

CLIMATE CHANGE STUDIES (CCS)

CCS 102 - Intro to Energy Systems II. 3 Credits.

Offered spring. Same as NRG 102. Prereq., NRG 101 or consent of instructor. A survey of renewable energy systems and technologies. Addresses physical and technical aspects of wind, solar, geothermal, hydro, tidal, biological, and wave energy systems. Consideration is given to engineering, economic, social, environmental, and political factors that determine implementation and sustainability.

CCS 103X - Intro Climate Change:Sci & Soc. 3 Credits.

Offered autumn. This is an introductory and foundational course on the scientific and social dimensions of global climate change. The goal of this course is to provide students with a basic understanding of the fundamental scientific, social, political and technological issues arising from rapid climatic change. As a result, it provides students with a breadth of knowledge and builds connectedness across these varied dimensions of the complex global issue.

Gen Ed Attributes: Cultural Intl Diversity (X)

CCS 108N - Climate Change. 3 Credits.

Offered autumn. Same as GEO 108N. The geoscience perspective on the earth's climate system. Climate processes and feedbacks, climate history from early earth to the ice ages, present and future changes due to natural processes and human activities.

Gen Ed Attributes: Natural Science Course (N)

CCS 160S - Issues in Sustainability. 3 Credits.

Offered every term. Same as BGEN 160S. This literature-intensive course is intended to expose the student to a variety of essays addressing the balance of economic development with the principles of sustainability and social equity. The student is offered an introduction to sustainability concepts, natural systems/cycles and environmental economics. Natural capitalism and triple bottom line maximization is explored, along with the role of corporations and small businesses in sustainable development. A survey of issues surrounding corporate social responsibility and sustainability-driven innovation will be conducted.

Gen Ed Attributes: Social Sciences Course (S)

CCS 191 - Energy Practicum. 2 Credits.

Offered intermittently. Same as NRG 191. Prereq., EET 111 or consent of instructor. A practicum that provides students with a supervised field experience. Students gain hands-on experience with energy specific technologies.

CCS 295 - Special Topics. 1-9 Credits.

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

CCS 298 - Internship. 2 Credits.

Offered every term. Consent of instructor required. Same as NRG 298. Extended classroom experience providing practical application of classroom learning through on the job training in a student's field of study. This experience increases student skills, prepares them for initial employment, and increases occupational awareness and professionalism.

CCS 303N - Weather and Climate. 3 Credits.

Offered autumn. Same as EARTH 303N. Origin, composition, structure, and dynamics of the atmosphere, gas and radiation laws, energy budget and balance, weather elements, North American weather systems, and climate change. To succeed in this course students should have comfort with basic algebra.

Gen Ed Attributes: Natural Science Course (N)

CCS 349 - Comm, Consump & Climate. 3 Credits.

Offered every other year. Same as COMX 349. Not open to PCOM majors. Analyzes consumption as a communication practice, investigates discourses that promote consumption, and illuminates environmental impacts on consumption.

CCS 352 - Climate Field Studies. 3 Credits.

Offered summer. This is an interdisciplinary field course focused on climate change impacts and adaptation. Through site visits and meetings with key decision-makers, students gain knowledge of projected impacts due to climate change (water availability, wildfire, beetle kill, biodiversity), the impacts to various sectors of human society (land management, food and water security, economic stability, and livelihoods), and different mitigation and adaptation responses.

CCS 391 - Climate Change Practicum. 2-4 Credits.

Offered autumn and spring. Prereq., consent of instructor. Provides an opportunity for students to design and implement a capstone project involving creative solutions to climate change.

CCS 395 - Special Topics. 1-9 Credits.

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

CCS 398 - Clmt Change Internship/SERV. 2-4 Credits.

(R-6) Offered autumn and spring. This course gives students an opportunity to gain hands-on, "real world" experience working with a local, regional, national or international group to address climate change. Students gain supervised, practical work experience with specific projects and organizations; create a network of professional contacts; and have opportunity to apply ideas and approaches studied in the Climate Change Studies minor.

CCS 408 - Global Biogenchem Cycles. 3 Credits.

Offered spring even numbered years. Same as NRSM 408. Exploration of how variations in the availability or utilization of critical Earth elements influences the atmosphere, the oceans, and the terrestrial biosphere including the natural and agricultural ecosystems on which we depend.

CCS 421 - Sustainable Cities. 3 Credits.

Offered spring even-numbered years. Prereq., upper-division or graduate standing. Same as GPHY 421. A discussion of sustainability efforts in cities around the world. Topics include, for example, urban sprawl and smart growth, alternative energy, public transportation, integrated waste management, integrated water management, green architecture, and urban agriculture.

CCS 445 - Int Env Econ & Clim Change. 3 Credits.

Offered autumn every other year. Same as ECNS 445. Prereq., ECNS 201S. An introduction to the economics of various policy approaches towards climate change and other international environmental issues such as trans-boundary pollution problems, international trade and the environment and pollution haven hypothesis.

CCS 449E - Climate Change Ethics/Policy. 3 Credits.

Offered Fall. Same as NRSM 449. This course focuses on the ethical dimensions of climate change policy. It covers the following major topics: (1) climate change, personal and collective responsibilities, (2) ethics, climate change and scientific uncertainty, (3) distributive justice and international climate change negotiations, (4) intergenerational justice and climate change policy.

CCS 476 - Environmental Citizenship. 3 Credits.

Offered spring. Prereq., open to juniors and seniors only or by consent of instructor. Same as ENST 476. Develops leadership and environmental citizenship skills, values and virtues through student-initiated projects informed by principles of organizing and sustainable behavior change theories of social marketing.

CCS 494 - Climate Change Study Seminar. 1-4 Credits.

Offered intermittently. A seminar on a current climate change topic.

CCS 495 - Special Topics. 1-9 Credits.