



## **ENST 100: Introduction to Environmental Studies**

**Units: 4**

**Fall 2020, TTH 12:30-1:50 pm**

**Location:** ONLINE

**Instructor:**

**Dr. David Ginsburg**, Associate Professor (Teaching), ENST

**Preferred Pronouns:** *he, him, or his*

**Office:** ONLINE

**Office Hours:** Fridays, 1-2pm (via Zoom) and by appointment

**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

### **Course Learning objectives**

Student learning objectives for this course are aligned with those of the ENST Program:

<https://dornsife.usc.edu/environmental-studies/learning-objectives/>

**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 Overview**

This course will be taught online via Zoom. Outside of our regularly scheduled Zoom lectures, we will use Blackboard for communicating with one another, informations and submitting assignments. PDF copies of lecture slides, links to topics discussed during class, as well as lecture recordings via Zoom will be made available after each lecture is given. Additional readings will be assigned periodically throughout the semester and these will be announced during lecture, posted in the course schedule, on Blackboard and via email messages sent to the class.

During some lectures, we will work with spreadsheet data (in Excel) and run simple simulations or experiments as a class (see course schedule for specific dates). You are responsible for all notifications and assignments discussed during lecture and posted online via BlackBoard. This is a 4-unit, general education course, which requires in-depth reading and critical analysis outside of lecture.

Participating and engaging in courses online can be challenging (for instructors and students!). Nevertheless, I will strive to work with each and everyone of you to the best of my abilities. Please contact me with any issues that are impacting your ability to learn (such as internet connectivity, or other obstacles) and I will do my best to help (or will refer you to someone that can).

### Course Textbook and Readings

**You have the option of using two different textbooks for this course (see below).** 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, 15<sup>th</sup> 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, inside and outside-class activities and class participation. Exam questions will be drawn from course readings, lecture materials and any related assignments, activities and discussions. Each exam will cover the lecture and material immediately after the preceding exam (or starting on the first day of class for Exam 1). The final exam will carry the same weight as Exam 1. (100 pts each; 200 pts total)

**If there is a conflict with an exam, you must notify me via email at least one-week in advance** to see if alternative arrangements can be made. **Otherwise, no make-up exams will be allowed.** If a student misses an exam, assignment or activity they will receive a zero for that portion of the course. Exams will be timed and administered via Blackboard (details will be released closer to the date on the course schedule). Failure to comply with exam policies will result in a zero for that particular exam.

**Late Assignments will have 20% deducted each 24 hours**, with the first 24 hour deduction starting 15 min after the deadline. Regarding in-class activities: If you cannot make it to a class, you will need to let me know prior to the start of a class. If it is an excused absence (or you live overseas), then I will provide you with an alternative way to obtain the associated in-class activity points outside of class

### Overview of Assignments and Activities

- The **article analysis** is a 1-2 page summary of an article from either the primary or secondary literature, which is based on a topic covered in class. Each student will critically read a given article and provide written answers to questions (available online), which they will then submit via Bb. Students will discuss their findings during class on the day each assignment is due. (2 articles, 30 pts each; 60 pts total)
- A **StoryMap** is a web map-like-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. The StoryMap is a group project (two per group) in which we will focus on biodiversity from different parts of the world (more details to come during lecture). (40 pts total)
- The **life table analysis** is a group project (two per group) in which students develop and answer questions comparing the survival patterns of different groups of humans (e.g., groups that differ in geographic area, time period, gender, socio-economic background, or ethnicity). Students will

collect life table data from cemeteries (either online or in-person) that provide ages, genders and dates at death. (30 pts total)

- Lastly, the **kitchen chemistry activities** are designed as hands-on experiments that students can do at home in order to better understand a specific topic (e.g., fermentation or water pollution) from a scientific basis. I will outline the materials needed and guide you through the various mechanics and protocols required for you to complete each experiment on your own. For each activity, students will submit (via Bb) a 1-2 page written summary of their experimental results and conclusions. Not only will chemical principles be examined, but also biochemical, biological, microbiological and maybe even a little physics. (2 experiments, 35 pts each; 70 pts total)

### Grading Breakdown

Assignment	Points	Grade %
Exam 1	100	22.7%
Exam 2	100	22.7%
Article analyses (2 x 30 pts)	60	13.6%
Biodiversity StoryMap	40	9.1%
Life table and survivorship analysis	30	6.8%
Kitchen chemistry activities (2 x 35 pts)	70	15.9%
Participation (quizzes, discussions, etc.)	40	9.1%
<b>TOTAL</b>	<b>440</b>	

### Grading Scale

Your final grade will be determined using the following scale (which may be adjusted depending on the progress of the class):

>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 = F

### Ground rules for classroom

Share responsibility for including all voices in the conversation.

Listen respectfully.

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 pair work or small group work seriously.

Understand that others will come to these discussions with different experiences from yours.

Make an effort to get to know other students. Introduce yourself to students sitting near you.

Understand that there are different approaches to solving problems.

### Additional Policies

Routine attendance and active participation are an important part of each class session. For the best learning experience, you are expected to have read the course materials (see Course Schedule, below) by the date it is discussed in class. Roll will be taken periodically in the form of thought exercises, reading assignments and in-class questions. You are responsible for information, announcements, date changes and any other course material presented, regardless of your participation and/or presence in the classroom.

## Course Schedule

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. The readings and schedule of topics 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 18	Introduction and course overview	Ch. 1	Ch. 1
Aug 20	Measuring and interpreting environmental data	Ch. 1	Ch. 1
Aug 25	Earth as a system	Ch. 2	Ch. 2
Aug 27	Ecosystems and biomes	Ch. 3	Ch. 7
Sept 1	<b>Article analysis and discussion (I)</b>	See Bb	See Bb
Sept 3	Ecosystem ecology	Ch. 3	Ch. 3
Sept 8	Population and community ecology	Ch. 4	Ch. 5
Sept 10	Biodiversity	Ch. 4	Ch. 4
Sept 15	<b>Biodiversity StoryMap</b>	See Bb	See Bb
Sept 17	Conservation and endangered species	Ch. 13	Ch. 8
Sept 22	Population growth & demographics	Ch. 5	Ch. 6
Sept 24	<b>Life table and survivorship curve</b>	See Bb	See Bb
Sept 29	<b>Exam 1 (via Bb)</b>	See Bb	See Bb
Oct 1	Land resources	Ch. 7	Ch. 9
Oct 6	Water resources	Ch. 9	Ch. 11
Oct 8	Agriculture & food	See Bb	See Bb
Oct 13	<b>Article analysis and discussion (II)</b>	See Bb	See Bb
Oct 15	Energy & biofuels	Ch. 8	Ch. 13
Oct 20	<b>Kitchen chemistry and discussion (I)</b>	See Bb	See Bb
Oct 22	Air pollution	Ch. 10	Ch. 15
Oct 27	Environ. justice and urban air pollution in LA	Ch. 15	Ch. 17
Oct 29	Water pollution	Ch. 9	Ch. 11
Nov 3	<b>Kitchen chemistry and discussion (II)</b>	See Bb	See Bb
Nov 5	Human health risk and the environment	Ch. 12	Ch. 14
Nov 10	Solid waste, disposal and sustainability	Ch. 11	Ch. 16
Nov 12	Climate, science and people	Ch. 14	Ch. 15
Nov 19	<b>Exam 2 (Final): 11:00 AM to 1:00 PM</b>	See Bb	See Bb

## Statement on Academic Conduct and Support Systems

### Computer Support

For Zoom or general IT USC Support: Phone: (24/7): 213-740-5555; Email [consult@usc.edu](mailto:consult@usc.edu)

For Blackboard Support: Phone: 213-740-5555 (option 2, assistance 24/7) [blackboard@usc.edu](mailto:blackboard@usc.edu)

### Academic Conduct

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism

in SCampus in Part B, Section 11, "Behavior Violating University Standards" [policy.usc.edu/scampus-part-b](https://policy.usc.edu/scampus-part-b). Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, [policy.usc.edu/scientific-misconduct](https://policy.usc.edu/scientific-misconduct).

### **Student Support Systems**

**Counseling and Mental Health** - (213) 740-9355 – 24/7 on call

[studenthealth.usc.edu/counseling](https://studenthealth.usc.edu/counseling) Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

**National Suicide Prevention Lifeline** - 1 (800) 273-8255 – 24/7 on call

[suicidepreventionlifeline.org](https://suicidepreventionlifeline.org) Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

**Relationship and Sexual Violence Prevention Services (RSVP)** - (213) 740-9355(WELL), press "0" after hours – 24/7 on call [studenthealth.usc.edu/sexual-assault](https://studenthealth.usc.edu/sexual-assault) Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

**Office of Equity and Diversity (OED)** - (213) 740-5086 | Title IX – (213) 821-8298 [equity.usc.edu](https://equity.usc.edu), [titleix.usc.edu](https://titleix.usc.edu)

Information about 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.

**Reporting Incidents of Bias or Harassment** - (213) 740-5086 or (213) 821-8298 [usc-](https://usc-advocate.symplicity.com/care_report)

[advocate.symplicity.com/care\\_report](https://advocate.symplicity.com/care_report) Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity | Title IX for appropriate investigation, supportive measures, and response.

**The Office of Disability Services and Programs** - (213) 740-0776 [dsp.usc.edu](https://dsp.usc.edu)

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.

**USC Campus Support and Intervention** - (213) 821-4710 [campussupport.usc.edu](https://campussupport.usc.edu) Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

**Diversity at USC** - (213) 740-2101 [diversity.usc.edu](https://diversity.usc.edu) Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

**USC Emergency** - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call [dps.usc.edu](https://dps.usc.edu), [emergency.usc.edu](https://emergency.usc.edu)

Emergency assistance and avenue 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.

**USC Department of Public Safety** - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call [dps.usc.edu](https://dps.usc.edu)

Non-emergency assistance or information.