

AGRICULTURE EDUCATION

AGRICULTURE EDUCATION I

CLASS NUMBER	1500/1501	CLASS LENGTH	2 semesters
GRADE LEVEL	9 (10 with teacher approval)	CREDIT	1.0
CLASS FEES	\$20.00/year	CREDIT AREA	Life Skills/Fine Arts
PREREQUISITES	None	NOTES	FFA enrollment is required of all students.

Designed for students who are interested in agri-business, production agriculture, ag sales and services, ag marketing, ag mechanics, ag science, and ag finance. Emphasis will be placed on exploring careers available in agriculture, animal science, plant science and skill development in ag mechanics. Leadership development is included in the FFA. Students will begin a supervised agriculture experience program in the area of their choice. This is a full year course and FFA enrollment is required of all students.

AGRICULTURE EDUCATION II

CLASS NUMBER	2500/2501	CLASS LENGTH	2 semesters
GRADE LEVEL	10, 11, 12	CREDIT	1.0
CLASS FEES	\$20.00/semester	CREDIT AREA	Life Skills/Fine Arts
PREREQUISITES	Agriculture Education I	NOTES	FFA enrollment is required of all students.

Designed to further the student's knowledge of agriculture. This course is a continuation of the leadership skills and training from Agriculture I. This course will be split into two areas of study: agriculture leadership and agriculture welding. Students in this course will be introduced to Parliamentary Procedure, decision making, critical thinking, implementing change in the school, duties as a citizen as well as the basic and advanced skills in welding and cutting. Positions welding with shielding metal arc, metal inert gas welding, oxy-gas, and plasma arc cutting will be introduced to each student. This course is a prerequisite for all junior and senior level agriculture classes. This is a full year course and FFA enrollment is required of all students. Students will be expected to implement a supervised agriculture experience and keep records on a provided online application.

BIOLOGICAL SCIENCE OF AGRICULTURE

CLASS NUMBER	2504/2505	CLASS LENGTH	2 semesters
GRADE LEVEL	10, 11, 12	CREDIT	1.0
CLASS FEES	\$20.00/year	CREDIT AREA	Science
PREREQUISITES	Agriculture Education I	NOTES	FFA enrollment is required of all students.

This course is an introduction to the following topics in ecology and biology: biochemistry molecular biology (with a cellular approach), genetics, and plant and animal physiology. Students will see how biology relates to the field of agriculture and production of animals and plants. All Colorado Content Standards for a lab-based Biology will be met. This course does not meet NCAA requirements for a science class.

AGRICULTURE MECHANICS

CLASS NUMBER	3502/3503	CLASS LENGTH	2 semesters
GRADE LEVEL	11, 12	CREDIT	1.0
CLASS FEES	\$30.00/year	CREDIT AREA	Life Skills/Fine Arts
PREREQUISITES	Agriculture Education I & II or teacher approval	NOTES	FFA enrollment is required of all students.

A full class year, Agricultural Mechanics is the application and adaptation of common mechanical skills to the industry of agriculture. Areas of study include: careers, safety, arc welding, oxyacetylene welding, cutting, MIG welding, and small group projects. FFA leadership skills and opportunities will continue and the supervised agriculture experience program is strengthened. Small gas engines; electricity and plumbing in alternating years.

**NEW
CLASS!**

LANDSCAPE HORTICULTURE

CLASS NUMBER	3508/3509	CLASS LENGTH	2 semesters
GRADE LEVEL	11, 12	CREDIT	1.0
CLASS FEES	\$20.00/year	CREDIT AREA	Life Skills/Fine Arts
PREREQUISITES	Agriculture Education I & II	NOTES	FFA enrollment is required of all students.

Landscape Horticulture will teach the basics of landscape design in both hand drafting and AutoCAD (Computer Aided Drafting) to prepare for a career in the green industry. Students will learn the basics of design and develop the skills necessary to complete a client's landscape from concept to completion. Students will practice with industry quality tools to design both interesting and sustainable landscapes for Colorado's climate. FFA leadership skills and opportunities will continue and the supervised agricultural experience program will be strengthened. This is a full year course.

NEW CLASS!

GREENHOUSE PRODUCTION

CLASS NUMBER	3510/3511	CLASS LENGTH	2 semesters
GRADE LEVEL	9, 10, 11, 12	CREDIT	1.0
CLASS FEES	\$20.00/year	CREDIT AREA	Life Skills/Fine Arts
PREREQUISITES	Agriculture Education I & II	NOTES	FFA enrollment is required of all students.

Greenhouse production is the application of common green industry practices focusing on agricultural principles for the production, design, and marketing of vegetables, annuals, perennials and herbs in a industrial greenhouse facility. Areas of study include greenhouse facility design and operation, germination, transplanting, marketing and production. Students will be required to work in the greenhouse in a hands-on learning facility working daily to run and maintain a commercial greenhouse facility. Students will learn the operation and production of the greenhouse industry as well as best practices in the greenhouse. FFA leadership skills and opportunities will continue and the supervised agricultural experience program will be strengthened. This is a full year course.

AGRICULTURE SCIENCE **NEW CLASS!**

CLASS NUMBER	3504/3505	CLASS LENGTH	1 semester
GRADE LEVEL	11, 12	CREDIT	0.5
CLASS FEES	\$10.00/semester	CREDIT AREA	Science
PREREQUISITES	Agriculture Education I & II	NOTES	FFA enrollment is required of all students. This course <u>does not</u> meet NCAA requirements for a science class.

A semester class, Agricultural Science is the application of scientific principals to the production of food and fiber and all services related there to. Areas of study will include: careers, animal nutrition, animal breeding and genetics, animal health, animal physiology, crop plant physiology, crop plant pests and diseases, soil and water conservation, food products and processing, meat science and much more. FFA leadership skills and opportunities will continue and the supervised agriculture experience program is strengthened. This class rotates to four different courses:

1. **Meat Products and Processing**- Specifically looking into beef, lamb, pork and goat feeding and finishing processes as well as processing procedures where students will study meat samples and evaluate hanging carcasses.
2. **Food Products and Processing**- This course will look into the science of plant production and the processes of preserving and storing food products. This course will cover labeling, food safety and handling, as well as give students the opportunity to practice their production skills in the greenhouse.
3. **Soil & Crop Science**- The course will study the science behind soil including nutrients, crop rotation, fertilizers and pesticides as well as best management practices in the agriculture community.
4. **Animal Systems**- This will focus on animal production for various species grown in Weld County, concentrating on digestive systems, nutrition, breeding and the world of production agriculture.

Through tech prep initiative, students may receive advanced placement at Colorado post secondary institutions by passing a placement test upon completion of this course.

AGRICULTURAL COOPERATIVE WORK EXPERIENCE

CLASS NUMBER	4500/4501	CLASS LENGTH	1 or 2 semesters
GRADE LEVEL	11, 12	CREDIT	0.5 or 1.0
CLASS FEES	None	CREDIT AREA	Life Skills/Fine Arts
PREREQUISITES	Enrollment in an ag class & teacher approval	NOTES	FFA enrollment is required of all students.

This course is designed for advanced agricultural education students conducting exemplary cooperative placement supervised agriculture. Prior history of excellence in the supervised agricultural experience program is a prerequisite for enrollment in this course. Ag Ed instructors approve enrollment.
