# Manufacturing Program of Study

**West County High School Career Cluster Program of Study**

This Program of Study Template can serve as a guide, along with other career planning materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner’s educational and career goals. **Ask your high school counselor to help you fill in the required courses you need to graduate.**

<table>
<thead>
<tr>
<th>Grade</th>
<th>English (8 semesters)</th>
<th>Math (6 semesters)</th>
<th>Science (6 semesters)</th>
<th>Social Studies (6 semesters)</th>
<th>Other Required Courses, Recommended Electives</th>
<th>Career &amp; Technical Courses and/or Degree Major Courses</th>
<th>SAMPLE Occupations Relating to this Pathway</th>
</tr>
</thead>
</table>
| 9     | Comm Arts I           | High School Math   | High School Science Course | High School S.S. Course | Personal Finance Computer Science Physics | See your high school counselor for more course offerings | ► Assembler  
► Boilermaker  
► Design Engineer  
► Environmental Engineer  
► Foundry Worker  
► Freight, Stock and Material Mover  
► Health and Safety Representative  
► Industrial Machinery Mechanic  
► Inspector  
► Labor Relations Manager  
► Logistician  
► Manufacturing Technician  
► Pattern and Model Maker  
► Production Manager  
► Quality Control Technician  
► Safety Engineer  
► SPC Coordinator  
► Tool and Diemaker  
► Traffic Manager  
► Welder |
| 10    | Comm Arts II          | High School Math   | High School Science Course | High School S.S. Course | Personal Finance Computer Science Physics | See your counselor for more high school offerings | See your counselor for more high school offerings |
| 11    | Comm Arts III         | High School Math   | High School Science Course | High School S.S. Course – Government & History | Physics Courses  
*Personal Finance  
*Computer Science  
*See counselor for additional college course offering (Available for Dual Enrollment) | See your high school counselor for more high school offerings  
*Unitec Programs – Collision Repair Technology, Automotive Technology, Welding Technology, Machine Tool  
*See your counselor for additional college course offering (Available for Dual Enrollment)  
*Unitec Programs – Collision Repair Technology, Automotive Technology, Welding Technology, Machine Tool |
| 12    | Senior Comm Arts & Comm Arts elective  
*English Comp I  
*Public Speaking  
*College Algebra  
*College Trig  
*College Algebra  
*College Trig  
*College Oceanography, Astronomy or Physics  
*Am. College History I & II  
*Political Systems | High School Math or Pre-Algebra  
*College Algebra  
*College Trig  | High School Science Course  
*College General Biology  
*College Oceanography, Astronomy or Physics  
*Am. College History I & II  
*Political Systems | High School S.S. Course – Government & History  
*Am. College History I & II  
*Political Systems | Physics Courses  
*Personal Finance  
*Computer Science  
*See counselor for additional college course offering (Available for Dual Enrollment) | See your high school counselor for more high school offerings  
*Unitec Programs – Collision Repair Technology, Automotive Technology, Welding Technology, Machine Tool  
*See your counselor for additional college course offering (Available for Dual Enrollment)  
*Unitec Programs – Collision Repair Technology, Automotive Technology, Welding Technology, Machine Tool |

*Dual Credit courses can often be substituted for high school credit. Check with your Counselor.*

*Dual Enrollment courses can be taken online or on a MAC campus.*

**Assessments/Certifications:** College Placement Assessments, Compass, ACT, SAT

**Clubs/Extracurricular Activities:** Ask your Counselor what is available at your school.

**CTSO(s):** □ FBLA □ FFA □ TSA □ Skills USA

**Work-Based Learning:** □ After School Employment □ Internship/Mentorship □ Job Shadowing □ Service Learning □ Supervised Business Experience
Planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

Sample Career Specialties / Occupations

<table>
<thead>
<tr>
<th>Pathways</th>
<th>Sample Career Specialties / Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>Assembler, Automated Manufacturing Technician, Bookbinder, Calibration Technician, Electrical Installer and Repairer, Electromechanical Equipment Assembler, Extruding and Drawing Machine Setter/Set-Up Operator, Extrusion Machine Operator, Foun...</td>
</tr>
</tbody>
</table>

Cluster Knowledge and Skills

- Academic Foundations
- Communications
- Problem Solving and Critical Thinking
- Information Technology Applications
- Systems
- Safety, Health and Environment
- Leadership and Teamwork
- Ethics and Legal Responsibilities
- Employability and Career Development
- Technical Skills