

# Sustainable Agriculture Science Pathway

## Agriculture and Natural Resources



CHICO HIGH SCHOOL

2019—2020

### CTE Course Sequence



### Course Descriptions

#### Biology and Sustainable Agriculture (Introductory)

This year-long course is designed for the **college bound** student and **integrates biological science** into the practice of **sustainable agriculture**. The course is organized into four major sections, each with a guiding question: Unit one: **What is sustainable agriculture?** Unit two: **How does sustainable agriculture fit into our environment?** Unit three: **What molecular biology principles guide sustainable agriculture?** Unit four: **How do we make decisions to maximize sustainable agricultural practices within a functioning ecosystem?** The course culminates with the development of a **sustainable farm model** and **portfolio** of supporting student **research**. Throughout the course, students will participate in **FFA activities** and will develop and maintain an ongoing **Supervised Agricultural Experience**.

#### Agriscience /Chemistry (Concentrator)

This is a year-long **laboratory science** course designed for the **college bound** student. Students **explore** the physical and chemical **nature of soil** and **examine** properties of **soil** and **land** and their connections to **plant** and **animal production**. Students **design an Agriscience research program** to be conducted throughout the first semester. Later, students **develop and present a capstone soil management plan for agricultural producers**. Throughout the course, students will participate in **FFA activities** and will develop and maintain an ongoing **Supervised Agricultural Experience**.

#### Advanced Interdisciplinary Science for Sustainable Agriculture (Capstone)

This year-long **laboratory science** course, designed for the **college bound** student, **integrates laboratory science** and **research** with **agricultural management principles**. Students **design systems** and **experiments** to solve **agricultural management issues currently facing the industry**. By connecting the products created in this class with **industry activities**, students experience **real-world problem-based learning** and implement **skills demanded by colleges and careers**. The course culminates with an **agriscience experimental research project** to solve a **relevant issue**. Final projects are eligible for **Career Development Event competitions** at FFA events. Throughout the course, students will participate in **FFA activities** and will develop and maintain an ongoing **Supervised Agricultural Experience**.

#### LOCAL POST-SECONDARY OPTIONS:

Butte College

*AS (Transfer) in Ag Plant Science*

*AS in Agriculture Science*

*AS (Transfer) in Agriculture Business*

*AS in Agricultural Business*

CSU, Chico

*BS in Agriculture Business*

*BS in Animal Science*

*Option in Crops, Horticulture, &*

*Land Resource Management*

*Option in Ag Science & Ed.*

*MA in Agriculture Education*

#### HIGHLIGHTED CAREERS:

- \* Farmer
- \* Land Management
- \* Researcher
- \* Data Analyst

#### Contact:

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Career and Technical  
Student Organization:

