GRADUATE CERTIFICATE IN ADVANCED MANUFACTURING

The Graduate Certificate in Advanced Manufacturing provides students with the basic competencies, skills, and experience needed to advance their careers in a manufacturing industry. 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 optimize manufacturing operations given an understanding of manufacturing support systems.
2. Identify and apply the appropriate manufacturing processes for a product given its specification and material properties.
3. Implement and integrate fundamental principles, critical technologies, processing parameters, and strengthening mechanisms of materials towards manufacturing applications.

Requirements
Effective Spring 2022

Additional coursework may be required due to prerequisites.

Code	Title	Credits
Select 9 credits from the following courses:		9
MECH 502	Advanced/Additive Manufacturing Engineering	
MECH 513	Simulation Modeling and Experimentation	
MECH 529	Advanced Mechanical Systems	
MECH 530	Advanced Composite Materials	
MECH 531/ BIOM 531	Materials Engineering	
MECH 533	Composites Product Development	
MECH 537	Processing of Polymer Composites	
MECH 564	Fundamentals of Robot Mechanics and Controls	
MSE 502A	Materials Science and Engineering Methods: Materials Structure and Scattering	
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.