

# GENERAL SCIENCE

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

### DESCRIPTION

The Associate of Science General Sciences degree emphasizes the role of science, scientific inquiry and technology in our world. Students will apply a problem solving strategy such as the scientific method or other systematic process of inquiry and recognize the contributions of science and technology in our world. This program provides a broad study in the fields of biological and physical sciences in preparation for transfer to a four-year program and continuation of studies in upper division science courses in fields of anthropology, astronomy, biology, chemistry, environmental science, geography, geology, engineering and physics.

The most reliable guide for appropriate course combinations in this major will be the catalog from the specific college to which the student will transfer. Please see a counselor for assistance.

### PROGRAM LEARNING OUTCOMES

1. Demonstrate understanding of scientific inquiry. Explain and apply the scientific method.
2. Provide experimental foundation for concepts introduced during lecture. Develop quantitative and qualitative skills of data analysis and ability to observe, interpret, communicate and synthesize various types of information from diverse sources.
3. Develop an understanding and appreciation of the natural world and interactions between and among Earth's systems (biosphere, hydrosphere, atmosphere and geosphere) and beyond (exosphere).

### ASSOCIATE DEGREE PROGRAM

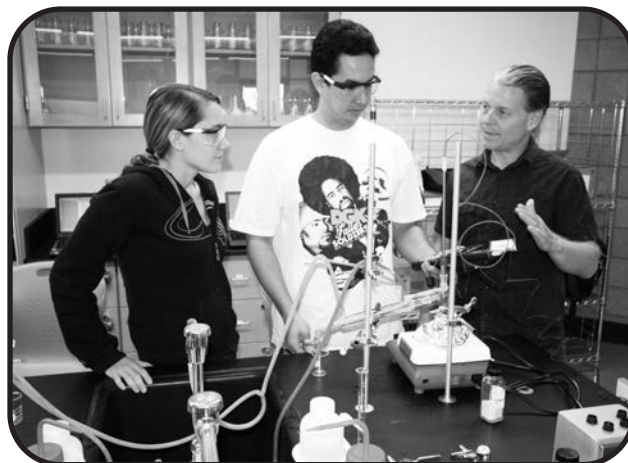
The **Associate in Arts (AA)** or the **Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree 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.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Astronomer
- Biologist
- College Teacher
- Elementary Teacher
- Secondary Teacher
- Scientific Researcher
- Lab Technician
- Field Writer
- Scientific Writer
- Chemist
- Environmentalist
- Physicist
- Geographer
- Geologist
- Engineer
- And many more!

**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.edu](http://www.CSUMentor.edu) – 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/)

# GENERAL SCIENCE

## ASSOCIATE DEGREE PROGRAM

### GENERAL SCIENCE MAJOR – A.S. DEGREE

Eighteen (18.0) units minimum required for this major.

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

#### I. Required for the major (18.0 units)

##### AREA I – Select one (1) course from the following:

|      |     |   |     |
|------|-----|---|-----|
| ANTH | 100 | Physical Anthropology                             | 3.0 |
| BIOL | 100 | Principles of Biological Science                  | 4.0 |
| BIOL | 120 | General Zoology I                                 | 4.0 |
| BIOL | 122 | General Zoology II                                | 4.0 |
| BIOL | 140 | General Botany                                    | 3.0 |
| BIOL | 150 | Human Genetics                                    | 3.0 |
| BIOL | 180 | General Biology: Molecules, Cells, and Genetics   | 4.0 |
| BIOL | 182 | General Biology: Principles of Organismal Biology | 4.0 |

##### AREA II – Select one (1) course from the following:

|            |     |   |     |
|------------|-----|---|-----|
| ASTR       | 100 | Principles of Astronomy                         | 3.0 |
| CHEM       | 100 | Introduction to Chemistry                       | 4.0 |
| CHEM       | 160 | Introduction to General, Organic & Biochemistry | 5.0 |
| ENVS/AG110 |     | Environmental Science                           | 3.0 |
| GEOG       | 100 | Physical Geography                              | 3.0 |
| GEOL       | 100 | General Geology                                 | 4.0 |
| GEOL       | 110 | Earth and Space Science                         | 3.0 |
| GEOL       | 130 | Climate and Weather                             | 3.0 |
| PHSC       | 110 | Physical Science                                | 3.0 |

##### AREA III – Select remaining courses from the following to reach eighteen (18.0) units:

|      |     |   |     |
|------|-----|---|-----|
| BIOL | 200 | Human Anatomy & Physiology I                        | 4.0 |
| BIOL | 202 | Human Anatomy & Physiology II                       | 4.0 |
| BIOL | 204 | Human Anatomy                                       | 4.0 |
| BIOL | 206 | Human Physiology                                    | 4.0 |
| BIOL | 220 | General Microbiology                                | 5.0 |
| CHEM | 200 | General Inorganic Chemistry I                       | 5.0 |
| CHEM | 202 | General Inorganic Chemistry II                      | 5.0 |
| CHEM | 204 | Organic Chemistry I                                 | 5.0 |
| CHEM | 206 | Organic Chemistry II                                | 5.0 |
| CS   | 221 | Introduction to Object Oriented Programming in Java | 3.0 |
| MATH | 190 | Pre-Calculus  | 5.0 |
| MATH | 192 | Analytic Geometry and Calculus I                    | 4.0 |
| MATH | 194 | Analytic Geometry and Calculus II                   | 4.0 |
| MATH | 210 | Multivariable Calculus                              | 4.0 |
| PHYS | 200 | General Physics I                                   | 4.0 |
| PHYS | 202 | General Physics II                                  | 4.0 |
| PHYS | 204 | General Physics III                                 | 4.0 |

**Total Major Units**

**18.0**