

# Agri-Science Pathway

CTE Sector: Agriculture & Natural Resources—CTE Pathway: Agri-Science

**Workplace Skills Development**  
Teachers infuse workplace skills throughout daily lessons.

- Teamwork
- Cooperation
- Problem Solving
- Locating Information
- Planning
- Conflict Resolution
- Communication

**High School  
9 -12 Grades**

**9th-11th Grade  
Ag and Soil Chemistry**

- Physical and chemical nature of soil, plants, animals. Completion of Agriscience research project and soil management plan, using the content learned throughout the course.

**11th-12th Grade  
Sustainable Ag Biology**

- Integration of biological sciences with sustainable agricultural topics, including plant and animal reproduction, genetics, evolution and more.

**10th-12th Grade  
Food Science**

- The study of food from origins to consumption. Hands on learning of the food system including science, processing, packaging, regulations, and safety.

**Industry and Postsecondary  
Education Connection**

- Guest Speakers
- Industry/College Tours
- Resume Workshop
- Mock Interviews
- Employability Skills

- MJC instructors work with CUSD staff to insure continuity and equipment is up to date
- Instructors infuse industry soft-skills into the daily curriculum, including the Standards for Career Ready Practice.

Nursery Production  
Advisory Committee  
Evaluation and  
Improvement Process

Marketing by industry to create and maintain interest

Data collected and monitored by all parties

**Modesto Junior College**

Courses leading to an A.S. Degree: Agricultural Sciences

Required Courses

ANSC 200 – Intro to Animal Science  
AGEC 210 - Elements of Agricultural Economics  
NR 200 – Soils  
PLSC 200 – Intro to Plant Science

Elective Courses:

AGEC 200- Agricultural Accounting and Analysis.  
AGEC 225- Agriculture Computer Applications  
AGEC 280- Agricultural Sales and Service  
PLSC 250- Plant Nutrition and Fertilizer  
AGM 220– Industrial/Agricultural Machinery

Degree/Transfer to 4 year University/Nursery Production/Certificate/Employment

## Program of Study Worksheet

This Program of Study should be customized with course titles and appropriate high school graduation requirements as well as college entrance requirements.

Industry Sector: Agriculture & Natural Resources

Career Pathway: Agri-Science - Central Valley High School

Program of Study: Agri-Science/Food Science

This Program of Study is a formalized Tech Prep articulated pathway  Yes  No

LEVELS	GRADE	English/ Language Arts	Math	Science	Social Studies	Career Technical Education Courses	Other Required Courses or Recommended Electives	SAMPLE Occupations Relating to this Pathway
<b>SECONDARY</b>	9	English 9	Int. Mathematics I or Int. Accelerated Mathematics I	Physics of the Universe or Adv Phys. of the Universe	AP Human Geography	Intro to Ag	PE Foreign Language	<b>Occupations requiring less than a Baccalaureate Degree</b> -Agricultural Manager -Park Ranger  <b>Occupations requiring a Baccalaureate Degree</b> -Botanist -Natural Science Manager -Biochemist  <b>Industry recognized certification, licenses, or credentials related to this pathway</b> - Agricultural Sciences - Plant & Soil Nutrition - Landscape Design & Maintenance
	10	English 10	Int. Mathematics II or Int. Accelerated Mathematics II	Chemistry in the Earth Systems or Adv Chemistry in Earth Systems	World History or AP European History	Ag and Soil Chemistry	PE Drivers Ed/Health Foreign Language	
	11	English 11	Int. Mathematics III or Int. Acc. Mathematics III or AP Statistics	Biology of The Living Earth or AP Biology	U.S. History or AP U.S. History	Ag Biology or Food Science	Foreign Language	
	12	English 12	Pre-Calculus or AP Calculus or AP Statistics	AP Physics or Anatomy Physiology	Principles of Democracy or AP Government or Economics	Food Science		
<b>Sample of post-secondary courses at Modesto Junior College</b>								
<b>POSTSECONDAR</b>	Year 13	<u>Required Courses</u> AGEC 210 Elements of Agricultural Economics			<u>Elective Courses:</u> AGEC 200- Agricultural Accounting and Analysis.			
	Year 14	ANSC 200– Intro to Animal Science			AGEC 225- Agriculture Computer Applications			
	Year 15	NR 200– Soils			AGEC 280- Agricultural Sales and Service			
	Year 16	PLSC 200– Intro to Plant Science			PLSC 250- Plant Nutrition and Fertilizer AGM 220– Industrial/Agricultural Machinery			

