



**Precision Machining and Manufacturing**  
**Associate in Applied Science**  
**Four Semester Pathway Academic Year 2025-2026**

| Semester 1                              | Requirement                                                               | Recommended                  | Prerequisites            | Corequisites            | Credits      | My Plan |
|-----------------------------------------|---------------------------------------------------------------------------|------------------------------|--------------------------|-------------------------|--------------|---------|
| FIGS 100                                | Student Success Elective - Industrial Technology & Transportation Pathway |                              |                          |                         | 1            |         |
| MATH 130 OR<br>MATH 140 AND<br>MATH 146 | Technical Mathematics<br>College Algebra<br>Introduction to Trigonometry  |                              | MATH 040                 | MATH 140                | 3-4          |         |
| AEDD 100                                | Print Reading                                                             |                              | MATH 040                 |                         | 3            |         |
| MACH 115                                | Introduction to Precision Machining                                       |                              | MATH 040                 |                         | 7            |         |
| <b>Semester 2</b>                       |                                                                           |                              |                          |                         |              |         |
| ENGL 100                                | English Composition                                                       |                              | ENGL 080                 |                         | 3            |         |
| MACH 165                                | Advanced Precision Machining                                              |                              | MACH 115                 | AEDD 170                | 7            |         |
| AEDD 170                                | Parametric Solid Modeling                                                 |                              | MACH 115                 |                         | 3            |         |
|                                         | Fine Arts or Humanities Elective                                          | ENGL 110 Oral Communications | ENGL 080 or ENGL 101     |                         | 3            |         |
| <b>Semester 3</b>                       |                                                                           |                              |                          |                         |              |         |
| MACH 215                                | Introduction to CNC Machining Practices                                   |                              | MACH 165                 |                         | 7            |         |
|                                         | Physics Elective with Lab                                                 | PHYS 110 or *PHYS 150        | See course prerequisites | See course corequisites | 4            |         |
|                                         | Social Science Elective                                                   | *HIST 170 or *POLS 110       | ENGL 080 or ENGL 101     |                         | 3            |         |
| AEDD 250                                | Mechanical Design                                                         |                              | MACH 115                 | AEDD 170                | 3            |         |
| <b>Semester 4</b>                       |                                                                           |                              |                          |                         |              |         |
| MACH 265                                | Advanced CNC Machining and CAM Programming                                |                              | MACH 215                 |                         | 7            |         |
|                                         | Social Science Elective                                                   | *ECON 120 or* ECON 125       | MATH 040                 | ENGL 100 or ENGL 101    | 3            |         |
| ENGL 115 OR<br>ENGL 117                 | Introduction to Literature<br>Introduction to Professional Writing        |                              | ENGL 100 or ENGL 101     |                         | 3            |         |
| WELD 100                                | Introduction to Welding                                                   |                              |                          |                         | 3            |         |
| <b>* = Transfer Recommendations</b>     |                                                                           |                              |                          | <b>Total Credits</b>    | <b>63-64</b> |         |

[Advice on Choosing Electives](#)



## Precision Machining and Manufacturing

| <b>General Education Requirements</b>   |                                                                                 |                      |              |         |     |
|-----------------------------------------|---------------------------------------------------------------------------------|----------------------|--------------|---------|-----|
| COURSE CODE                             | COURSE TITLE                                                                    | PREREQUISITES        | COREQUISITES | CREDITS | MET |
| ENGL 100                                | English Composition                                                             | ENGL 080             |              | 3       |     |
| ENGL 115 OR<br>ENGL117                  | Introduction to Literature<br>Introduction to Professional Writing              | ENGL 100 or ENGL 101 |              | 3       |     |
| ENGL 115                                | Introduction to Literature                                                      | ENGL 100 or ENGL 101 |              | 3       |     |
| FIGS 100                                | Student Success Elective - Industrial Technology &<br>Transportation Pathway    |                      |              | 1       |     |
| MATH 130 OR<br>MATH 140 AND<br>MATH 146 | Technical Mathematics OR<br>College Algebra AND<br>Introduction to Trigonometry | MATH 040             | MATH 140     | 3-4     |     |
|                                         | Physics Elective with Lab                                                       |                      |              | 4       |     |
|                                         | Fine Arts or Humanities Elective                                                |                      |              | 3       |     |
|                                         | Social Science Elective                                                         |                      |              | 6       |     |

| <b>Major Required Courses</b> |                                                  |               |              |         |     |
|-------------------------------|--------------------------------------------------|---------------|--------------|---------|-----|
| COURSE CODE                   | COURSE TITLE                                     | PREREQUISITES | COREQUISITES | CREDITS | MET |
| AEDD 100                      | Print Reading                                    | MATH 040      |              | 3       |     |
| AEDD 170                      | Parametric Solid Modeling                        | MACH 115      |              | 3       |     |
| AEDD 250                      | Mechanical Design                                | MACH 115      |              | 3       |     |
| MACH 115                      | Introduction to Precision Machining              | MATH 040      |              | 7       |     |
| MACH 165                      | Advanced Precision Machining Practices           | MACH 115      | AEDD 170     | 7       |     |
| MACH 215                      | Introduction to CNC Machining Practices          | MACH 165      |              | 7       |     |
| MACH 265                      | Advanced CNC Machining and Programming Practices | MACH 215      |              | 7       |     |
| WELD 100                      | Introduction to Welding                          |               |              | 3       |     |