California State University, Stanislaus

[Archived Catalog]

Department of Physics, Physical Sciences, and Geology

This department has two independent academic programs. The main contact person is listed below for each academic program.

Geology	Horacio Ferriz, Ph.D., Department Chair
Physics and Physical Sciences	Liangmin Zhang, Ph.D., Program Coordinator

Office: Naraghi Hall of Science - N163
Phone: (209) 667-3466

Geology

Horacio Ferriz, *Department Chair*

Professors: Ferriz H., Giaramita M., Sankey J., Rogers R.

Office: Naraghi Hall of Science - N163
Phone: (209) 667-3466

Programs

Bachelor of Science in Geology with a concentration in Applied Geology
Minor in Geology
Liberal Studies degree concentration in Earth Sciences

Teaching Credentials

Students interested in a single subject teaching credential in the sciences must consult with their adviser about the subject matter competency requirements.

Physics and Physical Sciences

Liangmin Zhang, Ph.D., *Program Coordinator*

Professors: Mokhtari S., Zhang, R.
Associate Professor: Zhang, L.
Assistant Professor: Morsony, B., To, W.

Programs

Bachelor of Arts and Bachelor of Science in Physics
Bachelor of Arts in Physical Sciences with concentrations in Applied Physics, Earth and Space Sciences, or Environmental Sciences
Minor in Microelectronics
Minor in Physics
Minor in Physical Sciences
Liberal Studies degree concentration in Physics and Physical Sciences

Program Learning Outcomes

Physics and Physical Sciences

Physics and Physical Sciences majors will be able to:

1. Our graduates will master material in advanced courses, which presuppose understanding of physics at a more fundamental level.
2. Our graduates will think critically when analyzing problems in physics, including appropriate use of advanced mathematical tools.
3. Our graduates will demonstrate the ability to work effectively in a laboratory environment, including the use of advanced technologies.
4. Our graduates will be satisfied with the overall quality of their physics education.
5. Our graduates will have a strong command of the nature of oral and written communication and of intra-group interactions in the traditions of physics.
6. Our graduates will have the skills necessary to pursue a career in physics or a related field, or to enter a graduate program.

Geology

Geology majors will be able to:

1. Demonstrate literacy in Earth's processes.
2. Demonstrate understanding of geologic time, evolution/extinction, and Earth's global processes (e.g., plate tectonics; climate change; interrelationships between the hydrosphere and the atmosphere).
3. Propose workable solutions to societal problems related to resource exploration and development, construction with the Earth, and environmental issues related to Earth processes.
4. Collect and interpret scientific data related to earth and paleobiological processes.
5. Apply concepts/techniques of chemistry, physics, biology, math, and computer science to solve geologic and paleobiological problems.
6. Formulate and test multiple hypotheses based on the scientific method.
