

Master's Degree in Mechanical and Aerospace Engineering Unmanned Aerial Systems (UAS)

The minimal University requirements for the M.S. degree are determined by the Graduate College and can be found in the *University Catalog* (<http://prodosu.okstate.edu>). We, in MAE, have additional requirements in several areas. You have two options for completion of your Master's degree in UAS:

Thesis

A total of 30 credit hours, which includes **24 hours of formal coursework** (regularly scheduled classes, not independent study or research) and **six hours of MAE 5000** (Thesis) are required for the Thesis Option, see table below.

Creative Component

A total of 35 credit hours, which includes **33 hours of formal coursework** (regularly scheduled classes, not independent study or research) and **two hours of MAE 5010** (Creative Component) are required for the Creative Component Option, see table below.

Your 30 (Thesis) or 35 (Creative Component) hours of coursework should satisfy the following (For a copy of the "MAE Graduate Course Offerings" sheet and the "Mathematics Requirements" sheet, please visit the Graduate Academic Secretary or our Web site at <http://www.mae.okstate.edu/grad.html>):

	Mathematics* (see "Mathematics Requirements" sheet)	5000- and 6000-level Courses (see "MAE Graduate Course Offerings" sheet)	Research Hours	(Optional) 4000-level MAE Courses** (As needed, consult the MAE Graduate Director)
Thesis Option	6 hours	18 hours Select 18 hours from: UAS Core I: 9 hours UAS Core II: 3 hours UAS Electives: 6 hours	MAE 5000 (6 hours)***	None approved for this option
Creative Component Option	6 hours	21 to 27 hours Select at least 21 hours from: UAS Core I: 9 hours UAS Core II: 3 hours UAS Electives: 9 hours	MAE 5010 (2 hours)***	6 or fewer hours of courses approved for graduate credit (see Course Offerings)

*Your mathematics requirement may be waived by the MAE Graduate Director, if you have received prior credit for taking advanced mathematics courses as Undergraduate electives.

**No more than three 4000 level courses can be included on your plan of study. This includes any 4000-level approved MATH courses you have taken or plan to take.

***The Thesis or Creative Component Option would require MS research and defense in an area closely related to UAS, as determined and approved by the student's advisory committee and to be indicated on the official plan of study.

(See reverse for UAS Course Selections)

UAS Course Selections

UAS Core I:

MAE 5483 Advanced Mechatronics Design
MAE 5913 Advanced Aerodynamics
MAE 5923 Guidance and Control of Aerospace Vehicles
MAE 5953 Aerospace Systems Engineering
MAE 5963 Unmanned Aerial Systems Design and Analysis
MAE 5973 Unmanned Aerial Systems Propulsion

UAS Core II: Aviation Operations, Regulations, and Education

AVED 5303 Aviation and Space Quality Issues
AVED 6423 Certification of Airplanes
(More courses to be added as they become available)

UAS Electives:

MAE 5083 Engineering Acoustics
MAE 5233 Viscous Fluid Dynamics
MAE 5433 Robotics, Kinematics, Dynamics and Control
MAE 5473 Digital Control Systems
MAE 5533 Analysis of Structural Systems
MAE 5933 Aeroelasticity
MAE 5943 Unsteady Aerodynamics and Aeroacoustics