

# Environmental Management

## SUST 201 Syllabus

### *General Information*

Class meets: Mondays and Wednesdays 11:00 AM – 12:15 PM BAB 226  
Credit hours: 3  
Enrollment: Undergraduate

### *Instructor Contact Information*

**Office hours:** UPA #214 - available by phone and email most days, best by appointment  
**phone:** 852-8854 and this phone is forwarded to my cell phone  
**email:** [bfryrear@louisville.edu](mailto:bfryrear@louisville.edu)

Feel free to contact me at any time with respect to course questions.

I work hard to respond quickly via email (within an hour or two) but depending on the day or my schedule, it may take me until after work hours (4:30 – 5:00 PM).

### **Prerequisites**

SUST 101 – Introduction to Sustainability

### **Course Description**

Environmental Management introduces students to major environmental problems in sustainability. Students will examine the biophysical and ecological properties, manifestations, and consequences of these problems at local, regional and global scales. The course will take particular interest in human-environment interactions, understanding the role different ecosystems and environmental processes play in human well-being, as well as how humans interact with and influence biodiversity, structure, and function of natural systems world-wide.

- This course counts towards the Bachelor of Arts in Sustainability degree.

### **FORMAT**

Just as in most problems found in sustainability, this course is inherently and intentionally interdisciplinary, spanning multiple dimensions of inquiry, and encouraging you to develop a broad portfolio of skills ranging from critical thinking to leadership, and to practice.

The design of this course is collaborative, exploratory learning. Class time will be used for break-out groups, discussion, and critical thinking and problem-solving activities.

- 1. Readings.** We will read and discuss interesting chapters on environmental management. Bring your thoughts, ideas, and questions to class!
- 2. Break-out Groups.** Each class day we will meet to explore and discuss topics related to sustainability and environmental management. The typical class period will be about 30 minutes working in break-out groups.
- 3. Class Discussion & Lecture.** Break-out groups will be followed by about 30 minutes of class discussion and supplemental lecture, with additional time (e.g., 15 minutes) for other activities, such as discussion of current local, regional, or global topics.

## **COURSE OBJECTIVES**

My primary goal for this course is that together we create a lively, comfortable, and intellectually challenging learning environment. After completing this course, you will have an understanding of broad definitions and perspectives on the major environmental problems in sustainability; methods of inquiry involved in sustainability science and practice; key issues locally, regionally and globally; environmental systems, and processes involved in the creation of fundamental environmental problems and their potential solutions. This course should also prepare you for your continued development in related interdisciplinary studies and facilitate your development as a responsible citizen and informed leader within society.

### **Learning Objectives – Students:**

1. Master core concepts and methods from ecological and physical sciences and their application in environmental problem solving.
2. Master core concepts and methods from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions.
3. Appreciate the ethical, cross-cultural, and historical context of environmental issues and the links between human and natural systems.
4. Understand the international character of environmental problems and ways of addressing them, including interactions across local to global scales.
5. Apply systems concepts and methodologies to analyze and understand interactions between social and environmental processes.
6. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world.
7. Demonstrate proficiency in written and oral communication and collaboration skills needed to conduct high-level work as interdisciplinary scholars and/or practitioners.
8. Critically consider and apply multiple definitions of sustainability to facilitate cross-disciplinary communication and broaden your understanding.

## **COURSE TEXTBOOK**

Sustainable Solutions: Problem Solving for Current and Future Generations  
Richard Niesenbaum  
Oxford University Press

In addition to the text, readings, videos, and other materials are loaded into the content days in Blackboard.

## YOUR ENGAGEMENT

I expect you to complete the assigned readings and activities to the best of your ability by the assigned due date, and regularly share your own ideas through discussions, questions, assignments, and exams.

## ASSIGNMENTS

<u>Summary of Assignments</u>	<u>Points</u>
Attendance/Group Participation	100
I-3s	100
Ethnographic Interviews, etc., ...	100
Midterm Exam	100
Final Exam	100
Total	500 points (100%)

## FINAL GRADES:

Final grades will be based on a percentage (500 points = 100%) system:

<u>Letter</u>	<u>%</u>	<u>Letter</u>	<u>%</u>
A+	98-100	C+	78-79
A	93-97	C	73-77
A-	90-92	C-	70-72
B+	88-89	D+	68-69
B	83-87	D	63-67
B-	80-82	D-	60-62
		F	Below 60

**Attendance and Group Participation:** If half of doing something is being there and participating, students would receive a bunch of points! You will receive up to 100 points if you attend and participate in a meaningful way.

This class is taught in the “Flipped Classroom” model, which students seem to enjoy. Students prepare for each class session by reading the assigned pages and watching any videos assigned. **Students can also post links to videos they like on the topics on Blackboard.** Students should select groups of 5 for the semester to discuss the readings and questions provided by the instructor before class. The first 30 minutes of class will be group discussion before having a 30-minute class discussion on the questions to examine everyone’s thoughts and ideas. **Educating your peers or classmates is one of the best ways to learn.** The instructor will have a brief lecture to cover anything not covered. Students present in the group shall select one member to lead the discussion in the group and someone to record the discussion high points to turn in to the instructor at the end of class. All participants present must be names with L for Leader, and R for Recorder. All group members should rotate the leadership and recorder roles to maximize points. You must turn in the discussion summary sheets for each class. (100 points available)

There will be several days that we have a guest speaker (or speakers) where we will not have readings or planned questions, but questions are welcome and desired. We will also have guest instructors who have a specialty or passion in a specific area to facilitate class.

**I-3s – I’m here, I’m listening, I’m thinking** – credit to Eleanor Shoreman-Ouimet (2021) UConn

These are in-class assignments you complete on index cards the instructor provides at each class and include 3 questions or comments based on class materials. I-3s allow for you to ask questions about the materials we are covering, consider ideas, or submit comments to the instructor. You can write these out during the group discussion or the class discussion and turn them in with your name at the end of each class session. This provides me an opportunity to assess what you are learning and what you may be struggling to grasp. I will see your responses to topics and can tell who might need a little assistance. You must turn in the I-3s note cards for each class. (100 points available)

**Ethnographic Interviews, Analysis, Infographics, and Social Media** – credit to Eleanor Shoreman-Ouimet

Groups of 2-3 students will examine one aspect of environmental management in-depth and ultimately create a plan to educate their peers through presentations to classmates and conversations with peers outside of class.

**Educating your peers or classmates is one of the best ways to learn.**

The project is in 4 parts:

1. **Summary of the topic (due 9/14)**

A summary of the topic will be turned in and **shared with the class on Blackboard**. The summary serves to educate your classmates on the topic (which should be something you are passionate about). Summaries do not have to be an extensive summary...they can be done in a format that the group decides on – you can shoot a video on your phone or tablet, you can do a write up, a PowerPoint presentation, or another meaningful method.

2. **Case studies that highlight the impact of humans on the environment in the selected topic (due 10/12)**

Examine the online literature (Louisville.edu/library) to find cases on human impacts to your topic that you can use to highlight our impacts to the environment. This will be **shared with the class on Blackboard** and serves to further educate your classmates on the topic. Case studies do not have to be extensive...they can be done in a format that the group decides on – again, you can shoot a video on your phone or tablet, you can do a write up, a PowerPoint presentation, or another meaningful method.

3. **Ethnographic interviews and analysis (due 11/14)**

Ethnographers observe life as it happens instead of trying to manipulate it in a lab. Groups will work together to write the interview questions with the goal of finding out how much your peers in the general campus population know about the topic your group selected. You can collect minimal demographic data such as age, gender, year in school, and major. Groups should work together on interviews and no findings will be published. After the interviews, the group will analyze the data collected to see where there are commonalities or divergence of opinions. A simple presentation of the analysis will be **shared with the class on Blackboard** as a simple write up, or a PowerPoint presentation.

4. **Design a draft social media post/infographic (due 12/5)**

With the findings, the groups will design a social media post with graphics, if possible, that will educate peers on their topic. This will be **shared with the class on Blackboard** and may be something you want to use when you are in SUST 202.

*Students will earn identical grades unless the instructor knows someone did not participate equally*  
(100 points – 25 points for each part)

**Culminating Activities:** Your culminating works in this course will include a midterm exam and a final exam that highlight key concepts and includes some synthesis writing (mid-term 100 points; final 100 points).

The following schedule is planned based on a face-to-face class, however if the situation necessitates, we can shift to remote learning with a synchronous time the same as the class on Mondays and Wednesdays. More to come on that if the time comes. Having you in class and engaged truly makes a positive contribution to student achievement. In a flipped classroom setting, it is not as easy to accomplish that online.

Week 1: M 8/22 – Introductions and Course Overview

**(Re)Introduction to Sustainability**

W 8/24 – The Problems We Must Solve – Natural Resources – Pages 1 – 16 to Human Cond.

Week 2: M 8/29 – The Problems We Must Solve – The Human Condition – Pages 16 - 24

W 8/31 – Developing Sustainable Solutions – From Environmentalism to Sustainability and Implementing and Assessing Sustainable Solutions – Pages 25 - 51

Week 3: **M 9/5 – Labor Day – No Class**

**W 9/7 – Justin Mog – Campus Sustainability Tour – Meet in the classroom first**

**The Earth as a Resource: Moving Toward a Sustainable Future**

Week 4: M 9/12 – The Earth as a Resource – Air Pollution – Pages 52 – 62

W 9/14 – The Earth as a Resource – Sustainable Solutions for Air Pollution – Pages 62 – 83

**Environmental Management Topic Summary Due**

WEEK 5 M 9/19 – Water: Using Our Planet to Quench Our Thirst – Limited Access To a Vital Resource, Impacting Aquatic Ecosystems – Pages 84 – 99

W 9/21 – Water: Using Our Planet to Quench Our Thirst – Policies to Sustain Water, Innovative and Technical Solutions, and Ecological Approaches to Sustain Aquatic Resources – Pages 99 – 123

Week 6: M 9/26 – Food and Agriculture: Using Our Planet to Sustain Ourselves – A Brief History of Agriculture – Pages 124 – 138

W 9/28 – Food and Agriculture: Using Our Planet to Sustain Ourselves – Sustainable Solutions to Food and Agriculture and Assessing Food System Sustainability – Pages 139 – 164

Week 7: M 10/3 – Energy: From Fossil Fuels to a Sustainable Future – Fossil Fuels and A Sustainable Energy Future: Renewable Energy Technologies – Pages 165 – 187

W 10/5 – Energy: From Fossil Fuels to a Sustainable Future – New Technologies to Manage and Distribute Energy, Transportation, Overcoming Barriers to a Sustainable Energy Future, Assessing Our Sustainable Energy Future, and The Transition is Underway – Pages 188 - 208

Week 8: M 10/10 – Exam 1 – Exam will be an online exam due by 11:59 PM

**W 10/12 – Dr. Megan Poole – Sustainability crosses course boundaries, students can work it into almost any coursework!**

**Case Studies due**

Week 9: M 10/17 – Forest and Mineral Resources: Materials To Make Stuff – Forest Resources, Sustaining Our Forests, and Can We Sustain Our Forest Resources – Pages 209 – 231

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W 10/19 – Forest and Mineral Resources: Materials To Make Stuff – Mineral Resources, Making Mineral Resources More Sustainable, Is Sustainable Mining Achievable, and Systems Thinking and Sustainable Resource Management – Pages 231 – 245

**Friday 10/21 – Last Day to Withdraw**

Week 10: M 10/24 – Solving Our Garbage Problem – The Garbage We Produce and Policy Solutions for Managing and Reducing Waste – Pages 246 – 265

W 10/26 – Solving Our Garbage Problem – Applied Solutions for the Global Garbage Problem, Garbage and the Linear Economy and A New Paradigm for Economic Growth and Development – Pages 266 - 279

**Integrating Sustainable Solutions at Different Levels of Organization**

Week 11: M 10/31 – Sustainability at the most Local Level – The Individual – Individual Action and Individuals as Effective Agents of Change (through working with Organizations) – Pages 280 – 296

W 11/2 – Sustainability at the most Local Level – Working with Government, Individual Action for Diverse Populations, and Increasing the Power of Individuals – Pages 297 – 308

Week 12: M 11/7 – Organizations, Institutions and Sustainability – Educational Institutions – Pages 309 – 324

W 11/9 – Organizations, Institutions and Sustainability – Corporate and Business Institutions, The Role of Other Institutions, and New Institutional Paradigms – Pages 325 – 339

Week 13: M 11/14 – Sustainable Communities, Cities and Regions – Community Sustainability and Smart Growth, New Urbanism, and Regional Sustainability – Pages 340 – 360

**Ethnographic interviews and analysis due**

W 11/16 – Sustainable Communities, Cities and Regions – Barriers to Community and Regional Sustainability and Removing the Barriers to Community and Regional Sustainability – Pages 360 - 370

Week 14: M 11/21 – Michelle King on Sustainable Cities – Metro Government: Air Pollution Control District

**W 11/23 – Thanksgiving Break for students**

Week 15: M11/28 – Sustainable Development and Global Sustainability – Sustainable Development and Sustainable Development Initiatives – Pages 371 – 396

W 11/30 – Sustainable Development and Global Sustainability – Barriers to Global Sustainability and Our Sustainable Future – Pages 397 – 408

Week 16: M 12/5 – Wrap Up Speakers/Q&A?? Russ Barnett & David Wicks ??

**Draft Social Media Post/Infographic Due**

Final Exam: M 12/12 – Final Exam will be online and due by 11:59 PM

## UNIVERSITY, ACADEMIC, AND RELATED POLICIES:

### Attendance, Participation & Discussion

Attendance, Participation and Discussion are a significant part of your grade. You will be graded on 25 out of 27 sessions, being present and participating in class discussions. This class is not one to sit back and be silent...we need to hear each other's opinions, passions, the environment, about sustainability. **You can miss 2 participation days without penalty, but for absences beyond that, proper documentation is requested.**

### Late Work

Please make every effort to complete class assignments on time. However, it is possible to have assignment extensions or make-ups when your situation satisfies one of the following **two criteria** in their entirety.

1. **A personal emergency** (e.g., medical emergency, death in family, etc.) causes you to miss a required graded activity, and **you have official evidence** of your illness/emergency (e.g., doctor's note). You must provide documentation of the circumstances causing you to miss class within 1 week of the missed assignment.
  2. **You have an eligible inflexible schedule conflict** that you know about in advance (e.g., medical appointment; religious holiday, see *Religious Holidays and Observances*) and we **meet to discuss the schedule conflict in advance** (minimum of 1 week prior). This gives me enough time to make the necessary provisions.
- ✓ Please **send me an email** identifying the emergency/conflict and **tell me in person**.
  - ✓ Depending on the nature of the missed assignment, **I may have to devise an alternative assignment**, with similar difficulty and educational value, in order to accommodate your situation and our course schedule.
- The Instructor reserves the right to provide extra-credit opportunities**

### Students with Special Learning Needs

The University of Louisville is committed to providing access to programs and services for qualified students with disabilities. If you are a student with a disability and require accommodation to participate and complete requirements for this class, notify me immediately and contact the Disability Resource Center (119 Stevenson Hall, 852-6938) for verification of eligibility and determination of specific accommodations. For more information, visit the [Disability Resource Center](#).

### Contingency Planning

In the event that students are ill or in quarantine and cannot attend class, I will make arrangements to have a Teams Meeting site or a Blackboard Collaborate meeting active for students **during our class time**. Online participation in class is not an option unless one is out ill and the instructor may request a doctor's note for more than two absences.

In the event of Instructor's absence, due to Covid, quarantine, or other illness, we will have the class set up with groups on Blackboard Collaborate for remote sessions, or another instructor will facilitate the lesson for the day(s) your instructor is out.

It is my plan that any class sessions that must be missed, it should be seamless to students whether they are out or if the instructor has to be out.



### Academic Dishonesty

Academic dishonesty is prohibited at the University of Louisville. It is a serious offense because it diminishes the quality of scholarship, makes accurate evaluation of student progress impossible, and defrauds those in society who must ultimately depend upon the knowledge and integrity of the institution and its students and faculty. For more information, visit the [Code of Student Rights and Responsibilities](#) (Sections 5 and 6). The work in this course is to be your own. The penalty for cheating (or helping another to cheat), copying, and/or plagiarism can result in immediate failure for the assignment and/or course.

Cheating and plagiarism should be avoided not only because it is seriously penalized but also because it shortchanges your opportunities for academic and professional development. Proper use of sources by using appropriate academic conventions is one of the important standards I expect you to maintain and further develop in this course. If you have any doubts about plagiarism, consult me.

### Religious Holy Days and Observances

Students who observe work-restricted religious holy days will be allowed to do so without jeopardizing their academic standing. Students' requests for adjustments in course work on the grounds of religious observance will be accommodated, *provided that the student makes such requests in writing during the first two weeks of the semester*. For more information, view the [Calendar and Policy on Religious Holy Days and Observances](#).

### Classroom Civility

**The learning process benefits when students arrive on time and direct all comments to the instructor and class rather than a neighbor. Cell phones should be turned off during class (not on vibrate). To text message during class is not only rude but is also disruptive to those around you (as well as your own learning). In addition, please do not use computers for anything other than taking notes. Disruptive use of these devices can result in a warning, loss of participation points, or being asked to leave the class.**

### Sexual Misconduct and Gender Discrimination

As a faculty member (university employee), I am required to report and act on any information about sexual misconduct or gender discrimination you communicate to me, to help resolve the situation.

Sexual misconduct (sexual harassment, sexual assault, and sexual/dating/domestic violence) and sex discrimination are violations of University policies. **Anyone experiencing sexual misconduct and/or sex discrimination has the right to obtain confidential support from the PEACC Program 852-2663, Counseling Center 852-6585 and Campus Health Services 852-6479.** Reporting your incident to any other University employee (including, but not limited to, professors and instructors) is an official, non-confidential report to the University.

**To file an official report, please contact the Dean of Students Office 852-5787 and/or the University of Louisville Police Department 852-6111.**

For more information regarding your rights as a victim of sexual misconduct, visit the Office for Civil Rights (<http://www2.ed.gov/about/offices/list/ocr/docs/know-rights-201404-title-ix.pdf>). For more information about resources and reporting at UofL, visit the Sexual Misconduct Resource Guide (<http://louisville.edu/hr/employeerelations/sexual-misconduct-brochure>).



### School Closings and Delays

In the case of inclement weather, please check your email and the Blackboard site to see if UofL campus is closed and/or class is cancelled. *Note: It is possible for class to be cancelled even if campus is not closed.*  
**However, even if class does not meet, you may still receive assignments to complete before the next class meeting.**

### Instructor-Student Communication and Blackboard

**Blackboard will be used to post announcements, send e-mails, and post all grades and course materials. It is the student's responsibility to frequently check campus email and visit the course on Blackboard. I use Blackboard for announcements and reminders that go to student's emails. If you need to contact me, please use my email address on page one or call my phone number rather than going public with what you want to discuss about class...**

### Helpful Links

Blackboard: [www.louisville.edu/blackboard](http://www.louisville.edu/blackboard)

Blackboard Student Help:

<http://louisville.edu/delphi/blackboard/help/students/students.html>

Using Blackboard:

<http://louisville.edu/delphi/blackboard/help/students/using-blackboard.html>

Adobe Acrobat Reader:

<http://get.adobe.com/reader/>

UofL Writing Center:

<http://louisville.edu/writingcenter/>

**Please don't hesitate to communicate with me! There are a bunch of things happening in your classes and in your lives and I am here to help you. If you are having an issue in class, let me know. If you need assistance on other matters, I can connect you with our Student Success Coordinators. They can help with academic issues, financial problems, and even social difficulties. See me after class...send me an email...my cell number is 502-415-2713...or you can stop by my office in the Urban Studies Institute at 426 W. Bloom Street, #214. My prime objective teaching you is to see you succeed!**