

# MANUFACTURING MINOR

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**Total Required Credits: 28**

| <b>Code</b>                 | <b>Title</b>  | <b>Credit Hours</b> |
|-----------------------------|---|---------------------|
| IME-100                     | Interdisciplinary Design and Manufacturing                              | 4                   |
| IME-200                     | Introduction to Industrial Engineering                                  | 4                   |
| IME-300                     | Manufacturing Processes   | 4                   |
| Select One of the following |   | 4                   |
| CHEM-223                    | Introduction to Polymer Science   |                     |
| EP-342                      | Introduction to Materials Science and Engineering                       |                     |
| MECH-307                    | Materials Engineering   |                     |
| Select One of the following |   | 4                   |
| IME-471                     | Quality Control   |                     |
| IME-473                     | Design of Experiments   |                     |
| IME-476                     | Lean Six Sigma  |                     |
| Select Two of the following |   | 8                   |
| CHEM-381                    | Scientific 3D Printing  |                     |
| EE-325                      | Principles of Microelectronics Processing                               |                     |
| IME-403                     | Computer Numerical Control Machining                                    |                     |
| IME-408                     | Industrial Robotics   |                     |
| IME-412                     | Applied Control Systems Design  |                     |
| IME-474                     | Design for Manufacture and Assembly                                     |                     |
| MECH-416                    | Introduction to Finite Element Analysis with Structural Applications    |                     |
| MECH-472                    | CAD/CAM/CAE & Additive Manufacturing Capstone Design                    |                     |
| MECH-482                    | Mechanics and Design Simulation of Fiber-Reinforced Composite Materials |                     |