Career and Technical Education (CTE) 
Major Track

This track is for students that want to earn a diploma/AAS degree in Welding Technology, Truck Technician, Cabinetmaking or Electromechanical Automation Systems. Through this program, eligible 11th graders enroll in PSEO and finish core 11th and 12th grade high school graduation requirements in grade 11. In 12th grade, students enroll in one CTE program full-time and utilize CTE courses to fulfill remaining high school elective requirements. Admission is first come, first served. Tuition, fees, books and tools are paid for and provided to the student at no cost. Tools are retained in the Saint Paul College PSEO program for students to use and share. Students are responsible for purchasing non-reusable items (ex: steel-toed boots). During 12th grade, PSEO staff will help students apply for general admission to Saint Paul College and for financial aid to finish their program. After graduating from high school, students will purchase their own tools and supplies to use.

APPLICATION REQUIREMENTS

1. Meet PSEO Eligibility Requirements
2. Pass 9th & 10th Grade Courses
3. Major Program Entry Requirements
4. Enrollment in PSEO English Courses
   - ENGL 1711: Composition 1
   - ENGL 1712: Composition 2
   - COMM 17XX
5. High school confirmation that 11th grade courses fulfill core graduation requirements & electives fulfilled by 12th grade courses.

PROGRAM OVERVIEW

- Skilled welding fabricators are thoroughly familiar with both welding and shop equipment, understanding the breakdown and setup procedures, test standards, and knowledge of the various types of metals.
- Truck Technicians diagnose trouble accurately with the use of modern testing equipment. They repair and service the entire truck and trailer including gas and diesel engines.
- Electromechanical Automation Systems integrates electronics, mechanics, pneumatics, hydraulics, and computer control systems to create new and improved automated manufacturing production systems.
- Cabinetmakers design and construct furniture, residential cabinetry, fixtures, and more. They utilize print reading, wood processing technologies, and project planning to complete projects.

Most students can finish their 11th and 12th grade core requirements by enrolling in PSEO part-time in grade 11 and taking their two most challenging subjects at high school with the exception of English. Students work with an advisor to tailor their schedule to their needed credits.

<table>
<thead>
<tr>
<th>Example 11th Grade Sequence 1</th>
<th>Example 11th Grade Sequence 2</th>
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</thead>
<tbody>
<tr>
<td><strong>Fall Semester</strong></td>
<td><strong>Fall Semester</strong></td>
</tr>
<tr>
<td>High School</td>
<td>High School</td>
</tr>
<tr>
<td>☐ Math</td>
<td>☐ Science</td>
</tr>
<tr>
<td>☐ U.S. History</td>
<td>☐ Government</td>
</tr>
<tr>
<td>Saint Paul College (10 credits)</td>
<td>Saint Paul College (10-11 credits)</td>
</tr>
<tr>
<td>☐ Composition 1 (4)</td>
<td>☐ Composition 1 (4)</td>
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<tr>
<td>☐ Introduction to American Government (3)</td>
<td>☐ Communication (3)</td>
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<td>☐ Communication (3)</td>
<td>☐ Chemistry (4)</td>
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<tr>
<td></td>
<td>☐ Composition 2 (2)</td>
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<tr>
<td></td>
<td>☐ Economics (3)</td>
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<tr>
<td></td>
<td>☐ Math (3-4)</td>
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<table>
<thead>
<tr>
<th><strong>Spring Semester</strong></th>
<th><strong>Spring Semester</strong></th>
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<tbody>
<tr>
<td>Saint Paul College (9 credits)</td>
<td>Saint Paul College (9 credits)</td>
</tr>
<tr>
<td>☐ Chemistry (4)</td>
<td>☐ U.S. History (4)</td>
</tr>
<tr>
<td>☐ Composition 2 (2)</td>
<td>☐ Composition 2 (2)</td>
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<tr>
<td>☐ Economics (3)</td>
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</tbody>
</table>
# Career and Technical Education (CTE) Major Track

**Career and Technical Education (CTE) Major Track**

### 10th Grade
- **Welding Technology**
  - Apply by deadline of May 31

### 11th Grade
- **Welding Technology**
  - Student completes grade 11 and 12 core high school graduation requirements by taking their two most challenging subjects at their high school (with the exception of English) and the remaining subjects at Saint Paul College. This is subject to a student’s high school graduation requirements.

### 12th Grade
- **Fall (16 credits)**
  - WLDG 1402 Industrial Shop Practices 1 (4)
  - WLDG 1410 Welding Basics (2)
  - WLDG 1420 SMAW: E6010 (2)
  - WLDG 1413 SMAW: E7018 (2)
  - WLDG 1441 GMAW: Short Arc (3)
  - WLDG 1450 Intro to Blueprint/Measuring Devices (3)
- **Spring (16 credits)**
  - WLDG 1402 Industrial Shop Practices 2 (4)
  - WLDG 1410 Welding Basics (2)
  - WLDG 1420 SMAW: E6010 (2)
  - WLDG 1413 SMAW: E7018 (2)
  - WLDG 1441 GMAW: Short Arc (3)
  - WLDG 1450 Intro to Blueprint/Measuring Devices (3)

### Truck Technician
- **Fall (17 credits)**
  - TRKM 1400 Introduction and Safety (1)
  - TRKM 1445 Truck Welding 1 (2)
  - TRKM 1521 Electrical 1 (5)
  - TRKM 1522 Electrical 2 (5)
  - TRKM 1552 Driveshafts and Differentials (4)
- **Spring (17 credits)**
  - TRKM 1455 Truck Welding 2 (2)
  - TRKM 1551 Clutch and Transmission (5)
  - TRKM 1553 Automatic and Automated Transmissions (4)
  - TRKM 1560 Truck Brake Systems (6)

### Electromechanical Automation Systems
- **Fall (16 credits)**
  - EMEC 1511 AC/DC Fundamentals (4)
  - EMEC 1521 Electrical Motors (4)
  - EMEC 1530 Motor Controls (4)
  - EMEC 1540 Motor Drives (4)
- **Spring (16 credits)**
  - EMEC 2400 Industrial Basics (4)
  - EMEC 2500 Fluid System Fundamentals (4)
  - EMEC 2620 Mechanical Fundamentals I (4)
  - EMEC 2625 Mechanical Fundamentals 2 (4)

### Cabinetmaking
- **Fall (16 credits)**
  - CABT 1450 Print Reading (2)
  - CABT 1460 Wood Technology (2)
  - CABT 1465 Furniture & Residential Cabinetry (5)
  - CABT 1470 CAD/CNC (2)
- **Spring (18 credits)**
  - CABT 1475 Industrial Machining Methods (4)
  - CABT 2450 Surface Applications (4)
  - CABT 2455 Casework & Millwork (5)
  - CABT 2515 CNC Cabinet Design (3)
  - CABT 2690 Capstone OR 2695 Internship (2)

### After High School
- **Fall (16 credits)**
  - WLDG 2402 Industrial Shop Practices 3 (4)
  - WLDG 2411 GMAW: Aluminum & Stainless Steel (3)
  - WLDG 2420 GTA: Aluminum & Stainless Steel (4)
  - WLDG 2430 Grinding and Finishing (2)
  - WLDG 2442 Intro to Robotics (3)
- **Spring (16 credits)**
  - CABT 1455 Traditional Machining Methods (5)
  - CABT 2450 Surfacing Applications (4)
  - CABT 2455 Millwork and Casework (5)
  - CABT 2515 CNC Cabinet Design (3)
  - CABT 2690 Capstone OR 2695 Internship (2)

### Wage
- **Median: $47,010 ($22.60 per hour)**
  - 2021 Bureau of Labor Statistics
- **Median: $48,690 ($23.41 per hour)**
  - 2021 Bureau of Labor Statistics
- **Median: $60,360 ($29.02 per hour)**
  - 2021 Bureau of Labor Statistics
- **Median: $46,390 ($22.31 per hour)**
  - 2022 Bureau of Labor Statistics

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**Note:** student required to buy tools after high school graduation

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