

Effective July 2019

## **Master of Science Degree in Mechanical and Aerospace Engineering Unmanned Aerial Systems (UMAS) Concentration**

The minimal University requirements for the M.S. degree are determined by the OSU Graduate College and can be found in the *University Catalog* (<https://registrar.okstate.edu/University-Catalog>). MAE has additional requirements in several areas. For M.S. Thesis students, the UMAS Concentration requirements include 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 your advisor's section of MAE 5000 (Thesis), see table below.

The 30 (Thesis) hours of coursework required for the Thesis UMAS Concentration should satisfy the following (For a copy of the "MAE Graduate Course Offerings" sheet, please visit the Graduate Academic Advisor or our website at <http://www.mae.okstate.edu>):

MAE 5000- and 6000-level Courses (see "MAE Graduate Course Offerings")	Graduate Level Technical Electives*	Research Hours
18 hours  Select a minimum of 12 hours from the UMAS Core.  UMAS Core: 12 hours MAE Electives: 6 hours	6 hours  Select a minimum of 6 hours of courses approved for graduate credit (5000- and 6000- level courses).	MAE 5000 (6 hours)**

\*5000- and 6000-level courses approved by the student's advisory committee (see "MAE Graduate Course Offerings").

\*\*The Thesis requires M.S. research and defense in an area closely related to Unmanned Aerial Systems as determined and approved by the student's advisory committee and to be indicated on the official plan of study.

### UMAS Core:

MAE 5083 Engineering Acoustics  
MAE 5233 Advanced Fluid Dynamics I  
MAE 5343 Advanced Aerospace Propulsion and Power  
MAE 5913 Advanced Aerodynamics  
MAE 5923 Guidance and Control of Aerospace Vehicles  
MAE 5943 Unsteady Aerodynamics and Aeroacoustics  
MAE 5963 Unmanned Aerial Systems Design and Analysis  
MAE 5973 Unmanned Aerial Systems Propulsion  
MAE 5983 Aircraft Certification and Test  
MAE 6313 Atmospheric Flight Control

### MAE Electives:

Any MAE graduate level course supporting Unmanned Aerial Systems thesis research will be allowed with permission of the student's advisory committee.

### Technical Electives:

Graduate level courses allowed with permission of the student's advisory committee.