## **The University of Toledo**



# GRADUATE CERTIFICATE IN MANUFACTURING

Manufacturing is undergoing systemic changes as a result of technology advances and re-shoring of manufacturing to the U.S. The adoption and integration of additive manufacturing technologies is changing the way products are made and unlocking product opportunities that were previously inconceivable. This Certificate allows you to transcript your manufacturing skill-base and enables employers to identify graduates with the manufacturing expertise that they need.



#### **BENEFITS**

Many industries are seeking to upgrade the skills of their workforce as methods of manufacturing expand to include additive manufacturing, advanced automation, and automated assembly. Replacing legacy processes with new manufacturing methods also requires re-imagining engineering design for production with these new technologies. Want to be a leader in the manufacturing revolution? Let the new Graduate Certificate in Manufacturing take your career to the next level. Want to keep going? Consider stacking with another certificate for additional credentials or to complete a master's degree.

## **PROGRAM REQUIREMENTS**

The graduate certificate program is structured to require 15 cr hr of core and elective courses. Each course is 3 cr hr. **CORE MANUFACTURING COURSES (Select 3 courses)** 

- MIME 5830 Additive Manufacturing
- MIME 5060 Manufacturing Engineering
- MIME 6720 Design of Experiments
- MIME 6810 Assembly and Joining Processes

## **MANUFACTURING ELECTIVES (Select 2 courses)**

- MIME 5080 Operations Research I
- MIME 5100 Manufacturing Systems Simulation
- MIME 5690 Reliability
- MIME 5800 Design for Manufacturability
- MIME 5820 Sustainability Analysis and Design
- MIME 6800 Advanced Manufacturing Systems Engineering

## FUELING TOMORROWS

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