



Agriculture,  
Food &  
Natural Resources

2021-2022

**Diesel Technology**  
Business and Industry Endorsement  
Program of Study: Applied Agricultural Engineering  
**Dubiski Career High School**

Grade	ELA	Math	Science	Social Studies	Required CTE Courses	Potential Certification Opportunities
9th	English 1	Algebra 1	Biology	World Geography or AP Human Geography	Principles of Agriculture, Food, & Natural Resources (1 Credit)	<ul style="list-style-type: none"> <li>OSHA General</li> <li>Cyber Safety</li> <li>Career Essentials: Customer Service</li> <li>Career Safe: Employability</li> </ul>
10th	English 2	Geometry	Chemistry or OnRamps Chemistry	World History, AP World History, or Political Science	Agricultural Mechanics & Metal Technologies (1 Credit)	<ul style="list-style-type: none"> <li><b>ASE Certifications: Brakes, Engine Repair, Maintenance and Light Repair, Suspension Steering, Briggs &amp; Stratton Tech 1</b></li> <li>Career Essentials: Motorcycle Service Technology</li> <li>Career Essentials: Equipment Technology</li> </ul>
11th	English 3	Algebra II	Physics, AP Physics, AP Chemistry, or OnRamps Physics	U.S. History, AP US History, or OnRamps US History	Agricultural Power Systems (2 Credits)	<ul style="list-style-type: none"> <li><b>AWS Welding, AWS D1.3 and D 9.1 Sheet Metal Welding</b></li> <li><b>ASE Diesel Engines</b></li> <li>Career Essentials: Welding</li> </ul>
12th	Business English, or Approved CTE 4 <sup>th</sup> year English	Financial Mathematics, or Approved CTE 4 <sup>th</sup> year Math	Principles of Technology, or Approved CTE 4 <sup>th</sup> year Science	Government _____ Economics	Practicum in Agricultural, Food, & Natural Resources (2 Credits)	<ul style="list-style-type: none"> <li><b>ASE Electrical/Electronic Systems</b></li> <li><b>NCCER Welding Level I and Level II</b></li> <li><b>API American Petroleum Institute Welding Certificate</b></li> <li>CPR</li> </ul>

Student Organizations	Additional Required Electives
FFA SkillsUSA Business Professionals of America DECA	Fine Arts Health Personal Financial Literacy (.5 credits) Agribusiness Management and Marketing (1 Credit) Agricultural Structures Design & Fabrication Food and Natural Resources (1 Credit) Foreign Language Physical Education Agriculture Equipment Design & Fabrication (1 Credit) Agricultural Laboratory & Field Experience (1 Credit) Professional Standards in Agribusiness (1 Credit)

Dual Credit Offerings	Additional Recommended Electives
English 4 Government Statistics Computer Science U.S. History Economics Pre-Calculus	General Employability Skills (1 Credit) Welding 1 (1 Credit) Financial Mathematics (1 Credit) Principles of Engineering (1 Credit) Computer Science OnRamps Welding 2 (1 Credit) Principles of Technology (1 Credit) Scientific Research and Design (1 Credit)

Sample Career Opportunities	High School	On the Job Training	Certificate	Associates Degree	Bachelor's Degree	Advanced College Degree	Average Annual Salary	Possible Majors for this Pathway
Automotive Service Technician and Mechanic	X	X	X	X			\$42,090—\$68,880	<ul style="list-style-type: none"> <li>Diesel Technology</li> <li>Diesel Mechanic Technician</li> <li>Heavy Equipment Mechanic</li> <li>Shop Mechanic</li> <li>Mechanic Roadway Equipment</li> <li>Automotive Technology Management</li> <li>Automotive Technician</li> <li>Automobile Electronics</li> <li>Mechanical Engineering</li> </ul>
Diesel Service Technician and Mechanic	X	X	X	X			\$48,500—\$74,090	
Small Engine Mechanic	X	X	X	X			\$37,840—\$60,070	
Heavy Vehicle and Mobile Equipment Technician	X	X	X	X			\$51,590—\$76,830	
Farmers, Ranchers, and Other Agricultural Managers	X	X	X	X	X	X	\$71,160—\$132,760	
Agricultural Engineers	X	X	X	X	X	X	\$80,720—\$160,950	
Farm Equipment Service Technician and Mechanic	X	X	X	X			\$42,200—\$61,960	
Construction Equipment Operator	X	X	X	X			\$48,160—\$84,650	
Industrial Machinery Mechanic	X	X	X	X			\$52,860—\$79,150	
Material Moving Machine Operators	X	X	X	X			\$35,850—\$56,780	
Wind Turbine Technicians	X	X	X	X			\$52,910—\$80,150	