HRO3010 - Aviorate Helpingenting Mathematics (2) HRO3010 - Advanced Engineering Mathematics (2) HRO3020 - Aerospace Feedback Control Systems (3) HRO3020 - Aerospace Structural Mechanics (1) HRO3021 - Aerospace S	ARO2021L - Introduction to Aerospace Computational Methods Laboratory (1)				
### ARQ410 - Vector Dynamics (3) ### ARQ2311 - Elements of Avionics (2) ### ARQ2311 - Elements of Avionics (3) ### ARQ2311 - Aircraft Jet Propublion (3) ### ARQ2312 - Aircraft Jet Propublion (3) ### ARQ2321 - Aerospace Fredback Control Systems (3) ### ARQ2321 - Aerospace Fredback Control Systems (3) ### ARQ2321 - Aerospace Fredback Control Systems (3) ### ARQ2321 - Aerospace Structural Mechanics (3) ### ARQ23221 - Aerospace Structural Mechanics (3) ### ARQ23221 - Ae	ARO2041 - Engineering Statics (3)				
ARD-2011 - Elements of Avionics (2) ARD-2011 - Flaments of Avionics Laboratory (1) ARD-2011 - Flaments of Avionics (2) ARD-2011 - Flaments of Avionics (3) ARD-2011 - Flaments of Avionics (3) ARD-2011 - Flaments (4) ARD-2011 - Flaments of Avionics (3) ARD-2011 - Flaments (4)	ARO2150 - Vector Dynamics (3)		ARO4070 - Trajectory Simulation and Analysis (3)		
ARO3890 - Orbital Mechanics (3) ARO3810 - Aircraft Methonics (3) ARO3820 - Aerospace Feedback Control Systems (3) ARO3820 - Aerospace Feedback Control Systems (3) ARO3820 - Aerospace Feedback Control Systems (3) ARO3820 - Aerospace Structural Mechanics (3) ARO3830 - Michanics (3) ARO3830 - Digital Figlic Cornic Systems (3) ARO3830 - Michanics (3) ARO3830 - Michani	ARO2311 - Elements of Avionics (2)		ARO4000 - Finite Element Analysis of Structures (3) ARO4000 - Space Vehicle Dynamics and Central (2)		•
ARO349 - Orbital Mechanics (3) ARO3111 - Gas Dynamics and High-Speed Aerodynamics (4) ARO3112 - Aircraft set Propulsion (3) ARO4140 - Rocket Propulsion (3) ARO4020 - Aerospace Program Management (3) ARO420 - Rouse Control Systems (3) ARO420 - Aerospace Structural Mechanics I (4) ARO400 - Orbit Definition and Estimation (3) ARO4000 - Orbit Definition and Estimation (3) ARO4000 - Space Vehicle Dynamics and Centrol (3) ARO4000 - Orbit Definition and Estimation (3) ARO4000 - Space Vehicle Design Laboratory I (2) or ARO4000 - Orbit Definition and Destination (3) ARO4401 - Arver Architecture (3) ARO4411 - Space Vehicle Design Laboratory I (2) or ARO4400 - Orbit Definition and Castination (3) ARO4411 - Space Vehicle Design Laboratory I (2) or ARO4400 - Orbit Definition and Design Laboratory I (2) or ARO4401 - Arver Architecture (3) ARO4411 - Space Launch Vehicle Design Laboratory I (2) or ARO4401 - Arver Architecture (3) ARO4411 - Space Launch Vehicle Design Laboratory I (2) or ARO4401 - Arver Architecture (3) ARO4411 - Space Launch Vehicle Design Laboratory I (2) or ARO4411 - Space Launch Vehicle Design Laboratory I (2) or ARO4411 - Space Launch Vehicle Design Laboratory I (2) or ARO4411 - Space Launch Vehicle Design Laboratory I (2) or ARO4411 - Space Launch Vehicle Design Laboratory I (2) or A			ARO4120 - Wing Theory (3)		
ARO4180 - Computational Fluid Dynamics (3) ARO3120 - Aircraft aler Populsion (3) or ARO3120 - Aircraft aler Populsion (3) or ARO3120 - Aircraft aler Populsion (3) ARO32120 - Aircraft aler Populsion (3) ARO3220 - Aerospace Feedback Control Systems (3) ARO3220 - Aerospace Feedback Control Systems (3) ARO3220 - Aerospace Feedback Control Systems (3) ARO3220 - Aerospace Sinctural Mechanics II (3) ARO3213 - Aerospace Sinctural Mechanics II (3) ARO3214 - Aerospace Sinctural Mechanics II (3) ARO3215 - Aerospace Sinctural Mechanics II (3) ARO3215 - Aerospace Sinctural Mechanics II (3) ARO3210 - Aerospace Sinctural Mechanics II (3) ARO3210 - Aerospace Sinctural Mechanics II (3) ARO3210 - Aerospace Sinctural Healt Transfer (4) ARO430 - Aircraft System Identification (3) ARO4400 - Aircr	ARO3011 - Fluid Dynamics and Low-Speed Aerodynamics (4)		ABO4140 - Bocket Propulsion (3)		1. Oral 0
ARO4200 - Aerospace Program Management (5)  ARO4200 - Helocote Program Management (6)  ARO4200 - Helocote Program Management (6)  ARO4200 - Helocote Program Management (6)  ARO4200 - Holocote Program Management (6)  ARO4200 - Holocote Program Management (6)  ARO4210 - Helocote Program Management (7)  ARO4200 - More Aerospace Structural Mechanics (7)  ARO4200 - Structural Dynamics and Aerospace Structural Mechanics (7)  ARO4200 - Structural Dynamics and Aerospace Structural Mechanics (7)  ARO4200 - Structural Dynamics and Aerospace Structural Mechanics (7)  ARO4200 - Structural Dynamics and Aerospace Structural Mechanics (8)  ARO4300 - Digital Event Mechanics (8)  ARO4300 - Digital Event Mechanics (8)  ARO4300 - Digital Event Mechanics (8)  ARO4400 - Orbitrol Estimation (8)  A	ANOSUSU - OTDITAL MECHANICS (S) AROSTITI - Gas Dynamics and High-Speed Aerodynamics (A)				<ol><li>Writte</li></ol>
ARO410 - Rocket Propulsion (3) ARO420 - Holicopter Aerodynamics and Performance (3) ARO3180 - Advanced Engineering Mathematics (2) ARO3202 - Aerospace Feedback Control Systems (3) ARO3202 - Aerospace Feedback Control Systems (3) ARO3202 - Aerospace Feedback Control Systems (3) ARO3202 - Aerospace Structural Mechanics I (3) ARO3400 - Aircraft System I (6) ARO3400 - Aircraft System I (6) ARO4300 - Aircraft System I (6) ARO4400 - Orbit Determination and Estimation (3) ARO4400 - Aircraft System I (6) ARO4400 - Orbit Determination and Estimation (3) ARO4400 - Aircraft System I (6) ARO4400 - Orbit Desermination (3) ARO4400 - Aircraft System I (6) ARO4400 - Orbit Desermination (3) ARO4400 - Aircraft System I (6) ARO4400 - Orbit Desermination (3) ARO4400 - Orbit Desermination (3) ARO4400 - Aircraft System I (6) ARO4400 - Orbit Desermination (3) ARO4400 - Aircraft System I (6) ARO4400 - Orbit Desermination (3) ARO4400 - Aircraft System I (6) ARO4400 - Orbit Desermination (3) ARO4400 - Aircraft System I (6) ARO4400 - Orbit Desermination (3) ARO4400 - Aircraft System I (6) ARO4400 - Orbit Desermination (3) ARO4400 - Aircraft System I (6) ARO4400 - Ai	AROSTTT - das Dynamics and Flight-Speed Aerodynamics (4)				<ol><li>Critica</li></ol>
ARO3210 - Advanced Engineering Mathematics (2) ARO3220 - Aerospace Feedback Control Systems (3) ARO3220 - Aerospace Feedback Control Systems (3) ARO3220 - Aerospace Feedback Control Systems (3) ARO3261 - Aerospace Structural Mechanics II (3) ARO3261 - Aerospace Structural Mechanics II (3) ARO3271 - Aerospace Structural Mechanics II (3) ARO4371 - Aerospace Structural Mechanics II (3) ARO4370 - Arospace Structural Mechanics II (3) ARO4370 - Arospace Structural Mechanics II (3) ARO4371 - Termodynamics and Heat Transfer (4) ARO4370 - Arospace Structural Mechanics II (3) ARO4470 - Aircraft Stability and Estimation (3) ARO4470 - Mind Tunnel Testing Laboratory I (2) or ARO4480 - Aircraft Stability and Estimation (3) ARO44711 - Space Lauroh Vehicle Design Laboratory I (2) or ARO44811 - Air Vehicle Design Laboratory I (2) or ARO4811 - Air Vehicle Design Laboratory I (2) or ARO4811 - Air Vehicle Design Laboratory I (2) or ARO4811 - Air Vehicle Design Laboratory I (2) or ARO4810 - Project Design Principles and Applications (1) (85) ARO4821 - Air Vehicle Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1) (85) ARO4820 - Project Design Principles and Applications (1	ARO4140 - Rocket Propulsion (3)		ARO4210 - Helicopter Aerodynamics and Performance (3)		
ARO3220 - Aerospace Feedback Control Systems (3) ARO3220 - Aerospace Feedback Control Systems Laboratory (1) ARO3220 - Aerospace Structural Mechanics I (3) ARO3270 - Aerospace Structural Mechanics I (3) ARO4300 - Aircraft System Identification (3) ARO4301 - Thermodynamics and Heat Transfer (4) ARO4011 - Thermodynamics and Heat Transfer (4) ARO4030 - Aircraft System Identification (3) ARO4500 - Aircraft System Architecture (3) ARO4500 - Aircraft System Architecture (3) ARO4500 - Aircraft System Architecture (3) ARO4501 - Model-Based Systems Architecture (3) ARO4501 - Model Based Systems (3) ARO	ARO3180 - Advanced Engineering Mathematics (2)		ARO4220 - Robust Control of Nonlinear Systems (3)		
ARO3291 - Aerospace Structural Mechanics I (3) ARO3291 - Aerospace Structural Mechanics II (3) ARO3570L - Aerospace Structural Mechanics II (3) ARO4391 - Aerospace Structural Mechanics II (3) ARO4490 - Orbit Determination and Estimation (3) ARO4490 - Orbit Determination and Estimation (3) ARO4490 - Aerospace Structural Mechanics II (4) Aroace C. Aroace	ARO3220 - Aerospace Feedback Control Systems (3)		ARO4260 - Surface Transportation and Power Generation Systems (3)		
ARO3571 - Aerospace Structural Mechanics II (3) ARO4501 - Aerospace Structural Mechanics II (3) ARO4502 - Aerospace Structures Laboratory (1) ARO4503 - Orbit Determination (3)	ARO3220L - Aerospace Feedback Control Systems Laboratory (1)				
ARO4307-10 - Aerospace Structures Laboratory (1) ARO4409 - Aircraft System Identification (3) ARO4406 - Optimal Control and Estimation (3) ARO4406 - Optimal Control and Estimation (3) ARO4409 - Space Vehicle Dynamics and Control (3) ARO4409 - Space Vehicle Dynamics of Aerospace Systems (3) ARO4510 - Model-Based Systems Architecture (3) ARO4511 - Wind Tunnel Testing Laboratory (1) ARO4711 - Space Launch Vehicle Design Laboratory (1) ARO4711 - Space Launch Vehicle Design Laboratory I (2) or ARO4711 - Space Launch Vehicle Design Laboratory I (2) or ARO4711 - Space Launch Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Laboratory I (2) or ARO4711 - Space Vehicle Design Incipies and Applications (1) (B5) ARO4711 - Space Vehicle Design Principles and Applications (1) (B5) ARO4711 - Space Vehicle Design Principles and Applications (1) (B5) ARO4711 - Space Vehicle Design Principles and Applications (1) (B5) ARO4711 - Space Vehicle Design Principles and Applications (1) (B5) ARO4711 - Space Vehicle Design Principles and Applications (1) (B5) ARO4711 - Space Vehicle Design Principles and Applications (1) (B5) ARO4711 - Space Vehicle Design Principles and Applications (1) (B5) ARO4712 - Vehicle Design Principles and Applications (1) (B5) ARO4712 - Vehicle Design Principles and Applications (1) (B5) ARO47			ARO4360 - Mechanics of Composite Materials (3)		
ARO4011 - Thermodynamics and Heat Transfer (4) ARO4050 - Aircraft Stability and Control (3) or ARO4050 - Aircraft Stability and Control (3) or ARO4050 - Vibrations and Dynamics of Acrospace Systems (3) ARO4050 - Space Vehicle Dynamics and Control (3) ARO4050 - Vibrations and Dynamics of Acrospace Systems (3) ARO4311 - Vind Tunnel Testing Laboratory (1) or ARO4311 - Space Launch Vehicle Design Laboratory (2) or ARO4311 - Air Vehicle Design Laboratory (2) or ARO4321 - Air Vehicle Design Principles and Applications (1) (85) ARO4030 - Aircraft Stability and Control (3) ARO4030 - Aircraft Stability and Control (3) ARO4030 - Aircraft Stability and Control (3) ARO4030 - Finite Element Analysis of Structures (3) ARO4030 - Finite Element Analysis of Structures (3) ARO4000 - Aerospace Project Design Principles and Applications (1) (85) ARO4200 - Ethical Concepts in Technology and Applied Science (3) (85 or C3) ARO4200 - Aerospace Project Marriage (3) ARO4200 - Aerospace Project Design (3) ARO4200 - Aerospace Project Marriage (3) ARO4200 - Aerospace (3) ARO4200 - Aerospace	ARO3271 - Aerospace Structural Mechanics II (3)		ARO4430 - Aircraft System Identification (3)		<ol><li>Labor</li></ol>
ARO4490 - Orbit Determination and Estimation (3) ARO4590 - Aircraft Stability and Control (3) or ARO4090 - Space Vehicle Dynamics and Control (3) ARO4510 - Model-Based Systems Architecture (3) ARO4511 - Wind Tunnel Testing Laboratory (1) ARO4010 - Vibrations and Dynamics of Aerospace Systems (3) ARO4511 - Space Launch Vehicle Design Laboratory I (2) or ARO4511 - Space Launch Vehicle Design Laboratory I (2) or ARO4511 - Space Launch Vehicle Design Laboratory I (2) or ARO4511 - Space Launch Vehicle Design Laboratory I (2) or ARO4511 - Space Vehicle Design Laboratory II (2) or ARO4511 - Space Vehicle Design Laboratory II (2) or ARO4521 - Space Vehicle Design Laboratory II (2) or ARO4921 - Air Vehicle Design Laboratory II (2) or ARO4921 - Air Vehicle Design Laboratory II (2) or ARO4921 - Air Vehicle Design Laboratory II (2) or ARO4921 - Air Vehicle Design Laboratory II (2) or ARO4921 - Air Vehicle Design Laboratory II (2) or ARO4921 - Air Vehicle Design Laboratory II (2) or ARO4921 - Air Vehicle Design Laboratory II (2) or ARO4921 - Air Vehicle Design Principles and Applications (1) (B5) ARO4090 - Finite Element Analysis of Structures (3) ARO4110 - Cenculus II (4) (B4) ART1140 - Calculus II (4) (B4) ARO4200 - Air	ANOSSTOL - ACTOSPACE STRUCTURES LABORATORY (1)  AROANTI - Thermodynamics and Heat Transfer (4)		ARO4450 - Optimal Control and Estimation (3)		<ol><li>Mathe</li></ol>
ARO-4809 - Space Vehicle Dynamics and Control (3) ARO-4801 - Whortations and Dynamics of Aerospace Systems (3) ARO-4851 - Wind Tunnel Testing Laboratory (1) or ARO-4851 - Wind Tunnel Testing Laboratory (1) or ARO-4851 - Space Vehicle Design Laboratory (1) or ARO-4811 - Space Launch Vehicle Design Laboratory (1) or ARO-4811 - Space Septice Design Laboratory (1) or ARO-4811 - Space Septice Design Laboratory (1) or ARO-4811 - Space Eaunch Vehicle Design Laboratory (1) or ARO-4821 - Air Vehicle Design Laboratory (1) or ARO-4821 - Space Launch Vehicle Design Laboratory (1) or ARO-4821 - Space Launch Vehicle Design Laboratory (1) or ARO-4821 - Space Launch Vehicle Design Laboratory (1) or ARO-4821 - Space Launch Vehicle Design Laboratory (1) or ARO-4821 - Air Vehicle Design Laboratory (1) (8) ARO-4820 - Numerical Methods (3) ARO-4020 - Numerical Methods (3) ARO-4020 - Numerical Methods (3) ARO-4020 - Aircraft Stability and Control (3) ARO-4020 - Aircraft Stability and Control (3) ARO-4020 - Finite Element Analysis of Structures (3) ARO-4020 - Aircraft Stability and Control (3) ARO-4020 - Structures (3) ARO-4020 - Structures (3) ARO-4020 - Matoratory (1) (84) ARO-4020 - Structures (3) ARO-4020 - Aircraft Stability Dynamics (3) ARO-4020 - Aircraft Stability Dynamics (3) ARO-4020 - Matoratory (1) (84) ARO-4020 - Structural Dynamics (3) ARO-4020 - Aircraft Stability Dynamics (3) ARO-4020 - Aircraft Stability Dynamics (3) ARO-4020 - Matoratory (1) (85) ARO-4020 - Matoratory (1) (86) ARO-4020 - Matoratory Aircraft Stystem (3) ARO-4020 - Aircraft Stystem (4) ARO-4020 - Matoratory (1) (86) ARO-4020 - Structural Dynamics and Aeromace (3) ARO-4020 - Structural Dynamics and Aeromace (3) ARO-4020 - Matoratory (1) (86) ARO-4020 - Matoratory (1) (86) ARO-4020 - Matoratory (1) (86) ARO-4020 - Mat	ABO4050 - Aircraft Stability and Control (3) or		ARO4460 - Orbit Determination and Estimation (3)		5. Scien
##RO4711L - Space Launch Vehicle Design Laboratory I (2) or ARO4811L - Space Vehicle Design Laboratory I (2) or ARO4811L - Space Launch Vehicle Design Laboratory I (2) or ARO4811L - Space Vehicle Design Laboratory I (2) or ARO4811L - Space Vehicle Design Laboratory I (2) or ARO4821L - Space Eunch Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Arizorat Stability and Control (3) ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Arizorat Stability and Control (3) ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Arizorat Stability and Control (3) ARO4821L - Arizorat Stability and Control (3) ARO4820L - Vehicle Design Principles and Applications (1) (B5) ARO4800 - Finite Element Analysis of Structures (3) 2. U.S. 2008 - ARO4120 - Wing Theory (3) 4. Socion ARO4120 - Ving Theory (4) 4. Socion ARO4	ARO4090 - Space Vehicle Dynamics and Control (3)		ARO4510 - Model-Based Systems Architecture (3)		Area C. Arts
##RO4711L - Space Launch Vehicle Design Laboratory I (2) or ARO4811L - Space Vehicle Design Laboratory I (2) or ARO4811L - Space Launch Vehicle Design Laboratory I (2) or ARO4811L - Space Vehicle Design Laboratory I (2) or ARO4811L - Space Vehicle Design Laboratory I (2) or ARO4821L - Space Eunch Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Arizorat Stability and Control (3) ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Arizorat Stability and Control (3) ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Arizorat Stability and Control (3) ARO4821L - Arizorat Stability and Control (3) ARO4820L - Vehicle Design Principles and Applications (1) (B5) ARO4800 - Finite Element Analysis of Structures (3) 2. U.S. 2008 - ARO4120 - Wing Theory (3) 4. Socion ARO4120 - Ving Theory (4) 4. Socion ARO4	ARO4060 - Vibrations and Dynamics of Aerospace Systems (3)		Astronautics Emphasis	6 units	
ARO4811L - Space Vehicle Design Laboratory I (2) or ARO4911L - Air Vehicle Design Laboratory II (2) or ARO4921L - Air Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4921L - Air Vehicle Design Laboratory II (2) or ARO4921L - Air Vehicle Design Laboratory II (2) or ARO4921L - Air Vehicle Design Laboratory II (2) ARO4921L - Air Vehicle Design Principles and Applications (1) (B5) ARO4920 - Reprinciples and Applications (1) (B5) ARO4920 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Computational Fluid Dynamics (3) ARO4180 - Computational Fluid Dynamics (3) ARO4180 - Computational Fluid Dynamics (3) ARO4180 - Aircraft Stability and Control (3) ARO4180 - Computational Fluid Dynamics (3) ARO4180 - Aircraft Stability and Control (3) ARO4180 - Aircraft Stability and Control (3) ARO4180 - Computational Fluid Dynamics (3) ARO4180 - Aircraft Stability and Control (3) ARO4	ARO4351L - Wind Tunnel Testing Laboratory (1)		Fmnhasis Recommended	6 unite	1. Visua
ARO4911L - Âir Vehicle Design Laboratory I (2) or ARO4721L - Space Launch Vehicle Design Laboratory II (2) or ARO4921L - Air Vehicle Design Laboratory II (2) or ARO4921L - Air Vehicle Design Laboratory II (2) or ARO4921L - Air Vehicle Design Laboratory II (2) or ARO4921L - Air Vehicle Design Laboratory II (2) or ARO4921L - Air Vehicle Design Laboratory II (2) or ARO4921L - Air Vehicle Design Laboratory II (2) or ARO4921L - Air Vehicle Design Principles and Applications (1) (B5) ARO4921C - Air Vehicle Design Principles and Applications (1) (B5) ARO4920 - Ethical Concepts in Principles and Applications (1) (B5) ARO4920 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) ARO4920 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) ARO4120 - Air Vehicle Design Principles and Applications (1) (B5) ARO4120 - Air Vehicle Design Principles and Applications (1) (B5) ARO4120 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) ARO4120 - Air Vehicle Design Principles and Applications (1) (B5) ARO4120 - Air Vehicle Design Principles and Applications (1) (B5) ARO4120 - Air Vehicle Design Principles and Applications (1) (B5) ARO4120 - Wing Theory (3) ARO4120 - Wing Theory (3) ARO4120 - Air Vehicle Design Principles and Applications (1) (B5) ARO4120 - Air Vehicle Design Principles and Applications (1) (B5) ARO4120 - Wing Theory (3) ARO4200 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4220 - Surface Transportation and Power Generation Systems (3) ARO4220 - Surface Transportation and Power Generation Systems (3) ARO4220 - Surface Transportation and Power Generation Systems (3) ARO4230 - Digital Flight Control Systems (3) ARO430 - Mechanics Laboratory (1) (B3) ARO430 - Mechanics and Performance and Aeroelasticity (3) ARO430 - Mechanics and Performance (3) ARO430 - Mechanics and Performance (3) ARO430 - Mechanics and Performance (3)			•	o unito	
ARO4721 L - Space Launch Vehicle Design Laboratory II (2) or ARO4821 - Space Vehicle Design Laboratory II (2) or ARO4821 - Air Vehicle Design Laboratory II (2) or ARO4050 - Numerical Methods (3) ARO4050 - Numerical Methods	ARO4911L - Air Vehicle Design Laboratory I (2)				
ARO4821L - Space Vehicle Design Laboratory II (2) or ARO4921 - Air Vehicle Design Laboratory II (2) or ARO4050 - Aircraft Stability and Control (3) ARO40921 - Air Vehicle Design Principles and Applications (1) (B5) ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4120 - Wing Theory (3) ARO4180 - Computational Fluid Dynamics (3) ARO4200 - Aerospace Program Management (3) ARO41140 - Calculus II (4) (B4) ART1150 - Calculus II (4) (B4) ART1150 - Calculus II (4) (B4) ART2140 - Calculus III (4) ARO4220 - Robust Control of Nonlinear Systems (3) ARO4200 - Martinal Equations (3) ARO4200 - Aerospace Program Management (3) ARO4220 - Robust Control of Nonlinear Systems (3) ARO4220 - Structural Dynamics and Aeroelasticity (3) ARO4220 - Structural Dynamics and Aeroelasticity (3) ARO4230 - Digital Flight Control Systems (3) ARO4300 - Mechanics of Composite Materials (3) ARO4300 - Mechanics of Composite Materials (3) ARO4430 - Aircraft System Identification (3) ARO4430 - Aircraft System Identification (3) ARO4200 - Aerospace Program Management (3) ARO4220 - Robust Control of Nonlinear Systems (3) ARO4220 - Structural Dynamics and Aeroelasticity (3) ARO4230 - Digital Flight Control Systems (3) ARO4300 - Mechanics of Composite Materials (3) ARO4300 - Mechanics of Composite Materials (3) ARO4430 - Aircraft System Identification (3) ARO4450 - Optimal Control and Estimation (3) ARO450 - Optimal Control and Estimation (3) ARO4510 - Model-Based Sys	ARO4721L - Space Launch Vehicle Design Laboratory II (2) <b>or</b>		ABO3281 - Aerospace Structural Analysis and Design (3)		
ARO4921L - Air Vehicle Design Laboratory II (2) ARO4050 - Aircraft Stability and Control (3) ARO4050 - Project Design Principles and Applications (1) (B5) ARO4080 - Finite Element Analysis of Structures (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4080 - Finite Element Analysis of Structures (3) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (1) (B5) ARO4180 - Project Design Principles and Applications (3) (B5 or C3) ARO4180 - Project Design Principles and Applications (3) (B5 or C3) ARO4200 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4220 - Aerospace Program Management (	ARO4821L - Space Vehicle Design Laboratory II (2) or				
EGR4820 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5)  EGR4820 - Project Design Principles and Applications (1) (B5)  ME4020 - Ethical Concepts in Technology and Applications (1) (B5)  MAT1140 - Calculus I (4) (B4)  MAT1150 - Calculus I (4) (B4)  MAT1150 - Calculus I III (4)  MAT2140 - Calculus III (4)  MAT2140 - Lelmentary Linear Algebra and Differential Equations (3)  MAT2240 - Elementary Linear Algebra and Differential Equations (3)  MAT2240 - Introduction to Newtonian Mechanics (3) (B1)  PHY1510 - Introduction to Newtonian Mechanics (3) (B1)  PHY1510 - Introduction to Newtonian Mechanics (3) (B1)  PHY1520 - Introduction to Electromagnetism and Circuits (3)  PHY1520 - Introduction to Electromagnetism and Circuits (3)  Major Electives  Any combination of courses listed below will satisfy the required 6 units. Emphases are listed to provide guidance for helping students to choose courses of interest that best fit your career  ARO4200 - Aerospace Program Management (3)  ARO4220 - Aerospace Program Management (3)  ARO4220 - Robust Control of Nonlinear Systems (3)  ARO4220 - Robust Control of Nonlinear Systems (3)  ARO4220 - Structural Dynamics and Performance (3)  ARO4220 - Robust Control of Nonlinear Systems (3)  ARO4220 - Structural Dynamics and Performance (3)  ARO4230 - Optinal Control of Composite Material	ARO4921L - Air Vehicle Design Laboratory II (2)				At least 3 un
EGR4820 - Project Design Principles and Applications (1) (B5)  ME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3)  ME41150 - Calculus II (4) (B4)  MAT1150 - Calculus II (4) (B4)  MAT1150 - Calculus II (4) (B4)  MAT2140 - Calculus II (4) (B4)  MAT2140 - Calculus II (4) (B4)  MAT2240 - Elementary Linear Algebra and Differential Equations (3)  MTE2070 - Materials Science and Engineering (2)  PHY1510 - Introduction to Newtonian Mechanics (3) (B1)  PHY1510 - Introduction to Newtonian Mechanics (3) (B1)  PHY1520 - Introduction to Electromagnetism and Circuits (3)  PHY1520 - Introduction to Electromagnetism and Circuits (3)  Major Electives  6 units  Major guidance for helping students to choose courses of interest that best fit your career  ARO4210 - Wing Theory (3)  ARO4180 - Computational Fluid Dynamics (3)  ARO4200 - Aerospace Program Management (3)  ARO4220 - Aerospace Program Management (3)  ARO4210 - Helicopter Aerodynamics and Performance (3)  ARO4220 - Robust Control of Nonlinear Systems (3)  ARO4260 - Structural Dynamics and Aeroelasticity (3)  ARO4300 - Digital Flight Control Systems (3)  ARO4300 - Digital Flight Control Systems (3)  ARO4300 - Mechanics of Composite Materials (3)  ARO4300 - Optimal Control and Estimation (3)  ARO4450 - Optimal Control and Estimation (			ARO4050 - Aircraft Stability and Control (3)		
EGR4830 - Project Design Principles and Applications (1) (B5)  ME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3)  MAT1140 - Calculus I (4) (B4)  MAT1140 - Calculus III (4) (B4)  MAT2140 - Calculus III (4)  MAT2240 - Elementary Linear Algebra and Differential Equations (3)  MTE2070 - Materials Science and Engineering (2)  PHY1510 - Introduction to Newtonian Mechanics (3) (B1)  PHY1510 - Introduction to Newtonian Mechanics Laboratory (1) (B3)  PHY1520 - Introduction to Electromagnetism and Circuits (3)  PHY1520 - Introductory Laboratory on Electromagnetism and Circuits (1)  Major Electives  Any combination of courses listed below will satisfy the required 6 units. Emphases are listed to provide guidance for helping students to choose courses of interest that best fit your career  ARO4210 - Helicopter Aerodynamics and Performance (3)  ARO4220 - Robust Control of Nonlinear Systems (3)  ARO4220 - Robust Control of Nonlinear Systems (3)  ARO4220 - Structural Dynamics and Performance (3)  ARO4220 - Robust Control of Nonlinear Systems (3)  ARO4230 - Surface Transportation and Power Generation Systems (3)  ARO4260 - Surface Transportation and Power Generation Systems (3)  ARO4330 - Digital Flight Control Systems (3)  ARO4330 - Digital Flight Control Systems (3)  ARO4330 - Aircraft System Identification (3)  ARO4450 - Optimal Control and Estimation (3)  ARO4510 - Model-Based Systems Architecture (3)  Year  First	CHM1150 - General Chemistry for Engineers (3)		ARO4070 - Trajectory Simulation and Analysis (3)		1. U.S. H
MR4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3)  MAT1140 - Calculus I (4) (B4)  MAT1150 - Calculus I (4) (B4)  MAT1150 - Calculus II (4) (B4)  MAT2140 - Calculus III (4)  MAT2200 - Robust Control of Nonlinear Systems (3)  AR04210 - Helicopter Aerodynamics and Performance (3)  AR04220 - Survace Transportation and Power Generation Systems (3)  AR04220 - Structural Dynamics and Aeroelasticity (3)  AR 04220 - Structural Dynamics and Aeroelasticity (3)  AR 04230 - Mechanics of Composite Materials (3)  PHY1510 - Introduction to Newtonian Mechanics (3) (B1)  PHY1510 - Newtonian Mechanics Laboratory (1) (B3)  PHY1520 - Introduction to Electromagnetism and Circuits (3)  AR04430 - Micraft System Identification (3)  AR04430 - Micraft System Identification (3)  AR04450 - Optimal Control and Estimation (3)  AR04460 - Orbit Determination and Estimation (3)  AR04450 - Model-Based Systems Architecture (3)  Year  First	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5)		ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3)		1. U.S. F 2. U.S. (
MAT1140 - Calculus I (4) (B4) MAT1150 - Calculus I (4) (B4) MAT1150 - Calculus II (4) (B4) MAT1150 - Calculus III (4) MAT1150 - Calculus III (4) MAT2140 - Calculus III (4) MAT2140 - Calculus III (4) MAT2240 - Elementary Linear Algebra and Differential Equations (3) MTE2070 - Materials Science and Engineening (2) HY1510 - Introduction to Newtonian Mechanics (3) (B1) PHY1510 - Newtonian Mechanics (3) (B1) PHY1510 - Introduction to Electromagnetism and Circuits (3) PHY1520 - Introduction to Electromagnetism and Circuits (3) PHY1520 - Introductory Laboratory on Electromagnetism and Circuits (1)  Major Electives  6 units  ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4260 - Surface Transportation and Power Generation Systems (3) ARO4260 - Surface Transportation and Power Generation Systems (3) ARO4270 - Structural Dynamics and Aeroelasticity (3) ARO4330 - Digital Flight Control Systems (3) ARO4330 - Mechanics of Composite Materials (3) ARO4340 - Aircraft System Identification (3) ARO4450 - Optimal Control and Estimation (3) ARO4450 - Optimal Control and Estimation (3) ARO4460 - Orbit Determination and Estimation (3) ARO4450 - Model-Based Systems Architecture (3)  Year  First	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5)		ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3)		2. U.S. 0
MAT1140 - Calculus II (4) (B4) MAT2140 - Calculus II (4) (B4) MAT2140 - Calculus II (4) MAT2140 - Calculus III (4) MAC220 - Structural Dynamics and Aeroelasticity (3) ARO4250 - Digital Flight Control Systems (3) MAC4270 - Structural Dynamics and Aeroelasticity (3) ARO4300 - Digital Flight Control Systems (3) MAC4300 - Digital Flight Control Systems (3) MAC4300 - Digital Flight Control Systems (3) MAC4300 - Digital Flight Control Systems (3) ARO4430 - Aircraft System Identification (3) ARO4430 - Optimal Control and Estimation (3) ARO4460 - Orbit Determination and Estimation (3) ARO4510 - Model-Based Systems Architecture (3)  Year First	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5)		ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4180 - Computational Fluid Dynamics (3)		2. U.S. 0 3. Socia
MAT2240 - Elementary Linear Algebra and Differential Equations (3) MTE2070 - Materials Science and Engineering (2) ARO4270 - Digital Flight Control Systems (3) ARO4330 - Digital Flight Control Systems (3) ARO4430 - Aircraft System Identification (3) ARO4430 - Aircraft System Identification (3) ARO4450 - Optimal Control and Estimation (3) ARO450 - Optimal Control and Estimation (3) ARO4510 - Model-Based Systems Architecture (3)  Year  First	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5) IME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) MAT1140 - Calculus I (4) (B4)		ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4180 - Computational Fluid Dynamics (3) ARO4200 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3)		2. U.S. 0 3. Socia 4. Socia
MTE2070 - Materials Ścience and Engineering (2) PHY1510 - Introduction to Newtonian Mechanics (3) (B1) PHY1510L - Newtonian Mechanics Laboratory (1) (B3) PHY1520L - Introduction to Electromagnetism and Circuits (3) PHY1520L - Introductory Laboratory on Electromagnetism and Circuits (1)  Major Electives  Any combination of courses listed below will satisfy the required 6 units. Emphases are listed to provide guidance for helping students to choose courses of interest that best fit your career  ARO4330 - Digital Flight Control Systems (3) ARO4430 - Aircraft System Identification (3) ARO4430 - Aircraft System Identification (3) ARO4450 - Orbit Determination and Estimation (3) ARO4460 - Orbit Determination and Estimation (3) ARO4510 - Model-Based Systems Architecture (3)  Year  First	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5) IME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) MAT1140 - Calculus I (4) (B4) MAT1150 - Calculus II (4) (B4)		ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4180 - Computational Fluid Dynamics (3) ARO4200 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4220 - Robust Control of Nonlinear Systems (3)		2. U.S. 0 3. Socia 4. Socia <b>Area E. Lifel</b>
PHY1510 - Introduction to Newtonian Mechanics (3) (81) PHY1510L - Newtonian Mechanics Laboratory (1) (B3) PHY1520L - Introduction to Electromagnetism and Circuits (3) PHY1520L - Introduction to Electromagnetism and Circuits (3) PHY1520L - Introductory Laboratory on Electromagnetism and Circuits (1)  Major Electives 6 units  Any combination of courses listed below will satisfy the required 6 units. Emphases are listed to provide guidance for helping students to choose courses of interest that best fit your career  ARO4360 - Mechanics of Composite Materials (3) ARO4430 - Aircraft System Identification (3) ARO4450 - Optimal Control and Estimation (3) ARO4510 - Model-Based Systems Architecture (3)  Year  First	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5) IME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) MAT1140 - Calculus I (4) (B4) MAT150 - Calculus II (4) (B4) MAT2140 - Calculus III (4)		ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4180 - Computational Fluid Dynamics (3) ARO4200 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4220 - Robust Control of Nonlinear Systems (3) ARO4260 - Surface Transportation and Power Generation Systems (3)		2. U.S. 0 3. Socia 4. Socia
PHY1510L - Newtonian Mechanics Laboratory (1) (B3) PHY1520 - Introduction to Electromagnetism and Circuits (3) PHY1520L - Introductory Laboratory on Electromagnetism and Circuits (1)  Major Electives 6 units ARO4450 - Optimal Control and Estimation (3) ARO4450 - Orbit Determination and Estimation (3) ARO4510 - Model-Based Systems Architecture (3)  Year  First	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5) IME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) MAT1140 - Calculus I (4) (B4) MAT1150 - Calculus II (4) (B4) MAT2440 - Calculus III (4) MAT240 - Calculus III (4) MAT240 - Calculus III (4)		ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4180 - Computational Fluid Dynamics (3) ARO4200 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4220 - Robust Control of Nonlinear Systems (3) ARO4260 - Surface Transportation and Power Generation Systems (3)		2. U.S. 0 3. Socia 4. Socia <b>Area E. Lifel</b> <b>Interdisc</b>
PHY1520 - Introduction to Electromagnetism and Circuits (3) PHY1520L - Introductory Laboratory on Electromagnetism and Circuits (1)  Major Electives  Any combination of courses listed below will satisfy the required 6 units. Emphases are listed to provide guidance for helping students to choose courses of interest that best fit your career  ARO4450 - Optimal Control and Estimation (3)  ARO4460 - Orbit Determination and Estimation (3)  ARO4510 - Model-Based Systems Architecture (3)  Year  First	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5) IME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) MAT1140 - Calculus I (4) (B4) MAT1140 - Calculus II (4) (B4) MAT2140 - Calculus III (4) MAT2240 - Elementary Linear Algebra and Differential Equations (3) MTE2070 - Materials Science and Engineering (2)		ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4120 - Computational Fluid Dynamics (3) ARO4200 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4220 - Robust Control of Nonlinear Systems (3) ARO4260 - Surface Transportation and Power Generation Systems (3) ARO4270 - Structural Dynamics and Aeroelasticity (3) ARO4330 - Digital Flight Control Systems (3)		2. U.S. ( 3. Socia 4. Socia <b>Area E. Lifel</b> <b>Interdisc</b> An alternate
PHY1520L - Introductory Laboratory on Electromagnetism and Circuits (1)  Major Electives 6 units  ARO4460 - Orbit Determination and Estimation (3)  ARO4510 - Model-Based Systems Architecture (3)  Year  First	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5) IME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) MAT1140 - Calculus I (4) (B4) MAT1140 - Calculus II (4) (B4) MAT2140 - Calculus III (4) MAT2240 - Elementary Linear Algebra and Differential Equations (3) MTE2070 - Materials Science and Engineering (2) PHY1510 - Introduction to Newtonian Mechanics (3) (B1)		ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4120 - Omputational Fluid Dynamics (3) ARO4200 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4220 - Robust Control of Nonlinear Systems (3) ARO4260 - Surface Transportation and Power Generation Systems (3) ARO4370 - Structural Dynamics and Aeroelasticity (3) ARO4330 - Digital Flight Control Systems (3) ARO4360 - Mechanics of Composite Materials (3)		2. U.S. ( 3. Socia 4. Socia <b>Area E. Lifel</b> <b>Interdisc</b> An alternate Interdisciplin
Any combination of courses listed below will satisfy the required 6 units. Emphases are listed to provide guidance for helping students to choose courses of interest that best fit your career	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5) IME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) IME1140 - Calculus I (4) (B4) IME1150 - Calculus II (4) (B4) IME1240 - Calculus III (4) IME1260 - Elementary Linear Algebra and Differential Equations (3) IME2070 - Materials Science and Engineering (2) IME1070 - Introduction to Newtonian Mechanics (3) (B1) PHY1510 - Introduction to Newtonian Mechanics (3) (B1)		ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4120 - Wing Theory (3) ARO4200 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4220 - Robust Control of Nonlinear Systems (3) ARO4220 - Surface Transportation and Power Generation Systems (3) ARO4260 - Surface Transportation and Power Generation Systems (3) ARO4330 - Digital Flight Control Systems (3) ARO4330 - Digital Flight Control Systems (3) ARO4360 - Mechanics of Composite Materials (3) ARO430 - Aircraft System Identification (3)		2. U.S. ( 3. Socia 4. Socia Area E. Lifel Interdisc An alternate Interdisciplin GE coursew
Any combination of courses listed below will satisfy the required 6 units. Emphases are listed to provide guidance for helping students to choose courses of interest that best fit your career	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5) IME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) MAT1140 - Calculus I (4) (B4) MAT1140 - Calculus II (4) (B4) MAT2140 - Calculus III (4) MAT2240 - Elementary Linear Algebra and Differential Equations (3) MTE2070 - Materials Science and Engineering (2) PHY1510 - Introduction to Newtonian Mechanics (3) (B1)		ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4180 - Computational Fluid Dynamics (3) ARO4210 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4220 - Robust Control of Nonlinear Systems (3) ARO4220 - Surface Transportation and Power Generation Systems (3) ARO4260 - Structural Dynamics and Aeroelasticity (3) ARO4330 - Digital Flight Control Systems (3) ARO4360 - Mechanics of Composite Materials (3) ARO4430 - Aircraft System Identification (3) ARO4450 - Optimal Control and Estimation (3)		2. U.S. ( 3. Socia 4. Socia <b>Area E. Lifel</b> <b>Interdisc</b> An alternate Interdisciplin
provide guidance for helping students to choose courses of interest that best fit your career	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5) IME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) MAT1140 - Calculus I(4) (B4) MAT1150 - Calculus II (4) (B4) MAT2140 - Calculus III (4) MAT2240 - Elementary Linear Algebra and Differential Equations (3) MTE2070 - Materials Science and Engineering (2) PHY1510 - Introduction to Newtonian Mechanics (3) (B1) PHY1510L - Newtonian Mechanics Laboratory (1) (B3) PHY1520 - Introduction to Electromagnetism and Circuits (3)	6 units	ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4120 - Wing Theory (3) ARO4210 - Development (3) ARO4210 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4220 - Robust Control of Nonlinear Systems (3) ARO4220 - Structural Dynamics and Aeroelasticity (3) ARO4270 - Structural Dynamics and Aeroelasticity (3) ARO4270 - Digital Flight Control Systems (3) ARO4360 - Mechanics of Composite Materials (3) ARO4430 - Aircraft System Identification (3) ARO4450 - Optimal Control and Estimation (3) ARO4450 - Orbit Determination and Estimation (3)		2. U.S. 0 3. Socia 4. Socia Area E. Lifel Interdisc An alternate Interdisciplin GE coursew Program sec
goals, but there is no requirement for choosing a specific emphasis for fulfilling these units.  Second/Th.	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5) IME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) MAT1140 - Calculus II (4) (B4) MAT1150 - Calculus II (4) (B4) MAT2140 - Calculus III (4) MAT2240 - Elementary Linear Algebra and Differential Equations (3) MTE2070 - Materials Science and Engineering (2) PHY1510 - Introduction to Newtonian Mechanics (3) (B1) PHY1510 - Introduction to Newtonian Mechanics (3) PHY1520 - Introduction to Electromagnetism and Circuits (3) PHY1520L - Introductory Laboratory on Electromagnetism and Circuits (1)  Major Electives		ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4120 - Wing Theory (3) ARO4210 - Development (3) ARO4210 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4220 - Robust Control of Nonlinear Systems (3) ARO4220 - Structural Dynamics and Aeroelasticity (3) ARO4270 - Structural Dynamics and Aeroelasticity (3) ARO4270 - Digital Flight Control Systems (3) ARO4360 - Mechanics of Composite Materials (3) ARO4430 - Aircraft System Identification (3) ARO4450 - Optimal Control and Estimation (3) ARO4450 - Orbit Determination and Estimation (3)		2. U.S. C 3. Socia 4. Socia Area E. Lifel Interdisc An alternate Interdisciplin GE coursew Program sec
	CHM1150 - General Chemistry for Engineers (3) EGR4810 - Project Design Principles and Applications (1) (B5) EGR4820 - Project Design Principles and Applications (1) (B5) EGR4830 - Project Design Principles and Applications (1) (B5) ME4020 - Ethical Concepts in Technology and Applied Science (3) (B5 or C3) MAT1140 - Calculus (14) (B4) MAT1150 - Calculus II (4) (B4) MAT2140 - Calculus III (4) MAT2240 - Elementary Linear Algebra and Differential Equations (3) MTE2070 - Materials Science and Engineering (2) PHY1510 - Introduction to Newtonian Mechanics (3) (B1) PHY1510 - Introduction to Electromagnetism and Circuits (3) PHY1520 - Introduction to Electromagnetism and Circuits (3) PHY1520 - Introduction to Electromagnetism and Circuits (1)  Major Electives Any combination of courses listed below will satisfy the required 6 units. Emphases provide quidance for helping students to choose courses of interest that best fit yo.	are listed to	ARO4070 - Trajectory Simulation and Analysis (3) ARO4080 - Finite Element Analysis of Structures (3) ARO4120 - Wing Theory (3) ARO4120 - Wing Theory (3) ARO4210 - Development (3) ARO4210 - Aerospace Program Management (3) ARO4210 - Helicopter Aerodynamics and Performance (3) ARO4220 - Robust Control of Nonlinear Systems (3) ARO4220 - Structural Dynamics and Aeroelasticity (3) ARO4270 - Structural Dynamics and Aeroelasticity (3) ARO4270 - Digital Flight Control Systems (3) ARO4360 - Mechanics of Composite Materials (3) ARO4430 - Aircraft System Identification (3) ARO4450 - Optimal Control and Estimation (3) ARO4450 - Orbit Determination and Estimation (3)		2. U.S. C 3. Socia 4. Socia Area E. Lifel Interdisc An alternate Interdisciplin GE coursew Program sec

General Education Requirements

Students should consult the Academic Programs website

ttps://www.cpp.edu/~academic-programs/general-education-course-listings.shtml

for current information regarding this requirement. Unless specific courses are required, please refer to the list of approved courses under General Education Requirements, Areas A through E.

### Area A. English Language Communication and Critical Thinking (9 units)

At least 3 units from each sub-area

- 1. Oral Communication
- 2. Written Communication
- 3. Critical Thinking (Satisfied by completion of undergraduate Engineering degree)

### Area B. Scientific Inquiry and Quantitative Reasoning (12 units)

At least 3 units from B1, B2, B4, and B5 including 1 unit of lab from B1 or B2 to fulfill B3

- 1. Physical Sciences
- 2. Life Sciences
- 3. Laboratory Activity
- 4. Mathematics/Quantitative Reasoning
- 5. Science and Technology Synthesis

### Area C. Arts and Humanities (12 units)

At least 3 units from each sub-area and 3 additional units from sub-areas 1 and/or 2

- 1. Visual and Performing Arts
- 2. Literature, Modern Languages, Philosophy and Civilization
- 3. Arts and Humanities Synthesis

### Area D. Social Sciences (12 units)

At least 3 units from each sub-area

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- U.S. History and American Ideals
- 2. U.S. Constitution and California Government
- 3. Social Sciences: Principles, Methodologies, Value Systems, and Ethics
- 4. Social Science Synthesis

### Area E. Lifelong Learning and Self-Development (3 units)

# Interdisciplinary General Education

alternate pattern for partial fulfillment of GE Areas A, C, and D available for students is the erdisciplinary General Education (IGE) program. Students should see an advisor for specific coursework required by their major. Please refer to the University Catalog General Education or

#### How IGE fulfills General Education Requirements:

Year	Completion of IGE Courses	Satisfies GE Requirements
First	IGE 1100, IGE 1200	A2 and C2
Second/Third	IGE 2100, IGE 2200	C1 and C2
	IGE 2300, IGE 2400	D1 and D3
Third/Fourth	IGE 3100	C3 or D4

## American Institutions

6 Units

Courses that satisfy this requirement may also satisfy GE Area D1 and D2.

## American Cultural Perspectives Requirement

3 Units

21 Units

48 Units

Refer to the University Catalog General Education Program section for a list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.

## **Graduation Writing Test**

All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the semester following completion of 60 units for undergraduates.