

CTE PROGRAM OF STUDY: Associate of Science for Transfer, Plant Science

**Industry Sector: Agriculture and Natural Resources
Career Pathway: Plant and Soil Science**



Levels	Grade	CTE Courses	English Language Arts	Math	Social Science	Science	Other Required Courses or Recommended Electives		Dual and/or Concurrent Enrollment	Articulated Courses (College Credit for HS Classes)
Secondary	9	Ag I (Ag Earth Science, Ag Science I or Ag Biology) <i>CBEDS 4070</i>	English	Math (Algebra I Recommended)		Physical Science (satisfied by Ag Earth Science)	Physical Education			
	Recommended activities: Participate in FFA Activities, establish an SAE project, keep an updated record book, career exploration activities, participate in a career development events, visit AgCN (ffa.org)									
	10	Ag II (Ag Science II or Ag Biology) <i>CBEDS 4070</i>	English	Math (Geometry Recommended)	World History	Biological Science (satisfied by Ag Biology)	Physical Education			
	Recommended activities: Participate in FFA Activities, maintain SAE project, keep an updated record book, career exploration activities, participate in a career development events, participate in AgCN career exploration activities, explore college majors and campuses									
Secondary	11	Plant Science (Horticulture, Plant and Soil Science) <i>CBEDS 4010</i>	English	Math (Algebra II or Trigonometry Recommended)	US History	Chemistry (Recommended)	Foreign Language I			
	Recommended activities: Participate in FFA Activities, maintain SAE project, keep an updated record book, career exploration activities, participate in a career development events, participate in AgCN career exploration activities, take community college placement exams in Math and English, job shadow and mentoring activities, volunteer in the community									
Secondary	12	Advanced Plant Science (Plant Biology, Environmental Science, Plant Physiology) <i>CBEDS 4010</i>	English (Recommended)	Math (PreCalculus Recommended)	Government (semester) Economics (satisfied by Ag Economics)		Floral Design (may satisfy fine arts graduation requirement)	Ag Economics <i>CBEDS 4040</i>	MATH 155: Precalculus (recommended)	
	Recommended activities: Participate in FFA Activities, maintain SAE project, keep an updated record book, apply for college scholarships and FAFSA, participate in career development events, participate in AgCN activities, take dual or concurrent enrollment community college courses, job shadow and mentoring activities, volunteer in the community									

This template assumes students have completed high school exit exams and basic skills coursework. Local graduation requirements may vary.

Legend:

- 1** Course is recommended by industry experts
- #** Course is articulated, see comments below.
- ★** Course may be taken via concurrent or dual enrollment
- 2** Indicates a course that may satisfy multiple requirements

Levels	Grade	AS-T Courses	Additional and Optional CTE Courses	General Education Requirements			Occupations Relating to this Pathway			
				Area A English Language Communication & Critical Thinking (9 units)	Area B- Scientific Study & Quantitative Reasoning with 1 lab (9 units)	Area C Arts & Humanities (9 units)	Careers requiring a high school diploma or equivalent	Careers requiring a BA / BS degree		
Secondary	13	AG-PS 128L: Intro to Soil Science	...For completion of Local AS/AA Degree (total Units)	...For completion of Achievement Certificate (total units)	...For completion of Skills Certificate (total Units)	Area A English Language Communication & Critical Thinking (9 units)	Area B- Scientific Study & Quantitative Reasoning with 1 lab (9 units)	Area C Arts & Humanities (9 units)	Careers requiring a high school diploma or equivalent	Careers requiring a BA / BS degree
		CHEM101: Intro to Chemistry OR CHEM 110: General Chemistry for Science Majors I, with Lab				English composition	Mathematics	Arts	Retail Sales Field Technician Skilled Laborer Ag Equipment Operator Ag Entrepreneur/Small Business Owner Landscape Maintenance Technician	Sales Representative Farm Appraiser Ag Researcher Marketing Specialist Business Manager USDA Inspector Farm Advisor/Extension Specialist Plant Taxonomist Environmental Protection Agent Landscape Designer Agriculturist
		AG-AB124: Agriculture Economics OR ECON 202: Principles of Macroeconomics				Oral Communication	Physical Science	Humanities		
		MATH 110: Introduction to Statistics AG-PS 104: Intro to Plant Science				Critical Thinking	Life Sciences	Arts or Humanities (recommended foreign language)	Careers requiring some post secondary	
Secondary	14	Select one from: AG-MA 108L: Tractor Operation				Area D Social Sciences (9units)	Area E Lifelong Learning & Self Development (3 units)	When course requirements are counted for credit in more than one area, i.e. double counted, students must complete additional transferrable units to result in a cumulative total of 60 units.	Farm Labor Contractor Pesticide Applicator Greenhouse Technician Arborist Florist Landscape Maintenance Foreperson	Careers requiring a BA/BS + (beyond the scope of this template)
		AG-EH 108L: Plant Materials and Usage I AG-EH 112L: Plant Materials and Usage II				US History	Any course in this area to meet requirements (recommended Psychology, Personal Finance, ethics, report writing or any course with a global theme.)			Ag Teacher Pest Control Advisor Certified Crop Advisor Plant Geneticist Landscape Architect
		CHEM 150: Organic Chemistry				Political Science (American Government) Microeconomics or Macroeconomics				
Secondary	15	Suggested Majors: Plant Science, Agriculture Science/Education, Horticulture, Crop Science,							Careers requiring 2 year degree	For students interested in attending a UC Campus, be aware that requirements meeting the CSU GE pattern <i>may vary</i> from IGEC GE requirements. Students are encouraged to consult college counselor for clarification.
Secondary	16	Industry recognized certifications, Credentials, licenses, or apprenticeships related to this pathway							Farm Supervisor Ag Equipment Technician Office Manager Lab Technician Landscape Manager	
<p>Comments: • Prerequisite requirements may vary by school and may alter the sequence of courses above.</p> <p>• This template is based upon requirements for CSU transfer pattern and assumes that all basic skills (remedial) coursework is completed. Courses with an emphasis in Business are recommended when they are CSU transferrable.</p> <p>• Where there are course numbers identified, the course number references the CID course. Course content for these courses may be found at www.c-id.net/descriptors. Per Title 5, students may only receive credit for articulated high school work upon completion of a credit by exam mechanism that ensures that the objectives of the community college course have been met. Completion of an articulated course in high school does not guarantee receipt of credit at the community college.</p>										

