M.S. in Uncrewed and Autonomous Systems Engineering

Program Requirements

The program supports the Thesis and Graduate Project options

Core Requirements		**15**
AE/EE/ME 527	Modern Control Systems	3
CEC 528	Networks	3
EE 528	Sensors and Data Links	3
ME 503	Introduction to Autonomous Vehicle Systems	3
SYS 505	System Safety and Certification	3
Thesis Option		
One (1) Approved Elective		3
One (1) Open Elective *		3
EGR 600	Research Methods for Engineers	3
UAS 700	Thesis	3
UAS 700	Thesis	3
Graduate Project Option		
Two (2) Approved Electives		6
Two (2) Open Electives *		6
UAS 690	Graduate Project	3
Total Credits		**30**

Approved Electives

Approved Electives		
AE 506	Airplane Dynamic Stability	3
AE 553	Hybrid and Urban Air Mobility	3
AE 623	Navigation, Guidance and Control	3
AE 626	Advanced Topics in Discrete Control Theory	3
CEC 500	Engineering Project Management	3
CEC 526	Sensor Data Fusion	3
CEC 527	Mobile Sensor Networks	3
CEC 530	Image Processing and Machine Vision	3
CEC 610	State and Parameter Estimation	3
CS 528	Multi-Agent Systems	3
CS 529	Computer Security	3
CS 555	Artificial Intelligence	3
EE 500	Digital Control Systems	3
EE 505	Advanced Mechatronics	3
EE 510	Linear Systems	3
EE 515	Random Signals	3
EE 525	Avionics and Radio Navigation	3
EE 529	Electro-Optical Systems	3
EE 625	Satellite-Based Communications and Navigation	3
ME 513	Perception Methods for Autonomous Systems	3
ME 520	Sensor Processing with Applications	3
ME 523	Modeling and Simulation of Linear Dynamic Systems	3
ME 610	Automation and Additive Manufacturing	3
ME 615	Pattern Recognition and Machine Learning	3
SYS 500	Fundamentals of Systems Engineering	3
SYS 530	System Requirements Analysis and Modeling	3
SYS 560	Introduction to Systems Engineering Management	3
SYS 610	System Architecture Design and Modeling	3
SYS 625	System Quality Assurance	3

* Open electives are 500-level or higher courses relevant to uncrewed and/or autonomous systems. Students should see their advisor to determine the suitability of their open electives.