

# PHYSICAL SCIENCE

## PROGRAM DESCRIPTION:

Physical Science is the study of the natural sciences encompassing non-living systems although aspects of living systems are also studied. Scientific issues are presented and discussed in the physical science courses enabling a deeper understanding of societal issues that require thoughtful decisions and interaction. Physical Science courses enrich the general education program and fundamentally support further education to prepare for scientific, technological, and engineering careers.

**Physical Science AS General Path:** This selection of courses will assist transfer students intending to pursue a career as a secondary science teacher and/or intending to earn a bachelor's degree in a physical science. For non-transfer students, this area of emphasis will assist in the preparation for employment at the level of technician.

**Physical Science AS Earth Science Path:** Earth Science is the application of many sciences to the understanding of the Earth. While it is often used as a synonym for geology, traditionally Earth Science encompasses a wider range of scientific inquiry including oceanography, meteorology, planetology, and soil sciences. Today's Earth Science has expanded to include environmental studies as applied to the physical world. This pathway is intended to assist those who wish to teach Earth Science in elementary or secondary schools, those interested in understanding environmental issues, or those who desire an understanding of the Earth.

**Physical Science AS Geology Path:** This is a two-year program leading to an Associate in Science Degree. Students following this program will be prepared to pursue a job as a technician and/or an advanced degree in Earth Science, Environmental Science, or any related science. Note: For students planning to pursue a bachelor's degree in a specific geological field (e.g. Geology, Geophysics, Geobiology), the Geology for Transfer AS-T pathway is highly recommended.

## CAREER AT A GLANCE:

### HOW DO I KNOW IF THIS MAJOR IS FOR ME?

- You enjoy conducting research and analyzing results
- You like to study the physical sciences
- You pay close attention to details
- You have strong critical thinking and analytical skills
- You enjoy preparing and operating testing equipment
- You enjoy collecting and analyzing samples
- You have strong written communication and organization skills
- You enjoy creating charts, presentations, and reports to describe test results

*Use Focus2Career on your MyChaffey portal to learn more about careers and majors that fit you best.*

### WHERE CAN I WORK?

Aerospace Companies	Biotechnology Companies
Beaches, Forests, Parks	Schools & Colleges
Manufacturing	Federal/State Government
Technical Consulting Services	Pharmaceutical and Medicine Manufacturing
Scientific Research and Development Services	

*For more information visit: [www.labormarketinfo.edd.ca.gov/OccGuides](http://www.labormarketinfo.edd.ca.gov/OccGuides)*

### HOW DO I GET STARTED?

- Start taking introductory physical science and mathematics courses
- Volunteer in labs and on research projects
- Practice interpersonal communication skills
- Job shadow and network with professionals in positions you wish to obtain in the future
- Update resume to include research projects and classroom experiences

### WHAT CAN I DO WITH THIS ASSOCIATE DEGREE?

Position Title	CA Median Salary
Agricultural Technician	\$41,940
Chemical Technician	\$43,370
Food Science Technician	\$41,940
Nuclear Technician	\$91,010
Research Technician	\$41,940
Laboratory Technician	\$41,940

### WHAT CAN I DO WITH HIGHER EDUCATION AND ADDITIONAL TRAINING?

Position Title	CA Median Salary
Agricultural Engineers	\$75,310
Astronomer	\$90,050
Chemist	\$79,520
Clinical Research Coordinator	\$138,190
Conservation Scientist	\$73,700
Environmental Scientist	\$81,680
Forensic Science Technician	\$78,960
Geoscientist	\$90,200
Hydrologist	\$101,230
Laboratory Manager	\$138,190
Materials Scientist	\$94,970
Clinical Laboratory Technologist	\$55,000
Meteorologist	\$95,570
Physicist	\$112,950
Secondary School Teacher	\$77,980
Research Development Director	\$138,190
Water Resource Specialist	\$138,190

*For more information about careers, education and training requirements, salary data, and job outlooks visit [www.onetonline.org](http://www.onetonline.org).*

**MAJOR AND COURSE REQUIREMENTS:**

**LEGEND:** G=Grade    IP=In Progress    N=Need    **Bold: Prerequisites**    Plain Text: No Prerequisites

**A.) General Education**

Choose Chaffey College's General Education, California State University General Education (CSUGE), or Intersegmental General Education Transfer Curriculum (IGETC) for the general education pattern related to your goal. Students who intend to transfer should complete the CSUGE or IGETC sheet. Consult with a counselor to determine which general education pattern is the best choice for the college/university you plan to attend.

**B.) Area of Emphasis**

Eighteen units selected from at least three of the listed subject areas. No more than eight units from any single subject area may be counted toward the major. A minimum of two courses with an associated laboratory in addition to the laboratory required for the general education requirements in the Natural Science category. A minimum of **MATH 31** is required.

**C.) Electives**

Elective units may be necessary to reach the total of 60 overall units required for the Associate Degree. If you are planning to transfer, elective units must be transferable to CSU and/or UC.

**Major Requirements for the Associate in Science Degree:**

**Transfer (CSUGE)—S351A or (IGETC)—S351B**

**Non-transfer (Chaffey GE)—S352**

**Area of Emphasis:**

ASTRON 26, 35				
<b>CHEM 24A, 24B, 70, 76A, 76B</b>				
COMPSCI 1, 4				
ESC 1, 1L, 5, 5L				
<b>ENGIN 11, 26, 30, 50, 60, 71</b>				
GEOG 4, 5				
GEOL 1, 2				
<b>MATH 31, 61, 65A, 65B, 75, 81, 85</b>				
<b>PHYS 20A or 30A, 20B or 30B, 44, 45, 46, 47</b>				
STAT 10				
	<b>GRADE</b>	<b>IP</b>	<b>NEED</b>	<b>UNITS</b>

Student Name: \_\_\_\_\_

ID#: \_\_\_\_\_

Date: \_\_\_\_\_

Counselor: \_\_\_\_\_

<b>COUNSELOR NOTES:</b>

\$46 per unit for CA Residents
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**NOTE:** Courses included in the area of emphasis cannot be used to fulfill General Education requirements.

In addition to completion of the MAJOR, there are other requirements for the degree, refer to the Chaffey College Graduation Requirement Sheet or see a counselor in the Counseling Center.  
 All courses required for a certificate must be completed with a minimum grade of C.