

Spring Quarter 2015 NW courses

Class times, locations, fees, and course descriptions may change. Check the time schedule for updates before enrolling in any course.

For more NW courses, see the Time Schedule search page at:
<http://www.washington.edu/students/timeschd/genedinq.html>.

Astronomy

<http://www.washington.edu/students/timeschd/SPR2015/astro.html>

ASTR 101 – Astronomy (5 credits)

MW 11:00 – 12:20

Quiz TTh, times vary

Instructor: Christopher Laws

\$10 course fee

Introduction to the universe, with emphasis on conceptual, as contrasted with mathematical, comprehension. Modern theories, observations; ideas concerning nature, evolution of galaxies; quasars, stars, black holes, planets, solar system. *Not open for credit to students who have taken 102 or 301; not open to upper-division students majoring in physical sciences or engineering.*
Also counts as QSR credit.

ASTR 150 – The Planets (5 credits)

TTh 10:30 – 11:50

Quiz MW, times vary

Instructor: Toby Smith

\$10 course fee

For liberal arts and beginning science students. Survey of the planets of the solar system, with emphases on recent space exploration of the planets and on the comparative evolution of the Earth and the other planets. **Also counts as QSR credit.**

ASTR 270 – Public Outreach in Astronomy (3 credits)

TTh 10:30-11:50

Instructor: Ana Larson

Prerequisite: one astronomy course at either the 100-, 200-, or 300-level.

Emphasis is on giving effective scientific presentations, developing and giving educational programs to school-age groups, and communicating your knowledge of astronomy to others. Give talks at the Jacobsen Observatory on campus and presentations in the Astronomy Department's planetarium. Learn to operate a telescope and the planetarium equipment.

ASTR/HSTCMP 313 – Science in Civilization: Physics and Astrophysics Since 1850 (5 credits)

MWF 10:30-11:50

Instructor: Bruce Hevly

Organization and pursuit of the physical and astrophysical sciences, focusing on the major unifying principles of physics and astronomy and the social and cultural settings in which they were created. **Offered jointly with History, HSTCMP 313.**

Atmospheric Sciences

<http://www.washington.edu/students/timeschd/SPR2015/atmos.html>

ATM S 103 – Hurricane Science (3 credits)

MWF 1:30 – 2:20

Instructor: Dale Durran

Explores the science, history, and impacts of thunderstorms and hurricanes. Includes basic processes responsible for thunderstorms and hurricanes and for the lightning, hail, high winds, and storm surges that accompany them. Presents significant historical examples, along with the impact on human activities, strategies for personal safety, and societal adaptation.

ATM S 111 – Global Warming (5 credits)

TTh 10:30 – 12:20

Quiz Th/F, times vary

Instructor: Abigail Swann

Includes a broad overview of the science of global warming. Discusses the causes, evidence, future projections, societal and environmental impacts, and potential solutions. Introduces the debate on global warming with a focus on scientific issues.

ATM S 211 – Climate Change (5 credits)

TTh 1:30-3:20

Quiz F, times vary

Instructor: Joel Thornton

The nature of the global climate system. Factors influencing climate including interactions among the atmosphere, oceans, solid earth, and biosphere. Stability and sensitivity of climate system. Global warming, ozone depletion, and other human influences. Intended for nonmajors.

ATM S 220 – Exploring the Atmospheric Sciences (1 credit)

Th 12:30-1:20

Instructor: TBA

Cr/NC grading only

Focuses on current research in the atmospheric sciences and the related implications for public health, business, and environmental policy. Credit/no-credit only.

Biocultural Anthropology

<http://www.washington.edu/students/timeschd/SPR2015/bioanth.html>

BIO A 201 – Principles of Biological Anthropology (5 credits)

MTWTh 9:30-10:20

Quiz T/Th, times vary

Instructor: Henry Lyle

Evolution and adaptation of the human species. Evidence from fossil record and living populations of monkeys, apes, and humans. Interrelationships between human physical and cultural variation and environment; role of natural selection in shaping our evolutionary past, present, and future.

BIO A 206 – Plagues and Peoples (5 credits)

MWF 3:00-4:20

Instructor: Steven Goodreau

Infectious diseases have shaped human culture, biology, and history, in a remarkable array of ways for different pathogens and different societies. Uncovers why, by considering in turn the

biology, demography, and cultural history of epidemics. Students develop a broader understanding of biocultural approaches to human disease.

Biology

<http://www.washington.edu/students/timeschd/SPR 2015/biology.html>

BIOL 118 – Survey of Physiology (5 credits)

MTWThF 9:30-10:20

Instructor: Moon Draper

Human physiology, for nonmajors and health sciences students.

BIOL 180 – Introductory Biology (5 credits)

MTWThF 10:30-11:20

Quiz T/W/Th, times vary

Instructor: John Parks

\$63 course fee

Mendelian genetics, evolution, biodiversity of life forms, ecology, and conservation biology. Open to all students interested in biology whether intending to major in the biological sciences, enroll in preprofessional programs, or fulfill a Natural World requirement. First course in a three-quarter series (BIOL 180, BIOL 200, BIOL 220).

BIOL 305 – Video Storytelling (3 credits)

TTh 9:00-10:20

Instructor: P. Dee Boersma

\$133 course fee. Add code required.

Students make a short film on a biological story, concept, or theory. Includes developing a storyline, getting the shots to make compelling viewing, editing, and producing a short video.

Short videos are a source of information used by both scientists and the public to gain information about scientific problems. Storytelling is a communication tool that all scientists need to understand better, and this course is designed to expose students to how to communicate scientific theories, concepts, and stories to a broad audience. The focus of the course will be on storytelling using video. **Prerequisite either BIOL180, B BIO 180, or TESC 120.**

CHID

<http://www.washington.edu/students/timeschd/SPR2015/chid.html>

CHID 444 – Eye + Mind (5 credits)

TTh 10:30-12:20

Instructor: Phillip Thurtle

CHID majors only Period I Registration. Open to all majors starting March 2nd.

This class investigates life as an emergent phenomenon across the disciplines of biophilosophy, art, art history, literary criticism, and information studies. Students will read key texts from these disciplines, evaluate recent art commenting on bioinformatics, and design their own creative projects. Throughout the quarter we will ask questions such as: What do art and science have in common? What is an emergent phenomenon? What is special about living things? Students should expect to leave this class with knowledge of key issues in phenomenological philosophy, bioart, biophilosophy, and complexity studies.

Earth and Space Sciences

<http://www.washington.edu/students/timeschd/SPR2015/ess.html>

ESS 101 - Intro to Geological Sciences (5 credits)

MWF 12:30-1:20

Lab M/T/W/Th, times vary

Instructor: Terry Swanson

\$30 course fee required.

Survey of the physical systems that give the earth its form. Emphasizes the dynamic nature of interior and surface processes and their relevance to mankind and stresses the value of rocks and earth forms in the understanding of past events. A course with laboratory for non-science majors. Not open for credit to students who have taken ESS 105, or ESS 210. Field trips.

ESS 102 – Space and Space Travel (5 credits)

MWF 11:30-12:20

Lab TTh, times vary

Instructor: Erika Harnett

\$20 course fee

Open to all majors; writing credit optional. Turning point clickers required.

Explores powering the sun, making of space weather conditions, observations from space and from Earth, Earth's space environment, radiation belts and hazards, plasma storms and auroras, electron beams, spacecraft requirements, tooling up for manned exploration. Open to non-science majors.

ESS 106 – Living with Volcanoes (3 credits)

MWF 11:30-12:20

Instructor: George Bergantz

Explores volcanoes and volcanic eruptions on Earth and in the solar system. Examines how volcanoes work and how they affect the environment, life, and human societies. Illustrates principles using local examples of recent volcanism and ancient examples of mega-eruptions. Evaluates the possibility of predicting future eruptions.

ESS 201 – Earth Climate (5 credits)

TTh 10:30-11:20

Lab T/Th, times vary

Instructor: Spruce Schoenemann

Earth's dynamic environment, global energy balance, interplay of chemical, physical, and biological processes shaping the Earth's surface and climate. Emphasis on quantitative methods for measuring, evaluating, and understanding contemporary changes relative to the last several thousand years. **Pre-reqs: Either Math 124, Math 144 or Q Sci 291.**

ESS 202 – Earthquakes (5 credits)

MWF 10:30-11:20

Lab W/F, times vary

Instructor: John Vidale

\$15 course fee

Earthquakes of the Pacific Northwest and around the world - their cause and relationship to plate tectonics; why, where, and when they occur. How earthquakes affect human life: shaping landscape, hazards. Laboratory explores physical processes associated with earthquakes. One field trip. **Open to non-science majors.**

ESS 205 – Access to Space

MWF 12:30-1:20

Instructor: Robert Holzworth

\$32 course fee

Group development of student experiments to the outer rim of our atmosphere and the beginning of space; investigation of stratosphere, mesosphere, thermosphere, magnetosphere, development of exploration packages; basic electronic fabrication, global positioning, radio tracking, expectations at high altitudes. **Open to all disciplines. No previous experience of electronics required.**

ESS 305 – Geology of the National Parks (5 credits)

MWF 1:30-2:20

Instructor: Michael Harrell

Reviews a wide range of fundamental geological processes, using North American parks and monuments as examples of natural laboratories. Includes plate-tectonic history, volcanism, mountain-building, and glacial, fluvial, and a host of other geomorphic forces as preserved in geologic exposures of National Parks. **Prerequisite: either ESS 101, ESS 105, ESS 210, or ESS 211.**

ESS 495 – NASA Science and Engineering Research Seminar (1 credit)

Th 2:30-3:20

Instructor: Erika Harnett

Review of current space science-related research. Emphasis varies, but topics may include planetary geology, astronomy, global change, aeronautical engineering, and remote sensing. Credit/no-credit only.

Environmental Studies

<http://www.washington.edu/students/timeschd/SPR2015/envst.html>

ENVIR 100 –Environmental Studies: Interdisciplinary Foundations (5 credits)

MWF 9:30-10:20

Quiz Th/T, times vary

Instructor: Kristina Straus

Introduces environmental studies through interdisciplinary examination of the ethical, political, social, and scientific dimensions of current and historical environmental issues. Integrates material from different disciplines, and applies insights and methods to actual problems and situations at scales from the local to the global.

ENVIR 240 – The Urban Farm (5 credits)

M 3:30-4:50

W 3:30-4:50

Instructor: Elizabeth Wheat

Develops students' understanding the ecological connections between food production, human health, and planetary sustainability. Teaches basic skills needed for food production in urban areas and the ethics behind sustainable urban agriculture, including a hands-on component on the farm at the biology greenhouse.

Environmental Health

<http://www.washington.edu/students/timeschd/SPR2015/envh.html>

ENV H 311 – Intro to Environmental Health (3 credits)

MWF 8:30-9:20

Instructor: Charles Tresor

Relationship of people to their environment, how it affects their physical well-being and what they can do to influence the quality of the environment and to enhance the protection of their health. Emphasis on environmental factors involved in transmission of communicable diseases and hazards due to exposure to chemical and physical materials in our environment.

Environmental Science and Resource Management

<http://www.washington.edu/students/timeschd/SPR2015/esrm.html>

ESRM 101 – Forests and Society (5 credits)

MTWThF 1:30-2:20

Instructor: Kristiina Vogt

Course fee required - \$5

Survey course covering forest ecosystems of the world, history of forestry and forest conservation, how forest ecosystems function, wildlife in forests, environmental issues in forestry, forest management, economics and products, and new approaches to forest management. Cannot be taken for credit if CFR 101 already taken. **Open to majors and nonmajors.**

ESRM 200 – Society and Sustainable Environments (5 credits)

TTh 2:30-4:20

Instructor: Peter Kahn

Registration open to all majors starting March 2nd.

Introduces the application of social concepts and theories to understanding and managing urban, urbanizing and wildland landscapes in a sustainable manner. Of particular interest are factors that shape patterns on the landscape and resulting social and economic benefits. Explores landscapes across the urban to wildland gradient.

ESRM 201 – Sustaining Pacific Northwest Ecosystems (5 credits)

T 1:30-2:50

Lab W/Th, times vary

Instructor: Sharon Doty

\$39 course fee

Registration open to all majors first day of spring quarter.

Introduces the principles of ecology across an urban to wildland gradient and discusses how these landscapes can be sustainably managed. Explores basic ecological theories, plant communities, soil, climate, pollution, hydrology, and wildlife in classroom, labs, and field trips.

ESRM 235 – Introduction to Environmental Economics (5 credits)

MW 2:30-4:20

Instructor: Sergey Rabotyagov

Registration open to all majors starting March 2nd.

Introduces environmental and natural resource economics. Discusses fundamental economic concepts, including markets and private property. Includes basic tools used in the economic assessment of environmental problems and applies these methods to key environmental issues. Offered jointly with Econ 235 and ENVIR 235.

ESRM 429 – Environmental Science and Resource Management Seminar (1 credit)

T 8:30-9:20

Instructor: TBA

Cr/NC only

Weekly seminars covering water resources and watershed topics with lectures from scientists on and off campus.

ESRM 455 – Wildlife Seminar (1 credit)

M 3:30-4:50

Instructor: Christian Grue

Credit/no credit only.

Discussion of current research and application in wildlife biology and conservation. /no credit only.

Fisheries

<http://www.washington.edu/students/timeschd/SPR2015/fish.html>

FISH 230 – Economics of Fisheries and Oceans (5 credits)

MWF 10:30-11:50

Instructor: Christopher Anderson

Examines how and why people and businesses make choices that lead to over-fishing, hypoxic zones, and oil spills in aquatic environments. Applies economic principles to understand how alternative policies might change these decisions, and how distributional effects influence politically feasible solutions. Offered jointly with ECON 230.

FISH 260 – Recreational Fisheries: Science, Management and Policy (3 or 5 credits)

TTh 10:30-12:20 & T 5:00-6:50 for 5 credits

TTh 10:30-12:20 for 3 credits

Instructor: Christian Grue

Provides an overview of Washington's recreational fisheries emphasizing science, management, and policy. Optional laboratory focuses on science and technology behind fishing tactics, tackle, and equipment, ways to minimize impacts and enhance conservation, and politics associated with opportunities for recreational anglers. *Suitable for students with or without a strong science background.*

Gender, Women, and Sexuality Studies

<http://www.washington.edu/students/timeschd/SPR2015/gwss.html>

GWSS 357 – Psychobiology of Women (5 credits)

TTh 9:30-11:20

Quiz Th/F, times vary

Instructor: Nancy Kenney

Physiological and psychological aspects of women's lives; determinants of biological sex; physiological and psychological events of puberty; menopause; sexuality; contraception, pregnancy, childbirth, and lactation; role of culture in determining psychological response to physiological events. **Offered jointly with Psych 357.**

Informatics

<http://www.washington.edu/students/timeschd/SPR2015/info.html>

INFO 101 – Social Networking (5 credits)

F 1:30-2:20

Quiz MW/TTh, times vary

Instructor: Robert Boiko

Freshmen, Sophomores only until March 2nd.

Explores today's most popular social networks, gaming applications, and messaging applications. Examines technologies, social implications, and information structure. Focuses on logic, databases, networked delivery, identity, access privacy, ecommerce, organization, and retrieval.

Nutritional Science

<http://www.washington.edu/students/timeschd/SPR2015/nutrit.html>

NUTR 302 – Food Studies (3 credits)

TTh 12:00-1:20

Instructor: Jennifer Otten

Examines the many facets of the modern food supply from production and processing to distribution, marketing, and retail. Systems approach to foods studies considers geopolitical, agricultural, environmental, social, and economic factors along the pathway from harvest to health. **Prerequisite: NUTR 300.**

NUTR 310 – Nutrition and the Life Course (4 credits)

MW 8:00-9:20

Quiz F 8:30-9:20

Instructor: Michelle Averill

Explores nutrient needs from infancy through adolescence and adulthood, including the physiological basis of nutrient requirements and the genetic, social, and environmental influences on food choices and nutrition status. Uses an evidence-based approach to assess the impact of nutrition across life stages and ways to improve population health by improving nutrition.

Prerequisite: NUTR 300.

Philosophy

<http://www.washington.edu/students/timeschd/SPR2015/phil.html>

PHIL 120 – Intro to Logic (5 credits)

MWF 9:30-10:20

Quiz TTh, times vary

Instructor: Conor Mayo-Wilson

Elementary symbolic logic. The development, application, and theoretical properties of an artificial symbolic language designed to provide a clear representation of the logical structure of deductive arguments.

Political Science

<http://www.washington.edu/students/timeschd/SPR2015/polisci.html>

Pol S 385 – Political Ecology of the World Food System (5 credits)

TTh 12:00-1:20

Quiz WF, times vary

Instructor: Karen Litfin

No freshmen.

Investigates the intersection of globalization and food politics, the pivotal role of petroleum in the world food system, and the commodity chains for some foods. Includes an optional service learning component. Offered jointly with ENVIR 385.

Psychology

<http://www.washington.edu/students/timeschd/SPR2015/psych.html>

PSYCH 200 – Comparative Animal Behavior (5 credits)

MTWThF 11:30-12:20

Instructor: David Barash

Research methods and findings of comparative animal behavior, their importance to an understanding of human behavior; rationale for study of behavioral differences/similarities between animal species, behavior viewed as part of adaptation of each species to its natural habitat. **Not open for credit to students who have taken PSYCH 300.**

PSYCH 202 – Biopsychology (5 credits)

MTWTh 9:30-10:20

Quiz on F, times vary

Instructor: Ann Voorhies

Not open to seniors until March 2nd.

Examines the biological basis of behavior, the nervous system, how it works to control behavior and sense the world, and what happens when it malfunctions. Topics include learning and memory, development, sex, drugs, sleep, the senses, emotions, and mental disorders.

Prerequisite: PSYCH 101.

Statistics

<http://www.washington.edu/students/timeschd/SPR2015/stat.html>

STAT 111 – Lectures in Applied Statistics (1 credit)

W 1:30-2:20

Instructor: Ali Shojaie

Credit/no-credit only.

Weekly lectures illustrating the importance of statisticians in a variety of fields, including medicine and the biological, physical, and social sciences. Offered jointly with BIOST 111.

STAT 220 – Basic Statistics (5 credits)

MWF 8:30-9:20

Quiz TTh, times vary

Instructor: Ranjini Grove

Also counts as QSR credit

Introduces statistical reasoning. Focuses primarily on the what and why rather than the how. Helps students gain an understanding of the rationale behind many statistical methods, as well as an appreciation of the use and misuse of statistics. Encourages and requires critical thinking. **(Students may receive credit for only one of 220, 311, and ECON 311.)**

STAT 221 – Statistical Concepts and Methods for the Social Sciences (5 credits)

MWF 9:30-10:20

Quiz TTh, times vary

Instructor: Patricia Martinkova

Also counts as QSR credit

Develops statistical literacy. Examines objectives and pitfalls of statistical studies; study designs, data analysis, inference; graphical and numerical summaries of numerical and categorical data; correlation and regression; and estimation, confidence intervals, and significance tests.

Emphasizes social science examples and cases. **(Students may receive credit for only one of STAT 220, STAT 311, STAT 221/CS&SS 221/SOC 221, and ECON 311.)**

STAT 311A – Elements of Statistical Methods (5 credits)

MWF 2:30-3:20

Quiz TTh, times vary

Instructor: Wanda Morris

Also counts as QSR credit

Prerequisite: either MATH 111, MATH 120, MATH 124, MATH 127, OR MATH 144.

Elementary concepts of probability and sampling; binomial and normal distributions. Basic concepts of hypothesis testing, estimation, and confidence intervals; t-tests and chi-square tests.

Linear regression theory and the analysis of variance. **(Students may receive credit for only one of 220, 311, and ECON 311.)**