

MECHANICAL DESIGN AND MANUFACTURING UNDERGRADUATE ACADEMIC CERTIFICATE

This certificate is designed to provide undergraduate students with specialized knowledge and skills in product development and manufacturing engineering, which is a rapidly growing and evolving industry. The program is intended to prepare students for careers in this or related fields, as well as future graduate studies in this field.

All required coursework must be completed with a grade of C or better (O-10-a (<https://catalog.uidaho.edu/general-requirements-academic-procedures/o-miscellaneous/>)).

Code	Title	Hours
Select 12 credits from the following:		12
ME 4021	Machine Shop Fundamentals I	
ME 4022	Machine Shop Fundamentals II	
ME 4023	Machine Shop Leadership and Mentoring	
ME 4100	Principles of Lean Manufacturing	
ME 4150	Materials Selection and Design	
ME 4540	Assistive Technologies for Physical Impairment	
ME 4580	Finite Element Applications in Engineering	
ME 4660	Compliant Mechanism Design	
ME 4900	Solid Modeling, Simulation and Manufacturing Capstone	
ME 4950	Mechanics in Design and Manufacturing	
Total Hours		12

Courses to total 12 credits for this certificate

1 - Ability to use engineering skills for mechanical design and/or manufacturing or related fields based on knowledge and skills gained from the certificate.

2 - Ability to design manufacturable products or components while understanding and using modern manufacturing principles considering real-world constraints.

3 - Ability to effectively communicate with clients, engineers, or the general public on topics related to product design and development and modern manufacturing and/or related fields.