

Cluster Plan of Study:

MANUFACTURING

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.

<p>Activities that describe what I like to do:</p> <ul style="list-style-type: none"> • Work with my hands and learn that way • Put things together • Do routine, organized and accurate work • Perform activities that produce tangible results • Apply math to work out solutions • Use hand and power tools and operate equipment/machinery • Visualize objects in three dimensions from flat drawings 	<p>Personal qualities that describe me:</p> <ul style="list-style-type: none"> • Practical • Observant • Physically active • Step-by-step thinker • Coordinated 	
<p>9th Grade Required Core Courses:</p> <ul style="list-style-type: none"> • English 9 • Integrated Math 1 • Physical Science 1 & 2 or Biology 1 & 2 • World Geography <p>10th Grade Required Core Courses:</p> <ul style="list-style-type: none"> • English 10 / Adv. English 10 • Integrated Math 2 • Any physical science, Biology 1 & 2 • World History <p>11th Grade Required Core Courses:</p> <ul style="list-style-type: none"> • English 11 / Adv. English 11 / AP English 11 • Integrated Math 3 • Chemistry or Physics • U.S. History 1, 2, 3 <p>12th Grade Required Core Courses:</p> <ul style="list-style-type: none"> • English 12 / AP English 12 • Integrated Math 3 • U.S. Government <p>Other Required Courses:</p> <ul style="list-style-type: none"> • Information Technology (1 credit) • Fine Arts (1 credit) • Physical Education / Health (1 credit) • Economics or Personal Finance (.5 credit) • World Language, Capstone Experience or Service Learning, or Approved Career and Technical Education (1 credit) 	<p>Recommended Cluster Electives:</p> <ul style="list-style-type: none"> • Computer Applications • Advanced Computer Applications • Introduction to Manufacturing • Introduction to Technology Education • Community Volunteer <p>Other Recommended Electives:</p> <ul style="list-style-type: none"> • Basic Drawing and Design • Youth Internship • CAD Design and Development • Economics • Entrepreneurship • Psychology 	<p>Careers in this Cluster: Manufacturing Engineer Production Technician Welding Technician Machinist</p> <p>Post-Secondary Programs in this Cluster: <u>Technical Degree*:</u> Welding Machining / Fabrication</p> <p><u>Associates Degree:</u> Engineering Technology</p> <p><u>Baccalaureate Degree:</u> Engineering</p> <p><u>Advanced Degree:</u> Engineering</p> <p><small>*See <i>Western Dakota Tech (WDT) Dual Enrollment</i> for more information.</small></p>
<p align="center">Interest, Aptitude and Achievement Inventories</p> <p>Career Matchmaker (8th-12th grade); Ability Profiler (10th grade); PLAN (10th grade); Learning Styles Inventory (10th – 11th grade); My Skills (10th – 12th grade); Armed Services Vocational Aptitude Battery – ASVAB (11th & 12th grade); PSAT (11th grade); ACT or SAT (11th – 12th grade)</p>		