Autumn Quarter 2017 NW courses

Class times, locations, fees, and course descriptions may change. Check the time schedule for updates before enrolling in the course(s). If a course is full keep checking the time schedule for an opening.

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

Astronomy

ASTR 101 – Astronomy (5 credits)
MWF 10:30 – 11:20
Lab TTh, times vary
Instructor: Ana Larson
$10 course fee. Also counts as QSR credit.
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 ASTR 102 or ASTR 301; not open to upper-division students majoring in physical sciences or engineering.

ASTR 102 – Introduction to Astronomy (5 credits)
TTh 9:00-10:20
Lab MW, times vary
Instructor: Eric Agol
$10 course fee. Also counts as QSR credit.
Emphasis on mathematical and physical comprehension of nature, the sun, stars, galaxies, and cosmology. Designed for students who have had algebra and trigonometry and high school or introductory level college physics. Cannot be taken for credit in combination with ASTR 101 or ASTR 301.

ASTR 150 – The Planets (5 credits)
TTh 9:00 – 10:20
Lab MW, times vary
Instructor: Toby Smith
$10 course fee. Also counts as QSR credit.
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.

Atmospheric Sciences
http://www.washington.edu/students/timeschd/AUT2017/atmos.html

ATM S 101 – Weather (5 credits)
MTWTh 10:30-11:20
Labs Th/F, times vary
Instructor: Cliff Mass
The earth's atmosphere, with emphasis on weather observations and forecasting. Daily weather map discussions. Highs, lows, fronts, clouds, storms, jet streams, air pollution, and other features of the atmosphere. Physical processes involved in weather phenomena. Intended for nonmajors.

ATM S 111 – Global Warming (5 credits)
TTh 11:30-1:20
Labs Th/F, times vary
Instructor: TBA
Optional linked writing credit. Go to Time Schedule or MyPlan for details.
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 and Climate Change (5 credits)**
**MTWTh 10:30-11:20**
**Labs F, times vary**
**Instructor: Becky Suess**

**ATM S 220 – Exploring Atmospheric Science (1 credit)**
**Th 12:30-1:20**
**Instructor: TBA**
Credit/no credit only.
Focuses on current research in the atmospheric sciences and the related implications for public health, business, and environmental policy.

**ATM S 290 – Weather Challenge (1 credit)**
**M 12:30-1:20**
**Instructor: Lynn McMurdie**
Course starts one week before autumn quarter. Credit/No Credit only.
Includes participation in a national weather forecast contest; weekly discussion on forecast models, forecasting methods, and unique considerations for specific forecast locations. Prerequisite: ATM S 101 or ATMS S 301.

**Biocultural Anthropology**

**BIO A 101 – Human Biological Diversity (5 credits)**
**TTh 12:30-1:50**
**Quiz M/W, times vary**
**Instructor: Alexander Hill**
Exploration of human biological variation, including skin color, body form, blood groups, genetics, and reproductive strategies. Introduction to the theory of evolution through natural selection.

**BIO A 201 – Principles of Biological Anthropology (5 credits)**
**MTWTh 8:30-9:20**
**Quiz T, times vary**
**Instructor: Matthew Taylor**
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.

**Biology**

**BIOL 118 – Survey of Physiology (5 credits)**
**MTWThF 9:30-10:20**
**Instructor: Karen Petersen**
Human physiology, for nonmajors and health sciences students.

**BIOL 119 – Elementary Physiology Laboratory (1 credit)**
**T/W, times vary**
**Prerequisite: BIOL 118 which may be taken concurrently. $25 fee required.**

**BIOL 180 – Introductory Biology (5 credits)**
**MTWThF 1:30-2:20**
**Labs T/W/Th, times vary**
**Instructor: Scott Freeman**
**$70 fee required**
**See MyPlan or Time Schedule for additional sections**
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).
CHEM 110 – Introduction to General Chemistry (3 credits)
MWF 8:30-9:20
Labs T, times vary
Instructor: Andrea Carroll
Credit/no credit only.
Introduction to general chemistry with an emphasis on developing problem solving skills. Covers basic concepts of chemistry along with the mathematics required for quantitative problem solving. For students without high school chemistry or with limited mathematics background. Successful completion of CHEM 110 prepares students to enroll in CHEM 142.

C ENV 110 – Food and the Environment (5 credits)
MWF 12:30-1:20
Quiz T/Th, times vary
Instructor: Ray Hilborn
Relates the production and consumption of food to the major areas of environmental science including energy use, water consumption, biodiversity loss, soil loss, pollution, nutrient cycles, and climate change. Studies the basic science and how food production impacts the key processes.

CHID 222 – Biofutures (5 credits)
MTW 1:30-2:20
Quiz F, times vary
Instructor: Phillip Thurtle
This class explores key legal, ethical, cultural, scientific, and commercial aspects of the rapidly changing world of biotechnology and bioinformatics. It specifically asks how new discoveries in biology encourage us to rethink issues of ownership, communication, geography, identity, and artistic practice. The class will be structured around six specific case studies that students will use to understand some of the major themes of BioFutures. Come find out about the often exhilarating and frequently frightening scenarios for the future of your body. Students will be specifically encouraged to ask the following questions: What are the ethical and legal issues involved in patenting human cell lines? How are recent biotechnologies portrayed in science fiction films? What can we learn by studying these portrayals? What does it mean to suggest that biotechnology is part of “an information society”? How are race, class, gender, and disability mapped onto or intersect with biomedicine? How are artists using live organisms in their art work? What can we learn about art, ethics, and scientific practice by studying this work? How do scientists manipulate space and time in the laboratory? This class is designed to appeal to all. No prerequisites needed!

CHID 250B – Special Topics: Underworld Poetics: Writing from other dimensions (5 credits)
TTh 1:30-3:20
Instructor: July Cole
Visionary poets can stand in a strange relation to the world. Some come from or speak from another world. Others inhabit worlds that are illuminated, haunted, or transparent. Some recount travel between layers of reality or report enhanced encounters with animals, plants, and other beings. This class explores ways some writers cross into and write out of other dimensions – including punk clubs, gay underworlds, subway tunnels, fleabag hotels, outer space, undersea civilizations, angelic and demonic realms. We will read and discuss poetry and supporting texts, from Dickinson to Anzaldúa, Rimbauld to Drexciya, attending to writers’ perception and cultivation of more-than-human entanglements. Class writing will probe poetic relations to natural and social environments, via automatic writing, somatic composition, text collage, and other techniques. Students will keep illustrated journals of their otherworldly engagements, and develop underworld poets’ statements. The performative “final exam” project consists of improvising an underworld together.

ESS 101 – Introduction to Geological Sciences (5 credits)
MWF 12:30-1:20
Lab M/T/W/Th, times vary
Instructor: Terry Swanson
No pre-reqs, open to non-science majors.
$30 course fee
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. Geology is all around us! From the volcanic Mt. Rainier, to glacial deposits from millions of years ago, there is a ton of geology in our back yard. Intro to Geology is a great survey course that emphasizes the dynamic nature of the interior and exterior of our planet, and understanding of how our planet is changing. This is a lab based course, with field trips almost every weekend. All majors welcome!

ESS 102 – Space and Space Travel (5 credits)
MWF 11:30-12:20
Lab TTh, times vary
Instructor: Erika Harnett
$20 course fee
Writing credit
Take your education to the limits of the solar system that is! ESS 102 is a great introduction to the upper limits of the Earth's atmosphere and what lies beyond. Compare the differences between Earth and the other planets in our solar system, as well as how to travel to them. Get to know the complex features of the sun, such as, how it gives us a source of energy and life, but also the deadly effects of solar radiation. This optional writing class can also count as I&S or NW credits. Plus, you get to build your very own water rocket!

ESS 106 – Living With Volcanoes (3 credits)
MWF 2:30-3:20
Instructor: Michael Harrell
Even if you don't realize it, you are seeing a volcano almost every day. Mt. Rainier towers over Western Washington, but just what sort of eruption style will it have? How did it form? When will it erupt again and what does that mean for our city? These are just some of the questions addressed in Living with Volcanoes. This class covers everything from prehistoric eruptions to features on the outer limits of our solar system. This class is open to all majors, and at just 3 credits is a perfect addition to any schedule.

ESS 230A – Rivers and Beaches (3 credits)
TTh 1:30-2:50
Instructor: David Montgomery
$30 course fee
Introduction to Earth surface environments, the processes that shape them, how humans affect them and are affected by them. Weekend field trips examine mountains, rivers, deltas/estuaries, beaches, and environments beyond. Focus on linkages between these environments to illustrate coupling between landscapes and seascapes. Offered jointly with OCEAN 230. Also offered as 5 credit course under ESS 230B ($50 course fee). See MyPlan or Time Schedule for details.

Environmental Health
http://www.washington.edu/students/timeschd/AUT2017/envh.html

ENV H 305 – Poisons and Health (3 credits)
MWF 12:30-1:20
Instructor: Zhengui Xia
Explore How Toxicology Protects the Health of Communities. What chemical and physical hazards exist in the environment? Where do they come from, where do they go, and how do we come in contact with them or avoid them? What health effects can they cause, and how can we minimize their negative impacts? Through an exploration of five case-based modules, this course will help you critically evaluate media reports about environmental hazards to human health by applying the core principles of toxicology, the science of poisons.

ENV H 311 – Introduction to Environmental Health (3 credits)
MWF 10:30-11:20
Instructor: Tania Busch Isaksen
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.

Program on the Environment
http://www.washington.edu/students/timeschd/AUT2017/envst.html

ENVIR 100 –Environmental Studies: Interdisciplinary Foundations (5 credits)
MWF 9:30-10:20
QuizT/Th, times vary
Instructor: Elizabeth Wheat
Introduces environmental studies through interdisciplinary examination of the ethical, political, social, and scientific dimensions of current and historical environmental issues. Integrates knowledge from different disciplines, and applies insights and methods to actual environmental problems and situations at scales from local to global.

ENVIR 239 – Sustainability: Personal Choices, Broad Impacts (3/5 credits)
MWF 12:30-1:20
Instructor: Kristina Straus
For 5 credits, service learning required. See MyPlan or Time Schedule for details.
Presents frameworks of sustainability via exploration of key pillars of sustainability, the history of sustainability movements, and sustainability in action. Students examine personal and global aspects of sustainability through issues such as smart growth, environmental and natural building, green business and energy, ecotourism, and international policy.

Environmental Science and Resource Management
http://www.washington.edu/students/timeschd/AUT2017/esrm.html

ESRM 101 – Forests and Society (5 credits)
MTWThF 1:30-2:20
Instructor: Kristiina Vogt
$5 course fee required.
Forests have and continue to play important roles in providing environmental services, human values and natural resources to societies around the world. Historically those groups who successfully dominated access to forests and their resources had considerable political, economic and social power. During the last three decades, highly polarized conflicts over resource uses and conservation have played out in forest landscapes because they are embedded in human landscapes. This course provides a ‘road map’ of factors that need to be considered when making decisions in forests and uses case studies to explore these issues.

ESRM 150 – Wildlife in the Modern World (5 credits)
MTWTh 8:30 – 9:20
Quiz M/W/Th, times vary
Instructor: Laura Prugh
Open to majors and nonmajors
Think about all the squirrels you will see on campus what is it like for them in the “modern world?” This course is great of anyone, fun topic and relevant to all. Covers major wildlife conservation issues in North America. Some global issues are also treated. Examples of topics include the conservation of large predators, effects of toxic chemicals on wildlife, old-growth wildlife, conservation of marine wildlife, recovery of the bald eagle, and gray wolf.

ESRM 429 – ESRM Seminar (1 credit)
T 8:30-9:20
Instructor: TBA
Weekly seminars covering water resources and watershed topics with lectures from scientists on and off campus. Credit/no credit only.

ESRM 455 – Wildlife Seminar (1 credit)
M 3:30-4:50
Instructor: John Marzluff
Discussion of current research and application in wildlife biology and conservation. Credit/no credit only.

Gender, Women and Sexuality Studies
http://www.washington.edu/students/timeschd/AUT2017/gwss.html

GWSS/PSYCH 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, menstruation, and menopause; sexuality; pregnancy, childbirth; the role of culture in determining the psychological response to the physiological events. Offered jointly with PSYCH 357.

Nutritional Science
http://www.washington.edu/students/timeschd/AUT2017/nutrit.html

NUTR 141 – Introduction to Foods (5 credits)
TTh 4:30-6:20pm
Instructor: Anne-Marie Gloster
See Time Schedule for information about wait list.
Examines how foods are used by different people and cultures to deliver nutrients and energy. Explores the evolution of the global food supply, food preparation techniques, food patterns, and eating habits as they relate to diets, nutrition, and personal and public health.

NUTR 200 – Nutrition (4 credits)
MWF 4:30-5:20pm
Quiz M/T/W/F, times vary
Instructor: Elizabeth Kirk
(formerly NUTR 300)
See Time Schedule for information about wait list.
Examines the role of nutrition in health, wellness, and prevention of chronic disease. Topics include nutrients and nutritional needs across the lifespan food safety, and food security, wellness, body weight regulation, eating disorders, sports nutrition, and prevention of chronic disease. May not be taken for credit if credit earned in NUTR 300.

NUTR 412 – U.S. Food Policy (3 credits)
TTh 1:30-2:50
Juniors, Seniors only
See Time Schedule for information about wait list.
Offers a broad introduction to food and nutrition policies in the United States and their impacts on population health. Real-world controversies and debates used to illustrate policy principles, research tools, and policy analysis. Includes topics on public health nutrition, food policy related to population health, and food security. Prerequisite: NUTR 200.

NUTR 420 – Global Nutrition (3 credits)
F 12:30-2:20
Quiz M 12:30-1:20
Instructor: Jonathan Gorstein
See Time Schedule for information about wait list.
Examines global dimensions of malnutrition; its assessment and classification, and global policies and programs to improve nutritional status in developing countries. Emphasizes global consequences of poor nutrition on health, cognition, and development with a focus on the first 1,000 days from conception to age two. Prerequisite: NUTR 200.

Oceanography
http://www.washington.edu/students/timeschd/AUT2017/ocean.html

OCEAN 101B – Oceanography of the Pacific Northwest (5 credits)
MWF 12:30-1:20
Lab T/Th, times vary
Instructor: Mikelle Nuwer
$25 course fee
This course will introduce you to the fundamental principles of oceanography by focusing on the waters that surround us - the Washington coast and Puget Sound. Topics including the geologic history of the Pacific Northwest, the physics and chemistry of coastal waters, marine foodwebs and ecology, and environmental concerns will be introduced using relevant and timely case studies. Intended for nonmajors.

Philosophy
http://www.washington.edu/students/timeschd/AUT2017/phil.html

PHIL 120 – Introduction to Logic (5 credits)
MWF 9:30-10:20
Quiz TTh, times vary
Instructor: Conor Mayo-Wilson
QSR credit
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.

PHIL 160 – Why Do We Believe in Quarks, Evolution, and Other Crazy Things? Perspectives on Science, Reason, and Reality (5 credits)
MW 9:00-10:20
Quiz TTh, times vary
Instructor: Benjamin Feintzeig
Study of how scientific theories are justified and why they are accepted, using selected examples from the history of
Physics
http://www.washington.edu/students/timeschd/AUT2017/phys.html

PHYS 207 – Physics of Music (3 credits)
MW 1:00-2:20
Instructor: Vladimir Chaloupka
This course is for anyone interested in the interplay of Physics and Music. There are no prerequisites, apart from the desire to learn something new and willingness to work on it. We cover a very broad range of topics, from the basic properties of vibrations and waves, through the almost-miraculous sound perception by the cochlea and analysis by the brain, all the way to the issues of consonance and dissonance, tuning and temperament. We also include some discussions of the sound technology (microphones, speakers, room acoustics etc) as well as the use of modern computers (MIDI sequencers, sound analysis and synthesis, CDs and MP3, computer analysis of music scores and more).

Psychology
http://www.washington.edu/students/timeschd/AUT2017/psych.html

PSYCH 202 – Biopsychology (5 credits)
MTWTh 10:30-11:20
Quiz F, times vary
Instructor: Lauren Graham
No Seniors period I registration. Open to all students starting June 19th.
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/AUT2017/stat.html

STAT 220 – Basic Statistics (5 credits)
MWF 8:30-9:20
Quiz TTh, times vary
Instructor: TBA
Also counts as QSR credit
Objectives and pitfalls of statistical studies. Structure of data sets, histograms, means, and standard deviations. Correlation and regression. Probability, binomial and normal. Interpretation of estimates, confidence intervals, and significance tests. Note: Stat 220 is a course on statistical reasoning. We do not focus on calculations, but rather on understanding the concepts. Students may receive credit for only one of STAT 220, 221, 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: TBA
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, and ECON 311.)

STAT 311 – Elements of Statistical Methods (5 credits)
MWF 2:30-3:20
Quiz TTh, times vary
Instructor: TBA
Also counts as QSR credit
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. Prerequisite: either MATH 111, MATH 120, MATH 124, MATH 127, or MATH 144.