Transportation, Distribution, & Logistics

<table>
<thead>
<tr>
<th>HIGH SCHOOL: Capital High School</th>
<th>COLLEGE: Helena College University of Montana</th>
<th>BIG SKY PATHWAY PROPOSAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLLEGE DEGREE PROGRAM: Automotive Technology AAS</td>
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</table>

**Cluster Overview:**
Jobs in the Transportation, Distribution, and Logistics career cluster involve the planning, management, and movement of people, materials, and goods by road, air, rail, and water, as well as related professional and technical support services such as transportation infrastructure planning and management; logistics services; and mobile equipment and facility maintenance.

**Pathway Options:**
- Transportation Operations
- Logistics Planning and Management Services
- Warehousing & Distribution Center Operations
- Facility and Mobile Equipment Maintenance
- Transportation Systems/Infrastructure Planning, Management and Regulation
- Health, Safety and Environmental Management

**Occupation Examples:**
Dispatchers, Aircraft Mechanic, Airline Pilots, Air Traffic Controllers, Bus Drivers, Diesel Mechanics, Truck Drivers, Locomotive Engineers, Cargo and Freight Agents, Mass Transit Transportation Managers, Shipping and Receiving Clerks

For a complete listing, go to: [http://online.onetcenter.org/find/career?c=16&g=Go](http://online.onetcenter.org/find/career?c=16&g=Go)

### SUGGESTED HIGH SCHOOL COURSES

<table>
<thead>
<tr>
<th>Grade</th>
<th>Graduation Requirements</th>
<th>CTE and/or Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th</td>
<td>Workforce/2-Year College Prep</td>
<td>Auto 1, Welding 1, Drafting 1,</td>
</tr>
<tr>
<td></td>
<td>Algebra 1, English 1, Physical Education, Social Studies, Science</td>
<td>Other Recommended CTE Courses: Welding, Drafting</td>
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<tr>
<td></td>
<td>4-Year MT College/Univ Prep (Rigorous Core)</td>
<td>Industrial Technology</td>
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<td>Same</td>
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<th>Grade</th>
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<th>CTE and/or Electives</th>
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</thead>
<tbody>
<tr>
<td>10th</td>
<td>Workforce/2-Year College Prep</td>
<td>Auto II</td>
</tr>
<tr>
<td></td>
<td>Algebra 1, Geometry, Physical Education/Health, Science, Fine Art, English II</td>
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<tr>
<td></td>
<td>4-Year MT College/Univ Prep (Rigorous Core)</td>
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</tr>
<tr>
<td></td>
<td>Algebra 1, Geometry</td>
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</tbody>
</table>

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<tr>
<th>Grade</th>
<th>Graduation Requirements</th>
<th>CTE and/or Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th</td>
<td>Workforce/2-Year College Prep</td>
<td>Auto III</td>
</tr>
<tr>
<td></td>
<td>Technical Writing (WRIT121T), Technical Math (M111T)</td>
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</tr>
<tr>
<td></td>
<td>History, English III, Electives</td>
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<tr>
<td></td>
<td>4-Year MT College/Univ Prep (Rigorous Core)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Algebra 2, Statistics, Pre-Calculus</td>
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</tbody>
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<tr>
<th>Grade</th>
<th>Graduation Requirements</th>
<th>CTE and/or Electives</th>
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<tbody>
<tr>
<td>12th</td>
<td>Workforce/2-Year College Prep</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technical Writing (WRIT121T), Technical Math (M111T), Government, English IV (WRIT101)</td>
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<tr>
<td></td>
<td>4-Year MT College/Univ Prep (Rigorous Core)</td>
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</tr>
<tr>
<td></td>
<td>Statistics, Pre-Calculus</td>
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</tr>
</tbody>
</table>

### ADVANCED LEARNING OPPORTUNITIES
High School to College/Career Linkages

**Advanced Placement or IB courses:**

**Dual Enrollment courses:** M11T Technical Math WRIT121 Intro to Tech Writing College Writing WRIT 101, Speech COMX 111

**Online courses:**

**Other:** work experience:

### POSTSECONDARY PROGRAM OF STUDY (72 credits)

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Math</th>
<th>English</th>
<th>Major</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td>M111T Technical Math 3cr</td>
<td></td>
<td>AUTO104 Automotive Mechanics 2cr AST108 Auto Manual Drive Trains 6 AST130 Intro to Auto Electronics 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Math</th>
<th>English</th>
<th>Major</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 2</td>
<td></td>
<td></td>
<td>AST160 Auto Engine Repair 6 AST172 Auto Heating/Air</td>
<td></td>
</tr>
</tbody>
</table>
| Semester 3 | WRIT121 Intro to Tech Writing 3cr | AST118 Brake Chassis 6cr  
AST262 Engine Performance I 8cr |
|-----------|----------------------------------|-------------------------------|
| Semester 4 |                                  | AST264 Engine Performance II 5cr  
AST 270 Auto Transmissions/Transaxles 7cr  
AST280 Applied Lab Experience Light Repair 4cr | HR110T Career Development and Human Relations |

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### MONTANA POSTSECONDARY OPPORTUNITIES

**Montana University System Degree and Program Inventory:** [http://www.homepage.montana.edu/~mus/drginv/](http://www.homepage.montana.edu/~mus/drginv/)

**Your Guide to Montana's Certificate and Associate Degree Programs:** [http://mus.edu/twoyear/YourGuide.html](http://mus.edu/twoyear/YourGuide.html)

#### MSU Two Year Colleges and Programs:
- City College MSUB—Billings (CC); Great Falls College MSU—Great Falls (GFC); Helena College UM—Helena (HC)  
- Highlands College MT Tech—Butte (HC-Tech); Missoula College UM—Missoula (MC); Gallatin College MSU—Bozeman (GC)

#### Community Colleges:
- Dawson Community College (DCC)  
- Flathead Valley Community College (FVCC)  
- Miles Community College (MCC)

#### Tribal Colleges:
- Aaniih Nakoda College (ANC)  
- Blackfeet Community College (BCC)  
- Chief Dull Knife College (CDKC)  
- Fort Peck Community College (FPCC)  
- Little Big Horn College (LBHC)  
- Stone Child College (SCC)  
- Salish Kootenai College (SKC)

#### Four Year Colleges/Universities:
- MSU—Bozeman; MSUB—Billings; MSUN—Havre; MT Tech—Butte; UM—Missoula; UMW—Dillon

#### MILITARY
- Requires diploma or GED  
- 17 with parental consent; 18 without

- Air Force, Air Guard, Army, Coast Guard, Marines, and Navy  
- For more information: [http://todaysmilitary.com](http://todaysmilitary.com)

#### PROFESSIONAL CERTIFICATE
- Requires diploma or GED  
- Less than 30 credits; little/no general education credits  
- Complete in one year or less

- Automotive Technology — FVCC  
- Truck Driving — MCC

#### APPRENTICESHIP
- Requires diploma or GED  
- Must be at least 18  
- Minimum 2,000 hours of supervised experience

- Automotive Collision & Refinishing — CC, GFC  
- Automatic Technology — HC Tech, MSUN, CC, MCC, FPCC  
- Diesel Equipment/Technology — CC  
- Heavy Equipment Operation — MC, FVCC, MCC, FPCC, BCC  
- Highway Construction Worker — SKC  
- Recreational Power Equipment — MC  
- Truck Driving — FPCC

- See the MT Dept of Labor website for more information: [http://wsd.dli.mt.gov/apprenticeship/default.asp](http://wsd.dli.mt.gov/apprenticeship/default.asp)

#### CERTIFICATE OF APPLIED SCIENCE
- Requires diploma or GED  
- 30-45 credits; limited general education credits  
- Complete in one year or less

#### ASSOCIATE’S OF APPLIED SCIENCE DEGREE
- Requires diploma or GED  
- 60-72 credits; includes 15-25 general ed credits  
- Complete in two years (if prepared academically in math and English)

- Automotive Collision & Refinishing — CC  
- Automotive Technology — HC, CC, MSUN, MCC, FPCC  
- Aviation — GC  
- Aviation Maintenance — Helena College  
- Diesel Equipment/Technology — CC, HC, MC, MSUN

#### BACCALAUREATE DEGREE
- Requires 4-year college prep for admission  
- 128 credits (approximately)  
- Complete in four years

- Diesel Technology — MSUN

*Degree and Program Inventory above may not be all inclusive*