

# AGRICULTURAL SCIENCE

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)  
Certificate of Achievement

### DESCRIPTION

The Agricultural Science program offers an Associate of Science degree in Agricultural Science and a Certificate of Achievement in Agricultural Crop Science for those students interested in a more general course of study. The IVC major deals with the application of the various principles of the biological and physical sciences in agriculture. The course offerings are fundamental and broad in scope so that students can prepare for transfer or seek employment in one of the hundreds of career opportunities in the agriculture field.

### PROGRAM LEARNING OUTCOMES

1. Demonstrate an understanding of fundamental concepts and knowledge related to the selection, propagation and management of various plant commodities produced for food, feed and fiber.
2. Display competency with respect to the use of standard lab, industry equipment and techniques used in production
3. Demonstrate understanding of scientific research and critical thinking skills related to hypothesis development and data interpretation as applied to the decision making process for commercial production.

### ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### CAREER OPPORTUNITIES

California is one of the top states in the nation in annual gross agricultural returns. The livestock industry and over 250 specialty crops provide a variety of career choices. Trained personnel are employed on ranches and farms, as well as the vast agriculture service industry. Career opportunities also exist with governmental agencies. Every year there are several openings in Agriculture Education in California as well as other states. Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Agribusiness Representative
- Agricultural Products Inspector
- Agronomist
- Chemical Fertilizer Sales
- College Instructor
- Cooperative Extension Agent
- Cooperative Manager
- Crop Consultant
- Crop Production
- Agronomic Production Manager
- County Agricultural Extension Agents
- Plant Geneticist
- Soil Surveyor
- Vocational Agriculture Teacher
- Crop Scout/Consultant
- Education Specialist
- Farm Manager
- Farming Operation
- 4-H Association Youth Specialist
- Genetic Engineering Scientist
- International Agronomist
- Land Reclamation Specialist
- Land-Use Planner
- Conservation/Environmental Technician
- High School Agriculture Teacher
- Seed, Chemical and Fertilizer Consultant
- Organic Certification Specialist
- Plant Breeder
- Research Technician
- Sales Representative
- Seed Production
- Soil Conservation Specialist
- Youth Development Specialist
- Waste Management Specialist
- Water Quality Specialist

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.org](http://www.CSUMentor.org) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# AGRICULTURAL SCIENCE

## ASSOCIATE DEGREE PROGRAM

### AGRICULTURAL SCIENCE – A.S. DEGREE

Twenty-six (26.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (14.0 units)

AG	120	Soil Science	3.0
AG	140	Principles of Plant Science	4.0
AG	170	Principles of Entomology	3.0
CHEM	100	Introduction to Chemistry	4.0

#### II. Acceptable Courses (select a minimum of 12.0 units) 12.0

AG	080	Pesticide Safety (1.0)	
AG	138	Computer Applications in Agriculture (3.0)	
AG	142	Introduction to Biofuel Input and Production (3.0)	
AG	160	Food and Fiber in a Changing World (3.0)	
AG	220	Irrigation and Drainage (3.0)	
AG	230	Fertilizers and Soil Amendments (3.0)	
AG	240	Field and Cereal Crops (4.0)	
AG	250	Vegetable Crop Production (3.0)	
AG	260	Plant Protection and Integrated Pest Management (3.0)	
AG	270	Weeds and Weed Control (3.0)	
CIS	101	Introduction to Information Systems (3.0)	

Total Major Units 26.0

IVC Graduation Requirements and GE Pattern: 30.0

Electives (as needed to reach 60 degree applicable units) \_\_\_\_\_

**Total Maximum Units: 60.0**

## CERTIFICATE PROGRAM

### AGRICULTURAL CROP SCIENCE

Twenty-seven (27.0) units required for the certificate.

Agricultural Crop Sciences encompasses the study of the plant, soil, and water resources that are foundational to all agro-ecosystems. The crop sciences field can prepare you for a challenging career in many areas including: soil and crop management, plant breeding and genetics, seed science, environmental soil science, soil restoration and conservation, international agriculture, and ecosystem management.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (24.0)

AG	080	Pesticide Safety	1.0
AG	120	Soil Science	3.0
AG	140	Principles of Plant Science	4.0
AG	170	Principles of Entomology	3.0
AG	230	Fertilizers & Soil Amendments	3.0
AG	240	Field and Cereal Crops	4.0
AG	250	Vegetable Crop Production	3.0
AG	270	Weeds and Weed Control	3.0

#### II. Acceptable courses for the certificate (select a minimum of 3 units)

AG	138	Computer Applications in Agriculture (3.0)	
AG	160	Food & Fiber in a Changing World (3.0)	
AG	220	Irrigation and Drainage (3.0)	
AG	260	Plant Protection and Integrated Pest Management (3.0)	

Total Certificate Units 27.0

**Total Maximum Units: 27.0**