ENST 100: Introduction to Environmental Studies
Fall 2022, MW 2:00-3:20 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 Tues/Thurs, 12:00-2:00 pm: make appointment via Calendly: https://calendly.com/ginsbuda
Email: dginsbur@usc.edu

Course goals
ENST 100 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.

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

Course modality
ENST 100 will be taught as a synchronous, in-person course and you are expected to be present for each lecture section. Thus, given this course uses active learning, group work, data simulations and in-class discussions, recorded lectures will not be provided to students via Zoom (or any other platform). Students that miss class are expected to get notes from their classmates (just like pre-COVID times). USC recommends (but does not require) wearing medical-grade masks or respirator masks (including surgical, N95, KN95, KF94) when indoors and around others to reduce transmission and risk of infection. **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 primarily use Blackboard for communication, information and turning in assignments. Lecture slides will be made available after each lecture is completed. Additional readings may be assigned

throughout the semester, and 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 MS Excel; see Bb and/or link for tutorial) and run simple simulations or experiments as either a class or asynchronously (see course schedule for specific dates).

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 (see below).

- 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., article 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 (n = 3; 300 points total) will cover the lecture and course materials immediately after the preceding exam. Two separate midterm exams (Exam 1 and Exam 2) are scheduled over the course of the semester and are worth 100 pts each. The final exam (Exam 3) is not cumulative and is worth the same number of points as the midterms.

If there is a scheduling conflict with an exam, assignment or other scheduled 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 in person during the lecture period (pending USC guidelines related to COVID). 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 15 min after the deadline. Regarding missed class activities: If it is an excused absence (official USC travel, medical excuse, etc.), then I will provide you with an alternative way to obtain the associated activity points outside of class.

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 (1 page max; single spaced) to questions posted online, which they will then submit via Bb. Students will discuss their findings during class on the day each assignment is due. Six separate article summaries are scheduled over the course of the semester (10 pts each; 60 pts total).

- **Data interpretation:** In-class activity in which students review and analyze data from the primary literature in order to answer critical questions as a group. Approximately 5-6 data interpretation

activities will be randomly assigned throughout the semester and are part of the participation grade (40 points max). Students must be present in class to receive credit for these assignments (i.e., if you are absent for one of these activities, you will receive a zero for that particular assignment).

- **Life table analysis:** In-class 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 and time period). Students will analyze life table data 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. (45 pts total).

- **Seawater study:** In-class group activity in which students evaluate temporal changes in monthly seawater collected off the Santa Monica Pier. Specifically, student groups 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 results and conclusions (45 pts total).

Grading Breakdown

Assignment	**Points**	**Grade %**
Exam 1	100	20%
Exam 2	100	20%
Exam 3 (Final)	100	20%
Article analyses (6 x 10 pts)	60	12%
Life table, survivorship curve	45	9%
SoCal coastal seawater analysis	45	9%
Participation (data interpretation, discussions, etc.)	40	8%
TOTAL	**490**	**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 22	Introduction and course overview	Ch. 1	Ch. 1
Aug 24	Interpreting environmental data	Ch. 1	Ch. 1
Aug 29	Earth as a system **Article analysis and discussion 1**	Ch. 2, see Bb	Ch. 2, see Bb
Aug 31	Ecosystems and biomes I	Ch. 3	Ch. 7
Sep 05	***Labor Day Holiday – No Class***		
Sep 07	Ecosystems and biomes, cont'd	Ch. 3	Ch. 7
Sep 12	Ecosystem ecology **Article analysis and discussion 2**	Ch. 3, see Bb	Ch. 3, see Bb
Sep 14	Population and community ecology	Ch. 4	Ch. 5
Sep 19	Population and community ecology, cont'd	Ch. 4	Ch. 5
Sep 21	**EXAM 1 (*in-class*)**		
Sep 26	Conservation biology and endangered species	Ch. 13	Ch. 8
Sep 28	Conservation biology and endangered species, cont'd **Article analysis and discussion 3**	Ch. 13, see Bb	Ch. 8, see Bb
Oct 03	Population growth	Ch. 5	Ch. 6
Oct 05	**Life tables and Survivorship Curves (Excel)**	**In-Class Assignment**	
Oct 10	Land and water resources	Ch. 7, 9	Ch. 9, 11
Oct 12	Non-renewable energy	Ch. 8	Ch. 13
Oct 17	Renewable energy & biofuels **Article analysis and discussion 4**	Ch. 8, see Bb	Ch. 13, see Bb
Oct 19	Renewable energy & biofuels, cont'd	Ch. 8, see Bb	Ch. 13, see Bb
Oct 24	**EXAM 2 (*in-class*)**		
Oct 26	Food and agriculture	Ch. 9	Ch. 11
Oct 31	Genetically Modified Foods	See Bb	See Bb
Nov 02	Climate, science and people	Ch. 14	Ch. 15
Nov 07	Water and Coastal Pollution **Article analysis and discussion 5**	Ch. 9, see Bb	Ch. 11, see Bb
Nov 09	Water and Coastal Pollution, cont'd	Ch. 9	Ch. 11
Nov 14	**SoCal Coastal Seawater Analysis (Excel)**	**In-Class Assignment**	
Nov 16	Air pollution	Ch. 10	Ch. 15
Nov 21	**Los Angeles Natural History Museum**	**Asynchronous Assignment**	
Nov 23	***Thanksgiving Holiday – No Class***		
Nov 28	Environ. justice and urban air pollution	Ch. 15	Ch. 17
Nov 30	Environ. justice and urban air pollution, cont'd **Article analysis and discussion 6**	Ch. 15, see Bb	Ch. 17, see Bb
Dec 09	**EXAM 3 (*In-class*): Friday, Dec 9, 2:00-4:00 PM**		

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.