EVS3000L Environmental Science Lab

Spring 2026
In-person, 1 credit

Instructors

Tuesday section

Megan Siemann
PhD candidate, SNRE
Email: msiemann@ufl.edu

Office Hours: Monday 3:00-4:00pm

Location: McCarty Hall D 2053

Wednesday section

Tori Guarino
PhD student, SNRE
Email: tguarino@ufl.edu

Office Hours:

Location: McCarty Hall D 2053

Class meeting information

Tuesday section (11412)

Periods 6-8 (12:50 PM - 3:50 PM)
Classroom: PSY 0129

Wednesday section (11413)

Periods 2-4 (8:30 AM - 11:30 AM)
Classroom: TUR 2350

Note: The location of the class will vary by week, with some labs taking place outside or off campus. The instructor will notify the students of the class meeting location in advance. Students must attend the lab section they are enrolled in.

Course Description

Hands-on experience in data collection and analysis for environmental science and management.

Course Prerequisites

CHM 2045 or CHM 2047 or CHM 2095.

Course Learning Objectives

At the conclusion of this course, students will:

- Have gained a basic understanding of the many possible professional trajectories in Environmental Science and be able to research environmental career opportunities and evaluate how they fit with students' current skills and long-term training and career objectives.
- Plan and execute basic research projects to address questions in the natural and social dimensions of environmental science.
- Generate professional communications and application materials for career opportunities.

Course Overview and Purpose

Environmental science is an interdisciplinary field of study that combines physical, biological, and information science to understand the interactions and effects of natural and anthropogenic processes on the environment. Because of the diversity and interconnectedness of all aspects of human-

environment relationships, environmental science careers are equally varied. Environmental scientists work on problems spanning biogeochemical cycles, energy systems, pollution control and mitigation, natural resource management, and much more! Our objective in this lab is to give you:

1) exposure to the diversity of environmental science careers,
2) an introduction to field- and lab-based methodologies, as well as quantitative techniques, commonly used in environmental research, and
3) professional development opportunities to help you progress in the field.

Lab activities will break roughly into three categories:

- Career exploration activities—listening to environmental science professionals about their career trajectory, researching career options that match your interests, or engaging in one-on-one discussions with professionals with whom you share interests.
- Research exercises—practicing common methods for studying environmental problems from different perspectives, including policy, human dimensions, and biology (e.g., hands-on sampling projects, tours of research facilities and field sites, and tutorials of basic statistical programming).
- Professional development activities—developing key practical skills for professional behavior, finding career opportunities that interest you, and preparing compelling application materials.

Course Prerequisites

CHM 2045 or CHM 2047 or CHM 2095.

Textbooks, Learning Materials, and Supply Fees

There are no required textbooks. Readings will be made available via Canvas.

Required Technology & How to Obtain the Technology

Writing assignments in this class require working in Google Docs. Enrolled students have access to the Google Suite through GatorCloud (https://it.ufl.edu/cloud/), or you may use your personal Google account.

Communication Guidelines

All course communication outside of class and office hours will be done through Canvas and your UF email. You are responsible for checking both regularly to keep up to date. If you have questions or need help outside of class or office hours, we will try to respond to email and chat messages quickly. Please allow at least 24 hours to hear back from us - this means you may want to work on your assignments early, so you have time to reach out to us if you run into any sticking points.

All students are expected to check the course web site on Canvas (https://elearning.ufl.edu) each weekday. In addition, we may send specific communications directly to your UF email, which you should check daily as well. You should enable Canvas notifications for this class, so that you are notified immediately about grading, assignment feedback, due date changes, announcements, etc.

Course adjustments:

Any changes to the schedule or assignments will be announced via Canvas and updated on the Canvas calendar. If you encounter new circumstances or challenges this semester that affect your ability to do the assignments as designed, please reach out to us and we will try to find a solution that supports your well-being and helps you get the most possible out of this course. The sooner you open a line of communication with us, the better positioned we will be to figure something out. Do not hesitate to get in touch with us at any point.

Class Demeanor/Expectations

Attendance and Participation

Since this is a lab, attendance and participation are important. Attendance will be taken each session that the class meets in person. Participation credit will be determined based on your interactions, questions, comments, punctuality, and attentiveness. Cell phone and computer use during inappropriate times (e.g., presentations by classmates, instructors, and guests) will result in point deductions. Students are required to ride with the group to off-campus sites. If you are not at the designated meeting point at the scheduled departure time, we will leave without you, and you will receive a 0 for participation and attendance that day. We expect you to interact in a polite and professional manner with your instructors, classmates, and the environmental professionals we will meet with.

In the event a student has an excused absence from class, the student will need to contact their instructor regarding a make-up lab assignment in order to earn the points for that day of lab. This make-up assignment will be due within two weeks of the missed class date. After one absence, students need to communicate and work with their instructor on a plan to make up missed labs. Make-up assignments may not be provided for unexcused absences in some situations. These situations will be handled on a case-by-case basis. We recognize that students may face unexpected challenges during the semester; please contact your instructor as soon as possible if this is the case.

For excused absences please follow the UF procedures for documenting and communicating absences.

- in case of illness or injury, 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 family emergencies, deaths, or other extenuating circumstances, by following the procedure outlined here: https://care.dso.ufl.edu/instructor-notifications.
- in case of religious holidays, by informing your instructor via email 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 all other cases, or if you are unsure, please email your instructor as soon as feasible. Absences are generally not excused for personal non-emergency travel and vehicle problems.

If absent, it is your responsibility contact your instructor.

Proper Attire

Proper attire may vary based on the conditions and the environment we will be in. Several of the class trips require closed-toed shoes and long pants. There will be times when you may wish to wear boots, as we may be in wet, muddy locations. Also, we may experience inclement weather such as rain. Please check the forecast and have rain gear when appropriate. Please contact your instructor if you need assistance in acquiring appropriate attire. Announcements will be posted on Canvas/emailed each week to give further direction regarding appropriate attire for the upcoming field trip.

Weekly Course Schedule

Specific field trip activities are subject to change pending guest speaker availability.

Week	Tuesday 12:50-3:50 pm	Wednesday 8:30-11:30 am	Topic	Location	Guest
1	1/13/2026	1/14/2026	Intro to Lab	Classroom	Megan Siemann/ Tori Guarino
2	1/20/2026	1/21/2026	Science Education	Classroom	Alberto Lopez
3	1/27/2026	1/28/2026	Invasive spp, eDNA, genetics, imperiled species, telemetry, deep-sea ecosystems, coastal wetlands	USGS WARC	USGS researchers
4	2/3/2026	2/4/2026	Land Management & Conservation	Austin Cary Forest	Scott Sager
5	2/10/2026	2/11/2026	Terrestrial Field Methods	Natural Area Teaching Lab	Johanna Freeman
6	2/17/2026	2/18/2026	Wetland Field Methods	Lake Alice	Masanori Fujimoto
7	2/24/2026	2/25/2026	Research Skills	Library	Laurel Kaminsky
			Project Proposal due Sunday, 2/22/2026		
8	3/3/2026	3/4/2026	Conservation and Ecological Consulting	Classroom	Jesse Borden
9	3/10/2026	3/11/2026	Environmental Research	Experiential Learning Lab	Ann Wilkie
			Project draft due Sunday, 3/15/2026		
10			**Spring break – no class meetings**		
11	3/24/2026	3/25/2026+	Water Reclamation/Park Management	Sweetwater Wetlands Park	Darby Guyn
12	3/31/2026	4/1/2026	Environmental Justice	Classroom	Stephanie Cadaval
13	4/7/2026	4/8/2026	Data analysis and R	Classroom	Megan Siemann/ Tori Guarino
			Final draft due Sunday, 4/12/2026		
14	4/14/2026	4/15/2026	Food, Agriculture, Waste	Horticultural Sciences Teaching Farm	Dina Liebowitz
15	4/21/2026	4/22/2026	Final Presentations	Classroom	Megan Siemann/ Tori Guarino

Grading Policy

Course grading is consistent with UF grading policies.

Late Policy:

Late assignments will be marked down by 10% each week they are late. If circumstances change such that you have trouble completing either the final project or multiple weekly assignments on time, we encourage you to get in touch with your instructor.

Course Grading Structure

Assignment details and final project details will be shared in class.

Assignment Type	Percent of Final Grade
Attendance/participation	60%
Assignments	15%
Final project	25%
Total	**100%**

Grading Scale

Grade	Percentage
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	0-59%

Software Use

All faculty, staff and students of the university 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.

That said, the software we will be using, R and RStudio, are **free and open source** – Runder a GNU general public license and RStudio under GNU Affero general public license V3. As part of the lab, we'll be helping you get set up with R and RStudio on your personal computer. If you do not have access to a laptop, we have a limited supply of laptops we can bring for you to work with.

Technical Support

UF Computing Help Desk & Ticket Number: All technical issues require a UF Helpdesk Ticket Number. The UF Helpdesk is available 24 hours a day, 7 days a week. https://helpdesk.ufl.edu/ | 352-392-4357

Academic Policies and Resources

Academic policies for this course are consistent with university policies. See https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/

- E-learning technical support: Contact the UF Computing Help Desk at 352-392- 4357 or via e-mail at helpdesk@ufl.edu.
- Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.
- Student Complaints On-Campus: Visit the Student Honor Code and Student Conduct Code webpage for more information.
- On-Line Students Complaints: View the Distance Learning Student Complaint Process.

Campus Health and Wellness Resources

Visit https://one.uf.edu/whole-gator/topics for resources that are designed to help you thrive physically, mentally, and emotionally at UF.

Please contact UMatterWeCare for additional and immediate support.

Privacy and Accessibility Policies

- Instructure (Canvas)
  - Instructure Privacy Policy
  - Instructure Accessibility
- Google Docs
  - Google Docs Privacy Policy
  - Google Docs Accessibility
- Zoom
  - Zoom Privacy Policy
  - Zoom Accessibility

Additional information and Course Policies

Academic Honesty and Plagiarism

This course follows the university's honesty policy regarding cheating and plagiarism. The School of Natural Resources and Environment's undergraduate programs expect ethically and morally responsible behavior from its students and has **zero tolerance** for academic dishonesty. We recognize that being a university student is a time-consuming and often stressful experience. **Please give us a chance to help you instead of using unauthorized shortcuts**

Artificial Intelligence (AI Policy)

Artificial Intelligence is an amazing new technology that is revolutionizing the way we access and process information, just like computers, the internet, and mobile phones did in prior decades. Large language models (LLMs) can be useful tools to assist (but NOT replace) writers when brainstorming, spellchecking, and (to a limited extent) editing if used judiciously and with the knowledge that outputs are subject to faulty reasoning and made-up (hallucinated) information. Brainstorming refers to using AI to explore general ideas and questions, not producing detailed outlines or arguments that will appear in your submission. Students should be cognizant that LLMs like ChatGPT, Gemini, Claude, Llama, and similar AI models are not considered academically credible sources and must not be treated as such. They are also ill-suited for finding scholarly sources and generally do a poor job at formatting reference lists.

All work submitted for credit in this class must be entirely your own. Using AI to generate any content for you, including but not limited to generating key talking points or copying & pasting AI output in whole or part into work submitted for this class (even if you subsequently edit or paraphrase the AI output), **constitutes academic dishonesty**. You may not use AI to substitute for applying your knowledge and critical thinking on writing assignments.

If you use any AI for **any part of an assignment** (including brainstorming ideas or editing), you **must** state so as part of your submission and include the entire prompt(s) that you used (below your list of references); failure to do so will be considered academic dishonesty. If in doubt whether a particular AI use violates this course's policy, ask first! You will be fully responsible for any errors caused by referencing AI output, and **any unsanctioned AI use will be referred to the Dean of Students Student Conduct & Conflict Resolution office for adjudication.** If found responsible for violating this course's AI policy and/or the UF Honor Code, significant sanctions will be imposed! Remember that taking unsanctioned shortcuts is your decision, and you must live with the consequences of doing so, even if this means that you will not be able to realize your career aspirations, continue as an Environmental Science major, or remain a student at the University of Florida.

Further, many web sites, online services, and software packages (e.g. Grammarly, Canva, many word processors) now feature both low-level assistive and high-level generative AI integrations. These policies apply to these services the same way that they do for LLMs. It is your responsibility to determine if any tools you use contain generative AI components, and if so, disclose use of that AI. AI generated images may not be used unless expressly approved in writing by your instructor for a specific assignment.

Paper Formatting Guidelines

All writing assignments must be worked on and completed in Google Docs. To receive credit for your writing assignments, you must submit both a .docx copy to Canvas and share the link to the Google Doc

with me with full editing access. **Only work in the single shared Google Doc (with multiple tabs if necessary); pasting information or content from elsewhere will be considered academic dishonesty.**

If you submit in another file format, or you do not submit both your .docx file and a link to the shared Google Doc, you will receive a score of zero. All assignments must include citations and references in APA 7th edition formatting. If you use a reference list generator, its use must be acknowledged and the generated references manually checked for correct formatting. You do not need cover pages, running headers, etc. If you experience difficulties in the writing process are encouraged to contact your instructor or visit the UF Writing Studio (see *Campus Helping Resources* above). 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