



Syllabus: EVR 2001- Environmental Science

Fall Semester 2024

Course Information

- **Course Number and Title:** EVR 2001 Environmental Science
- **Credit Hours:** 3 (3 lecture)
- **Academic Term:** Fall 2024

Instructor Information

- **Instructor:** Dr. Jun Kim
- **Office Location:** ARC 2260
- **Office Hours:** Monday/Wednesday/Friday 10-11 AM
- **Email:** junkim@floridapoly.edu

Course Delivery and Course Description

- **Class Meeting:** Monday/Wednesday/Friday (Section #1: 9 – 9:50 AM, IST-1044; Section #2: TBD)
- **Official Catalog Course Description:**
 - **Course Pre and/or Co-Requisites:** Y
 - CHM 2045 CHEMISTRY 1 and
 - CHM 2045L CHEMISTRY 1 LABORATORY
 - **Communication/Computation Skills Requirement (6A-10.030):** N
- **Required Texts:** *Environmental Science*, 17th edition by G. Tyler Miller and Scott Spoolman, Cengage Learning ISBN: 9780357976395
- **Equipment and Materials:** Canvas, Microsoft Office, a calculator

Course Objectives and Outcomes

- **Course Objectives:**

THIS COURSE IS A SURVEY OF BASIC CHEMICAL, BIOLOGICAL, AND PHYSICAL PRINCIPLES OF ENVIRONMENTAL SCIENCE AND THEIR APPLICATIONS TO ENVIRONMENTAL ISSUES. THIS COURSE IS APPROPRIATE FOR STUDENTS IN A WIDE RANGE OF DISCIPLINES OR PROGRAMS.
- **Course Learning Outcomes:**

STUDENTS WILL APPLY CRITICAL THINKING TO ANALYSIS AND INTERPRETATION OF ENVIRONMENTAL INFORMATION AND MODEL OUTPUT. STUDENTS WILL APPLY THE SCIENTIFIC METHOD TO EXPLAIN NATURAL EXPERIENCES AND PHENOMENA. STUDENTS WILL EXPLAIN THE BASIC CHEMICAL, BIOLOGICAL, AND PHYSICAL PRINCIPLES OF ENVIRONMENTAL SCIENCE. STUDENTS WILL USE EMPIRICAL EVIDENCE TO DESCRIBE THE HISTORICAL AND MODERN CONTEXT OF ENVIRONMENTAL PROBLEMS AND THEIR SOLUTIONS.

- **Alignment with Program Outcomes:**

Course Learning Outcome	Learning Level (ABET Assessment Example)	Program Learning Outcome (ABET, GenEd, Other)
a) Students will <i>recognize</i> common environmental pollutants from human activities and <i>identify</i> their effects on the environment.	Knowledge – an ability to recall previously learned material. ABET Assessment – assignments, quizzes, exams	ABET 1 – an ability to identify formulate and solve complex engineering problems by applying principles of engineering, science, and mathematics.
b) Students will <i>explain</i> how the ecosystems provide humanity and biodiversity with a diverse array of ecological services.	Knowledge – an ability to recall previously learned material. ABET Assessment – assignments, exams	ABET 1 – an ability to identify formulate and solve complex engineering problems by applying principles of engineering, science, and mathematics.
c) Students will <i>apply</i> interdisciplinary approaches to evaluating and proposing solutions for environmental problems, considering the natural, social, technological, and political constraints.	Application – an ability to use learned material in new situations. ABET Assessment – assignments, term projects.	ABET 1 – an ability to identify formulate and solve complex engineering problems by applying principles of engineering, science, and mathematics.
d) Students will <i>differentiate</i> between non-renewable, exhaustible, and inexhaustible material and energy resources, the physical and biological processes through which they are created and associated environmental constraints.	Comprehension – an ability to grasp meaning, explain, and restate ideas. ABET Assessment – assignments, exams	ABET 7 – an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.
e) Students will <i>discuss</i> the complex and diverse relationships between humans and the environment from local to global scales and <i>appraise</i> environmental impacts of behaviors, choices, and activities in students’ personal lives.	Comprehension – an ability to grasp meaning, explain, and restate ideas. ABET Assessment – assignments, term projects.	ABET 7 – an ability to acquire and apply new knowledge as needed, using appropriate learning strategies. ABET 4 – an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
f) Students will clearly <i>communicate</i> related concepts as they apply to current environmental issues through careful and organized work.	Application – an ability to use learned material in new situations. ABET Assessment – term projects.	ABET 3 – an ability to communicate effectively with a range of audiences. ABET 5 – an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

Academic Support Resources

- **Library:** Students can access the Florida Polytechnic University Library through the University website and [Canvas](#), on and off campus. Students may direct questions to library@floridapoly.edu.
- **Academic Success Coaches:** All students at Florida Poly are assigned an Academic Success Coach. Your Academic Success Coach can assist you with academic success strategies. Please visit the Student Success Center on the second floor of the IST building to meet with an Academic Success Coach.
- **Writing Center:** Located on the second floor of the IST (2059/2061), the Writing Center helps students develop their writing and presentation skills. Consultations are available in person and virtually. For more details, visit <https://floridapoly.edu/writingcenter>.

Civility and Collegiality

Faculty and students come to the university for the same reason, which is to participate in a highly professional educational environment. To that end, both students and faculty are expected to treat each other with mutual regard and civility. Communication, written, oral and behavioral, between faculty and students must remain respectful. Within and outside of the classroom, students must refrain from derogatory comments toward the faculty member and their fellow students, and faculty as well must refrain from derogatory comments toward their students. Faculty and students should address each other with respect, in accordance with the wishes of the faculty and the students: for example, no one should be addressed by their last name alone.

Faculty from the outset of a course can and should specify what constitutes activities and behaviors that take away from, that diminish, the educational environment. An individual student's distracting behavior impedes the education of fellow students, which itself is a form of disrespect. Civility and collegiality also include respecting each other's time: for example, neither students nor faculty should arrive late to class (unless unforeseen, pressing circumstances prevail); faculty should be present at the posted office hours; and students and faculty should be punctual when meeting times are scheduled. In more general terms, collegiality means respecting the right of both faculty and students to participate fully and fairly in the educational enterprise.

Course Policies

Attendance

- Students in **face-to-face (this includes labs and C-courses)** courses are expected "to attend all of their scheduled University classes and to satisfy all academic objectives as defined by the instructor" (University Policy, FPU-5.0010AP).
- Attendance demonstrates your interest and seriousness as a student. If you should miss a class, you must inform the instructor **by e-mail before the class and get approval**. Late e-mail is not acceptable. Students must assume full responsibility for work missed when they are absent.
- Course Participation: Participation is a major component of this class. Class discussions and term projects will be factored into participation.

Participation

- Students are expected to participate in the classroom experience. The use of earbuds/headphones during class is specifically not allowed and students who engage in this behavior may be asked to leave the class for the day (noting exceptions for authorized accommodations). In addition, students who routinely do not bring materials to class that are required for participation, will not be given credit for class attendance, and if this becomes a pattern of behavior, may be asked to leave the class for the day. Persistent problems with participation may result in a [code of conduct](#) referral.

Late Work/Make-up work

- **Homework will be assigned in Canvas with certain due dates.** Be sure to check your Assignments in Canvas, and set your reminders as necessary, for the dates and times that correspond to your classwork.
- All homework and project deliverables must be turned in to **Canvas** to earn credit and receive a grade. If the assignment is not posted in Canvas, a zero will be recorded for that assignment.
- Weekly assignments and quizzes must be completed by the posted due dates (usually on Friday). Late submission is allowed, however, **scores will be reduced by 50% for each day after the due**. On quizzes, there is no time limit and unlimited attempts are allowed (no score deduction for taking new attempts). From the multiple attempts, the best-graded score will be recorded as your final score.
- Should you have extenuating circumstances, including those dealing with your health, **contact your instructor**. Your instructor will work with you and others, as needed, in the university community to make the appropriate adjustments. They may, at their discretion, accept a past-due assignment, however, **you must email your instructor to open the Canvas assignment for you**. The instructor retains the right to ask for documentation of your 'extenuating circumstance' before they reopen the assignment. The Canvas assignment will remain open for 24 hours after the request has been accepted with a confirmation email from the instructor to the student.

Grading Scale

Grade	Percentage
A	100 - 93
A-	92 - 90
B+	89 - 86
B	85 - 83
B-	82 - 80
C+	79 - 76
C	75 - 70
D	69 - 60
F	59 - 0

- Percentages that fall between grades will be rounded up. (See also [University Grading Policy](#)).
- Grades posted to Canvas are for reference only, and the attendance/participation grade will be finalized at the end of the semester. Students should ensure they are recorded correctly.

Assignment/Evaluation Methods

Assessment	Percentage
Attendance & Class Participation	10%
Weekly Assignments & Quizzes	30%
Term Project 1 & 2 (10% each)	20%
Exams (4 x 10% each)	40%

- Attendance & Class Participation (10% of the total grade)
- Attendance at all class meetings is mandatory and will be taken at the start of every class. Please be prompt as attendance will be concluded once the lecture starts.
- Your absence will be recorded in Canvas and your attendance score will be deducted **5% for each absence** (20 absences = 0 points).
- If you should miss a class, you must inform the instructor by e-mail before the class and get approval.
- **Excused absences require valid documentation** (e.g. doctor's office visit record) by email to the instructor. Extenuating circumstances will be evaluated on a case-by-case basis.

- Weekly Assignments and Quizzes (30% of the total grade)
- Completion of assignments and quizzes posted on Canvas.
- Weekly assignments and quizzes must be completed by the posted due dates (usually on Friday).
- Late submission will reduce your score by **50% per day after the due**.
- Before the due, no time limit for quizzes. Unlimited attempts are allowed (no score deduction for taking new attempts). From the multiple attempts, the best score will be recorded as your final score.
- In-class assignments should be submitted during the class hour. No submission will be allowed before or after the class, except for pre-approved absence.

- Term Project 1 & 2 (10% each, 2 projects, 20% of the total grade)
- Students will work in groups (or individually) and learn about specific environmental topics on their own ideas. Students will present their results and findings during the presentation session.
- Participation for all group members is important. Proportional deduction applies to missing group member(s).
- To get full credit, all work (e.g. presentation slides, CANVA, etc.) should be submitted to Canvas by the due date.
- All work must be created solely for this class and must be the student's own. Students should keep a copy of all materials handed in during the course. Grades will be updated after the submission and feedback will be given through Canvas or email.

- Exams (10% each, 4 exams, 40% of the total grade)
- Closed-book, closed-note. No phones. Only pens and a calculator are allowed.
- Students who will not be available for the exams should inform the instructor at least **1 week** before the exam to make an alternate arrangement. Students who miss the exams unexpectedly (e.g., surgery, family emergency) must provide valid documentation or evidence of the reason for missing the exam. It will then be up to the instructor's discretion whether a "make-up" exam will be offered.
- Exams include quantitative, qualitative, problem-solving, multiple choice, true/false, short answer, etc. More specific details will be given to students during classes.

Course Schedule

- The schedule is subject to change at the instructor's discretion.

Week	Date	Topic	Assignment
0		Preparing for the first week	Review syllabus
1	Aug 21	L01 – Introduction to environmental science	Complete Weekly assignments and surveys (due: 8/23 11:59 PM)
	Aug 23	L02 – Sustainability: Overview	
2	Aug 25	L03 – Environmental systems	Complete Weekly assignments and quizzes (due: 8/30 11:59 PM)
	Aug 28	L04 – Ecosystems	
	Aug 30	L05 – Ecosystems	
3	Sep 2	Labor Day - No Class	Complete Weekly assignments and quizzes (due: 9/6 11:59 PM)
	Sep 4	L06 – Biodiversity and evolution	
	Sep 6	L07 – Biodiversity and evolution	
4	Sep 9	L08 – Species interaction (project discussion)	Complete Weekly assignments and quizzes (due: 9/13 11:59 PM)
	Sep 11	L09 – Human population (project discussion)	
	Sep 13	L10 – Urbanization (project discussion)	
5	Sep 16	L11 – Climate (project discussion)	No assignment
	Sep 18	L12 – Climate (project discussion)	
	Sep 20	Exam #2	
6	Sep 23	L13 – Climate (project discussion)	Complete Weekly assignments and quizzes (due: 9/27 11:59 PM)
	Sep 25	L14 – Biodiversity: Saving species (project discussion)	
	Sep 27	L15 – Biodiversity: Saving species (project discussion)	
7	Sep 30	Term Project 1 Presentation	Complete Weekly assignments and quizzes (due: 10/4 11:59 PM)
	Oct 2	Term Project 1 Presentation	
	Oct 4	L18 – Biodiversity: Saving ecosystems	
8	Oct 7	L19 – Resources: Minerals (Project discussion)	Complete Weekly assignments and quizzes (due: 10/11 11:59 PM)
	Oct 9	L20 – Resources: Energy (Project discussion)	
	Oct 11	L21 – Resources: Food (Project discussion)	
9	Oct 13	L22 – Resources: Water Resources (project discussion)	No assignment
	Oct 16	L23 – Resources: Water, Academic Engagement	
	Oct 18	Exam #2	
10	Oct 21	L24 – Water pollution (project discussion)	Complete Weekly assignments and quizzes (due: 10/25 11:59 PM)
	Oct 23	L25 – Water pollution (project discussion)	
	Oct 25	L26 – Water pollution (project discussion)	
11	Oct 28	Term Project 2 Presentation	Submit term project 2 report (due: 11/1 11:59 PM)
	Oct 30	Term Project 2 Presentation	
	Nov 1	L29 – Air pollution: Outdoor	
12	Nov 4	L30 – Air pollution: Outdoor	Complete Weekly assignments and quizzes (due: 11/6 11:59 PM)
	Nov 6	L31 – Air pollution: Indoor, Academic Engagement	
	Nov 8	Exam #3	
13	Nov 11	Veteran's Days - No Class	Complete Weekly assignments and quizzes (due: 11/15 11:59 PM)
	Nov 13	L32 – Climate change	
	Nov 15	L33 – Climate change	
14	Nov 18	L34 – Climate change	Complete Weekly assignments and quizzes (due: 11/22 11:59 PM)
	Nov 20	L35 – Climate change	
	Nov 22	L36 – Environmental quality: Solid waste	
15	Nov 25	L37 – Environmental quality: Solid waste	No assignment
	Nov 27-29	Thanksgiving Holiday - No Class	
16	Dec 2	L38 – Environmental quality: Environmental hazards	Complete Weekly assignments and quizzes (due: 12/4 11:59 PM)
	Dec 4	L39 – Environmental economics & politics	
	Dec 6	Reading Days - No Class	
Final	TBD	Final Exam	

University Policies

Reasonable Accommodations

The University is committed to ensuring equal access to all educational opportunities. The University, through the Office of Disability Services (ODS), facilitates reasonable accommodations for students with disabilities and documented eligibility. It is the student's responsibility to self-identify as a student with disabilities and register with ODS to request accommodations.

If you have already registered with ODS, please ensure that you have requested an accommodation letter for this course through the [ODS student portal](#) and communicate with your instructor about your approved accommodations as soon as possible. Arrangements for testing accommodations must be made in advance. Accommodations are not retroactive.

If you are not registered with ODS but believe you have a temporary health condition or permanent disability requiring an accommodation, please contact ODS as soon as possible.

The Office of Disability Services (ODS):
DisabilityServices@floridapoly.edu
(863) 874-8770
The Access Point
[ODS website: www.floridapoly.edu/disability](http://www.floridapoly.edu/disability)

Accommodations for Religious Observances, Practices and Beliefs

The University will reasonably accommodate the religious observances, practices, and beliefs of individuals in regard to admissions, class attendance, and the scheduling of examinations and work assignments. (See [University Policy](#).)

Title IX

Florida Polytechnic University is committed to ensuring a safe, productive learning environment on our campus that prohibits sex discrimination and sexual misconduct, including sexual harassment, sexual assault, dating violence, domestic violence and stalking. Resources are available if you or someone you know needs assistance. You may speak to your professor, but your professors have an obligation to report the incident to the Title IX Coordinator. Please know, however, that your information will be kept private to the greatest extent possible. You will not be required to share your experience. If you want to speak to someone who is permitted to keep your disclosure confidential, please seek assistance from the Florida Polytechnic University [Ombuds Office](#), BayCare's Student Assistance Program, 1-800-878-5470 and locally within the community at [Peace River Center](#), 863-413-2707 (24-hour hotline) or 863-413-2708 to schedule an appointment. The [Title IX Coordinator](#) is available for any questions to discussion [resources and options](#) available.

Academic Integrity

The faculty and administration take academic integrity very seriously. Violations of [academic integrity regulation](#) include actions such as cheating, plagiarism, use of unauthorized resources (including but not limited to use of Artificial Intelligence tools), illegal use of intellectual property, and inappropriately aiding other students. Such actions undermine the central mission of the university and negatively impact the value of your Florida Poly degree. Suspected violations will be fully investigated, possibly resulting in an academic integrity hearing and sanctions against the accused student if found in violation. Sanctions range from receiving a zero on the exam or assignment, to expulsion from the university. Repeat offenders are subject to more severe sanctions and penalties.

Any "special" instructions that are appropriate for academic integrity and the course should go here.
(It is essential that a heading and a statement on what constitutes, includes, academic integrity be included in the syllabus, and that the students be made aware of academic integrity at the beginning of a course.)

Recording Lectures

Students may, without prior notice, record video or audio of a class lecture for a class in which the student is enrolled for their own personal educational use. Recordings may not be used as a substitute for class participation or class attendance. Recordings may not be published or shared in any way, either intentionally or accidentally, without the written consent of the faculty member. Failure to adhere to these requirements is a violation of state law (subject to civil penalty) and the student code of conduct (subject to disciplinary action).

*Recording class activities other than class lectures, including but not limited to lab sessions, student presentations (whether individually or part of a group), class discussion (except when incidental to and incorporated within a class lecture), and invited guest speakers is **prohibited**.*