College of Natural Sciences

Kirsty Fleming, Dean
Peter Williams, Associate Dean

Biological Sciences Building, Room 107
(909) 537-5300 College of Natural Sciences website (http://nsci.csusb.edu)

The university offers courses of an interdisciplinary nature but no degree program under the natural sciences designation.

Departments/Schools

- Biology (http://biology.csusb.edu)
- Chemistry and Biochemistry (http://chem.csusb.edu)
- Computer Science and Engineering (http://cse.csusb.edu)
- Geological Sciences (http://geology.csusb.edu)
- Health Science and Human Ecology (http://health.csusb.edu)
- Kinesiology (http://kine.csusb.edu)
- Mathematics (http://www.math.csusb.edu)
- Nursing (http://nursing.csusb.edu)
- Physics (http://physics.csusb.edu)

Courses

**NSCI 295A. Special Projects in Natural Science. 1 Unit.**
Prerequisites: consent of instructor
Individual investigation, research, study or survey of selected problems.

**NSCI 295B. Special Projects in Natural Science. 2 Units.**
Prerequisites: consent of instructor
Individual investigation, research, study or survey of selected problems.

**NSCI 296A. Special Projects in Natural Science. 1 Unit.**
Prerequisites: consent of instructor
Individual investigation, research, study or survey of selected laboratory problems.

**NSCI 296B. Special Projects in Natural Science. 2 Units.**
Prerequisites: consent of instructor
Individual investigation, research, study or survey of selected laboratory problems.

**NSCI 300. Science and Technology. 4 Units.**
Prerequisites: junior or senior standing (GE=B5)
Relationship between science and technology—past, present and future—with case studies of the energy crisis, the technology of pollution control and recycling, automation, computers, technology assessment and other contemporary issues.

**NSCI 301. Introduction to STEM and STEM Research. 2 Units.**
Prerequisites: permission of the instructor
Introduction to resources for upper division transfer students, including the library, financial aid, Office of Student Research, and the Career Center. Presents expectations for and tools to help achieve success for students, including active/collaborative learning, reflective learning, and how to pursue undergraduate research and internships. Graded Credit/No credit.

**NSCI 306. Expository Writing for the Natural Sciences. 4 Units.**
Prerequisites: satisfaction of the GE written communication (A1) requirement and a minimum of 90 quarter (60 semester) units of college credit (GE=F1)
Writing on topics related to the natural sciences, including documented research reports, summaries and analytical papers. Revision and rewriting will be required. Course fulfills the graduation requirement in writing proficiency. No more than one of the expository writing courses (EDUC 306, ENG 306, HUM 306, MGMT 306, NSCI 306, SSCI 306) may be taken for credit. Students who have received a grade of no credit in any combination of the expository writing courses two or more times must meet with the 306 coordinator or designee to design a developmental writing plan as a condition for enrolling for a third quarter. All students must obtain junior status at the time of registration or their course request will be cancelled. Formerly NSCI 495. Graded A, B, C/no credit.

**NSCI 310. The Environment and Human Survival. 4 Units.**
Prerequisites: junior or senior standing (GE=B5)
Consideration of the environment and environmental problems generated by the interactive effects of our biological heritage, the impact of science and technology, and our cultural attitudes.

**NSCI 314. Life in the Cosmos. 4 Units.**
Prerequisites: junior or senior standing (GE=B5)
Life in the cosmos is discussed using the findings of astronomy, biology, chemistry and physics. Topics include the development of life and its environment, the search for life, interstellar communications and travel and the effects of contact.

**NSCI 315. Natural Disasters. 4 Units.**
Prerequisites: junior or senior standing (GE=B5)
A consideration of natural processes such as volcanic eruptions, earthquakes, global sea level rise, slope failures, floods, wildland fires, meteoric impacts and severe forms of weather, that have had or may have disastrous consequences on both humans and the environment.

**NSCI 320. Energy. 4 Units.**
Prerequisites: junior or senior standing (GE=B5)
Present and future energy sources, including fossil fuels, hydroelectric power, nuclear energy and solar energy. Scientific principles and technological requirements for developing energy sources, economic factors and environmental problems associated with energy production and consumption.
NSCI 325. Perspectives on Gender. 4 Units.
Prerequisites: junior or senior standing (GE=B5, G1)
This interdisciplinary course uses scientific, humanistic, and social science perspectives to foster an understanding of how gender roles in Western culture are established, maintained and changed. (Also offered as HUM 325 and SSCI 325. Students may receive credit for only one of these courses.)

NSCI 351. Health and Human Ecology. 4 Units.
Prerequisites: junior or senior standing (GE=B5)
A survey of the impact of physical, social and biological environments on health related issues such as poor housing, drug abuse, juvenile delinquency, radiation and pesticide exposure, food quality, noise, air and water resources and their relation to human settlements.

NSCI 360. Legacy of Life. 4 Units.
Prerequisites: junior or senior standing (GE=B5)
History of life on earth and the processes that govern its genesis, evolution, extinction, ecology, and preservation.

NSCI 368. MARC Seminar I. 2 Units.
A selected examination of original research articles in behavioral and biomedical sciences. Students will learn to critically read, critique, and present published scientific findings. Offered as NSCI 368, PSYC 368, and SSCI 368 (students may receive credit for only one of these courses). Enrollment is limited to students whose formal application to the Minority Access to Research Careers (MARC) program is approved.

NSCI 395A. Directed Study. 1 Unit.
Prerequisites: consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken
Reading and library research in one of the natural sciences disciplines conducted under the direction of a faculty member.

NSCI 395B. Directed Study. 2 Units.
Prerequisites: consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken
Reading and library research in one of the natural sciences disciplines conducted under the direction of a faculty member.

NSCI 395C. Directed Study. 3 Units.
Prerequisites: consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken
Reading and library research in one of the natural sciences disciplines conducted under the direction of a faculty member.

NSCI 395D. Directed Study. 4 Units.
Prerequisites: consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken
Reading and library research in one of the natural sciences disciplines conducted under the direction of a faculty member.

NSCI 468. MARC Seminar II. 2 Units.
Prerequisites: NSCI 368, PSYC 368 or SSCI 368
A selected examination of original research articles in behavioral and biomedical sciences focusing on improving scientific writing skills, shaping long-term research projects, and the development of research funding proposals. Offered as NSCI 468, PSYC 368, and SSCI 468 (students may receive credit for only one of these courses). Enrollment is limited to students whose formal application to the Minority Access to Research Careers (MARC) program is approved.

NSCI 595A. Independent Study. 1 Unit.
Prerequisites: a minimum overall grade point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken
Research in special topics including library studies, field and/or laboratory work in one of the natural sciences disciplines under the direction of a faculty member. A maximum of five units in NSCI 595 may be applied toward graduation.

NSCI 595B. Independent Study. 2 Units.
Prerequisites: a minimum overall grade point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken
Research in special topics including library studies, field and/or laboratory work in one of the natural sciences disciplines under the direction of a faculty member. A maximum of five units in NSCI 595 may be applied toward graduation.

NSCI 595C. Independent Study. 3 Units.
Prerequisites: a minimum overall grade point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken
Research in special topics including library studies, field and/or laboratory work in one of the natural sciences disciplines under the direction of a faculty member. A maximum of five units in NSCI 595 may be applied toward graduation.

NSCI 595D. Independent Study. 4 Units.
Prerequisites: a minimum overall grade point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken
Research in special topics including library studies, field and/or laboratory work in one of the natural sciences disciplines under the direction of a faculty member. A maximum of five units in NSCI 595 may be applied toward graduation.

NSCI 604. The Nature and History of Science. 4 Units.
Brief survey of the development of science from myth through Greek thought to selected topics in contemporary sciences.

NSCI 695A. Directed Graduate Studies. 1 Unit.
Graduate-level independent study for students in Interdisciplinary Master of Arts programs; to be conducted under direct supervision of a faculty member from the students committee and, if an interdisciplinary studies major, with approval of the committee on graduate education and consent of Dean of Graduate Studies.
NSCI 695B. Directed Graduate Studies. 2 Units.
Graduate-level independent study for students in Interdisciplinary Master of Arts programs; to be conducted under direct supervision of a faculty member from the students committee and, if an interdisciplinary studies major, with approval of the committee on graduate education and consent of Dean of Graduate Studies.

NSCI 695C. Directed Graduate Studies. 3 Units.
Graduate-level independent study for students in Interdisciplinary Master of Arts programs; to be conducted under direct supervision of a faculty member from the students committee and, if an interdisciplinary studies major, with approval of the committee on graduate education and consent of Dean of Graduate Studies.

NSCI 695D. Directed Graduate Studies. 4 Units.
Graduate-level independent study for students in Interdisciplinary Master of Arts programs; to be conducted under direct supervision of a faculty member from the students committee and, if an interdisciplinary studies major, with approval of the committee on graduate education and consent of Dean of Graduate Studies.

NSCI 695E. Directed Graduate Studies. 5 Units.
Graduate-level independent study for students in Interdisciplinary Master of Arts programs; to be conducted under direct supervision of a faculty member from the students committee and, if an interdisciplinary studies major, with approval of the committee on graduate education and consent of Dean of Graduate Studies.

NSCI 695F. Directed Graduate Studies. 6 Units.
Graduate-level independent study for students in Interdisciplinary Master of Arts programs; to be conducted under direct supervision of a faculty member from the students committee and, if an interdisciplinary studies major, with approval of the committee on graduate education and consent of Dean of Graduate Studies.