ENVIRONMENTAL SCIENCE (ENVS)

ENVS 022: Introduction to Environmental Science (3 Credits)
A survey course focused on a scientific understanding of the environment as well as people’s impact upon the natural world. Emphasis on critical evaluation of environmental issues based on scientific principles. Topics include biodiversity, global warming, the ozone layer, water pollution, and alternative energy.
Meets the following Core requirements: Scientific Inquiry
Meets the following Gen Ed requirements: Natural Sciences

ENVS 050: Environmental Geology (4 Credits)
An introduction to the composition, structure, and evolution of the earth. Relations of geologic systems, interactions, hazards, and resources to the environment.
Note(s): 1 year of high school science is recommended for this course.
Meets the following Core requirements: Scientific Inquiry
Meets the following Gen Ed requirements: Natural Sciences

ENVS 071: Campus Farm Practicum (1 Credits)
The Mills College campus farm is a living laboratory supporting the college and the surrounding community. Students engaged in the practicum will assist the farm manager in seasonally appropriate farm tasks and pursue related reading, writing, and research exercises to enhance their practical and theoretical knowledge of urban gardening, permaculture, and sustainable food production.

ENVS 105: Oceanography (3 Credits)
An overview of chemical, physical, geological, and biological aspects of oceanography. Topics will include continental margin and deep ocean basin formation, sedimentation, seawater chemistry, ocean circulation, coastal processes, oceanic primary productivity, marine pollution, and paleoceanography.
Prerequisite(s): CHEM 018

ENVS 107: Climate Change (3 Credits)
An exploration of the major reservoirs, fluxes, and processes controlling the distribution of biologically and geologically active chemical constituents of the Earth. Focuses on the global carbon cycle and its importance to Earth’s changing climate in the past, present, and future. Simple box modeling methods will be employed as a tool for understanding the carbon cycle.
Prerequisite(s): CHEM 017 or ENVS 050 or CHEM 004
Meets the following Core requirements: Scientific Inquiry

ENVS 115: Geochemistry (4-4 Credits)
Geochemistry is the application of chemical principles such as thermodynamics and kinetics to geologic processes that control the composition of water, rocks, and soil. Topics include mineral solubility, carbonate chemistry, weathering, adsorption and ion exchange, redox reactions, and the geochemistry of various elements, with special emphasis on aqueous and marine environments. Students learn field collection techniques, laboratory sample analysis, and methods of presenting geochemical data.
Prerequisite(s): CHEM 017 and ENVS 050

ENVS 179: Directed Research (1-3 Credits)

ENVS 180: Special Topics in Environmental Science (3-3 Credits)
Topics in environmental science not offered in the regular curriculum.
Instructor Consent Required: Yes

ENVS 183: Advanced Seminar in Environmental Studies (3-3 Credits)
In-depth examination of and critical inquiry into a specific subject through shared readings, discussion, and written assignments. Course content to be determined by the instructor. May be repeated for credit when topics differ.