

INTERDISCIPLINARY ARTS & SCIENCES

Course List for Environmental Science

70 credits for core + 50 credits for preparatory courses= 120 credits

Preparatory Courses – 50 credits total

These can be taken at UW Tacoma or transferred from another school. UW Tacoma courses that fulfill this preparatory coursework are listed below.

Preparatory courses for Environmental Science	Minimum grade	UWT equivalent
15 credits college biology (majors sequence with labs)	1.5	TESC 120, 130, 140
15 credits college chemistry (majors sequence with labs)	1.7	TESC 141, 151, 161
5 credits physical geology with lab	2.0	TESC 117
5 credits college physics (mechanics with lab)	2.0	TESC 121
5 credits college calculus	2.0	TQS 124 or 211
5 credits statistics	2.0	TQS 110

Additionally, students must be **computer literate**, which is defined as the ability to use word processing, spreadsheet, presentation and communication software. Workshops are available for students with deficiencies in any of these areas.

Preparatory courses must have been completed within the last 5 years. If they were completed before that time frame, please consult an IAS Adviser. See faculty, adviser, or website for specific transfer courses that are acceptable.

Core Requirements—70 credits minimum

6 credits- two required "bookend" courses

TESC 310 Environmental Research Seminar – to be taken in the first Autumn of enrollment – sophomore or junior year (3)

TESC 410 Environmental Science Senior Seminar- to be taken in the last Spring of enrollment after or concurrent with Capstone experience (3)

3-10 credits - Capstone experience (internship, research, etc.) Planned with faculty adviser; may span more than one quarter.

12 credits - Environmental science core courses:

TESC 333 Environmental Chemistry (6)

TESC 340 Ecology and Its Applications (6)

29 credits minimum- five additional TESC courses to include at least one biological science (B) course and one physical science (P) course. Of these remaining five courses, at least two must be laboratory (L) courses (6 credits) and one must be a

field (F) course (7 credits). Some courses designated as labs on this list are not offered as labs every time; check the Registration Guide for credits.

Note: If a course below is taken to fulfill prerequisite courses, it is an elective. TESC 100/300, 107/317, 110, 111, and 213/313 are electives for the BS degree.

TESC 202 Plant Biology and Ecology (B)
TESC 215 Meteorology (P, if 6 cr- L)
TESC 221 The Science of Environmental Sustainability
TESC 227/327 Earth History (P)
TESC 232/332 Issues in Biological Conservation (B)
TESC 236/336 Plants and People: The Science of Agriculture (B)
TESC 237/337 Environmental Geology (P/L)
TESC 238/338 Human Interactions with Marine Invertebrates (B)
TESC 239/339 Energy and the Environment (P)
TESC 240 Human Biology and Environmental Interactions
TESC 241/341 Oceanography (P, if 6 cr- L)
TESC 243 Geography of the Physical Environment (P)
TESC 247/347 Maritime History and Science in the Pacific Northwest (P)
TESC 302 Ecology of Mt St. Helens (B/P/F)
TESC 304 Tropical Ecology and Sustainability (B)
TESC 311 Maps & GIS (P/L)
TESC 315 Applied Physics with Environmental Applications (P/L)
TESC 317 Geology, Landscape and Culture (Field course to England) (P/F)
TESC 318 Biogeography (P/B, if 6 cr- L)
TESC 319 Water Quality Concepts and Watershed Studies (P/L)
TESC 321 Soils and Environmental Applications (P)
TESC 329 Geomorphology and Soils (P)
TESC 332 Conservation Biology in Practice (B/L)
TESC 337/237 Environmental Geology (P/L)
TESC 343 The Atmosphere and Air Pollution (P/L)
TESC 345 Pollution and Public Policy (P)
TESC 349 Research at SEA (P/B/F)
TESC 362 Introduction to Restoration Ecology (B/F)
TESC 378 Environmental Microbiology (B/L)
TESC 402 History and Ecology of Biological Invasions (B)
TESC 404 Costa Rica Field Studies: Ecology and Community (B/F)
TESC 408 Marine Plankton (B/L)
TESC 415 Sedimentology (P/L)
TESC 417 Field Geology (P/F)
TESC 422 Evolution (B, if 6 cr- L)
TESC 430 Environmental Modeling (B/P/L)
TESC 431 Water Resources and Pollution (P/F)
TESC 432 Forest Ecology (B/F)
TESC 433 Pollutant Fate and Transport (P/L)
TESC 434 Biology, History/ Politics of Salmon in the Pacific NW (B, if 6 cr- L)
TESC 435 Limnology (P/F)
TESC 437 Stream Ecology (P/L)
TESC 438 Environmental Biology: Marine Invertebrates (B/L)

TESC 440 Environmental Entomology (B/L)
TESC 442 Marine Ecology (B/F)
TESC 445 Estuarine Field Studies (B/P/F)
TESC 446 Field Mycology (B/F)
TESC 452 Plants, Insects and their Interactions (B/F)
TESC 490 Special Topics: Ecological History Field Studies (B/F)
TGIS 311 Maps and GIS (P/L) – Urban Studies course

5 credits -- Environmental Law/Policy course – NOT TSMUS 421

TCSIUS 438 Environmental Law
TEST 333 Environmental Policy Application and Compliance
TEST 335 Environmental Impact Analysis

5 credits -- Environmental Ethics course

TIBCG 363 Philosophical Perspectives on the Environment
TIBCG 456 Environmental Ethics

5 credits -- Social Science/environmental focus

TCOM 351 Video Production
TCOM 470 Documentary Production and Critique
TCSIG 436 North American Regions
TCSIG 445 The Metropolis
TCSIIN 342 Third World Cities
TCSIIN 435 Popular Movements in Latin America
TCSIIN 436 Rural Societies and Development
TCSIIN 438 Urbanization and the Environment
TCSIUS 431 Community Organizations in the Nonprofit Sector
TCSIUS 443 Ethnicity and the Urban Landscape
TCSIUS 445 History of Tacoma
TCSIUS 451 Essentials of Grant Writing and Fundraising
TCSS 401 Technology in Service of Global Society
TESC 107/317 Geohazards and Natural Disasters
TESC 304 Tropical Ecology and Sustainability
TESC 318 Biogeography
TEST 211 Women in Science
TEST 221/331 Environmental History: Water
TEST 332 A Natural History of Garbage
TEST 403 Geography of the USA and Canada
TGH 303 Global Challenges
THLTH 410 Environmental Justice
THLTH 472 Human Health and the Environment
TIBCG 437 Technology in the Modern World
TIBCG 440 Medieval Technology
TIBCUS 464 Native American Cultural Areas
TSMG 440 Political Geography
TSMIN 326 Modern Brazil
TSMIN 330 Globalization of Latin America
TSMIN 418 Interpreting Enigmatic India

TSMIN 435 Contemporary Geopolitics
TSMUS 225/325 Economics as a Way of Thinking
TSMUS 421 Environmental Policy
TURB 301 The Urban Condition
TURB 310 Urban Society and Culture
TURB 312 Race and Poverty in Urban America
TURB 320 Introduction to Urban Planning
TURB 321 History of Planning, Theory and Practice
TURB 322 Land Use Planning
TURB 323 Sustainable Urban Development Practices
TURB 326 Climate Change within the Urban Context
TURB 330 City Worlds
TURB 405 Images of the City
TURB 410 Environmental Justice
TURB 415 Urban Government and Organizations
TURB 440 The City and Nature
TURB 445 Urban Ecology
TURB 450 Sustainable Development

5 credits -- Humanities course/environmental focus:

TCSIG 451 The Enlightenment
TCSIIN 235/335 Religion in the Modern World
TCXG 272/372 Writing Effectively
TCXG 374 Argument in Research and Writing
TCXG 379 Modern Architecture
TCXG 402 Eco-Art: Art in Response to Environmental Crisis
TCXIN 284/384 Society, Self & Worldview in Arts of the Pacific
TCXUS 276/376 American Architecture
TCXUS 477 Nature and the Environment in American Literature
TCXUS 479 Contemporary Native American Women's Literature
T GH 303 Global Challenges
TIBCG 353 The End of the Modern World, 1600-2000
TIBCG 361 Ethics in Contemporary Society
TIBCG 362 The Beautiful and the Good: Philosophy's Quest for Value
TIBCG 363 Philosophical Perspectives on the Environment
TIBCG 455 Medicine and Morality: Biomedical Ethics
TIBCG 458 Ways of Knowing
TIBCIN 367 East Asian Religions: Zen and Taoism
TIBCIN 463 God: East and West
TIBCUS 464 Native American Cultural Areas
TSMG 367 Utopias