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| **Career Goal: The Precision Machining Technology Program embraces the collective mission to fulfill the needs of the manufacturing industry by preparing graduates with the skills and experience necessary to enter a variety of machining fields at an apprentice level set forth by industry.***This Career Pathway Plan of Study should serve as a guide, along with other career planning materials, as learners continue on a career path.* |
| **Education****Levels** | **Grade** | **English** | **Math** | **Science** | **Social Studies/ Sciences** | **Other Required Courses or Recommended Electives** | **Career & Technical Courses and/or Degree Major Courses** | **Employment Opportunities in Precision Machining Technology** | For further information about pursuing a career in Precision Machining Technology, visit:**SWIC.edu****College Credit Opportunities:** Students should take advantage of dual-credit courses offered by SWIC.**Certificates:*** Precision Machining Technology
* CNC Machining
* MasterCam
* Solid Works

**Associate in Applied Science Degrees:*** Precision Machining Technology

**Bachelor's Degrees:*** Industrial Technology
* Engineering Technology
* Design Technology
* Mechanical Engineering
* Production Engineering

**Service Learning Experiences:*** Boy Scouts of America
* Girl Scouts of the USA
* Community Service Volunteer
* Peer Tutoring or Mentoring
* School-sponsored activities/organizations
 |
| **Secondary** | **9** | English IWritingLanguage Arts | Algebra Ior Pre-Algebra | Biology Ior Earth Scienceor Physical Science | Geographyor World History | Driver's ED\*or Health\*or P.E. or Music/Artor Foreign Language | Intro to Manufacturingor Intro to Metalsor Intro to Technologyor Intro to Welding  | **Career Options:*** Precision or Maintenance Machinist
* CNC Operator or Programmer
* CAD/CAM Programmer
* Inspector
* Tool and Die or Mold Maker
* Sheet Metal Worker
* Industrial Mechanic or Engineer
* Plant Manager
* Equipment Sales

**Career Learning****Experiences:*** Apprenticeship
* Internship
* Job shadowing
* Part-time job/ work experience

**Curricular Experiences:*** Skills USA
* Auto Clubs

**Extracurricular Learning****Experiences:*** Student Government
* School Newspaper/Yearbook
* Science Club
* FFA
* School-sponsored activities/organizations
 |
| **10** | English IIWritingLanguage Arts | Geometryor Algebra I | Chemistryor Biology I | U.S. Government\*or Consumer Ed\* | Driver's ED\*or Health\*or P.E. or Music/Artor Foreign Language | Intro to Manufacturingor Intro to Metalsor Intro to Technologyor Intro to Welding  |
| **11** | English IIIWritingLanguage Arts | Algebra IIor Geometry | Chemistryor Biology I | U.S. History | Driver's ED\*or Health\*or P.E. or Music/Artor Foreign Language | **11th & 12th Grade****Course Work**\*\*Automotive Mechanics\*\*Construction Trades\*\*Drafting and Design\*\*Electrical/ElectronicsEngineering Technology\*\*HVARInterrelated Cooperative Education\*\*Manufacturing Technology\*\*Precision Metalworking\*\*Precision Production Trades\*\*Welding |
| *Complete College Placement Testing March or April of Junior Year.* |
| **12** | \*\*English IVCOMP/Research\*\*\*Speech/Oral Communication\* | Pre-Calculusor Trigonometry  | Biology Ior Earth Scienceor Physical Science | Sociology\*or \*\*Psychology\* | Driver's ED\*or Health\*or P.E.or Music/Artor Foreign Language |
| **Postsecondary** | *Successfully completed dual credit/enrollment courses do not have to be repeated at postsecondary level.* |
| Refer to:[**SWIC.edu**](http://www.swic.edu)for Precision Machining Technology program requirements |
| \*One Semester\*\*Dual Credit/Dual Enrollment opportunities- students must meet college requirements to enroll. |  Revised 7-5-19 |