

M.S. in Uncrewed and Autonomous Systems Engineering

Daytona Beach Program Requirements

Core Requirements	15
Option Requirement	15
Total Credits	30

Core Requirements

AERO 527	Modern Control Systems	3
or ELEC 527	Modern Control Systems	
or MECH 527	Modern Control Systems	
CESC 528	Networks	3
ELEC 528	Sensors and Data Links	3
MECH 503	Introduction to Autonomous Vehicle Systems	3
SYSE 505	System Safety and Certification	3
Total Credits		15

Capstone Option

UNSY 690	Graduate Project	3
Electives		12
Total Credits		15

Thesis Option

UNSY 700	Graduate Thesis	6
ENGR 600	Research Methods for Engineers	3
Electives		6
Total Credits		15

Electives

AERO 506	Airplane Dynamic Stability	3
AERO 553	Hybrid and Urban Air Mobility	3
AERO 623	Navigation, Guidance and Control	3
AERO 626	Advanced Topics in Discrete Control Theory	3
CESC 500	Engineering Project Management	3
CESC 526	Sensor Data Fusion	3
CESC 527	Mobile Sensor Networks	3
CESC 530	Image Processing and Machine Vision	3
CESC 610	State and Parameter Estimation	3
CPSC 528	Multi-Agent Systems	3
CPSC 529	Computer Security	3
CPSC 555	Artificial Intelligence	3
ELEC 500	Digital Control Systems	3
ELEC 505	Advanced Mechatronics	3
ELEC 510	Linear Systems	3
ELEC 515	Random Signals	3
ELEC 525	Avionics and Radio Navigation	3
ELEC 529	Electro-Optical Systems	3
ELEC 625	Satellite-Based Communications and Navigation	3
MECH 513	Perception Methods for Autonomous Systems	3
MECH 520	Sensor Processing with Applications	3
MECH 523	Linear Systems	3
MECH 610	Automation and Additive Manufacturing	3

MECH 615	Pattern Recognition and Machine Learning	3
SYSE 500	Fundamentals of Systems Engineering	3
SYSE 530	System Requirements Analysis and Modeling	3
SYSE 560	Introduction to Systems Engineering Management	3
SYSE 610	System Architecture Design and Modeling	3
SYSE 625	System Quality Assurance	3

Suggested Plan of Study

Capstone Option

Year One

Requirements	Credits
MECH 503 - Introduction to Autonomous Vehicle Systems	3
ELEC 528 - Sensors and Data Links	3
Semester Hours	6

Requirements	Credits
SYSE 505 - System Safety and Certification	3
Elective	3
Elective	3
Semester Hours	9

Total Credits

Total Hours for All Requirements: 15

Year Two

Requirements	Credits
AERO 527 - Modern Control Systems, ELEC 527 - Modern Control Systems, or MECH 527 - Modern Control Systems	3
CESC 528 - Networks	3
Elective	3
Semester Hours	9

Requirements	Credits
UNSY 690 - Graduate Project	3
Elective	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 15

Thesis Option

Year One

Requirements	Credits
MECH 503 - Introduction to Autonomous Vehicle Systems	3
ELEC 528 - Sensors and Data Links	3
Semester Hours	6

Requirements	Credits
SYSE 505 - System Safety and Certification	3
ENGR 600 - Research Methods for Engineers	3
Elective	3
Semester Hours	9

Total Credits

Total Hours for All Requirements: 15

Year Two

Requirements	Credits
AERO 527 - Modern Control Systems, ELEC 527 - Modern Control Systems, or MECH 527 - Modern Control Systems	3
CESC 528 - Networks	3
UNSY 700 - Graduate Thesis	3
Semester Hours	9

Requirements	Credits
UNSY 700 - Graduate Thesis	3
Elective	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 15