

AGRICULTURAL SCIENCE (AG EDUCATION)

www.csupomona.edu/~agsci

Agricultural Science Major

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The primary function of the Agricultural Education Program is the preparation of teachers of agricultural education for the public secondary schools of California. Specialized preprofessional and professional courses are offered for undergraduate and graduate (fifth year) students. Technological, scientific, and broad general education course work for agriculture teaching candidates is offered throughout the College of Agriculture and other Colleges including the College of Education and Integrative Studies.

Students with an interest in becoming agriculture teachers are advised to enroll in the agricultural science major and obtain a B.S. degree, or they may complete a B.S. degree in one of the other approved majors in the College of Agriculture. Agricultural Science majors and all students who wish teacher certification are required to show competency in four areas of agriculture. This can be accomplished by completing the subject matter program in agriculture or receiving a passing score on the CSET for Agriculture.

In addition to coursework in four areas of agriculture, students who plan to teach agriculture must have two years of practical experience in agriculture and must complete an Agricultural Specialist Credential. The Agricultural Specialist Credential requires a minimum of 45 additional units beyond the B.S. degree. Some of the graduate work may be applied towards a Master of Science in Agriculture, Agricultural Science subplan.

Enrollment in a Single Subjects Credential program is required in order to qualify for student teaching. Candidates for the Single Subjects teaching credential who are not agricultural science majors are advised to wisely use the electives available in their major in order to complete required teaching credential courses which are not normally specified in their undergraduate major. Because of the wide range of variables involved, all candidates for teaching certification are urged to consult the Agricultural Education Program Coordinator as early as possible in their college careers.

For students wishing to obtain a Master of Science in Agriculture, such a degree has been approved with a subplan in Agricultural Science.

CORE COURSES FOR MAJOR

Required of all students. A 2.0 cumulative GPA is required in core courses including subplan courses for the major in order to receive a degree in the major. Students interested in teaching should see the Teacher Preparation section for additional secondary education requirements.

Orientation to the College of Agriculture	AG	100	(1)
Agriculture and the Modern World	AG	101	(4)
Development of Leadership Skills	AG	464	(3)
Development of Competitive Activities	AGS	250	(2)
Introduction to Agricultural Education Programs	AGS	300	(3)
Agriculture Skills and Facilities	AGS	420/420A	(3)
Field Experiences in Agriculture Education	AGS	441	(4)
Senior Project	AGS	461	(2)
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Feeds and Feeding	AVS	101/101L	(4)
Animal Science I	AVS	112	(4)
Animal Science I Laboratory	AVS	114	(1)
Animal Science II	AVS	113	(4)

Animal Science II Laboratory	AVS	115	(1)
Companion Animal Care	AVS	128	(4)
Principles of Market Animal Evaluation	AVS	240/240L	(2/1)
Accounting for Agribusiness	FMA	324	(4)
Agribusiness Enterprise Management	FMA	328	(4)
Horticulture Principles and Practices	PLT	131/131L	(4)
Agronomic Principles and Practices	PLT	220/220L	(4)
Basic Soil Science	PLT	231/231L	(4)

Select mechanized agriculture courses (11)

Select 3 courses from among the following:	10-12
Pesticides and Hazardous Materials Laws	PLT 303 (3)
Weeds and Weed Control	PLT 331/331L (3)
Crop Ecology	PLT 401 (4)
Environmentally Sustainable Agriculture	PLT 437/437L (4)
Greenhouse Management	PLT 323/323L (4)
Landscape Management	PLT 443/443L (4)

Select 2 courses from among the following:	7-8
Plant Propagation	PLT 132/132L (3)
Agricultural Cropping Systems	PLT 133/133L (4)
Subtropical Fruits	PLT 202/202L (4)
Culinary Produce Technology	PLT 222 (4)
Vegetable Crop Systems	PLT 226/226L (4)
Introduction to Arthropods	PLT 233/233L (4)

SUPPORT AND ELECTIVE COURSES

School Health Education	KIN	441	(3)
Fundamentals of Physics	PHY	102	(4)
Child Psychology for Educators	PSY	202	(4)

The following major support courses should be used to satisfy the indicated GE requirements. If these courses are not used to satisfy GE, the total units to degree may be more than 180 units.

Freshman English (A1)	ENG	104	(4)
Public Speaking (A2)	COM	100	(4)
Critical Thinking (A3)	PHL	202	(4)
Statistics with Applications (B1)	STA	120	(4)
General Chemistry (B2)	CHM	121/121L	(4)
Basic Biology (B3)	BIO	115/L	(5)
The Animal Industry and Society (B4)	AVS	311	(4)
or Plants and Civilization (B4)	PLT	311	(4)
History of Garden Art (C1)	PLT	214	(4)
Ethics (C2)	PHL	204	(4)
Elementary Spanish (C3)	FL	151	(4)
Organizational Communication Theory (C4)	COM	314	(4)
Introduction to American Government (D1a)	PLS	201	(4)
and United States History (D1b)	HST	202	(4)
Global Resources for Food (D2)	JA	101	(4)
or United States History (D2)	HST	201	(4)
Culture, People, and Dress (D3)	AMM	108	(4)
Ethical Issues in Food, Agricultural, and Apparel Industries (D4)	AG	401	(4)
General Psychology (E)	PSY	201	(4)

UNRESTRICTED ELECTIVES

Unrestricted Electives (3-6)
 Select a sufficient number of courses so that the total from Elective Core, Unrestricted Electives, and GE is at least 102 units.

GENERAL EDUCATION REQUIREMENTS

Students should consult the catalog website www.csupomona.edu/~academic/catalog/ for current information regarding this requirement. Unless specific courses are stated under Support Courses, see the list of approved courses under General Education Requirements, Areas A through E.

Area A. Communication and Critical Thinking (12 units)

1. Written Communication
2. Oral Communication
3. Critical Thinking

Area B. Mathematics and Natural Sciences (16 units)

1. Mathematics/Quantitative Reasoning
2. Physical Science
3. Biological Science
4. Science and Technology Synthesis

Area C. Humanities (16 units)

1. Fine and Performing Arts
2. Philosophy and Civilization
3. Literature and Foreign Languages
4. Humanities Synthesis

Area D. Social Sciences (20 units)

1. U.S. History, Constitution, and American Ideals
2. History, Economics, and Political Science
3. Sociology, Anthropology, Ethnic and Gender Studies
4. Social Science Synthesis

Area E. Lifelong Understanding and Self-development (4 units)**SINGLE SUBJECTS TEACHING CREDENTIAL****Subject Matter Program**

In order to qualify for a credential through course work rather than the CSET, candidates must complete the following:

- 18 units in Animal and/or Veterinary Science
- 18 units in Agricultural Mechanics, Agricultural Engineering, or Landscape Irrigation
- 8 units in Agricultural Business Management and/or Farm Management/ Agricultural Economics
- 26 units in a combination of courses in Agronomy, Plant Science, Soils, and Ornamental Horticulture, and Agricultural Biology.

Students who are Agricultural Science majors automatically meet this requirement as a part of their degree requirements.

Others should consult with the Agricultural Education Coordinator. In addition to a B.S. in Agriculture, students preparing to student teach must complete requirements for the Single Subjects Credential. The courses to be taken are required of all teaching credential candidates regardless of subject matter area.

AGRICULTURAL SPECIALIST CREDENTIAL

In addition to a B.S. in Agriculture, students preparing to teach agriculture must complete the requirements for the Single Subject credential and the requirements for the Agricultural Specialist Credential. The courses include:

Introduction to Agricultural Education Programs	AGS	300	(3)
Special Study	AGS	400	(2)
Agriculture Skills and Facilities	AGS	420/420A	(3)
Program Planning and Development	AGS	430	(3)
Teaching Methods in Agriculture	AGS	440	(4)
Early Field Experience in Ag Ed	AGS	441	(4)
Youth and Adult Leadership Programs	AGS	505/505A	(3)

Students are also required to have a concentration of 27 units, including 9 upper division, in one area of agriculture. This is generally completed as an undergraduate. A minimum of two years of verified work experience in agriculture is also required. A total of 45 graduate credit units are required for the Agricultural Specialist Credential.

Students may complete the requirements for both the Single Subject and the Agricultural Specialist Credentials concurrently. A limited number of courses may be taken at the undergraduate level. Students should consult with the Agricultural Education program coordinator prior to enrolling in any courses to be used for credentialing purposes.

Course Descriptions**AGS 250 Development of Competitive Agricultural Activities (2)**

The philosophy and development of competitive activities for students of agriculture. Selection of contest officials, development of contest patterns, scoring of placing cards, and publications of results. Use of the California Curricular Code. Practical application of this class will occur with the operation of Agriculture Field Day. 2 lectures.

AGS 299/299A/299L Special Topics for Lower Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, activity, or a combination. Prerequisite: permission of instructor.

AGS 300 Introduction to Agricultural Education Programs (3)

Overview of agriculture programs including goals and purposes. Qualifications essential to success in agricultural education. Programs of studies to meet requirements for instruction in agriculture. 3 lecture discussions.

AGS 400 Special Study for Upper Division Students (1-2)

Individual or group investigation, research, studies, or surveys of selected problems. Total credit limited to 4 units, with a maximum of 2 units per quarter.

AGS 420/420A Agriculture Skills and Facilities (2/1)

Development, operation, and management of agriculture facilities. Skills necessary for classroom, laboratory, and school farm instruction in agricultural education will be demonstrated. Emphasis will be on facility management and individual skills development and assessments. 2 lectures, 1 activity. Concurrent enrollment required.

AGS 430 Program Planning and Development (3)

Study of career opportunities in agriculture. Program development in such areas as the Future Farmers of America, and other youth groups. Supervised practice including cooperative work experience in agriculture. Development of up-to-date approaches in an integrated program. Operating policies and procedures. 3 lectures/problem-solving.

AGS 440/440A Procedures in Agricultural Education (2/2)

Approaches to the learning process and development of daily and unit plans as well as the utilization of resources. Class demonstration in teaching procedures with emphasis being given to J.I.T., micro-teaching, and the development of pedagogical skills including development analysis and evaluation. 2 lectures, 2 activity periods. Concurrent enrollment required.

AGS 441 Field Experiences in Agricultural Education (4)

An overview of Agricultural Education in the public schools. Professional type experience new to the student so that a valuable contribution toward career development results. Supervised, focused observation/participation at the secondary school level. Written reports necessary.

AGS 450/450A Field Practices and Supervision (1/2)

Organization and implementation of an instructional program in agricultural education. Field application of Future Farmers of America, supervised practice, and classroom instruction. 1 lecture, 2 activity. Concurrent enrollment required.

AGS 461, 462 Senior Project (2) (2)

Selection and completion of a project under faculty supervision. Projects typical of problems which graduates must solve in their fields of employment. Project results are presented in a formal report. Minimum 120 hours total.

AGS 499/499A/499L Special Topics for Upper Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination of both. Graduate courses are listed in the graduate section of this catalog. Prerequisite: permission of instructor.



IRRIGATION
RECYCLED WATER
DO NOT DRINK