

**Section 1. Proposed Course Outline** (A general statement of course content that informs class syllabus construction. Once approved, all sections of a given course must include this content, no matter which instructor teaches the course, or the mode of delivery. Divisions must include this new course outline in the Divisional Course Outline binder as required by COPPs.)

Course Number: **ENSC 181** Full Course Title for print catalog: **Terrestrial Environment**

Abbreviated Course Title for Banner: **Terrestrial Environment** (30 character limit)

Prerequisites: none

Co-requisites: none

Grade Option:  Graded (with P/NP option)   Pass/No Pass only

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| **Number/Type Credits** | **Term Minimum Contact** | **Term Maximum Contact** | **11-Week Term Contact** |
| 2 Lecture | 20 hours (lecture credits x 10) | 24 hours (lecture credits x 12) | 22 hours (lecture credits x 11) |
| 2 Lec/Lab | 40 hours (lec-lab credits x 20) | 48 hours (lec-lab credits x 24) | 44 hours (lec-lab credits x 22) |
| Lab | hours (lab credits x 30) | hours (lab credits x 36) | hours (lab credits x 33) |
| 4 **Total credits (sum)** | 60 **Total hours (sum)** | 72 **Total hours (sum)** | 66 **Total hours (sum)** |

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| **Course Description (300 character limit):** changes highlighted | | | |
| Interactions among humans and natural land-based systems and their environmental consequences. Topics and labs include terrestrial ecology, biodiversity, biomes, forests, agriculture, rangelands, soils, groundwater, geologic mineral and energy resources, mining, waste management, recycling, environmental justice, ecological economics, conservation, and sustainable production. Take ENSC 181-183 in any order. | | | |
| **Course Outcomes and Proficiencies** | | | **Assessments Planned** |
| What will the student ***know*** or ***be able to do*** at the end of the course?  What ***attitudes*** related to the subject will the student hold? | | What evidence will demonstrate that students have achieved course outcomes? (assessment tools may include departmental tests, written products, portfolios, juried performances, quizzes and exams, or alternative assessments such as qualitative studies, capstone projects, external reviewers, etc.) | |
| **Upon successful completion of this course, the student will:** | **How each outcome will be assessed:** | | |
| Evaluate and perform scientific procedures and methods. | Lab activity, observation, experiments, field trips and outdoor exploration, case studies | | |
| Evaluate interactions among humans and natural land-based systems and their environmental consequences in case studies. | Case studies, research projects, debates, journal writing, field trips and outdoor exploration, quizzes, mid-term, and/or final examination | | |
| Describe terrestrial ecology, biomes, and biodiversity and explain the biological, geologic, chemical and physical interactions of their components. | Lab activity worksheets, website problem sets, field trips and outdoor exploration, quizzes, mid-term, and/or final examination | | |
| Describe benefits and drawbacks of practices in forests, agriculture, rangelands, soils, groundwater use, mining, conservation, and waste management. | Original scientific research, debates, field trips and outdoor exploration, case studies, role playing, waste audit, quizzes, mid-term, and/or final examination | | |
| Describe methods of mineral and energy resources extraction and their environmental consequences and mitigation and evaluate the human benefits and consequences of their extraction and use. | Case studies, Lab activity worksheets, research projects, debates, campus buildings as living laboratories, field trips quizzes, mid-term, and/or final examination | | |
| Evaluate environmental justice, ecological economics, and sustainable production. | Case studies, website problem sets, research projects, debates, journal writing, role playing | | |

**Course Content by Major Topics**What topics will be presented? What are the main activities of the course? What are the central themes?

(See sample at <http://www.lanecc.edu/copps>

**Topics:**

Background material

Matter and energy, thermodynamics, geochemical cycles (carbon, phosphorus, nitrogen), photosynthesis, organismal relationships, trophic levels, food chains and webs, evolution, ecological footprint

Scientific methods

Scientific methods, observation, measurement, data management and processing, graphs, communicating, experimentation, replication, control, hypothesizing, testing hypotheses, communicating, modeling, theorizing, communicating

Ecological concepts on land

Biodiversity, biomes, ecosystems, keystone species, community succession, biome degradation, biological interactions with pollution, invasive species, habitat fragmentation, deforestation, alternative forestry methods, terrestrial ecosystem services, local tree identification, local ecosystems, forests, grasslands, savannas

Agriculture, soils, rangeland, and forest management

Soil components and diversity, soil formation and degradation, genetically modified organisms (GMOs), varieties of agricultural practices, rangeland practices, forest practices and their environmental effects, forest, agricultural and grassland resources such as groundwater, pollinators, seed diversity, forest and grassland diversity

Environmental geology

Geologic resources: fossil fuels, hydraulic fracturing, alternative energy, especially geothermal energy, mineral resources, mining, environmental damage from extractive industries

Waste disposal

Solid and liquid wastes, hazardous waste, mining wastes, nuclear waste, dumps, recycling, down cycling, reducing and reusing, consumerism

Degradation, mitigation, adaptation and sustainability

Environmental damage to biomes and ecosystems, extinction rates, species protection, ecological restoration, adapting to inevitable change, natural capital and environmental economics

**Section 2. Proposal Information**

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| --- | --- | --- |
| **Course Developer:** | **Type of Proposal** | **Type of Course:** |
| Claudia Owen | New course | Lower Division Collegiate (transfer) |
| Date: 1/14/16 | Currently 199 or 299 | Professional/Technical (required or elective) |
| Catalog year to take effect: | Experimental Course | Developmental, numbered below 100 |
| 2015-2016\_\_\_ | 199 Experimental Course |  |
| 2016-2017\_\_x\_ | 299 Experimental Course |  |
|  | Revised course (If increasing credits, use credit change form) | |
|  | Reactivated course with no change | |
|  | Reactivated course with changes | |

**Rationale:**

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| --- |
| How does this proposal further the goals of the program or department? |
| Reason for changing course number to ENSC 181. The ENVS prefix is used for Environmental Studies programs in Oregon and is therefore confusing since this course is an Environmental Science course. The ENSC prefix is used at OSU. Although ESCI is used for Environmental Science at UO, the same prefix is used for Earth Science elsewhere, so ENSC seems preferable. We are also changing the format to be partly lecture-lab in response to less separation between distinct lecture and laboratory activity in our ENSC classes. |
| What assessment evidence supports this proposal? |
| People commonly ask about the course as if it is an environmental studies course instead of environmental science because of the ENVS prefix. |
| How do you know there is a demand for this course? |
| It has been taught for many years and is usually full. |

**Section 3. Curriculum Equity** [**http://www.lanecc.edu/copps**](http://www.lanecc.edu/copps)

**To promote an environment where all learners are encouraged to develop their full potential, this course will support Lane’s Curriculum Equity policy in the following way(s):**

* This course includes culturally and ethnically diverse agricultural, rangeland, and forestry practices.
* It discusses environmental justice, especially in areas where pollution, waste disposal and environmental degradation burden underprivileged peoples and individuals more out of proportion to privileged groups.
* It portrays the contributions of women and men from diverse cultural and ethnic backgrounds to the field of environmental science and in working toward sustainability.
* It illustrates the valuable role of women in improving environmental conditions when they have seized or were given the opportunity.
* It uses gendered examples equally when illustrating theories and concepts.
* It emphasizes the idea that our terrestrial environment is needed and must be preserved for everyone regardless of race, gender, age, religion, disability, national origin, marital status, or class background, including those people who do not exist yet--to and beyond the 7th generation and that environmental degradation affects us all now and into the future.

**Section 4. For revised courses only: PREVIOUS Catalog/Course Information:**

Course Number: **ENVS 181** Course Title in Banner: **Terrestrial Environment** (30 characters maximum)

Full Course Title in print catalog: Terrestrial Environment

Prerequisites: none

Co-requisites: none

Grade Option:  Graded (with P/NP option)  Pass/No Pass only

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| --- | --- | --- | --- |
| **Number/Type Credits** | **Term Minimum Contact** | **Term Maximum Contact** | **11-Week Term Contact** |
| 3 Lecture | 30 hours (lecture credits x 10) | 36 hours (lecture credits x 12) | 33 hours (lecture credits x 11) |
| Lec/Lab | hours (lec-lab credits x 20) | hours (lec-lab credits x 24) | hours (lec-lab credits x 22) |
| 1 Lab | 30 hours (lab credits x 30) | 36 hours (lab credits x 36) | 33 hours (lab credits x 33) |
| 4 **Total credits (sum)** | 60 **Total hours (sum)** | 72 **Total hours (sum)** | 66 **Total hours (sum)** |

**Course Description:** (new proposed with highlighted changes from the old version ENVS 181)

Interactions among humans and natural land-based systems and their environmental consequences. Topics include terrestrial ecology, biodiversity, forests, agriculture, rangelands, soils, groundwater, geologic hazards, mineral and energy resources, mining, waste management, recycling, environmental justice, ecological economics, conservation, and sustainable production. Take ENVS 181-183 in any order.

What will change? Course Number Title Course Description (very slight change) Credit hours Contact hours

**Section 5. Support Courses (New Professional/Technical course proposals must complete.)**

Professional/Technical courses are tracked within programs for purposes of Carl Perkins funding and budgetary planning. Indicate all degree or certificate programs for which this course will be required.

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| --- | --- |
| Program | Division |
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**Section 6. Overlap Courses (New course proposals must complete.)**

While overlap of course materials is not necessarily a flaw, duplication of course materials may lead to inefficient use of college resources. If there is overlap, the faculty of overlapping courses must agree on the extent of overlap and attach a rationale explaining its necessity if it is more then 10%.

Indicate all departments/courses that this course may overlap. Division Dean of existing course enters one of two options at right. Note: N/A is not an option.

Options:

1. No overlap.

2. Approved: overlap is acceptable. Rationale attached.

3. Disapproved: reasons attached.

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| --- | --- | --- | --- | --- | --- |
| Division | Course Number / Title | % Overlap | Option | Division Dean of existing course (Signature required for all options) | Date |
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**Section 7. Qualification to fulfill degree requirements** (complete all relevant forms, available at <http://www.lanecc.edu/currsched/curriculum-forms> and send to Curriculum/Scheduling for the Degree Requirements Review Committee):

Form(s) applying for the following degree requirement status have been attached. (Only check this box when forms have been completed and attached.)

**This course already has the following designations:**

**AAOT, ASOT-Bus, OTM:**

Arts & Letters

Social Sciences

Science /Computer Science

Mathematics

Cultural Literacy Option

(please submit with course syllabus to Michael Samano in Social Science)

**All degrees:**

Health/Wellness/Fitness

**AAS, 1-year and 2-year certificates:**

Human Relations

**Optional designation:**

Sustainability status

**Section 8. Library Impact Statement**

Under accreditation standards, Library consultation is essential for new programs, new courses and for substantively revised courses when the revisions entail any change in library use.

**What assignments will require the use of library and information resources?**

Each academic area has a Liaison Librarian <http://www.lanecc.edu/library/services/liaison.htm>. Contact the designated librarian to discuss the library needs of your course. Please allow the librarian at least one week to assess library resources.

**To be completed by Liaison Librarian:**

Library resources are adequate to support this proposal.

Additional resources are needed but can be obtained from current funds.

Significant additional Library funds/resources are required to support this proposal.

Liaison Librarian Date

**Section 9. Divisional Approval** (To be completed by Division Chair and Administrative Assistant)

**Human, Physical, and Financial Resources:**

Additional instructional costs (staff, materials, services or facilities) will be incurred to offer this course. Source of funding:

No additional instructional resources (staff, materials, services or facilities) are needed to offer this course.  
Explain: This is an existing course so it needs no additional materials beyond what we already have or what can be purchased in existing department budget and with fees.

**Required Certifications:**

We have developed minimum course certification standards according to the COPPs procedure “Instructor Qualifications: Credit,” to be filed with ASA upon course approval.

We have completed faculty certification form(s) for faculty qualified to teach this course, to be filed with ASA and Human Resources upon course approval.

Administrative Assistant/Coordinator Date

**Fees:**

We have completed fee rationale and fee request forms to be submitted to ASA upon course approval, in compliance with the COPPs procedure, “Fees: Special”

No special fees will be required for this course.

**Divisional Recommendation:**

The Academic Dean and Administrative Assistant have reviewed this course proposal and kept a copy for divisional files.

Faculty review of this course was completed within the division on 01/14/2016 (date).

Pass  Do Not Pass

02/08/2016

Academic Dean Date

**Section 10. College Approval**

     

Curriculum Committee Chair Date Executive Dean for Academic Affairs Date

Curriculum Approval Committee hearing:       \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date Vice President for Academic & Date

Student Affairs