



Interests include: problem solving, math and science, and the way things work and are put together.

Name:  
 High School:  
 Plan of Study: **Mechanical Design**



Grade	English/ Language Arts	Math	Science	Social Studies/ Sciences	Career and Technical Courses Central to this Pathway	Other Required Courses, Electives		Student Organizations/ Community Service	
Career Interest Inventory Administered and Program of Study Initiate for all Learners									
9						<b>Required:</b> <ul style="list-style-type: none"> <li>Algebra</li> </ul> <b>Suggested:</b> <ul style="list-style-type: none"> <li>Blueprint Reading</li> <li>CAD</li> <li>Computers &amp; Keyboarding</li> <li>Geometry</li> <li>Physics</li> <li>manufacturing courses; including welding</li> </ul>			
10									
11									
College Placement Assessments- Academic/ Career Advisement Provided (Accuplacer, ACT, SAT, etc.) Did you participate in the Youth Apprenticeship program for Mechanical Design?									
12									
Articulation/ Dual Credit Transcribed-Postsecondary courses may be taken/moved to the secondary level for articulation/dual credit purposes								Occupations Relating to this Pathway	
<b>General Education Courses</b>					<b>Program Courses</b>			<b>Associate Degree:</b> CAD Operator; Drafter; Design Drafter; Production Designer; Engineering Technician	
13/14	Written Communication  Technical Reporting	College Algebra 195  Trigonometry with Apps. 196  Descriptive Geometry	General Physics 1	Introduction to Sociology  Intro to Psychology	<ul style="list-style-type: none"> <li>Technical Drafting</li> <li>Technical Detailing</li> <li>Material Industry</li> <li>Manufacturing Processes Machining</li> </ul>	<ul style="list-style-type: none"> <li>Mechanical Design Workforce Preparedness</li> <li>2D AutoCAD Applications</li> <li>Machine Design 1</li> <li>Manufacturing Processes Fabrication</li> <li>Strengths of Materials</li> </ul>	<ul style="list-style-type: none"> <li>3D CAD Solid works</li> <li>Designing for Manufacturability</li> <li>Mechanisms</li> <li>Machine Design 2</li> <li>Hydraulics and Pneumatics</li> <li>Elective</li> </ul>	<ul style="list-style-type: none"> <li>Tooling &amp; Production</li> <li>Design Problems OR</li> <li>Internship Mechanical Design OR</li> <li>Design Problems Field Study</li> <li>Autodesk Inventor 3D CAD Software</li> </ul>	<b>Bachelor's Degree:</b> Applications Engineer; Associate Production Engineer; Design Engineer; Industrial Engineer; Maintenance Supervisor; Materials Manager; Mechanical Engineer; Operations Supervisor; Plant Engineer; Processing Engineer; Product and quality Control Production; Research and Development; Project Engineer; Quality Engineer; Research and Development; Supply Chain Analyst; Systems Engineer; Tool and Die Design; Sales Engineer.
15/16 NTC is currently working on articulation agreements with post-secondary institutions. Check out the transfer guides with UW Stout (Engineering Technology) and MSOE (Mechanical Engineering Technology) at: <a href="http://www.ntc.edu/transferinfo">www.ntc.edu/transferinfo</a>									