

**SYLLABUS: GLY 2038 Sustainability in a Changing Earth
University of Florida, Department of Geological Sciences**

Semester: Spring 2025

Credits: 3

Meeting Location: Williamson Hall 202

Meeting Time: Wednesday 1:55 – 3:50, Friday 3:00 – 3:50

INSTRUCTOR

Instructor: Dr. William F Kenney

Office: 207 Williamson Hall

Office hours: Tuesday 10-11, Thursday 10-11, by appointment please.

Zoom meetings available. Other times available.

Phone: 352-392-8664

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COURSE DESCRIPTION

In this course, we will focus on efforts and challenges to sustaining ecosystem services for a growing population in the context of dynamic earth surface processes.

Course Objectives: It is the goal of this course that, by the end, students will:

- Have a basic understanding of prevalent sustainability issues from an Earth Science perspective.
- Develop skills to use the scientific literature to research sustainability issues.

COURSE MATERIALS

Required Textbook

Title: Sustainability: A Comprehensive Foundation

ISBN: 9781300132370

Cover: Paperback Book, but available for free download online

Author: Tom Theis, Jonathan Tomkin

Publisher: Connexions

Edition: First

Copyright: U of I Open Source Textbook Initiative (Creative Commons Attribution 2.5) 2012

This text is required

Free download

<https://open.umn.edu/opentextbooks/textbooks/sustainability-a-comprehensive-foundation>

In addition, there will be selected readings and viewings delivered by email.

ASSESSMENTS AND GRADING

Your grade for this class will be the result of your performance on the
4 TESTS (80%)
CLASS ASSIGNMENTS (20%)

Final Grade Scale

A = ≥93%, A- = 90-92.99, B+ = 87-89.99, B = 83-86.99, B- = 80-82.99, C+ = 77-79.99, C = 73-76.99, C- = 70-72.99, D+ = 67-69.99, D = 63-66.99, D- = 60-62.99, E < 60

For further information on UF's Grading Policy, consult:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

COURSE AND UNIVERSITY POLICIES

Attendance and Absence

Students are expected to complete all requirements (assignments, problem sets, discussions, and quizzes) on the specified dates and will not be granted an alternate due date unless they have an acceptable reason (e.g. medical emergency, observance of religious holidays, military obligation) or pre-arranged consent of the instructor. These requests must be timely and accompanied by all necessary written documentation.

'In-class activities' must be turned in by the end of each class period. They can be turned in only up to 1 week after the class they are due but will receive half credit. This does not apply to the online course, for which there will be no late work accepted.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Classroom policy

Students should bring to each class meeting a laptop or similar device for use in taking notes, completing in-class activities, and accessing the internet. However, use of mobile devices and computers during class for purposes other than viewing readings or conducting sanctioned research is not allowed. Cell phones must be put on "vibrate" during class. Students who receive or make calls or text messages or engage in other disruptive behavior during class will be asked to leave. Students should also bring pen/pencil and paper to each class.

Academic accommodations 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. Students can copy and paste the following link to obtain information about accommodations (<https://disability.ufl.edu/get-started/>). 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.

Course evaluation process

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 Policy

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students 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.” The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Go here to read the Conduct Code

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

If you have any questions or concerns, please consult with the instructor or TAs in this class.

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.

Campus Resources

Health and Wellness

U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit the We Care website (<https://umatter.ufl.edu>) to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: Visit the Counseling and Wellness Center website (<https://counseling.ufl.edu>) or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website (<https://shcc.ufl.edu>).

University Police Department: Visit UF Police Department website (<https://police.ufl.edu>) or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website (<https://ufhealth.org/emergency-room-trauma-center>).

Academic Resources

E-learning technical support: Contact the UF Computing Help Desk at <https://helpdesk.ufl.edu>, 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, <https://career.ufl.edu>.

Library Support: Various ways to receive assistance with respect to using the libraries or finding resources (<https://uflib.ufl.edu/find/ask/>).

Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring (<https://teachingcenter.ufl.edu>).

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers (<https://writing.ufl.edu/writing-studio/>).

Student Complaints On-Campus: Visit the Student Honor Code and Student Conduct Code webpage for more information (<https://sccr.dso.ufl.edu/policies/student-honor-%20code-student-conduct-code/>).

On-Line Students Complaints: View the Distance Learning Student Complaint Process (<https://distance.ufl.edu/getting-help/student-complaint-process/>).

Drop/Add/Withdrawal

A student can drop/add during the drop add period with no penalty. After drop/add, a student who drops will receive a W until the date listed in the academic calendar. After that date, the student may be assigned an “E” (fail). Note: it is the responsibility of the STUDENT to withdraw from a course, not the instructor. Failure to participate/complete the class is NOT a drop.

General Education

A minimum grade of C is required for general education credit.

Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will identify, describe, and explain the basic concepts, theories and terminology of natural science and the scientific method; the major scientific discoveries and the impacts on society and the environment; and the relevant processes that govern biological and physical systems. This will be accomplished through both group assignments and exams.

Students will apply logical reasoning skills effectively through scientific criticism and argument; and apply techniques of discovery and critical thinking effectively to solve scientific problems and to evaluate outcomes. This will be accomplished by working in groups on assignments tailored to readings of seminal scientific papers.

Students will communicate scientific knowledge, thoughts, and reasoning clearly and effectively. This will be demonstrated through four exams, one on each section of the course (human population & quantitative fisheries, freshwater issues, marine issues, climate change/energy sources/sea level rise).

Gulf Scholars Program

Students will develop knowledge of the Gulf of Mexico. Students will develop skills and knowledge to provide a comprehensive, well-reasoned description of ecological, socio-political, and economic challenges impacting Gulf communities, showing depth of understanding while considering historical context and multiple perspectives.

The additional rubric criteria associated to this assignment serve to gather anonymous data on students' performance toward institutional UF Gulf Scholars student learning outcomes (SLOs). These rubrics reflect the overall expected outcomes for students completing UF Gulf Scholars courses. The scoring of these criteria does not impact your grade. All results will be anonymized when evaluated by the university.

COURSE SCHEDULE

January 15	Course Introduction UF Gulf Scholar Program
January 17	Class Assignment 1: Perspectives on Sustainability
January 22	Tragedy of the Commons/Population Growth Global Fisheries
January 24	Global Fisheries
January 29	Global Fisheries Class Assignment 2: Selecting Sustainable Fish
January 31	Class Assignment 3: Rebuilding Global Fisheries?
February 5	Review Test 1
February 7	Test 1
February 12	Surface Waters, Water Quality and Eutrophication
February 14	Class Assignment 4: Water Quality
February 19	Dr. Mark Brenner: Lakes Class Assignment 5: Lakes Comparison
February 21	Dr. Jim Jawitz: Drinking Water & Water Scarcity
February 26	Lake Okeechobee and the Everglades Class Assignment 6: Lake Okeechobee & the Everglades
February 28	Review Test 2
March 5	Test 2
March 7	BP Oil Spill
March 12	Red Tide Class Assignment 7: Piney Point Wastewater Spill
March 14	Rivers, Deltas & Dams

March 26	Plastics in the Oceans Class Assignment 8: Solutions to Plastics
March 28	Review Test 3
April 2	Test 3
April 4	Oil, Petroleum Products & Biofuels
April 9	Dr. Andrew Zimmerman: Climate Change
April 11	Dr. Andrew Zimmerman: Climate Change
April 16	Sea Level Rise Class Assignment 9: How Humans Sank New Orleans
April 18	Review Test 4
April 23	Test 4