

ENST 100: Introduction to Environmental Studies

Fall 2021, TTH 11:00-12:20 pm

Section 33003; 4 units

Location: WPH 102

Instructor: Dr. David Ginsburg, Professor (Teaching), ENST

Preferred Pronouns: he/him

Office: CAS 116

Office Hours (In person or online via Zoom MW): Make appointment via Calendly: <https://calendly.com/ginsbuda>

Email: dginsbur@usc.edu

Course Description

This course will give you an overview of how the natural world works, the ways in which humans are perturbing the earth and how governments and society are addressing environmental degradation.

Recommended preparation: ENST 100

Classroom ground rules

- Share responsibility for including all voices in a conversation
- Listen respectfully to your classmate's and your instructor's viewpoints
- Be open to changing your perspectives based on what you learn from others
- Understand that we are bound to make mistakes in this space
- Understand that your words have effects on others
- Take group work during class and outside of lecture seriously
- Understand that your classmates may have different experiences from your own
- Make an effort to get to know your classmates
- Understand that there are different approaches to solving problems

Course learning objectives

Student learning objectives for this course are aligned with those of the ENST Program (see [link](#)):

Students will:

- Learn about the physical, chemical and biological aspects of the environment
- Discuss issues facing the environment from a scientific and social perspective
- Examine how environmental issues affect humans from multiple perspectives
- Study environmental degradation through policy, science and human behavior

Return to in-person instruction

All members of the USC community (faculty, students, staff) must comply with Trojan Check, which includes fulfilling the university's vaccination policy, as well as completion of the university's recently relaunched Hygiene Health and Safety Training in order to access campus. As such, masks must be worn at all times (as per USC policy) inside (e.g., classrooms, offices, etc.). **Students are expected to comply with all aspects of USC's COVID-19 policy.** Failure to do so may result in removal from the class and referral to Student Judicial Affairs and Community Standards.

Course Overview

This course will use Blackboard for communication, information and turning in assignments. Lecture slides will be made available after the lecture is given. Additional readings may be assigned periodically throughout the semester, and these will be announced in class, posted on Blackboard and via email messages sent to the class. During some lectures, we will work with spreadsheet data (using Excel; see

[link](#) for tutorial) and run simple simulations or experiments as either a class or asynchronously (see course schedule for specific dates). This course involves a lot of in depth reading and critical analysis outside of lecture.

Course Textbook and Readings

You have the option of using two different textbooks for this course (see below; you do NOT need both books). Both are equal as far as content is concerned – however, one book costs money and the other is available for free via the USC Libraries. Readings from both textbooks are outlined on the course schedule.

- Essentials of Environmental Science by Friedland and Relyea. W.H. Freeman & Co., 2016 ISBN-13: 978-1-319-06566-9 (**referred to as ESS in course schedule, below**) (Costs \$\$)
- Environmental Science by Miller and Spoolman. Delmar Cengage Learning, 2016, 15th Ed. ISBN-13: 9781305090446 (**referred to as ES in course schedule, below**) Free via USC Libraries Link: <https://www-r2library-com.libproxy1.usc.edu/Resource/Title/1305090446>
- Additional readings will be assigned throughout the semester and will be available on Blackboard

Description and Assessment of Exams and Assignments

You will be graded on the basis of your performance on exams, written assignments, class activities and participation (e.g., study guide discussions, in-class quizzes, Blackboard assignments, etc.). Exam questions will be drawn from course readings, lecture materials and any related assignments, activities and discussions. Each exam will cover the lecture and course materials immediately after the preceding exam (or starting on the first day of class for Exam 1). Two separate midterm exams are scheduled over the course of the semester and are worth 100 pts each. The final exam is worth the same number of points as the midterm (midterms and final exam, 300 pts total).

If there is a scheduling conflict with an exam, assignment or activity you must notify me via email at least two-weeks in advance to see if alternative arrangements can be made. **Otherwise, no make-up exams will be allowed.** If a student misses an exam, quiz, activity, etc., they will receive a zero for that assignment. Exams will be administered via Blackboard (specific details will be released closer to the date on the course schedule). During exams, students are NOT allowed to work as a group, use notes, books, mobile devices, etc. Failure to comply with exam policies will result in a zero on that specific exam.

Late assignments will have 15% deducted each 24 hours, with the first 24 hour deduction starting 30 min after the deadline. Regarding missed class activities: If you cannot make it to a class, you will need to let the instructor know prior to the start of a class. If it is an excused absence (official USC travel, medical excuse, etc.), then we will provide you with an alternative way to obtain the associated activity points outside of class.

Overview of Assignments and Activities

- **Article analysis:** Each student will critically read an assigned article (from either the primary or secondary literature) and provide a written summary (0.5-1 pages; single spaced) to questions posted online, which they will then submit via Bb. Students will then discuss their findings during class on the day each assignment is due. Two separate article summaries are scheduled over the course of the semester (10 pts each; 20 pts total).
- **Story map:** Online, image-based story that has been thoughtfully created, given context and provided with supporting information so it becomes a stand-alone resource. It integrates maps, legends, text, photos and provides functionality, such as swipe, pop-ups, and time sliders, that

helps users explore the content in either a linear or non-linear fashion. Each student will create their own story map, which will be focused on some aspect of biodiversity (more details to come during lecture; 45 pts total).

- **Life table analysis:** Group activity in which students develop and answer questions comparing (via Excel) the survival patterns of different groups of humans (e.g., groups that differ in geographic area, time period and gender). Students will collect life table data (either online or in-person) from cemeteries that provide ages, genders and dates at death. Student groups (n = 2) will submit a 1-2 page (single spaced) written summary via Bb of their experimental results and conclusions. (30 pts total).
- **Seawater study:** Individual students will actively evaluate temporal changes in monthly seawater that has been collected at different depths off the Santa Monica Pier. Specifically, students will analyze and compare (via Excel) monthly surveys of a variety of seawater parameters such as dissolved oxygen, temperature, salinity and turbidity, and submit (via Bb) a 1-2 page (single spaced) written summary of their experimental results and conclusions (30 pts total).

Grading Breakdown

Assignment	Points	Grade %
Exam 1	100	22.0%
Exam 2	100	22.0%
Exam 3 (Final)	100	22.0%
Article analyses (2 x 10 pts)	20	4.0%
Biodiversity Story Map	45	10.0%
Life table and survivorship analysis	35	8.0%
Analysis of surface ocean waters	35	8.0%
Participation (discussions, quizzes, etc.)	20	4.0%
TOTAL	455	100%

Grading Scale

Final course grades will be determined based on the percentage of points earned as outlined below: >93 = A; 90-92 = A-; 87-89 = B+; 83-86 = B; 80-82 = B-; 77-79 = C+; 73-76 = C; 70-72 = C-; 67-69 = D+; 63-66 = D; 60-62 = D-; <59 = Fail. This scale may be adjusted depending on the progress of the class. If course taken as a "Pass" grade student must earn a C- or greater in course (scores at or below a D+ grade = "No Pass").

Additional policies

Routine attendance and active participation are an important part of each class session. Participation will be evaluated via thought exercises, reading assignments, in-class quizzes and questions. You are responsible for all information, announcements, date changes and any other course material presented, regardless of your participation or presence in the classroom.

For the best learning experience, you are expected to have read the assigned material by the date it is discussed in class. Articles, supplemental readings and in-class data sets will be posted online on Blackboard. Finally...Come to class prepared; Be respectful of the instructor and other students in class; don't use your mobile phone during class; and, if you have to miss class make sure you arrange to get notes and announcements.

Course Schedule

The schedule of topics and readings may be adjusted throughout the semester depending on progress of the class.

Date	ENST 100 Course Topics, Activities and Assignments	Students with EES textbook	Students with ES textbook
Aug 24	Introduction and course overview	Ch. 1	Ch. 1
Aug 26	Interpreting environmental data	Ch. 1	Ch. 1
Aug 31	Earth as a system	Ch. 2	Ch. 2
Sep 2	Ecosystems and biomes I	Ch. 3	Ch. 7
Sep 7	Ecosystems and biomes II Article analysis and discussion (see Bb)	Ch. 3	Ch. 7
Sep 9	Ecosystem ecology	Ch. 3	Ch. 3
Sep 14	Population and community ecology I	Ch. 4	Ch. 5
Sep 16	Population and community ecology I	Ch. 4	Ch. 5
Sep 21	EXAM 1	ONLINE (See Bb)	
Sep 23	Conservation biology and endangered species I Biodiversity Story Map (see Bb)	Ch. 13	Ch. 8
Sep 28	Conservation biology and endangered species II	Ch. 13	Ch. 8
Sep 30	Population growth	Ch. 5	Ch. 6
Oct 5	Life table and survivorship curve (Excel)		
Oct 7	Land and water resources	Ch. 7, 9	Ch. 9, 11
Oct 12	Non-renewable energy	Ch. 8	Ch. 13
Oct 14	Fall Recess – NO CLASS		
Oct 19	Kitchen chemistry fermentation (in-class activity)		
Oct 21	Renewable energy & biofuels	Ch. 8, see Bb	Ch. 13, see Bb
Oct 26	EXAM 2	ONLINE (See Bb)	
Oct 28	Food and agriculture	Ch. 9	Ch. 11
Nov 2	Genetically Modified Foods	See Bb	
Nov 4	Climate, science and people	Ch. 14	Ch. 15
Nov 9	Water and Coastal Pollution I	Ch. 9, see Bb	Ch. 11, see Bb
Nov 11	Analysis of seawater off Santa Monica Pier (Field/Excel)	NO CLASS: MEET @ SM PIER	
Nov 16	Water and Coastal Pollution II	Ch. 9, see Bb	Ch. 11, see Bb
Nov 18	Air pollution	Ch. 10	Ch. 15
Nov 23	Environ. justice and urban air pollution in LA Article analysis and discussion (see Bb)	Ch. 15	Ch. 17
Nov 25	Thanksgiving Break – NO CLASS		
Nov 30	Human health risk and the environment	Ch. 12	Ch. 14
Dec 2	Lecture topic and materials TBA		
Dec 14	*EXAM 3 (FINAL); online via Bb*		

Statement on Academic Conduct and Support Systems

Computer Support: *Zoom or general IT USC Support:* Phone: 24/7 on call: 213-740-5555; Email: consult@usc.edu. *Blackboard Support:* Phone: 213-740-5555 (option 2, 24/7 on call); Email: blackboard@usc.edu

Academic Conduct: Plagiarism is an academic offense with serious consequences. Familiarize yourself with its definition in [SCampus](#). Other forms of academic dishonesty are equally unacceptable. See additional information in [SCampus and university policies](#) on scientific misconduct.

Counseling and Mental Health: (213) 740-9355; 24/7 on call. Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops and crisis intervention. See [link](#) for details.

National Suicide Prevention Lifeline: (800) 273-8255; 24/7 on call. Free and confidential emotional support to people in suicidal crisis or emotional distress. See [link](#) for details.

Relationship and Sexual Violence Prevention Services: (213) 740-9355; 24/7 on call. Free and confidential therapy services, workshops, and training for situations related to gender-based harm. See [link](#) for details.

Office of Equity and Diversity: (213) 740-5086; Title IX: (213) 821-8298. Information on how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors and applicants. See [link](#) for details.

Reporting Incidents of Bias or Harassment: (213) 740-5086 or (213) 821-8298. Report incidents of bias, hate crimes and microaggressions to the Office of Equity and Diversity, Title IX for appropriate investigation, supportive measures and response. See [link](#) for details.

Office of Student Accessibility Services: (213) 740-0776. Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology and support for individual needs. See [link](#) for details.

USC Campus Support and Intervention: (213) 821-4710. Assists students and families in resolving complex personal, financial and academic issues adversely affecting their success as a student. See [link](#) for details.

Diversity at USC: (213) 740-2101. The Provost's Diversity and Inclusion Council provides information on events, programs and training resources students at each academic school. See [link](#) for details.

USC Emergency: UPC: (213) 740-4321; HSC: (323) 442-1000; 24/7 on call. Emergency assistance and means to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. See [DPS link](#) and [Emergency link](#) for details.

USC Department of Public Safety: UPC: (213) 740-6000; HSC: (323) 442-120; 24/7 on call. Non-emergency assistance or information. See [link](#) for details.