AGRICULTURAL EDUCATION & COMMUNICATION

Agriculture Bldg. (10), Room 244
Phone: 805.756.2803
https://aged.calpoly.edu

Academic Programs

<table>
<thead>
<tr>
<th>Program name</th>
<th>Program type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Communication</td>
<td>BS, Minor</td>
</tr>
<tr>
<td>Agricultural Education</td>
<td>Master of, Minor</td>
</tr>
<tr>
<td>Agricultural Science</td>
<td>BS</td>
</tr>
</tbody>
</table>

The Cal Poly Agricultural Education and Communication Department’s contribution to the agriculture industry is unparalleled in preparing passionate leaders to advance agricultural education and communication.

Graduates are prepared to effectively organize, communicate, and lead. Whether teaching the students of California about the application of science and management in the food fiber and natural resource systems — or sharing the compelling story and science of agriculture — our graduates help shape the public opinion of the multibillion dollar agricultural industry.

Students studying agricultural science are exposed to a wide variety of coursework in the various disciplines featured in the College of Agriculture, Food, and Environmental Sciences. The degree provides the flexibility to explore careers leading to teaching, animal and plant production, the food and fiber service industry, and various management and leadership positions in agriculture. Graduates leave Cal Poly with the technical and professional skills needed to lead in a variety of occupations and with a comprehensive understanding of how the various sectors contribute to overall industry success.

In addition to the department’s long history of leadership and service to the state’s agricultural education profession, it also boasts California’s only agricultural communication major, widely considered one of the country’s premier undergraduate programs. Through a partnership with the university’s Brock Center for Agricultural Communication, plus unique Learn by Doing opportunities, students gain the necessary knowledge to be effective communicators who are fully equipped to promote agriculture and serve the needs of the industry.

BS Agricultural Science

The BS Agricultural Science program is a flexible program in agriculture, allowing students multiple options and opportunities to select courses according to their areas of interest.

The major was developed to provide students with direction as they consider career options in the agricultural industry. Students complete coursework deemed broad and general to ensure a systems perspective in agriculture. Foundation courses are meant to help students identify an area of emphasis.

The six emphasis areas are:

- Agricultural Engineering Technology
- Agribusiness
- Animal Science
- Crop and Soil Science
- Forestry and Natural Resources
- Ornamental Horticulture

Many of the emphasis areas have courses embedded within them that lead to the completion of a minor. Students should consult with their academic advisor when considering a minor or minors.

Teaching Credential

Students can declare their candidacy for teaching while pursuing the undergraduate degree. The minor in Agricultural Education should be declared early during the student’s academic career to ensure requirements for obtaining certification to teach are met. Early field experiences are a part of the minor and are required for entrance into the credential program.

Teacher candidates are required to enroll in post-baccalaureate work to obtain the Single Subject in Agriculture and Agricultural Specialist credentials. Candidates must complete a minimum of 45 units of post-baccalaureate coursework. The Single Subject Content Advisor in Agricultural Education can provide more information. It is to the advantage of the post-baccalaureate teaching candidates to be simultaneously enrolled in the Master of Agricultural Education degree program.

Agricultural Education Minor

The Agricultural Education minor addresses subject matter competency requirements for the Single Subject-Agriculture and the Agriculture Specialist teaching credentials. Students must obtain prior program approval from the Single Subject Content Advisor for Agriculture Education in selecting approved electives courses. This is based on the student’s prior agricultural background and the completion of major-specific courses. Students are encouraged to express interest in this minor early in the academic program in order to get proper advisement relative to all requirements for teaching in the public schools.

Additional Minors

Agricultural Communication Minor

In association with the Brock Center for Agricultural Communication, selected interdisciplinary courses in Journalism, Graphic Communications, English, Communication Studies and Agriculture make up the Agricultural Communication minor. Career preparation includes a breadth and depth in agriculture along with a foundation
in journalism, and an industry internship. For more information about the minor, see College of Agriculture, Food and Environmental Sciences (http://catalog.calpoly.edu/collegesandprograms/collegeofagriculturefoodenvironmentalsciences/).

Agricultural Leadership Minor
For more information about the minor, see College of Agriculture, Food and Environmental Sciences (http://catalog.calpoly.edu/collegesandprograms/collegeofagriculturefoodenvironmentalsciences/).

**Graduate Program**

**Master of Agricultural Education**

**General Characteristics**

The Master of Agricultural Education program provides students with the opportunity to focus their graduate study in agricultural education, with an emphasis on preparing candidates for positions as teachers of agricultural education in public schools. The degree is a non-thesis, terminal program that provides practitioners with opportunities for professional development. At least one year of successful high school or college teaching is required for completion of this degree program. Working with their advisor and graduate committee, students generally complete projects for coursework in the program that enhance their employment settings, or assist them to become compliant with statewide standards in agricultural education.

**Prerequisites**

For consideration as a graduate student, an applicant will have completed a bachelor's degree from an accredited college or university with a minimum grade point average of 2.75 in the last 90 quarter units. An applicant who meets these standards but lacks prerequisite coursework may be admitted as a conditionally classified student and must make up any deficiencies before advancement to classified graduate standing.

All applicants who do not speak and write English as their primary language are required to complete the Test of English as a Foreign Language (TOEFL), with a minimum score of 550, and the Test of Written English (TWE), with a minimum score of 4.5.

**Program of Study**

Graduate students must file a formal study plan for the degree with the Graduate Coordinator of the College of Agriculture, Food and Environmental Sciences no later than the end of the quarter in which the 12th unit of approved courses is completed. The formal program of study must include at least 45 units of committee-approved graduate coursework; at least 60 percent of the units required by the committee as reflected on the formal study plan must be at the 500 level. Students should refer to the course descriptions in the catalog for credit limitations of individual courses; for example, total credit for Special Problems in Agricultural Education is limited to 9 units with not more than 3 units in any one quarter. All candidates must meet the current Graduation Writing Requirement.

All students in the Master of Agricultural Education degree program are required to pass a written and oral comprehensive examination, scheduled normally during the final quarter of the program of study.

**AGC Courses**

**AGC 102. Orientation to Agricultural Communication. 2 units**
Orientation to the communication sector of agriculture. Overview of professional opportunities and skills needed for success in agricultural communications. Preparation of press releases and short articles, and development of a planned program of study. 2 lectures.

**AGC 200. Special Problems in Agricultural Communication. 1-4 units**
Prerequisite: Consent of department head.

Individual investigation, research, studies or surveys of selected problems in Agricultural Communication/Agricultural Education. Total credit limited to 8 units, with a maximum of 4 units per quarter.

**AGC 207. Software Applications for Agricultural Publications. 2 units**
Emphasis on software applications in agricultural communications, including basic Adobe Creative Suite techniques of InDesign and Lightroom, MS Word and Excel. Best practices in electronic delivery and print. Adobe Premiere video, blog template usage and cloud collaboration for professional agricultural communications. 1 lecture, 1 activity.

**AGC 270. Selected Topics. 1-4 units**
Prerequisite: Open to undergraduate students and consent of instructor.

Directed group study of selected topics. The Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 lectures.

**AGC 301. New Media Communication Strategies in Agriculture. 4 units**
Prerequisite: Junior standing. Recommended: JOUR 203, JOUR 205.

Exploration and implementation of emerging new media communication strategies and technologies to convey information on important issues in agriculture to a global audience. Focus on food and farming dialogues currently populating conversations about production agriculture. Adaptation of different writing styles based on requirements of the various new media channels. Analysis of metrics to measure level of engagement with desired audience. 3 lectures, 1 laboratory.

**AGC 339. Internship in Agricultural Communications. 1-12 units**
CR/NC
Prerequisite: Consent of internship instructor.

Selected Agricultural Communication students will spend up to 12 weeks with an approved agricultural firm engaged in production or related business. Time will be spent applying and developing production and managerial skills and abilities. One unit of credit may be allowed for each full week of completed and reported internship. Degree credit limited to 6 units. Credit/No Credit grading only.

**AGC 400. Advanced Special Problems in Agricultural Communication. 1-4 units**
Prerequisite: Consent of department head.

Individual investigation, research, studies or surveys of selected problems in Agricultural Communication/Agricultural Education. Total credit limited to 8 units, with a maximum of 4 units per quarter.

**AGC 407. Agricultural Publications. 4 units**
Prerequisite: JOUR 205 and AGC 207.

Integration of writing, editing, and layout skills in producing agricultural publications. Emphasis on using computer applications in designing publications. Total credit limited to 8 units. 2 lectures, 2 activities.
AGC 426. Presentation Methods in Agricultural Communication. 4 units
Prerequisite: Completion of GE Area A1 with a grade of C- or better (GE Area A2 for students on the 2019-20 or earlier catalogs); and junior standing.

Development, delivery and evaluation of effective means of communication by use of a variety of presentation methods and the use of technology for effective communication. 2 lectures, 2 activities.

AGC 452. Current Trends and Issues in Agricultural Communication. 4 units
Prerequisite: Senior standing.

Presentations by experts from government, industry, and professional organizations. Focus on trends and issues that impact agriculture, in particular agricultural communication. Exploration of solutions to problems facing agricultural communication. Field trip required. 4 seminars.

AGC 461. Senior Project I. 1 unit
Prerequisite: AGED 460.

Empirical application of the scientific method as it relates to the selection of a project. Projects typical of problems that graduates must solve in their field of employment. 1 seminar.

AGC 462. Senior Project II. 1 unit
Prerequisite: AGC 461.

Completion of a project begun in AGC 461. Projects typical of problems that graduates must solve in their field of employment. Project results are presented in a formal report. 1 seminar.

AGC 470. Selected Advanced Topics. 1-4 units
Prerequisite: Consent of instructor.

Directed group study of selected topics for advanced students. Open to undergraduate and graduate students. The Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 lectures.

AGC 471. Selected Advanced Laboratory. 1-4 units
Prerequisite: Consent of instructor.

Directed group laboratory study of selected topics for advanced students. Open to undergraduate and graduate students. The Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 laboratories.

AGC 500. Individual Study in Agricultural Communication. 1-3 units
Prerequisite: Consent of department head, graduate advisor and supervising faculty member.

Advanced independent study planned and completed under the direction of a member of the Agricultural Education and Communication faculty.

Total credit limited to 6 units.

AGC 539. Graduate Internship in Agricultural Communication. 1-9 units
Prerequisite: Consent of internship instructor.

Application of theory to the solution of problems of agricultural production or related business in the field of Agricultural Communication. Analyze specific management problems and perform general management assignments detailed in a contract between the student, the firm or organization, and the faculty advisor before the internship commences. Degree credit limited to 6 units.

AGC 570. Selected Topics in Agricultural Communication. 1-4 units
Prerequisite: Graduate standing or consent of instructor.

Directed group study of selected topics for advanced students. Open to undergraduate and graduate students. The Class Schedule will list topic selected. Total credit limited to 12 units. 1 to 4 seminars.

AGC 571. Selected Advanced Laboratory in Agricultural Communication. 1-4 units
Prerequisite: Consent of instructor.

Directed group laboratory study of selected topics for advanced students. Open to undergraduate and graduate students. The Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 laboratories.

AGC 580. Special Problems in Agricultural Communication. 1-3 units
Prerequisite: Consent of department head and supervising faculty member.

Individual study of modern issues and problems conducted through research, planning and development. Field problems and in-service study in agricultural industry encouraged. Final written report required. Total credit limited to 9 units with not more than 3 units in any one quarter.

AGED Courses

AGED 102. Introduction to Agricultural Education. 2 units
Overview of agricultural education career pathways including goals and purposes. Kinds of classes and types of programs. Qualifications essential to success in teaching agriculture. Planned program of studies to meet requirement for teaching agricultural science and related disciplines. 2 lectures.

AGED 200. Special Problems in Agricultural Education. 1-4 units
Prerequisite: Consent of department head.

Individual investigation, research, studies or surveys of selected problems in Agricultural Communication/Agricultural Education. Total credit limited to 8 units, with a maximum of 4 units per quarter.

AGED 220. Agricultural Youth Conferences. 2 units
CR/NC
Prerequisite: Consent of instructor.

Problems encountered and practices applied during the conduct of the annual FFA State Convention. Methods, procedures and materials adapted for use by the student in developing the committee system to produce conferences, conventions and workshops of all kinds and sizes. Total credit limited to 6 units. Credit/No Credit grading only. 2 activities.

AGED 270. Selected Topics. 1-4 units
Prerequisite: Open to undergraduate students and consent of instructor.

Directed group study of selected topics. The Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 lectures.

AGED 303. Agricultural Youth Leadership Development. 4 units
Prerequisite: Completion of GE Area A with grades of C- or better.

Historical, philosophical and social foundations of agricultural education as it relates to the development of youth leadership skills through classroom/laboratory instruction, project-based learning, and involvement in student organizations. Application of integral components in developing a total program of agricultural education. Field trip required. 2 lectures, 2 activities.
AGED 339. Internship in Agricultural Education. 1-12 units
CR/NC
Prerequisite: Consent of internship instructor.

Selected Agricultural Education students will spend up to 12 weeks with an approved agricultural firm engaged in production or related business. Time will be spent applying and developing production and managerial skills and abilities. One unit of credit may be allowed for each full week of completed and reported internship. Degree credit limited to 6 units. Credit/No Credit grading only.

AGED 350. Early Field Experience in Agriculture Education. 2 units
Prerequisite: AGED 303, and junior standing.

Observation of the practices and techniques utilized by agriculture teachers in conducting organized instruction in high school classrooms, shops, school farms, and laboratories. Discussion of activities and programs unique to teaching agriculture in California secondary schools. Participation in public schools requires mandated fingerprint clearance. 2 seminars.

AGED 400. Advanced Special Problems in Agricultural Education. 1-4 units
Prerequisite: Consent of department head.

Individual investigation, research, studies or surveys of selected problems in Agricultural Communication/Agricultural Education. Total credit limited to 8 units, with a maximum of 4 units per quarter.

AGED 404. Agricultural Leadership. 3 units
Prerequisite: Completion of GE Area E (GE Area D4 for students on the 2017-19 or earlier catalogs); and junior standing.

Emphasis upon equipping current and prospective leaders in agriculture with the background and skills to achieve their potential. Class members will assess their status as leaders and identify means to improve their effectiveness. Focus on the theoretical underpinnings of human motivation, personal leadership, and organizational development. 2 lectures, 1 activity.

AGED 410. Computer Applications in Agricultural Education. 2 units
Prerequisite: Junior standing. Recommended: AGED 303.

Advanced use of computer technology to address professional demands in a variety of agricultural education situations. Practical application of computer applications as tools for presentations, informational aids, instruction, assessment, and other common uses. Provide support to industry pre-professionals and pre-service teachers. Course may be offered in classroom-based or online format. 2 activities.

AGED 412. Advanced Agricultural Leadership Development Practicum. 3 units
Prerequisite: Junior standing and consent of instructor.

Leadership team facilitates a campus event under the direction of the Agricultural Education and Communication Department. Team identifies goals, recruits students, organizes committees, addresses tasks, and conducts the event. Practical application of problem solving, critical thinking, communication and collaboration skills. Total credit limited to 6 units. 3 seminars.

AGED 424. Organizing and Teaching Agriculture. 3 units
Prerequisite: AGED 438 and consent of instructor.

Determining course objectives, content, and calendar for use by the teacher in classroom, shop and field instruction while assigned to community schools. Concurrent with student teaching. 3 activities.

AGED 440. Student Teaching in Agricultural Education. 6-12 units
CR/NC
Off-campus assignment to a selected cooperating public school. Participation in all phases of agriculture teacher duties and activities including departmental organization and administration. Prior approval and appointment necessary. Total credit limited to 18 units. Credit/No Credit grading only.

AGED 441. Student Teaching Practicum. 2 units
Prerequisite: Consent of instructor.

Problems encountered and practices applied during student teaching. Methods, procedures and materials adapted for use by the teacher concurrent with student teaching. 2 activities.

AGED 460. Research Methodology in Agricultural Education and Communication. 1 unit
Prerequisite: Junior standing.

Introduction to the research process and topic selection as it relates to the design and development of the senior project within the Agricultural Communication and the Agricultural Sciences majors. 1 lecture.

AGED 461. Senior Project I. 1 unit
Prerequisite: AGED 460.

Empirical application of the scientific method as it relates to the selection of a project. Projects typical of problems that graduates must solve in their field of employment. 1 seminar.

AGED 462. Senior Project II. 1 unit
Prerequisite: AGED 461.

Completion of a project begun in AGED 461. Projects typical of problems that graduates must solve in their field of employment. Project results are presented in a formal report. 1 seminar.

AGED 470. Selected Advanced Topics. 1-4 units
Prerequisite: Consent of instructor.

Directed group study of selected topics for advanced students. Open to undergraduate and graduate students. The Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 lectures.

AGED 471. Selected Advanced Laboratory. 1-4 units
Prerequisite: Consent of instructor.

Directed group laboratory study of selected topics for advanced students. Open to undergraduate and graduate students. The Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 laboratories.
AGED 481. Developing Digital Presentations for Instruction in Agricultural Education. 1 unit
Prerequisite: Senior standing.

Directed group study and individualized projects in the design and development of digital presentations in technical agriculture for use in teaching and program public relations. Total credit limited to 3 units. 1 laboratory.

AGED 482. Teaching Resources and Curriculum Design. 1 unit
Prerequisite: Senior standing.

Traditional academic and student-centered approaches to gaining resources and curriculum design. Methods of using, and the development of the knowledge and skills related to planning, implementation and assessing the high school agriculture curriculum. Organization and management and their relationship to education effectiveness and productivity. 1 lecture.

AGED 500. Individual Study in Agricultural Education. 1-3 units
Prerequisite: Consent of department head, graduate advisor and supervising faculty member.

Advanced independent study planned and completed under the direction of a member of the Agricultural Education and Communication faculty. Total credit limited to 6 units.

AGED 501. Professional Seminar in Agricultural Education. 2 units
Prerequisite: Admission to the Credential Programs in Single Subject Agriculture, or Agriculture Specialist, and/or the Masters of Agricultural Education.

Orientation to the Master of Agricultural Education program. Current requirements, processes, documentation, and discussion of expectations of pre-professional teacher candidates. Completion of formal documents for credentialing in California. 2 seminars.

AGED 513. Field Experience - Agricultural Education. 1-3 units
Prerequisite: Prior approval and appointment.

Practice and techniques in management and supervision of programs in agricultural education. Relationships among students, staff, community and school groups. Budgeting, staffing, records, reporting. Student activities and Future Farmers of America programs. Total credit limited to 6 units.

AGED 520. Program Development in Agricultural Education. 3 units
Prerequisite: Senior standing.

Approaches to the development of an integrated agricultural education program in the comprehensive high school, based on occupational opportunities and community needs. Philosophy, organization, and administration of programs. Development in curriculum, supervised occupational experience, student leadership such as Future Farmers of America, and summer programs. Field trip required. Course may be offered in classroom-based or online format. 3 seminars.

AGED 522. Laboratory Pedagogy in Agricultural Technology. 3 units
Prerequisite: Senior standing.

Organizing agricultural technology laboratory instruction, curriculum, and facilities. Student demonstrations and presentations; assessment, analysis, and evaluation. Field trip required. Not open to students with credit in AGED 523. 1 seminar, 2 laboratories.

AGED 523. Laboratory Organization and Management in Agricultural Education. 3 units
Prerequisite: Enrollment in MS degree in Agricultural Education.

Organizing and managing laboratories, including agriculture mechanics curriculum and determining course content. Student demonstrations and presentations; assessment, analysis, and evaluation. Course is designed for in-service secondary agriculture teachers. Field trip required. Not open to students with credit in AGED 522. 3 lectures.

AGED 524. Instructional Processes in Agricultural Education. 4 units
Prerequisite: Admission to one of the following programs: the Single Subject Agriculture Credential, the Agriculture Specialist Credential, or the Master of Agricultural Education. Co-requisite: EDUC 412, EDUC 414, and EDUC 418. Recommended: AGED 303, and AGED 350.

Principles of agricultural teaching methods and developmentally-appropriate pedagogy. Daily and unit lesson plans incorporating content, teaching methods, and assessing learners. Accommodations for English learners and students with special needs. Class demonstrations in teaching procedures, analysis, assessment and reflection. Field trip required. 2 lectures, 2 activities.

AGED 525. Organizing Instruction for Growing and Selling Horticulture Products. 3 units
Prerequisite: AEPS 120 or AEPS 230, and senior or graduate standing.

Skills and techniques of propagation and production of horticulture crops. Scheduling, growing media, construction and use of forcing structures, and plant identification. Marketing plans and promotions. Teaching methods, curriculum development, and identification of resources and materials for horticultural instruction. 3 lectures. Open to agricultural educators or credential students only.

AGED 526. Curriculum Development in Horticulture Science. 3 units
Prerequisite: AGED 438 and senior standing. Recommended: EDUC 410, EDUC 412, EDUC 414, EDUC 416 and EDUC 418.

Development of curriculum that meets California high school ornamental horticulture instructional needs and provides foundation for student entry into the horticulture industry. Instructional methods for lecture and laboratory activities. Identification of teaching resources and instructional materials. 3 lectures.

AGED 530. Developing FFA and Supervised Agricultural Experience Programs in Secondary Education. 3 units
Prerequisite: Senior or graduate standing.

Integrating FFA and supervised agricultural experience programs into the curriculum. Career development event implementation; record book usage; officer and committee training; recruitment; retreat and leadership training. Current national and state initiatives and experiential learning opportunities in the workplace and entrepreneurial settings. Not open to students with credit in AGED 330. 3 lectures.

AGED 536. Teaching Agriculture in Higher Education. 3 units
Prerequisite: Graduate standing.

Selection and use of teaching strategies, methods/approaches, and techniques when planning, delivering, and evaluating instruction. Intended for graduate students interested in pursuing a faculty position in agriculture, as well as other disciplines in higher education. 3 seminars.
AGED 537. Enhancing Instruction in Agricultural Biology. 3 units
Prerequisite: AGED 438 or consent of instructor, enrollment in agriculture teaching credential program or MS degree in Agricultural Education, or current agriculture teacher; undergraduate biology course (BIO 111 or equivalent).

Teaching methods of important biological concepts using agriculture as the context. Assisting agriculture teachers in identifying proper pedagogical strategies to integrate activities and laboratories into existing agriculture biology courses, including leadership development opportunities and activities. Emphasis on appropriate teaching methods and techniques, curriculum integration and application, and classroom resources. 3 seminars.

AGED 539. Graduate Internship in Agricultural Education. 1-9 units
Prerequisite: Consent of internship instructor.

Application of theory to the solution of problems of agricultural production or related business in the field of Agricultural Education. Analyze specific management problems and perform general management assignments detailed in a contract between the student, the firm or organization, and the faculty advisor before the internship commences. Degree credit limited to 6 units.

AGED 540. Instructional Planning in Agriculture. 2 units
Prerequisite: AGED 524.

Prior to the first day of teaching agriculture, develop a plan for delivery of instruction in a program of agriculture in a K-14 educational setting. Instructional strategies will address the statewide Quality Criteria for Programs of Instruction in Agriculture.

AGED 570. Selected Topics in Agricultural Education. 1-4 units
Prerequisite: Graduate standing or consent of instructor.

Directed group study of selected topics for advanced students. Open to undergraduate and graduate students. The Class Schedule will list topic selected. Total credit limited to 12 units. 1 to 4 seminars.

AGED 571. Selected Advanced Laboratory in Agricultural Education. 1-4 units
Prerequisite: Consent of instructor.

Directed group laboratory study of selected topics for advanced students. Open to undergraduate and graduate students. Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 laboratories.

AGED 580. Special Problems in Agricultural Education. 1-3 units
Prerequisite: Consent of department head, graduate advisor and supervising faculty member.

Individual study of modern issues and problems conducted through research, planning and development. Field problems and in-service study in agricultural industry encouraged. Final written report required. Total credit limited to 9 units with not more than 3 units in any one quarter.

AGED 581. Graduate Seminar in Agricultural Education. 3 units
Prerequisite: Graduate standing or consent of instructor.

Group study of selected developments, trends and issues in the field of Agricultural Education. 3 seminars.