

# Physical Sciences Degree

## ASSOCIATE IN SCIENCE DEGREE: PHYSICAL SCIENCES

The Physical Sciences degree is designed for students who wish to have a broad foundation in the physical sciences and mathematics that is ideal for building a more advanced understanding of a particular field of science or engineering, and to gain experience in multiple science courses and build math skills. Consequently, this degree can be a good option for students planning to transfer to a four-year university with a major in Biology, Chemistry, Computer Science, Engineering, Math, or Physics, providing the knowledge and skills to make academic success possible in these fields. It provides the flexibility for students to satisfy both the appropriate level of general education and the lower division major requirements for specific universities, while still meeting associate degree requirements. For more detailed information on transfer requirements, students should speak with a counselor to ensure courses are transferable and refer to ASSIST.org.

To complete the requirements for the Associate in Science for this major, a student must complete:

1. One of the following General Education patterns:

- College of Marin GE (minimum 20 units), or
- CSU GE (30-39 units), or
- IGETC (60 units), or
- The following pattern (minimum of 21 units ) that is recommended for most science and engineering students pursuing this degree:
  - two transferable college courses (four semester units each) in English composition - English 150 and 151 or 155; and
  - one transferable college course (three semester units) in mathematical concepts and quantitative reasoning (see course list for IGETC Area 2); and
  - four transferable college courses (three semester units each) chosen from the following three subject areas (at least one course from each): the arts and humanities (see course list for IGETC Area 3, Group A or B), the social and behavioral sciences (see course list for IGETC Area 4), and the physical and biological sciences (see course list for IGETC Area 5, Group A or B).

**Important: For students using the CSU GE or IGETC options, students must meet the following College of Marin Graduation Requirements:**

- Math proficiency
- Grade point average
- Total units
- Residency
- Cross-cultural studies

**These students are exempt from completing the following College of Marin General Education requirements:**

- Physical Activity
- American Institutions

2. A minimum of 18 units that include at least three different disciplines from those courses outlined below. Each course used to meet this requirement must be completed with a grade of C or higher, Pass or Credit. Note that courses used to satisfy this 18-unit major requirement may NOT also be used to satisfy the GE requirements above.

Biology 112ABC

Chemistry 131, 132, 231, 232

Computer Science 117\*, 130, 135, 150\*, 160, 220, 232, 235

Engineering 110 or 110AB, 125, 150\*, 220, 235, 245

Math 116, 117\*, 123, 124, 223, 224

Physics 108A, 108AC, 108B, 108BC, 207A, 207B, 207C

*\*For courses cross-listed in more than one discipline, only one discipline may be counted toward degree.  
(Example: students may count either COMP 117 or MATH 117, but not both, toward a degree.)*

**Program Learning Outcomes**

- Solve problems by applying mathematical and scientific theories, concepts, and methods.
- Critically analyze, interpret, and evaluate data to draw valid scientific conclusions.
- Communicate analytical reasoning and conclusions in a clear and articulate manner.