

ENVS 1044: Introduction to Environmental Science
Geography and Environmental Science; College of Liberal Arts and Sciences
University of Colorado Denver
Course Syllabus

Instructor: Dr. Kathy Kelsey
Office: North Classroom 3524
Office Hours: Tues 12:30pm – 2:30pm
or by appointment.

Class location: North Classroom 1539
Class time: Tues & Thurs 11am – 12:15pm
Contact: email in Canvas

Teaching Assistant: Nicole Dellana
Office Hours: Tues 4pm – 5pm

Office: North Classroom 3518-A
Contact: email in Canvas

DESCRIPTION

Catalog Description: This survey course develops a basic understanding of ecological relationships and environmental systems. Issues such as the effects of human activities on Earth's environment, extinction or diversity, greenhouse effect, hazardous or toxic wastes and human population growth are discussed. Students must also take the accompanying laboratory ENVS 1045. No co-credit with ENVS 1042. Prereq or co-req: ENVS 1045. Max hours: 3 Credits.

Instructor Description: This course is designed for early natural science majors or non-major students fulfilling their core requirements. It will introduce students to scientific concepts related to the functioning of Earth and its natural, modified, and engineered systems. While highlighting related social, economic, and ethical issues, the course will cover a broad range of topics across the chemical, biological, physical, geological, and human sciences, including lessons on: sustainability; environmental policy; ecosystems and biodiversity; soil, air, and water quality; waste generation and management; and energy. Basic knowledge of these topics will be necessary for you – as a future professional and community member – to understand, address and problem-solve important environmental challenges and opportunities.

Course Objectives

This course is part of the General Education Core at CU Denver. As a result, at the conclusion of this course, you should be able to demonstrate the following *learning outcomes*:

1. Apply the scientific method and understand the relationship between observation, experimentation, evidence, conclusions, and theory in the natural and physical sciences. You will also understand the value and need for experimental reproducibility and peer review;
2. Analyze data and form a conclusion. You will analyze and interpret data using scientific and mathematical methods and models to understand how the universe works. You will also understand sources of error, confounding factors, and outliers in the natural and physical sciences;
3. Apply knowledge. You will organize and integrate your knowledge and apply fundamental concepts, theories, or laws of the discipline, thereby demonstrating deeper comprehension of the topic; and

4. Communicate effectively about science using the language and tools of the discipline. Furthermore, you will understand the importance of communicating effectively about science, whether it be with other students, professors, employers, or family.

This course is part of the curriculum administered the Department of Geography and Environmental Science and promotes the following *Essential Learning Outcomes (ELO's)*:

- 1.2 Explain the distinctive physical characteristics of places/regions in terms of geomorphological, hydrological, climatological, and biogeographical processes;
- 1.4 Analyze and interpret interconnections between human activities and natural/built environments at different geographical and temporal scales;
- 2.4 Analyze and interpret complex problems in research and practice using critical inquiry, systems thinking, synthesis, and interdisciplinary approaches to solve complex problems in research and practice; and
- 4.1 Understand key geographical concepts and their multidisciplinary nature, and apply them to the real-world.

The *course-specific objectives* are that by the end of the course each student will be able to:

1. Clearly articulate how the chemical, biological, and physical sciences converge to result in the natural environmental phenomena we observe on the Earth's surface
2. Describe, and even predict, the potential impacts of specific human activities on environmental systems;
3. Discern good science from bad science, especially as portrayed in popular media and the press;
4. Better understand and advocate for policies that are based on scientific doctrine and inquiry;
5. Be an environmentally-aware and conversant member of your personal/professional community, and be willing to stand for the societal and ethical principles in which you believe.

COURSE REQUIREMENTS

Required Text: In this course, we will use the Pearson (Revel) version of a digital textbook called *A Changing Planet* by Jason Neff. The textbook has been integrated into Canvas and can be found in the *Pearson* tab (i.e., alongside the *Modules* and *Assignments* course tabs). To purchase the textbook, click on the *Create an Account* button and follow all onscreen instructions. Note that temporary (2-week) access options are available for those that are waiting on financial aid. Please do not purchase a different version (hardcopy or digital) of this textbook, as the one integrated into Canvas is specifically tailored to this course.

Additional Materials and Equipment: Additional reading material will be required throughout the semester will be posted on Canvas. To obtain this material, as well as complete readings from your digital textbook, you will need access to a computer with a connection to the internet.

COURSE SCHEDULE

Week	Tues Date	Thurs Date	Tues Topic	Thurs Topic
1	1/21	1/23	What is Environmental Science?	Science Fundamentals and Pearson
2	1/28	1/30	*Human Populations*	*Science of Sustainability*
3	2/4	2/6	*Waste Management*	Waste Management II / Human Health
4	2/11	2/13	*Agriculture*	Agriculture II
5	2/18	2/20	*Energy Use*	Energy Use II
6	2/25	2/27	<i>EXAM #1</i>	*Biogeochemical Cycles*
7	3/3	3/5	*Non-Renewable Energy*	Non-Renewable Energy II
8	3/10	3/12	*Atmosphere & Air Pollution*	The Atmosphere & Air Pollution II
9	3/17	3/19	*Climate (Change)	Climate Change II
10			Spring Break – No Class	
11	3/31	4/2	*Renewable Energy*	Renewable Energy II
12	4/7	4/9	<i>EXAM #2</i>	*Oceans*
13	4/14	4/16	*Freshwater*	Land Use / Terrestrial Resources
14	4/21	4/23	*Biodiversity & Evolution*	Biodiversity & Evolution II
15	4/28	4/30	*Populations & Communities*	Populations & Communities II
16	5/5	5/7	*Ecosystems & Biomes*	Env Communication / Course Summary
Finals	5/12	5/14	FINAL EXAM – Date/Time TBD	

Bolded topics represent a corresponding chapter in *A Changing Planet*. You must read the chapter and complete the chapter quiz before class. The textbook quizzes are due by **11am** on the day of lecture.

EVALUATION

Assessment and Grading Overview:

1. Attendance, Participation and In-Class Assignments: 15%
2. Connections Journal: 15%
3. Textbook Quizzes: 20%
4. Two Midterm Exams: 30%
5. Final Exam: 20%

Grading and Assessment Descriptions:

1. **Attendance, Participation and In-Class Assignments (15%):** It is critical that you attend class regularly. On several random occasions throughout the semester I will take attendance through a sign-in sheet or assess participation through an in-class assignments. Each absence will result in 0 for any attendance points or in-class assignments on that day. If you need to be absent for a legitimate reason, please send me an email explanation *before* the start of class. Absences for legitimate reasons will be excused.
2. **Connections Journal (15%):** Each week you will be required to submit through Canvas a short description (3-4 sentences) of an *environmental connection* you observed during the preceding week. Starting Week 2, journal entries are due **Tuesdays by 11:00 AM** (the start of class), each week except for the weeks of the mid-term exams. Entries may

be informed by lecture and/or laboratory topics, although this is not required. Each entry should describe your observations and any thoughts related to a connection between one environmental system and another. The purpose of this assignment is to reveal the enormous diversity of environmental systems that surround you on a daily basis and hone your skills at discerning the physical, chemical, and biological processes occurring within them. Here is a very simple example: *Today I saw a squirrel eating acorns on campus. I realized that if the trees that supplied these acorns were cut down, the squirrel would likely have a more difficult time finding food.* I hope you will develop even more complex and insightful ideas in your journal!

- 3. Textbook Quizzes (20%):** Your digital textbook has quizzes embedded within each chapter. The course schedule that follows indicates which lectures have an associated reading and all textbook quizzes are due to be taken by **11:00 AM** on the day of the corresponding lecture. In other words, you need to complete the reading and quizzes prior to hearing a lecture on similar topics. Textbook quizzes are listed under *Assignments* in Canvas. Your score should transfer directly from Pearson to Canvas within 24 hours. If the grade does not transfer or is incorrect (after the 24 hour delay), or if you experience other difficulties with Pearson, email the Course TA immediately with an explanation. In order to receive an extension (if merited) with allowance for full credit, the Course TA must receive your email before the textbook quiz deadline.
- 4. Two Midterm Exams (30% total; 15% each):** This course will have two midterm exams, which will cover lecture material between the exam date and either the start of the semester (Exam #1) or the previous exam date (Exam #2). Midterm exams will consist of multiple-choice questions. I recommend you take careful notes during lecture, because this will be your best study guide! If time allows, I will hold a review session during class prior to the exam. Dates of the midterm exams are clearly indicated on the course schedule that follows.
- 5. Final Exam (20%):** The final exam will also consist of multiple-choice questions. About 3/4 of the final exam will be devoted to lecture material covered between Exam #2 and the end of the semester. About 1/4 of the final exam will be cumulative, covering topics already covered by Exam #1 and Exam #2. The date/time of the final exam is determined by the University late in the semester and this information will be posted to Canvas when available.

Course and Classroom Policies

Grading scale (based on percent):

A: 93-100% A-: 90-92.9%

B+: 87-89.9% B: 83-86.9% B-: 80-82.9%

C+: 77-79.9% C: 73-76.0% C-: 70-72.9%

D+: 67-69.9% D: 63-66.9% D-: 60-62.9%

F: 0 – 59.9%

Late Assignments: Late assignments will not be accepted, except in the rarest of circumstances, in which case you should send me (or the Course TA regarding Quizzes) an email via Canvas as soon as possible to discuss the situation.

Grade Dissemination: Points for *Attendance, Participation and In-class Assignments* will be recorded in the Canvas gradebook within a week of when attendance was taken or the in-class assignment was assigned. Please be checking Canvas, and let me know if you see any errors within two weeks of the date in question. *Connection Journals*, when they are graded, will be graded through Canvas and grades will be posted in the Canvas gradebook within one week of the due date. Please be checking Canvas, and let me know if you see any errors within two weeks of due date. Grades for *Textbook Quizzes* should transfer directly from Pearson to Canvas within 24 hours. If the grade does not transfer or is incorrect (after the 24 hour delay), or if you experience other difficulties with Pearson, email me immediately with an explanation. In order to receive an extension (if merited) with allowance for full credit, I must receive your email before the textbook quiz deadline. *Mid-term Exams* will be handed back in class within 2 weeks of the Exam date.

In-class Expectations: Because this is a student-centered course, I expect you to please arrive to class on-time, and stay for the entire period. Please prepare to actively participate by reading the assigned material carefully before class. Out of respect for me and your peers use, of cell phones is prohibited, except when in use for a class-related purpose. You may be asked to leave the class if use of your cell phone for other purposes becomes a distraction, and you will not be eligible for attendance or in-class participation points for that day. Laptop computers are permitted for class related purposes, but not for other activities (email, assignments for another class, etc). Please have all other windows closed. Computer screens can be a big distraction to your peers!

Civility: We will discuss some controversial topics in this class, and I am committed to developing, and actively protecting, an environment in which every individual feels comfortable, respected, and can have their voice heard. It is appropriate to express an opposing view, but please do so with civility. Failure to meet these standards will result in removal from the class. If you have questions or concerns, please let me know.

Communications: I will commonly need to contact you between classes, and I will do so using the email function in Canvas. Please check your email regularly. If you are not receiving emails, or having another issue with Canvas, please let me know. The best way to get your questions for me answered is to come to my office hours. I will also make every effort to answer your inquiries sent through Canvas within two days. If you do not get a response from me within this time, feel free to send a polite follow-up email.

Academic Honesty, Cheating and Conduct: You must complete your work on your own, or with your group in the case of group work, without outside help. Any infractions may result in failure on an assignment or in the class, and/or dismissal from the University. In addition, you must adhere to campus policies in the University of Colorado Denver Student Code of Conduct, which can be downloaded at:

<http://www.ucdenver.edu/life/services/standards/Documents/CUDenver-CodeofConduct.pdf>

Plagiarism: Plagiarism is defined herein as presenting the work of another as your own without proper acknowledgement. I will not tolerate plagiarism and have tools in place to catch plagiarizers. This is your one and only warning. Plagiarism will lead to failure on an assignment and/or in the class, and will be reported to the CLAS administration who may decide to hand down more stringent penalties. If you are not sure what plagiarism is or how to avoid it, please visit the University of Colorado Denver Writing Center.

Access, Disability, Communication: The University of Colorado Denver is committed to providing reasonable accommodation and access to programs and services to persons with disabilities. Students with disabilities who want academic accommodations must register with Disability Resources and Services (DRS), 177 Arts Building, 303-556-3450, TTY 303- 556-4766, FAX 303-556-2074. I will be happy to provide all approved accommodations, once you provide me with a copy of the DRS letter.

Preferred Names and/or Pronouns: I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records.

Other Items: This syllabus cannot cover all conceivable events or complications that could occur over the course of the semester. In addition to the policies outlined herein, students are expected to adhere to all University policies and state/federal laws and regulations the event that there is no guidance offered in this syllabus for an event or issue that arises in your life, please feel free to contact me and together we will seek a reasonable resolution for everyone involved. These activities may involve consultation with department and University administrators. Additional University policies are attached to this syllabus.

**Questions? Ask Lynx Center – ucdenver.edu/lynxcenter
Student Commons 1st floor - 303-315-5969 - lynxcenter@ucdenver.edu**

STUDENT SUPPORT

CARE Team is there for you
Call 303-352-3579 if you
or a classmate needs extra help
Submit a concern at
www.ucdenver.edu/life/services/CARE

Call 911 in case of emergency
Auraria Campus Police: 303-556-5000

CAREER CENTER

ucdenver.edu/careercenter - Tivoli 267
303-315-7315 - careercenter@ucdenver.edu

COUNSELING CENTER

ucdenver.edu/counselingcenter - Tivoli 4th floor
303-315-7270

DISABILITY RESOURCES & SERVICES

ucdenver.edu/disabilityresources - Student Commons 2116
303-315-3510 - disabilityresources@ucdenver.edu

OFFICE OF EQUITY

equity.ucdenver.edu - Lawrence Street Center 12th floor
303-315-2567 – equity@ucdenver.edu

PHOENIX CENTER AT AURARIA

24/7 Free and Confidential Helpline: 303-556-2255
Info on interpersonal violence, referrals, options, & next steps
www.thepca.org - Tivoli 259 - 303-556-6011 - info@thepca.org

FREE TUTORING

Contact these services for academic assistance throughout the semester

LEARNING RESOURCES CENTER

ucdenver.edu/lrc - Student Commons 2105
303-315-3531 - tutorialservices@ucdenver.edu

MATH EDUCATION RESOURCE CENTER

MERC Lab North Classroom 4015
math.ucdenver.edu/~mkawai/MERC - 303-315-1712

WRITING CENTER

North Classroom 4014 | Campus Village | Auraria Library
writingcenter.ucdenver.edu

UNDERGRADUATE ACADEMIC ADVISING

ucdenver.edu/undergradadvising

Graduate students: contact your graduate program directly for advising information

ACADEMIC SUCCESS ADVISING CENTER (ASAC)

Student Commons 1113
303-315-1940 - asac@ucdenver.edu

ARCHITECTURE AND PLANNING (CAP)

CU Building 2000
303-315-1000 - cap@ucdenver.edu

ARTS AND MEDIA (CAM)

Arts Building 177
303-315-7400 - camadvising@ucdenver.edu

BUSINESS SCHOOL

15th and Lawrence Street, 4th floor
303-315-8110 – undergrad.advising@ucdenver.edu

EDUCATION AND HUMAN DEVELOPMENT (SEHD)

Lawrence Street Center 701
303-315-6300 - education@ucdenver.edu

ENGINEERING AND APPLIED SCIENCES (CEAS)

North Classroom 2605
303-315-7510 - CEASstudentservices@ucdenver.edu

LIBERAL ARTS AND SCIENCES (CLAS)

North Classroom 1030
303-315-7100 – clas_advising@ucdenver.edu

SCHOOL OF PUBLIC AFFAIRS (SPA)

Lawrence Street Center 525
303-315-2228 - spa@ucdenver.edu

Plan Ahead! Review Important Dates & Deadlines at
ucdenver.edu/registrar >> CU Denver Registrar >> Academic Calendar

MONTH	DAY	DEADLINE	IMPORTANT NOTES
NOVEMBER	1	➤ First day to apply for Spring Graduation via UCDAccess.	
	1-16	➤ Registration begins for Spring Semester via UCDAccess. Check UCDAccess for your specific registration date and time assignment.	❖ For best course selection, register as soon as possible after your registration time assignment.
JANUARY	20	➤ Martin Luther King Jr. Holiday	
	21	➤ First day of Spring semester classes	
	26	➤ Last day to add or WAITLIST classes using UCDAccess. ➤ Last day to request or cancel Grade Forgiveness	❖ Refer to the Grade Forgiveness Form for restrictions.
	27	➤ Last day to drop a class without a \$100 drop charge. ➤ First day to add classes with the Late Add Form with instructor approval	❖ All waitlists will be eliminated today.
FEBRUARY	5	➤ CENSUS DATE – until 5:00 PM. ➤ Last day to DROP full term classes with a financial adjustment. ➤ Last day to ADD full term classes with instructor approval on a Late Add Form ➤ Last day to request No Credit or Pass/Fail grade for a class. ➤ Last day to apply for Spring graduation via UCDAccess. After this date, contact your advisor.	❖ After this date, dropped classes will appear on your transcript with a grade of 'W'. ❖ After this date, you will be charged the full tuition amount for additional classes added – College Opportunity Fund hours will not be deducted from eligible student's lifetime hours.
MARCH	23-29	➤ Spring Break	❖ No classes. Campus open.
APRIL	5	➤ Last day to WITHDRAW from a class via UCD Access	
	6	➤ First day to WITHDRAW from a class with a required authority signature on a Late Withdraw Petition Form	
MAY	6	➤ Last day to WITHDRAW from a class with a required authority signature on a Late Withdraw Petition Form	
	11-16	➤ Finals week.	
	16	➤ End of semester – Commencement.	
	21	➤ Final grades available on UCDAccess and transcripts (tentative).	
JUNE	26	➤ Spring degrees posted on UCDAccess and transcripts (tentative).	❖ This is the date your degree will be recorded on your transcript; diplomas begin mailing on July 15th.

➤ [Refer to the Residency website for important deadlines pertaining to In-State Tuition Rate qualification. \(www.ucdenver.edu/residency\)](#)

➤ [Refer to the College Opportunity Fund \(COF\) website for important deadlines pertaining to the COF stipend for eligible undergraduate students paying in-state tuition. \(www.ucdenver.edu/cof\)](#)

Additional Billing/Financial Information: Students are responsible for complying with tuition/fees deadlines. All registered students must access their student account and billing information through UCDAccess. You will also receive an electronic bill to your university email account.

Intensive, module, and off-cycle classes require the same amount of work and number of classroom hours as full-term classes. Intensive classes are less than five weeks. Module classes last five or more weeks, but less than full term. Off-cycle classes vary in length. Module/intensive classes may be added up until the first day of the class. After the first day of class, these classes may be added with the instructor's signature approval and a Schedule Adjustment form is required to drop these classes. Instructor approval is not required to drop the class within the first 15% of class meetings.

Maymester 2020 (tentative)	May 18	Maymester classes begin	
	May 25	Memorial Day Holiday	No classes. Campus Closed.
	June 4	Maymester classes end	
Summer 2020 (tentative)	Jun 8	Summer classes begin	
	July 3	Independence Day Holiday Observed	No classes. Campus Closed.
	Aug 1	End of semester	
Fall 2020 (tentative)	Aug. 17	Classes begin	
	Sept 7	Labor Day Holiday	No classes. Campus Closed
	Nov 23 - Nov 29	Fall Break	No classes. Campus Open
	Nov 26	Thanksgiving Holiday	No classes. Campus Closed
	Dec 12	End of semester - Commencement	