

The University of Texas at El Paso

Curriculum Change Proposal

Approval Page

Proposal Title: Create Freshman level Introduction to Environmental Science - II

Department Chair

I have read the enclosed proposal and approve this proposal on behalf of the department.

Signature

Date

02/19/2020

College Curriculum Committee Chairperson

I have read the enclosed documents and approve the proposal on behalf of the college curriculum committee.

Signature

Date

2/19/20

College Dean

I have read the enclosed documents and approve the proposal on behalf of the college. I certify that the necessary funds will be allocated by the college in support of this proposal.

Signature

Date

2/19/20

Graduate Council/Undergraduate Curriculum Committee

Council Action:

☐ Approved

☐ Returned to the College

Date of Action Report:

Signature, Chairman

Date

Undergraduate Curriculum Change Memo

Date: 9/20/2017

From: Vanessa Loughheed, Environmental Science Program

Through: Dr. Jim Kubicki, Dept. of Geological Sciences

Through: Dr. Nancy Marcus, Associate Dean, College of Sciences *NM*

To: Jacen Maier Moore, Chair, Undergraduate Curriculum Committee

Subject: Change ESCI 2301 from sophomore to freshman level

We request to create a second freshman introduction course in Environmental Science that will:

- 1) Expand on knowledge introduced in ESCI 1301
- 2) Allow non-majors to complete a 6-credit sequence in Environmental Sciences (if ESCI 1102 lab is included)

Course Add Form

Course Information

Subject Prefix and # ESCI 1202 TCCN (If applicable) _____

Title (29 characters or fewer): Introduction to Environmental Science 2

Dept. Administrative Code _____ CIP Code _____

Course Level (UG, GR, DR, or SP): UG

Will this course be taught during a part of term in addition to a full 16-week term? (Y/N): N

If so, what term length will this course be taught in? (e.g., 8 weeks) _____

How many times may the course be taken for credit? (Please indicate 1-9 times): 1

Should the course be exempt from the "Three Repeat Rule?" (Y/N): No

Grading Mode: x Standard _____ Pass/Fail _____ Audit

Description (600 characters maximum):

This course expands upon topics introduced in ESCI 1301 including water and energy resources, climate change, biogeochemical cycles and waste management. Material of regional and current interest is incorporated.

Contact Hours (per week): 3 Lecture Hours _____ Lab Hours _____ Other

Types of Instruction (Schedule Type): (Underline all types of instruction which reflect how the course should be scheduled in Banner.):

<u>A</u>	<u>Lecture</u>	H	Thesis
B	Laboratory	I	Dissertation
C	Practicum	K	Lecture/Lab Combined
D	Seminar	O	Discussion or Review (Study Skills)
E	Independent Study	P	Specialized Instruction
F	Private Lesson	Q	Student Teaching

Equivalent Courses

<u>Course Number</u>

Prerequisite Course(s)

<u>Course Number</u>	<u>Concurrent Enrollment Permitted? (Y/N)</u>	<u>Minimum Grade Required</u>

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Corequisite Course(s):

<u>Course Number</u>

Restrictions

Indicate which of the following registration restrictions should be implemented:

<u>Restriction</u>	<u>Yes/No</u>
Departmental Approval	No

<u>Restriction</u>	<u>Yes/No</u>	<u>Test Name</u>	<u>Minimum Score</u>
Placement Test	No		

<u>Restriction</u>	<u>Yes/No</u>	<u>Majors Permitted</u>
Major	No	Yes

<u>Restriction</u>	<u>Yes/No</u>	<u>Classes Permitted</u>
Classification	No	No

Rationale for Adding the Course

Briefly describe the rationale for adding this course.

We request to create a second freshman introduction course in Environmental Science that will:

- 1) Expand on knowledge introduced in ESCI 1301
- 2) Allow non-majors to complete a 6-credit sequence in Environmental Sciences (if ESCI 1102 lab is included)

ESCI 1202 – Introduction to Environmental Science - Fall 2018

Instructor - James Kubicki

Phone: 747-5501 e-mail: jdkubicki@utep.edu

Office hours - By appointment – 101 Geology

TA – XXXXX e-mail: xxxxxx@miners.utep.edu

PASS Leader – XXXXX – xxxxxxx@miners.utep.edu

Required Textbook – Essential Environment – Withgott & Laposata

Homework on www.pearsonmylabandmastering.com

The drop date for courses is XXXX X, 20XX. After that date, the College of Science will not approve any course withdrawals. If the student withdraws from all courses for medical or other reasons, there can be exceptions.

Any cheating or plagiarism will be dealt with according to University policy (see statement at the bottom of the syllabus).

- 1) Notes - 20% - In class on a daily basis**
 - 2) Online Homework - 20% - Answer professor question, ask a question, and answer a student question before class on the due date**
 - 3) 2 exams – Exam 1 20%; Exam 2 30%**
- Study guides will be posted on Blackboard before each test.**
- 4) Participation - 10% - Credit (1 point per day) is given for attending class and 1 extra credit point for participation.**

Goals for Knowledge – by the end of this course you should:

- understand and apply the principles of the scientific method
- describe how the chemistry and physics of matter, energy flow, and biogeochemical cycles are important to the study of environmental science
- explain how surface and groundwater supply is critical to the El Paso region and the methods we are using to sustain these resources
- explain how economics, politics and public policy influence human interactions with the natural environment
- describe the environmental challenges that face the U.S. and the world including: global climate change, consumption of non-renewable energy resources, land use, and degradation of soil, air and water

Goals for Skills – by the end of this class you should:

- be able to make and read basic charts and graphs
- locate key features on maps
- be able to converse with scientists or the general public on basic issues related to the environment
- be able to assess information and issues related to environmental science both in our local community and at a global level

Date	Reading	Lecture Topic	Homework Assignments
8/28	Ch. 2	Biogeochemical Cycles/Plate Tectonic	
8/30	Ch. 2	Biogeochemical Cycles/Carbon Cycle	Assignment #1 due
9/4		No class – Labor Day	
9/6	Ch. 12	Surface Water/Flow & Flooding	Assignment #2 due
9/11	Ch. 12	Groundwater/Recharge & Depletion	
9/13	Ch. 12	Coastal Process/Wetlands & Erosion	Assignment #3 due
9/18	Ch. 12	Oceans/Circulation & Pollution	
9/20	Ch. 14	Climate Change & Oceans/ Sea Level Rise, Acidification & Hurricanes	Assignment #4 due
9/25	Ch. 14	Paleoclimates/Milankovitch Cycles & Climate History	
9/27	Ch. 14	Paleoclimates/Ice Core & Other Records	Assignment #5 due
10/2	Ch. 7	Soils/Types, Formation & Loss	
10/4	Ch. 7	Climate Change & Soils/Soil Carbon & Aerosol Effects	Assignment #6 due
10/9	Ch. 12	Waste Management/Municipal	
10/11	Ch. 12	Waste Management/Hazardous	Assignment #7 due
10/16		Review	
10/18		<u>EXAM #1</u>	All from 8/28 to 10/11
10/23	Ch. 15	Oil/Extraction & Spills	
10/25	Ch. 15	Natural Gas/Fracking, Water Use & Earthquakes	Assignment #8 due
10/30	Ch. 15	Oil & Gas Groundwater Contamination	
11/1	Ch. 15	Coal/Extraction & Air Pollution	
11/6	Ch. 15	Nuclear Power/Use and Disposal	Assignment #9 due
11/8	Ch. 11	Mining/Ore Deposits	
11/13	Ch. 11	Mining/Acid Mine Drainage	Assignment #13 due

11/15	Ch. 16	Solar & Hydrogen	
11/20	Ch. 16	Wind & Hydropower	Assignment #10 due
11/22	Ch. 16	Geothermal & Ocean Energy	
11/27	Ch. 16	Bioenergy	Assignment #11 due
11/29	Ch. 18	Urban Environment & Local Issues	
12/4	Ch. 18	Urban Environment & Local Issues	Assignment #13 due
12/6		Review	
		FINAL	All from 8/28 to 11/29

Disabilities: I will make any reasonable accommodations for students with limitations due to disabilities, including learning disabilities. Please see me personally before or after class in the first two weeks or make an appointment, to discuss any special needs you might have. If you have a documented disability and require specific accommodations, you will need to contact the Center for Accommodations and Support Services (CASS) in the East Union Bldg., Room 106 within the first two weeks of classes. CASS can also be reached in the following ways:

Web: sa.utep.edu/cass

Phone: (915) 747-5148 voice or TTY

Fax: (915) 747-8712

E-Mail: cass@utep.edu

Cheating/Plagiarism: Cheating is unethical and not acceptable. Plagiarism is using information or original wording in a paper without giving credit to the source of that information or wording: it is also not acceptable. Do not submit work under your name that you did not do yourself. You may not submit work for this class that you did for another class. If you are found to be cheating or plagiarizing, you will be subject to disciplinary action, per UTEP catalog policy. Refer to <http://www.utep.edu/dos/acadintg.htm> for further information.

UTEP Core Curriculum Course Addition Proposal

Course Prefix, Number, and Title: ESCI 1202, Introduction to Environmental Science II

Proposal Approvals:

Proposal Creator:

Name: Dr. James Kubicki, Professor and Chair

Department: Geological Sciences

Email: jdkubicki@utep.edu

Phone: (915) 747-6552

Office: Geology 101A

Alternate Point of Contact:

Name: Christine Sanchez

Department: Geological Sciences

Email: csanchez2@utep.edu

Phone: (915) 747-5501

Office: Geology 101

Course Information:

Type: Existing Course

Course: ESCI 1202

Credit Hours: 2

Course Offered: Spring

TCCN: No TCCN for this course

Prerequisites: None

Course Description:

ESCI 1202 is a continuation of ESCI 1301. When the two are taken consecutively, they fulfill the 6 unit (5 lecture, 1 lab) requirement for Natural Science General Education. This course helps students understand natural Earth processes and the interactions of humans with these processes. It focuses on materials and energy sources necessary for modern civilization and technology. The environmental impacts of human activities and technological developments are examined.

Foundational Component Area: Life and Physical Sciences

Foundational Component Area Intent: Environmental Science 1202 focuses on developing data analysis and critical thinking skills. Students are graded on oral participation and written notes to develop oral and written communication skills.

Core Curriculum Objectives

Critical Thinking Skills:

- Understand and apply the principles of the scientific method
- Describe how the chemistry and physics of matter, energy flow, and biogeochemical cycles are important to the study of environmental science
- Explain how surface and groundwater supply is critical to the El Paso region and the methods we are using to sustain these resources
- Explain how economics, politics and public policy influence human interactions with the natural environment
- Describe the environmental challenges that face the U.S. and the world including: global climate change, consumption of non-renewable energy resources, land use, and degradation of soil, air and water

Communication Skills:

- Able to converse with scientists or the general public on basic issues related to the environment
- Able to assess information and issues related to environmental science both in our local community and at a global level

Empirical and Quantitative Skills:

- Able to make and read basic charts and graphs
- Locate key features on maps
- Compare relative impacts of various sources of input based on quantities.

Proposed Syllabus: Sample syllabus and assignments are attached.

Course Assessment Plan

[Examples of the major assignments referenced for each category below are attached, following the syllabus pages]

Critical Thinking: Critical thinking skills are assessed by oral class discussion, online discussion board and in-class notes. The use of a discussion board website to engage the students in critical thinking about open-ended questions posed by the Instructor as well as asking their own questions ensures that students probe deeply into issues. They are asked to justify their responses.

Communication Skills: Communication skills are assessed by evaluating oral class discussion, online discussion board and in-class notes. Students are required to write one to two paragraph answers based on facts to address questions on environmental issues and their resolution.

Empirical and Quantitative Skills: This course is data-centric. Students are required to interpret graphs and quantitatively assess various impacts and factors on a given topic. These are addressed throughout class in question-and-answer format and assessed on the exams.

ESCI 1202 – Introduction to Environmental Science - Fall 2018

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Phone: 747-5501 e-mail: jdkubicki@utep.edu

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