GRADUATE CERTIFICATE IN AEROSPACE ENGINEERING

The Graduate Certificate in Aerospace Engineering provides an introduction to aerospace engineering disciplines, including fluid flow, propulsion, and structures. A graduate certificate requires completion of 9 credits of 500-level and above graduate work. Students may apply for and complete just the certificate or may apply for both the certificate and a degree program. This allows students to start with the certificate and continue to a more advanced degree.

Students interested in graduate work should refer to the Graduate and Professional Bulletin.

Learning Objectives

Students will:

1. Interpret and distinguish space science and engineering and their interrelationship.
2. Extend space-related knowledge beyond baccalaureate level.
3. Conceive, design, manufacture, manage, and operate complex space systems.
4. Design space systems, develop projects, and manage projects.

Requirements Effective Fall 2023

Additional coursework may be required due to prerequisites.

Code	Title	Credits
Select 9 credits from the following courses:		9
MECH 507	Laser Diagnostics for Thermosciences	
MECH 515	Advanced Topics in Mechanical Vibrations	
MECH 517	Chemical Rocket Propulsion	
MECH 518	Orbital Mechanics	
MECH 519	Aerospace Vehicles Trajectory and Performance	
MECH 520	Finite Element Analysis in Mechanical Engr	
MECH 539	Advanced Fluid Mechanics	
MECH 551	Physical Gas Dynamics I	
MECH 552	Applied Computational Fluid Dynamics	
MECH 557	Turbomachinery	
MECH 558	Combustion	
MECH 567	Broad-Beam Ion Sources	
MECH 568	Computational Methods for Mechanical Eng.	
MECH 658	Advanced Combustion Theory and Modeling	
Program Total Credits:		**9**

*This certificate may have courses in common with other graduate certificates. A student may earn more than one certificate, but a given course may be counted only in one certificate.