ENVIRONMENTAL SCIENCE

Directors, *Professors F. Russell Cole (Environmental Studies) and Whitney King (Chemistry)*

The Environmental Studies Program and Department of Chemistry offer major programs in environmental science. Each program is intended to prepare students for roles as educated citizens in a world confronted with complex environmental problems as well as for positions in firms or government agencies dealing with these problems or for graduate work in related areas. The two environmental science majors, each with a different emphasis and background, stress the scientific foundation that underlies environmental disciplines. In addition to offering an environmental science major, the Environmental Studies Program offers majors in environmental policy and environmental computation and a minor, which may be elected by majors from any department or program (see "Environmental Studies Program").

Environmental Science

The interdisciplinary environmental science major provides an introduction to national and global environmental issues and the opportunity to focus on conservation biology, marine science, applied ecology, environment and human health, environmental chemistry, or environmental geology. A foundation course in environmental studies is complemented by core courses in environmental economics, biology, ecology, chemistry or physics, geology, and mathematics. Environmental science majors also complete two courses that fulfill the humans-and-the-environment requirement. The senior capstone seminar provides a hands-on approach to environmental studies research. Students complete a capstone course or independent study related to their focus area.

Chemistry/Environmental Science

Students electing this major complete all the courses required for the chemistry major. In addition, two courses are required in biology or geology, and two more in economics. Chemistry 217 (Environmental Chemistry)—which discusses the application of chemical principles to such topics as fates and toxicity of heavy metals and organic pollutants in soils and natural water systems, corrosion, complexation, and analytical techniques—is required, as is an independent study in the senior year.

Each of these environmental science majors emphasizes the scientific foundation that must underlie environmental planning and decision making. Specific requirements for each major are listed in the departmental sections of this catalogue. Colby places considerable emphasis on integrating student research into the curriculum. In addition to research opportunities in courses, independent projects, and honors projects, a limited number of research assistantships are available each summer and during the academic year that enable students to work with faculty on specific environmental research projects. Students also are encouraged to complement their work on campus with January Programs, internships, and other off-campus educational opportunities, including affiliated programs offered by the School for Field Studies, Bigelow Laboratory for Ocean Sciences, and the Ecosystem Center of the Marine Biological Laboratory in Woods Hole, Massachusetts.