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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 I  Writing  Language Arts | Algebra I  or Pre-Algebra | Biology I  or Earth Science  or Physical Science | Geography  or World History | Driver's ED\*  or Health\*  or P.E. or Music/Art  or Foreign Language | Intro to Manufacturing  or Intro to Metals  or Intro to Technology  or 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 II  Writing  Language Arts | Geometry  or Algebra I | Chemistry  or Biology I | U.S. Government\*  or Consumer Ed\* | Driver's ED\*  or Health\*  or P.E. or Music/Art  or Foreign Language | Intro to Manufacturing  or Intro to Metals  or Intro to Technology  or Intro to Welding |
| **11** | English III  Writing  Language Arts | Algebra II  or Geometry | Chemistry  or Biology I | U.S. History | Driver's ED\*  or Health\*  or P.E. or Music/Art  or Foreign Language | **11th & 12th Grade**  **Course Work**  \*\*Automotive Mechanics  \*\*Construction Trades  \*\*Drafting and Design  \*\*Electrical/Electronics  Engineering Technology  \*\*HVAR  Interrelated Cooperative Education  \*\*Manufacturing Technology  \*\*Precision Metalworking  \*\*Precision Production Trades  \*\*Welding |
| *Complete College Placement Testing March or April of Junior Year.* | | | | | |
| **12** | \*\*English IV  COMP/Research\*  \*\*Speech/Oral Communication\* | Pre-Calculus  or Trigonometry | Biology I  or Earth Science  or Physical Science | Sociology\*  or \*\*Psychology\* | Driver's ED\*  or Health\*  or P.E.  or Music/Art  or 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 10-24-17 |