



## Pathway: Plant Systems

**Plan of Study: Plant Production or Horticulture**

**Career Goal (O\*Net Code):** Agricultural Technician (19-4011), Agricultural Crop Farm Managers (11-9011), Biotechnology Technician (19-4021)

### Suggested High School Courses

High School * Default includes CDHE Higher Education Admission Requirements	9 <sup>th</sup>	Core Academic Courses*:	English I, Algebra I, Earth or Environmental Science, Geograhly, Health/Physical Education	Suggested Electives: Computer Applications, Art, Band
		Career Path Courses:	Introduction to Agriscience & Technology	
	10 <sup>th</sup>	Core Academic Courses*:	World Literature, Geometry, Biology, World History, Spanish I,	Suggested Electives: Teen Life Skills
		Career Path Courses:	Plant Science / Horticulture	
	11 <sup>th</sup>	Core Academic Courses*:	US Literature, Algebra II, Chemistry or Physics, Spanish II, Survival Skills, US History	Suggested Electives: Forensics, Introduction to Engineering, Supervised Agriculture Experience, College Algebra & Trigonometry, COM 115** (Hybrid)
		Career Path Courses:	Integrated Resource Management OR Ag. Business OR Agricultural Issues / Agricultural Communication & Leadership	
	12 <sup>th</sup>	Core Academic Courses*:	English Composition (Hybrid), College Algebra & Trigonometry OR Business Math OR Math Applications, Chemistry OR Physics, Art OR Band,	Suggested Electives: Forensics, Introduction to Engineering, Supervised Agriculture Experience, College Algebra & Trigonometry, COM 115** (Hybrid)
		Career Path Courses:	Supervised Agricultural Experience OR Integrated Resource Management OR Ag. Business OR Agricultural Issues / Agricultural Communication & Leadership OR AGY100* (Hybrid)	

### Secondary to Postsecondary Linkages & Certifications

Recognition for Advanced Learning	Postsecondary Credit Options:
	Dual Enrollment AGY 100* (Transferrable for 2 and 4 year degree path) Dual Enrollment COM 115**
Industry Recognized Certificate(s) or License(s):	Certified Crop Applicators License

Postsecondary Education Opportunities	Postsecondary Programs Available in Colorado		Colorado Institutions	Entrance Exams/ Requirements
	Certificate	Lab Tech, Certified Nursery Professional	CCD, ACC, FRCC, CMC	Accuplacer Testing, High School Diploma or GED
	Associate Degree	Applied Science, Biotechnology, Horticulture and Crop Science, Agricultural Business, Farm and Ranch Management	NJC, CCD, ACC, CMC, PPCC, PCC, FRCC	Accuplacer Testing, High School Diploma or GED
	Bachelor Degree	Agricultural Engineering, Biotechnology, Agronomy, Entomolgy, Integrated Pest Management, Plant Science, Weed Science, Soil Science	CSU, Mesa State, Western State College	Higher Education Admission Requirements
	Graduate Degree	Agronomy, Epidemiology, Biotechnology, Biological Science, Plant Breeding, Plant Protection, Soil Science, Plant Pathology	CSU, CU DU	GMAT

Career & Technical Education is delivered through the Colorado Community College System

[www.cccs.edu](http://www.cccs.edu)



**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><b>Curricular Experiences:</b></p> <p>Colorado FFA Association Agriscience Fair Competition Agriscience Student Competition</p>	<p><b>Extracurricular Experiences:</b></p> <p>Intel Math, Science and Engineering Fair CSU Summer Agronomy Camp Farm Bureau Exchange Program</p>
<p><b>Work-Based Learning Experiences:</b></p> <p>Career Preparation – Paid and Unpaid, Job Shadowing, Internships</p>	<p><b>Program Accreditation and/or Professional Association(s):</b></p> <p>Post Secondary Agricultural Students Association (PAS) American Association of Lab Technicians American Society for Microbiology American Society for Agricultural Engineering American Society of Agronomy Colorado Organic Producers Association</p>
<p><b>Service Learning Experiences:</b></p> <p>Colorado FFA, 4-H, Habitat for Humanity, Community Gardens, Landscaping/ Lawn Care, Crop Demonstration Plots, Boy Scouts of America Girl Scouts of America</p>	

<b>Career Options:</b>		<b>Salary Range:</b>
<b>Certificate</b>	Laboratory Technician/Assistant, Farmer/Rancher, Pesticide Applicator, Insect Scout	\$
<b>Associate Degree</b>	Biotechnology Technician, Biochemical Technician, Forensic Science Technician, Environmental Technician, Animal Health Tech, Farm/ Ranch Manager, Landscape Technician	\$\$
<b>Bachelor Degree</b>	Biomedical Engineer, Research Associate, Animal Repro Technician, Biotech Production Associate, Certified crop Advisor, Agricultural Researcher, Chemical Salesperson, Cooperative Extension Agent	\$\$\$-\$\$\$
<b>Graduate Degree</b>	Epidemiologist, Biochemist, Veterinary Scientist, Forensic Scientist, Plant Scientist, Soil Scientist, Plant Breeder, Range Scientist, State Extension Agronomist	\$\$\$\$-\$\$\$\$

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

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