Suggested - Course List

The following list of UBC courses cover subjects related to global change science and science communication. This is a list of courses; a guide from which students and supervisory committees may review and select "communication" and integration of natural/social sciences courses. Terms offered and course websites (when available) are also listed.

Please note that graduate and undergrad level courses are listed here. Only 300-level courses and higher will count as graduate credit toward your degree. Consult with your supervisor before registering.

REQUIRED

CONS 503C.001 – TerreWEB Seminar Course (Required for TerreWEB scholars once during their degree program)

Discusses current themes and issues pertaining to global change science and innovative forms of communication in a seminar series. Provides training workshops on communication skills development including presentation skills, online and social media, storytelling and video production.

This is course will run both Winter Terms (Sept to April) and is cross-listed with SOIL 530B.001. Forestry grad students should use this CONS registration number.

SOIL 530B.001 – Cross-listed with CONS 503C.001. See above.

FORESTRY

FRST 532C.101 – Complex Adaptive Systems: Global Change Science and Ecological Sustainability

This course is recommended for TerreWEB graduate students. The goals of the course are to provide:

1. A theoretical understanding of complex adaptive systems,
2. A review of case studies of complex adaptive systems, with particular emphasis on natural terrestrial ecosystems,
3. The basis for managing ecosystems and global change from a complex adaptive systems perspective. (Term 1)
**FRST 520** – Land and Forest Resource Economics

Applications of advanced theory and quantitative analysis to problems in forest resource and land economics; multiple land use; institutions for sustainable land use; optimal management and policy. Cross listed as **AGEC 520**. (Term 2)

Consult instructor Dr. Sumeet Gulati for course pre-requisites. Upper level Economics background essential. Permission of instructor required for students not in MFRE, or Forestry.

**FRST 524** – Environmental Perception

Perceptual processes mediating behaviour in humans, with special attention given to the emotional processing of visual stimuli. (Term 2)

**FRST 527** – People and Forests: An International Perspective

Biodiversity loss, deforestation, desertification, salinization, air pollution and climate change facing world forests. Credit will be granted for only one of FRST 439 or FRST 527. (Term 2)

**FRST 529** – Ecological Economics

Emphasis on forested ecosystems. (Term 2) Please contact the instructor directly to confirm if this course will be offered.

**FRST 544** – Technical Communication Skills I

Principles and practice of oral presentations. (Term 1 or 2)

**FRST 545** - Technical Communication Skills II (2 credits)

Theory and practice of technical communication necessary for preparation of effective scientific reports, reviews, grant proposals, journal articles and theses. (Term 2)

**FRST 546** – Research Methods and Philosophies in Science

Lectures and seminars in research philosophies and methods with special emphasis on field and applied research. (Term 2)

**FRST 551** – Landscape Planning for Sustainability

Analysis, perception, planning of landscapes, and integration of social acceptability with sustainability. Credit will be granted for only one of FRST 490 or FRST 551. (Term 2)

**RESOURCE MANAGEMENT & ENVIRONMENTAL STUDIES**

**RMES 500N** - Ecology, Evolution, and Biodiversity in the Real World

This course will equip students to understand important and contentious social issues associated with ecology, evolution, and biodiversity (EEB), and to engage with these issues critically and effectively. As this course was designed for a Biodiversity Centre training grant (BRITE), BRITE students will get priority, but it is also open to students with little training in ecology and evolution. Credit will be granted for only one of RMES 500N or BIOL 548D.
**RMES 501 - Development of Environmental Thought**

History and philosophy of Western environmental thought; changes in concepts of human nature and external nature over time; critiques of modern industrial society. (Term 1)

**RMES 508 – Ecosystem Services**

RMES 508 will prepare researchers and future decision-makers to foster sustainable management of ecosystem-based activities, for the competing and complementary ends of sustaining and enhancing human well-being and protecting biodiversity. (Term 1)

**RMES 510 – Social Ecological Systems**

Dynamics of environmental issues across temporal and spatial scales using disciplinary and interdisciplinary approaches to integrating sociological, cultural, and ecological perspectives. (Term 1)

**RMES 542 – Integrated Assessment**

Basic skills for quantitative analysis including probability, validity of quantitative statements and experimental design to test hypothesis validity. (Term 1)

**RMES 550 – Environmental Policy Analysis**

Determination of risks and values in environmental policy decisions. (Term 2)

Equivalents: PLAN 599

**JOURNALISM**

**JRNL 539P – Directed Studies: Science, Environment and Health** (available to Master of Journalism students plus others with permission of program director)

**SOIL SCIENCE**

**SOIL 515 – Integrated Watershed Management** (Web-based course)

Methods of watershed evaluation, land-water interactions, key aspects of hydrology, water quality and aquatic biota, land use impacts on water resources, community involvement and integration of multiple land use activities and their cumulative impacts. Credit will be given for only one of SOIL 515 or RMES 515. (Term 2)

**OTHER FACULTIES (UNDERGRADUATE LEVEL)**

**APSC 364 201 - Applied Sustainability: UBC as a Living Laboratory**

The role and function of common infrastructures, and the impact of various technological solutions on people, the economy, and the environment. Lecture + Tutorial (Term 2, Nicholas Coops)
ASIC 200 Arts and Science Integrated Course (Terry Course)

Human society confronts a range of challenges that are global in scope. These changes threaten planetary and local ecosystems, the stability and sustainability of human societies, and the health and well being of human individuals and communities. The natural and human worlds are now interacting at the global level to an unprecedented degree. Responding to these global issues will be the greatest challenge facing human society in the 21st century. In this course students will explore selected global issues from the perspective of both the physical and life sciences and the social sciences and humanities. The fundamental philosophy of the course is that global issues cannot be fully understood or addressed without a functional literacy in both the Sciences and the Arts. In this course, students will develop the knowledge and the practical skills required to become engaged citizens in the local, national, and international civil society dialogue on global issues.

CONS 210 - Visualizing Climate Change

Exploration of different future scenarios that provide an overview of the science of climate change and potential solutions. (Term 2)

CONS 449C 102 - Directed Studies in Natural Resources Conservation

This course will examine social mobilization and advocacy in both theoretical and tangible contexts with regard to climate sustainability while drawing on examples of other social change movements. Community-based learning will be a focus of the class while also bringing in guest lecturers (both from UBC faculty and members of the broader community) to augment student learning. Students will gain an academic grounding in climate advocacy, share and develop ideas in a peer-to-peer setting, and foster change through tangible projects. (Term 1)

ISCI 433 – Ethical Issues in Science (Theoretical and practical consideration of ethics in the practice, reporting, public impact and accountability of science.) (Term 1) Contact program director for graduate student space.

LFS 400 Digital Communication and Topics in Agriculture (Risman & TLC)

Summarize, evaluate, and synthesize information pertaining to agricultural topics; distinguish between unbiased and biased reports; effectively communicate using digital media. (Term 2)

PHYS 343 - Physical Science by Inquiry

A guided sequence of hands-on science modules intended primarily for prospective elementary schoolteachers, to help them to work constructively in a science teaching role. Not for credit in the Faculties of Science and Applied Science. (Not for science students). (Term 2)

SCIE 120 Topics in Sustainability Science

Topics in sustainability, based on concepts introduced in first-year Science courses. (Term 2)
SCIE 300 - Communicating Science

Effective communication and presentation skills in science. Scientific communication and reporting. Students will evaluate scientific literature and present scientific issues to different audiences (public to peer) using a variety of presentation modes (technical writing, articles, posters, oral, online). Register for both a MWF sequence as well as for the appropriate common meeting time (GP1 or GP2).

This course is restricted to students in year: >=3 (Term 1 or 2)

SOCI 360B - Sociology and Natural Resources

Sociological perspectives on property, resource industries (such as agriculture, fishing, forestry and mining), resource development, and resource communities. May also include examination of social aspects of resource development in the Third World. Pre-reqs: SOCI 100. (Term 1 or 2)

SOCI 420A - Sociology of the Environment

Sociological approaches to the study of environmental conflicts, issues, movements, impact of changing technology, economic development on the environment. Pre-reqs: SOCI 100. (Term 2)