



Pathway: Power, Structural & Technical Systems

Plan of Study: Agriculture Mechanical Sciences

Career Goal (O*Net Code): Agricultural Engineers (17-2021), Welders and Cutters (51-4121.02, Welders-Fitters (51-4121.03)

Suggested High School Courses

Briggsdale High School	9 th	Core Academic Courses*:	English I, Algebra I, Earth or Environmental Science, State History/Civics	Suggested Electives: Business Math
		Career Path Courses:	Introduction to Agriculture Science and Technology	
	10 th	Core Academic Courses*:	English II, Geometry, Biology, US History, Foreign Language I	Suggested Electives: World of Work
		Career Path Courses:	Fundamentals to Agriculture Science and Technology	
	11 th	Core Academic Courses*:	English III, Algebra II/ or other, Chemistry	Suggested Electives: Metal Fabrication, Ag. Welding
		Career Path Courses:	Advanced Agriculture I or Ag Mechanics	
	12 th	Core Academic Courses*:	English IV, Trigonometry or other Math, Physics or other lab based science	Suggested Electives: Ag. Construction, Metal Fabrication
		Career Path Courses:	Advanced Agriculture II or AG Welding	

Secondary to Postsecondary Linkages & Certifications

Recognition for Advanced Learning	Postsecondary Credit Options: Pending Articulation/Dual Credit Agreement with AIMS Community College in Greeley, CO
	Industry Recognized Certificate(s) or License(s): AIMS COMMUNITY COLLEGE CERTIFICATE OF COMPLETION; BRIGGSDALE HIGH SCHOOL CERTIFICATE OF COMPLETION

Postsecondary Education Opportunities	Postsecondary Programs Available in Colorado		Colorado Institutions	Entrance Exams/ Requirements
	Certificate	Certified Welder		Morgan Community College Trinidad State Junior College Aims Community College
Associate Degree	Welding Technology, Welding Fabrication, Surveyor, Agriculture Engineer		Trinidad State Junior College, NJC, Colorado Mountain College, MCC Aims Community College	High School diploma or GED
Bachelor Degree	Agricultural Engineer		Colorado State University, Colorado School of Mines	See each school's Admissions website.
Graduate Degree	Agricultural Engineer		Colorado School of Mines	See each school's Admissions website.

Cluster Overview: The **Agricultural, Food and Natural Resources** cluster focuses on careers in the planning, implementation, production, management, processing, and/or marketing of agricultural commodities and services.

Extended Learning Experiences

<p>Curricular Experiences:</p> <p>Colorado FFA Association Agricultural Mechanics Career Development Event Agricultural Mechanics Proficiency</p>	<p>Extracurricular Experiences:</p> <p>Farm Bureau Exchange Program Colorado Farm Show</p>
<p>Work-Based Learning Experiences:</p> <p>Career Preparation – Paid and Unpaid Job Shadowing Internships</p>	<p>Program Accreditation and/or Professional Association(s):</p> <p>Post-Secondary Agriculture Students (PAS) American Welding Society (AWS) Association of General Contractors (AGC) American Society of Agricultural and Biological Engineers</p>
<p>Service Learning Experiences:</p> <p>Community Service Volunteer, 4-H, Boy Scouts of America</p>	

Career Options:		Salary Range:
Certificate	Apprentice Electrician, Remote Sensing Specialist, Apprentice Plumber, Quality Assurance Manager	\$
Associate Degree	Journeyman Plumber, Journeyman Electrician, Machinery Set-up Technician	\$\$
Bachelor Degree	Site Manager, Agricultural Engineer, Contractor, Extension Engineering Specialist, Surveyor, Project Engineer	\$\$\$-\$\$\$\$
Graduate Degree	Project Developer, Risk Management Specialist	\$\$\$\$-\$\$\$\$\$

* \$ = \$15-25,000; \$\$ = \$25-55,000; \$\$\$ = \$55-90,000; \$\$\$\$ = Above \$90,000

Briggsdale RE-10J does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities. Please direct inquiries to: Jarrod Bessire; PO Box 125; Briggsdale, CO 80611; (970)656-3464