

EVS 3000 Environmental Science - Fall 2021

Class# 14307 - 3 credit hours

T 4th period (10:40 – 11:30), R 4-5th periods (10:40 – 12:35)

Classroom: CSE E222

Syllabus

Instructor: Dr. Danny Coenen (he/him/his)

E-mail: dcoenen@ufl.edu

Office Location: McCarty D, Room 2047

Office hours: W 9:30 am – 11:30 am (via Zoom)

Teaching Assistant: Emily Pappo (she/her/hers)

E-mail: epappo@ufl.edu

Office Location: McCarty D, Room 2047

Office hours: T 9:00-10:00, R 2:00-3:00

We are here for you! Please don't hesitate to ask us for assistance!

Course Description

Interactions of humans and their environments, Earth's resources, pollution, and environmental management.

Course Goal

The goal of this course is to provide students with foundational knowledge for the environmental science baccalaureate degrees and minors offered by the School of Natural Resources and Environment (SNRE), with specific science content on ecology, Earth's resources (biotic, fuels, minerals), pollution (air, water, land), climate change, and environmental management.

Place in Curriculum

EVS3000 is the required foundation course for environmental science majors and minors. Majors should make every effort to take EVS3000 during the second semester of your sophomore year or the first semester of your junior year, when you have completed or are about to complete your general education and critical tracking requirements, and before taking most of the more specialized core and elective requirement courses for the environmental science degree. Minors may take the course during their junior or senior years.

It is recommended, but not required, to enroll in EVS3000L, the accompanying laboratory course, during the same semester.

Course Learning Objectives

By the end of the semester, you will be able to:

- 1) recall key terminology and definitions
- 2) review how foundational principles from biology, chemistry, physics, geosciences, and social sciences are integrated for the study of social-ecological systems
- 3) recognize the scale dependency of environmental processes and issues in the dimensions of space, time, and organization (taxonomy or hierarchy)
- 4) compare biological, material, and energy resources, and associated environmental constraints
- 5) relate the complex relationship between human demography, economics, and technological development to anthropogenic environmental impacts
- 6) apply interdisciplinary approaches to evaluating and developing solutions for environmental problems, taking into account scientific and socioeconomic information, and political constraints

- 7) review primary research articles and appraise how they contribute to the field's body of knowledge
- 8) design and deliver a collaborative presentation on an environmental science topic
- 9) reflect on your environmental career goals and identify steps & skills needed to realize those goals

Prerequisites

Enforced: CHM2045 or CHM2047 or CHM2095.

Recommended: BSC2005(C-) or BSC2010(C-) & CHM2045(C-) or CHM2047(C-) or CHM2095(C-), or equivalent

Required Textbook

Environmental Science: Systems and Solutions, 6th edition by McKinney, Schoch, Yonavjak & Mincy (2019). Boston, Massachusetts: Jones and Bartlett Publishers. Our course textbook is available as an eBook through UF All Access at a discounted price. See <https://businessservices.ufl.edu/services/uf-bookstore/uf-all-access/> for information and support. Please note: It may take several days after the start of the semester for you to receive access to the textbook. That is okay; just complete any assigned readings as soon as you get it.

Additional required readings will be made available on Canvas or UF library electronic reserves.

Grading Policies

Your final grade for this course will be based on a 1000-point scale and will be weighted as follows:

Grade Component	Points	Percent	Description
Attendance and engagement	200	20	Roll call, activities, discussions, and homework
Career aspirations paper	50	5	Reflection paper on environmental career aspirations
Article analyses (2)	150	15	Two analyses of current peer-reviewed literature
Issue analysis presentation	120	12	Collaborative presentation
Quizzes	120	12	Four quizzes, 30 pts each
Exam 1	180	18	Multiple choice and short answer
Exam 2	180	18	Multiple choice and short answer

Grading scale

Grade	Points	Percent	Grade	Points	Percent	Grade	Points	Percent
A:	930-1000	93.0-100.0%	B-	800-829.9	80.0-82.9%	D+:	670-699.9	67.0-69.9%
A-	900-929.9	90.0-92.9%	C:	730-769.9	73.0-76.9%	D:	630-669.9	63.0-66.9%
B+:	870-899.9	87.0-89.9%	C+:	770-799.9	77.0-79.9%	D-	600-629.9	60.0-62.9%
B:	830-869.9	83.0-86.9%	C-	700-729.9	70.0-72.9%	E:	0-599.9	0.0-59.9%

These grade cutoffs are exact; students should not expect any rounding of scores at the end of the semester.

Attendance and Engagement: Attending class regularly is foundational to learning. Your attendance grade is based on the number of class sessions you are present for. Please arrive on time and be prepared to learn. Repeated unexcused absences and inappropriate or disruptive classroom behavior will result in a reduction of your attendance grade (see Course Policies for details).

Learning is an active process facilitated by reflecting on, critically thinking about, and applying readings, lecture material, and out-of-class experiences. Your engagement grade is based on the quantity and quality of your contributions to formal and informal in-class discussions and activities, as well as preparatory homework assignments. You are strongly encouraged to participate during each class meeting by asking relevant questions,

engaging in discussion, or sharing personal experiences on the topic. The precise number of engagement opportunities will vary depending on the needs and interests of this semester's cohort of students. Your engagement grade is aligned with course learning objectives 1 through 6, with emphasis on 4-6.

Unique requirements for the Fall 2021 semester: We continue to experience pandemic conditions. **You are expected and strongly encouraged to wear properly fitted masks over mouth and nose while you are entering, within, and exiting the classroom** to minimize infection risk to yourself and others, including vulnerable members of our local community. This applies whether you are vaccinated against COVID-19 or not. Thank you! Should you contract or believe you have been in close contact with someone who has tested positive, please call UF Health Screen, Test & Protect at 352-273-9790 to initiate contact tracing.

Career Aspirations Paper: Different career paths require different skills, and the process of applying for graduate school differs from finding a government job. This assignment will help you reflect on your career aspirations and identify steps to maximize your chance to realize your aspirations. This part of your course grade is aligned with course learning objective 9.

Article Analyses: Science is an ongoing process through which our knowledge about the world around is advanced and refined. For each article analysis, you will identify and critically read current primary research articles on course-related topics and apply your critical thinking skills to analyze how the reviewed research advances or revises scientific understanding of said topic. You will complete two article analyses during the semester, each with a word count of 500-750 words. Grading will be by rubric. This part of your course grade is aligned with course learning objective 7.

Issue Analysis Presentation: Science is a collaborative process, thriving from the contributions of a diverse group of contributors. For your issue analysis presentation, you will work in groups to research an environmental issue and design an engaging, professional VoiceThread presentation on the causes, impacts, and possible solutions to the assigned issue. Grading will be by rubric. This part of your course grade is aligned with course learning objectives 5 through 8

Quizzes: There will be four online multiple-choice quizzes during the semester to assess your progress in comprehending and applying course materials. Quizzes are closed book/closed notes and will be proctored by Honorlock. This part of your course grade is aligned with course learning objectives 1 through 4.

Exams: All information covered in readings and presented in class (incl. live and pre-recorded lectures, videos, discussions, and student contributions) is potential exam material. Exams will consist of a mixture of question styles, including true/false, multiple choice and short answer questions. Exams are closed book/closed notes and will be proctored by Honorlock. This part of your course grade is aligned with course learning objectives 1 through 6.

It is your responsibility to verify that all assignments are successfully uploaded to Canvas. Missing, corrupt, or incompatible files may result in grade penalties up to a score of zero for the assignment.

You are responsible for maintaining duplicate copies of all work submitted in this course, and making those copies available should the need arise. In case of a grading dispute, you will need to notify me via e-mail within one week of the date when the score is posted or the assignment is returned to you. Detailed grading criteria for each assignment will be provided on Canvas.

Course Policies

Diversity and Inclusiveness Statement

Diversity is one of our biggest assets in the classroom and in environmental science. Different perspectives enrich our understanding of the variety of human-nature interactions and are imperative to developing just solutions to complex environmental problems.

This classroom is a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities & races, genders, gender identities, gender expressions, national origins, religions (if any), sexual orientations, ability – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the class. This does not mean that you are not allowed to disagree with others, but that such differences should be explored without ad hominem judgment.

Should I inadvertently make a statement offensive to you, please let me know so that I may learn and grow from the incident.

Attendance Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. [Click here to read the university attendance policies](#). Requirements specific to EVS3000 are outlined below:

On-time attendance is mandatory. You are permitted three unexcused absences without grade penalty (excepting any in-class activities or extra credit opportunities). Additional unexcused absences incur a score of zero for the day's Class Attendance and Engagement. Point deductions may also be incurred for repeated disruptive tardiness.

Absences will be excused

- In case of potentially contagious illness, by timely e-mail notification to dcoenen@ufl.edu. If you miss more three or more days due to a contagious illness, provide a doctor's note or equivalent, or follow the procedure outlined here: <https://care.dso.ufl.edu/instructor-notifications>.
- In case of non-contagious illness, upon receipt of a doctor's note or equivalent, or by following the procedure outlined here: <https://care.dso.ufl.edu/instructor-notifications>.
- In case of religious holidays, by informing me via e-mail ahead of time.
- In case of military duty, jury duty, participation in academic conferences, or participation in official university or UAA events, by providing appropriate evidence ahead of time.
- In case of family emergencies, deaths, or other extenuating circumstances, by following the procedure outlined here: <https://care.dso.ufl.edu/instructor-notifications>.
- In all other cases, or if you are unsure, please e-mail me as soon as feasible.

If absent, it is your responsibility to make yourself aware of all due dates via the course e-learning site and/or contacting me. You are still responsible for turning assignments in on time unless an extension has been requested via e-mail and approved by me prior to the deadline. In case of true documented emergencies, I may waive this requirement.

Make-up Policy

Only work missed due to excused absences can be made up. For absences excused ahead of time, I will develop a make-up plan and schedule. In case of documented illnesses or emergencies, arrangements for completing make-up exams or assignments should be made upon return to class. If experiencing truly extenuating

circumstances resulting in longer absences, you should notify me as soon as possible to develop a plan to make up missed work.

Late Work

You are responsible for turning assignments in on time unless an extension has been requested via e-mail prior to the deadline. In case of true documented emergencies, I may waive this requirement. Technical difficulties are not generally an excuse for missing an assessment or assignment; you should have contingency plans in case any such issues arise. I recommend storing your documents on a cloud service that can be accessed from any device ([Dropbox](#) and [OneDrive](#) are free to UF students), and having a plan for internet outages (such as identifying a source for public WiFi near you or tethering through your cell phone). Try not to wait until the last minute to submit assignments!

For each day writing assignments are submitted late, I will subtract 10% from the assignment grade. If the assignment is more than five days late, a score of 0 will be entered. I highly recommend starting on assignments early to preclude unexpected emergencies or late-semester stress from compromising your grade. Deadline extensions may be available on certain assignments if requested ahead of time via e-mail. If extended deadlines are not met, late penalties will be assessed based on the original, not the revised due date!

Finally, please do not wait until the end of the semester to discuss problems with the course material or performance in class. Your performance and success are important to me, SNRE, the College of Agricultural and Life Sciences, and the University of Florida, so please contact me to discuss your concerns as soon as they arise.

Office Hours

Please take advantage of office hours to discuss any questions or concerns. Making an appointment ahead of time is recommended, but not required. If you cannot be present for the regularly scheduled office hour, I will attempt to accommodate you at an alternate time.

Course Communications and Technology

This course uses the Canvas learning management system (<http://elearning.ufl.edu>), where course materials, grades, assignment instructions, and due dates are posted. Content will be delivered through readings, pre-recorded lecture slides, videos, and live classes during the regularly scheduled class periods. You are responsible for having the appropriate technology to access all course content, including proctoring by Honorlock. This includes a desktop or laptop computer with reliable broadband internet connectivity.

You are expected to check your UF e-mail and the course web site on Canvas (<http://elearning.ufl.edu>) frequently, as information may change during the semester. You should enable Canvas notifications for this class, so that you are notified immediately about grading, assignment feedback, due date changes, announcements, etc.

The preferred way to get ahold of me outside of class and office hours is via e-mail through Canvas or to dcoenen@ufl.edu. You can expect a response within 24 hours on weekdays.

External Communication

You may use GroupMe or similar tools to communicate with other students about the class and environmental science-related topics. **You may not, however, discuss quiz and exam questions/answers with others, including quizzes and exams from prior semesters, or collaborate on any assignments intended to be worked on individually.** Doing so constitutes academic dishonesty.

Canvas Display Name Change

Canvas uses the "Display Name" as set in myUFL. The Display Name is what you want people to see in the UF Directory, such as "Ally" instead of "Allison." To update your display name, go to one.ufl.edu, click on the

dropdown at the top right, and select "Directory Profile." Click "Edit" on the right of the name panel, uncheck "Use my legal name" under "Display Name," update how you wish your name to be displayed, and click "Submit" at the bottom. This change may take up to 24 hours to appear in Canvas. This does not change your legal name for official UF records.

Paper Guidelines

All writing assignments will be submitted to Canvas and must be in **.docx** or **.pdf** format, with the proper file extension. Other file formats will not be accepted.

If you experience difficulties in the writing process are encouraged to contact your TA or me for advice, or visit the UF Writing Studio (see *Campus Helping Resources* below).

I strongly recommend watching the following video on academic honesty, citing sources, and proper paraphrasing by the end of the drop-add period: <https://www.youtube.com/watch?v=g81hPRKWsdM>

CALS and University of Florida Policies

Grades and Grade Points

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

Zoom Conference Privacy

Should it become necessary or convenient to hold classes virtually using zoom, those class sessions may be audio-visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized sharing of recorded materials is prohibited.

Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at:

<https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>.

The instructor emphasizes that **PLAGIARISM, WHETHER INTENTIONAL OR UNINTENTIONAL, IS A SERIOUS AND POTENTIALLY CAREER-ENDING FORM OF ACADEMIC MISCONDUCT. Copying and pasting is never okay in academia.** Direct quotes are not commonly used in science writing; paraphrases accompanied by a proper citation should be used instead.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor. A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session. Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Software Use

All UF faculty, staff and students are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Click here to get started with the Disability Resource Center.](#) It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Student Complaints

Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>

Online Course: <http://www.distance.ufl.edu/student-complaint-process>

Campus Helping Resources

Your wellbeing is important to me and the University of Florida community. Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *University Counseling Center & Wellness Center*, 3190 Radio Road, 352-392-1575. Counseling Services, Groups and Workshops, Outreach and Consultation, Self-Help Library & Wellness Coaching. <http://www.counseling.ufl.edu/>
- *U Matter We Care*. 352-292-2273. UF's umbrella program for UF's caring culture. Provides students in distress with support and coordination of the wide variety of appropriate resources. <http://umatter.ufl.edu>
- *Career Connections Center*, First Floor JWRU, 352-392-1601, <https://career.ufl.edu/>.
- Student Success Initiative, <http://studentsuccess.ufl.edu>
- *Dean of Students Office*, 202 Peabody Hall, 392-1261. Among other services, the DSO assists students who are experiencing situations that compromises their ability to attend classes. This includes family emergencies and medical issues (including mental health crises). <https://care.dso.ufl.edu/>
- *Teaching Center*, Broward Hall, 352-392-2010 or 352-392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/>
- *Writing Studio*, 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. <http://writing.ufl.edu/writing-center/>.
- *Fork and Field Pantry*. Food and toiletries for students experiencing food insecurity. <https://pantry.fieldandfork.ufl.edu/>.
- *UF Help Desk*. 352-392-4357. Technical support for computer issues and UF web services. <http://helpdesk.ufl.edu/>
- *University Police Department*, 352-392-1111 (or 9-1-1 for emergencies). <http://www.police.ufl.edu/>
- *Library Support*, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with using the libraries or finding resources.

Course Outline (subject to change – please check the Canvas calendar for the latest information)

Critical Dates

Career reflection paper	Friday, September 10
Quiz 1	Friday, September 17
Quiz 2	Wednesday, October 13
Exam 1	Friday, October 15
Article analysis 1	Wednesday, October 27
Article analysis 2	Wednesday, November 10
Quiz 3	Wednesday, November 17
Issue analysis presentation	Friday, November 19
Quiz 4	Friday, December 4
Exam 2	Wednesday, December 8

Lecture Schedule

Module	Mode	Dates
1 Introduction	Live	August 24-26
2 Fundamental Concepts	Pre-rec	For August 26
3 The Biosphere	Pre-rec	For August 31
4 Biodiversity	Live	August 31-September 9
5 Thermodynamics & Biogeochemistry	Pre-rec	For September 7
- Natural Hazards	Reading	For September 7
6 Alternate Stable States, Resilience, and Cycles of Adaptive Change	Live	September 9-16
7 Human Population Growth	Live	September 16-23
8 People & Resources	Pre-rec	For September 23
9 Conserving Biological Resources	Live	Sept. 28-October 12
10 Land Management and Conservation	Pre-rec	For October 12
11 Mining for Mineral Resources and Coal	Live	October 14-19
12 Fossil Fuels	Pre-rec	For October 19
13 Nuclear Power	Live	October 21
14 Renewable Energy	Live	Oct. 26-November 4
15 Pollution and Toxicology	Pre-rec	For November 2
16 Water Resources	Live	November 4-18
17 Water Pollution	Pre-rec	For November 16
18 Air Pollution	Pre-rec	For November 18
19 Agriculture	Pre-rec	For November 23
20 Climate Change	Live	Nov. 18-December 7

Course Alterations

Due to COVID-19, unforeseen circumstances or to enhance class learning opportunities, it may be necessary to alter the information given in this syllabus during the semester. Such changes are not unusual and should be expected. All changes to the syllabus will be announced in class and posted to Canvas. It is your responsibility to keep up with any syllabus changes.