

# Precision Machining A.A.S.

Advisors – Ayers Campus: Steve Caldwell, Machine Tool Building (256.835.5417) [scaldwell@gadsdenstate.edu](mailto:scaldwell@gadsdenstate.edu);  
East Broad Campus: David Smith, Machine Technology Building (256.549.8644) [dsmith@gadsdenstate.edu](mailto:dsmith@gadsdenstate.edu); Jeff  
Gaither, Machine Technology Building [jgaither@gadsdenstate.edu](mailto:jgaither@gadsdenstate.edu)

NOTICE(s): For the A.A.S. Degree in Precision Machining, the student must complete a minimum of 73 credit hours—a minimum of 58 in technical courses and a minimum of 15 in general education courses—all of which must be approved by the advisor. A maximum of 9 credit hours of technical electives may be selected from any approved area of Engineering Technology programs with prior written approval from the student's major advisor. Admission Requirement: High school diploma or GED.

The student is responsible for verifying the transferability of credit in this program to a senior institution with the appropriate senior institution advisor.

**Program:** Precision Machining

**Type:** Associate in Applied Science Degree

## Written Composition

| Item #  | Title                 | Credits |
|---------|-----------------------|---------|
| ENG 101 | English Composition I | 3       |
|         | Sub-Total Credits     | 3       |

## Humanities and Fine Arts

| Item # | Title                         | Credits |
|--------|-------------------------------|---------|
|        | Humanities/Fine Arts Elective | 3       |
|        | Sub-Total Credits             | 3       |

## Natural Sciences and Mathematics

| Item #  | Title   | Credits |
|---------|---|---------|
| INT 104 | Principles of Technology                                    | 3       |
|         | MTH 100: Intermediate College Algebra OR numerically higher | 3       |
|         | Sub-Total Credits   | 6       |

## History, Social and Behavioral Sciences

| Item # | Title  | Credits |
|--------|--|---------|
|        | History, Social and Behavioral Sciences Elective | 3       |
|        | Sub-Total Credits                                | 3       |

## Technical Courses - Required

| Item #  | Title                                    | Credits |
|---------|--|---------|
|         | MTT 107 or EET 100                       | 3       |
| MTT 121 | Basic Print Reading for Machinists       | 3       |
| MTT 127 | Metrology                                | 3       |
| MTT 128 | Geometric Dimensioning and Tolerancing I | 3       |
| MTT 139 | Basic Computer Numerical Control         | 3       |
| MTT 147 | Introduction to Machine Shop I           | 3       |
| MTT 148 | Introduction to Machine Shop I Lab       | 3       |
| MTT 149 | Introduction to Machine Shop II          | 3       |
| MTT 150 | Introduction to Machine Shop II Lab      | 3       |
| ORI 101 | Orientation to College                   | 1       |
|         | Sub-Total Credits                        | 28      |

## Additional Coursework:

Choose 30 credit hours from the following list.

| Item #  | Title  | Credits   |
|---------|--|-----------|
| CIS 146 | Microcomputer Applications                             | 3         |
|         | MDT 105 or DDT 104                                     | 3         |
| MTT 108 | Machine Handbook Functions I                           | 3         |
| MTT 109 | Orientation to Computer Assisted Manufacturing         | 3         |
| MTT 123 | Engine Lathe Lab I                                     | 3         |
| MTT 124 | Engine Lathe Lab II                                    | 3         |
| MTT 134 | Lathe Operations I                                     | 3         |
| MTT 137 | Milling I  | 3         |
| MTT 138 | Milling I Lab  | 3         |
| MTT 140 | Basic Computer Numerical Control Turning Programming I | 3         |
| MTT 141 | Basic Computer Numeric Control Milling Programming I   | 3         |
| MTT 154 | Metallurgy   | 3         |
| MTT 162 | Precision Grinding                                     | 3         |
| MTT 181 | Special Topics in Machine Tool Technology              | 3         |
| MTT 202 | Machine Maintenance and Repair                         | 3         |
| MTT 219 | Computer Numerical Control Graphics: Turning           | 3         |
| MTT 220 | Computer Numerical Control Graphics: Milling           | 3         |
| MTT 221 | Advanced Blueprint Reading for Machinists              | 3         |
| MTT 241 | CNC Milling Lab I                                      | 3         |
| MTT 243 | CNC Turning Lab I                                      | 3         |
| MTT 270 | Machining Skills Application                           | 3         |
| MTT 281 | Special Topics in Machine Tool Technology              | 3         |
| MTT 286 | Co-Op  | 1         |
| MTT 288 | Co-Op  | 2         |
| MTT 291 | Cooperative Education in Machine Tool Technology       | 3         |
| MTT 292 | Cooperative Education in Machine Tool Technology       | 3         |
| SPH 106 | Fundamentals of Oral Communication                     | 3         |
|         | Sub-Total Credits                                      | 78        |
|         | <b>Total credits:</b>                                  | <b>73</b> |