

**Instructors:**

Dr. Trond Sigurdsen
(he/him)

Office Hrs: Th 12-2pm
Location: AHF 221
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Dr. Carly Kenkel
(she/her)

[By Appt](#)
AHF 231A
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TA: TBD

Note: As the conditions of the current Covid-19 pandemic changes, we may have to alter details of this syllabus. Please keep updated with announcements on our website.

Lecture times & Location: Tue/Thu 930-1050am, MRF 340 (Montgomery Ross Fisher Building)

Websites/Links: Assignments & Grades: <https://blackboard.usc.edu>
General Q&A: uscdornsifeclass.slack.com channel: fall21-bisc-102-13000

Textbooks: Ecobeafer/Evobeafer BISC 102 Custom, Meir
SimUText
Additional materials provided by instructors

Course Description

This one semester course introduces major aspects of general biology and focuses specifically on the ecological tug of war between humans and their physical and biological environment. We will explore major topics in agriculture, biodiversity, ecosystem structure and function, pollution, and population dynamics from both historical and contemporary perspectives. The overarching aim of this course is to provide students with background knowledge sufficient to understand major challenges facing human societies today, including how to feed the world, control disease outbreaks, and sustainably manage ecosystems in the face of climate change. Please note that this course satisfies the GE-D, Life Sciences requirement and is not designed for those majoring in biology or health sciences. For students wishing to major or minor in Environmental Studies, ENST 100 is the required entry-level course.

Prerequisites: None, although a working knowledge of high school biology is recommended.

Specific learning objectives. By the end of this course, students will be able to:

- 1) Explain basic concepts in biology and ecology.
- 2) Outline major biological challenges facing contemporary human societies.
- 3) Compare and contrast proposed solutions to major biological challenges.
- 4) Demonstrate basic public speaking skills.
- 5) Demonstrate critical thinking when evaluating scientific literature.

Schedule of lecture and lab topics. Note that the schedule is subject to change. Any schedule changes will be discussed in class and posted on Blackboard.

Date	Lecture	Lecturer	Readings/Assignments	Lab
Aug 24	1. Course Introduction Anthropogenic Planet	Sigurdsen/ Kenkel	No readings	No Labs this Week

Aug 26	2. Darwin & Evolution	Sigurdsen	Paper (science/religion): Non-overlapping Magisteria, by Gould	
Aug 31	3. Genetics and Mendel	Sigurdsen	<i>Video on Alfred Russel Wallace</i>	1. Prove It! Review of Term Project
Sep 02	4. Speciation	Sigurdsen	Discussion of video	
Sep 07	5. Paleontology, Mass Extinctions	Sigurdsen		2. ST Darwinian Snails
Sep 09	6. Origin of life	Sigurdsen		
Sep 14	7. Human origin in Africa	Sigurdsen		3. ST Mendelian Pigs
Sep 16	8. Spread of humans, megafaunal extinctions	Sigurdsen	Term paper topic must be approved by today	Mendelian Pigs
Sep 21	9. Conserving our relatives, the apes	Sigurdsen	Paper: Gorilla Warfare, by Stanford	4. Field Trip TBD
Sep 23	10. Introduction to ecology	Sigurdsen		
Sep 28	MIDTERM 1 Lec 1-10	Sigurdsen		5. ST Isle Royale 1,2,3
Sep 30	11. Ecology continued	Sigurdsen		
Oct 05	12. Community Structure	Sigurdsen	ST Community Dynamics 1,2	6. ST Community Dynamics 3,4
Oct 07	13. Nature vs Nurture; Evolution revisited	Kenkel	<i>She Has Her Mother's Laugh</i> excerpt Selections from Campbell Biology 7 th Ed. Annotated Bibliographies Due	
Oct 12	14. CSI Bisc 102	Kenkel	Atlantic Article and Blog Post	No labs this week
Oct 14	FALL RECESS			
Oct 19	15. Infectious Disease Dynamics	Kenkel	National Geographic Article	7. ST How Diseases Spread 1,2,3
Oct 21	16. Biotech & Disease Control	Kenkel	World Economic Forum & Medium Articles Term Paper Outlines Due via Turnitin	
Oct 26	17. COVID: A Case Study	Sigurdsen/ Kenkel	Atlantic Article	8. ST Niche Wars
Oct 28	MIDTERM 2 Lec 11-17	Kenkel		
Nov 02	18. Feeding the world	Kenkel	National Geographic Article	9. Presentation of Research Topic
Nov 04	19. GMOs OMG!	Kenkel	Scientific American Article	
Nov 09	20. Invasive Species	Kenkel	Smithsonian Article	10. Presentation of Research Topic
Nov 11	21. Biocontrol	Kenkel	The Conversation Article	
Nov 16	22. Pollution	Kenkel	LA Curbed Article	11. ST Nutrient Pollution
Nov 18	23. Water	Kenkel	NY Times Articles; WRI blog	

Nov 23	24. Climate change 1: What do we really know?	Kenkel	IPCC Summary for Policymakers: SPM1 Term Papers Due via Turnitin	No Labs this Week
Nov 25	Thanksgiving			
Nov 30	25. Climate change 2: What does it really mean?	Kenkel	IPCC Summary for Policymakers: SPM2	12. ST Patchy Prairies
Dec 02	26. Restoration Ecology Redux	Kenkel	Mission Iconic Reefs (p1-18)	
TBD	MIDTERM 3 Lec 18-26	Kenkel		

Description of Assessments and Assignments

Pre-lecture Quizzes. Short, pre-lecture quizzes will occur throughout the semester based on the assigned readings and must be completed by the lecture date and time. No make-up opportunities will be provided, but your three lowest quiz scores will be dropped to accommodate unplanned scheduling/connectivity issues.

Term Paper. You will write an 8-10 page research paper on a topic of your choosing within the scope of Human-Environment interactions. You must obtain approval for your general topic selection by Sept 16. Prior to submitting the final paper (Due Nov 23), you will also create an annotated bibliography (Due Oct 07) and an outline for your research topic (Due Oct 21). Specific directions and rubrics and Turnitin links can be found on Blackboard under *Assignments* and will be discussed in your lab sections during the week of Aug 31st.

Term Presentation. You will script and create a visual aid (e.g. powerpoint) for an 8-10 minute presentation in order to share the findings of your research topic with your lab mates. Feedback from these presentations can be used to improve your final term paper. Specific directions will be provided in your lab section and additional guides and rubrics can be found on Blackboard under *Assignments*.

Midterm Exams. There will be three midterm exams consisting of 25-30 multiple choice/short answer questions (worth 70 points) and three essay questions (select 3 out of 5 prompts to respond to, worth 10 points each). Material will be drawn from lectures, readings, and laboratory material.

Lab Assignments. You will be required to complete in-lab exercises using the guidelines and resources provided and following instructions given by your TA. Specific rubrics and due dates will be specified by your TA at each lab meeting.

On-line Resources

Additional readings for specific lectures and/or links to on-line resources will be posted on Blackboard during the semester.

Course Policies

COMMUNICATION: For general questions the course Slack is the preferred form of communication. For personal or private questions, please email the specific instructors. Responses can be expected within 48 hours, though there may be an additional delay over weekends/holidays. If a one on one meeting is

desired, please utilize office hours or email a request to set up an alternate meeting time. Dr. Kenkel's office hours are by appointment. Bookings can be made at <https://drcarlykenkel-bisc102.youcanbook.me/>.

Students are responsible for logging onto Blackboard (<https://blackboard.usc.edu>) and checking the course slack channel on a regular basis. Blackboard will be an official source for announcements, course materials, lecture notes, and score postings, while Slack will be used as a form for general discussions and questions. Mid-term exam and lecture quiz scores will be posted under your LECTURE SECTION. It is the student's responsibility to immediately notify the TA in the event of any mistakes, so please check scores weekly.

TECHNOLOGY: Students will need an internet-enabled device with browser capabilities. Students who require a laptop can check one out through the *Laptop Loaner Program* <https://itservices.usc.edu/spaces/laptoploaner>.

GRADES: Any document associated with grading may be photocopied by the instructional staff. The final letter grade may be assigned on a curve at the end of the semester based on the class distribution and determined by the total number of points as follows.

	Points possible	Percent
Midterm Exam x 3 (100 points ea.)	300	37%
Quizzes x 20 (5 points ea.)	100	12.5%
Presentation Peer Reviews x 2 (20 points ea.)	40	5%
Lab Assignments x 10 (20 points ea.)	200	25%
Term Paper Topic Approval	5	0.5%
Annotated Bibliography	30	4%
Term Paper Outline	20	2.5%
Final Paper	50	6%
Presentation	50	6%
TOTAL	795	100%

EXAM RE-GRADING: All graded documents will be graded in the context of expectations set by an initial evaluation of all student responses. If you feel that an error was made in the grading of an examination or lab activity, you need to do the following: 1) Prepare a printed statement explaining why you feel your grade was incorrect, and 2) submit this to your instructor within one week of the time the examination or assignment was returned to you. Your entire exam or assignment may be re-graded and, as a result, your grade may increase or decrease from a requested re-grade. No frivolous reasons will be accepted for requesting grade changes; stated reasons for a grade change must be legitimate (e.g., error in totaling the score).

EXTRA CREDIT: There are no extra credit opportunities and no exceptions to this policy.

LATE WORK: All late assignments must be uploaded to TurnItIn or to your TA personally. All will be date stamped and penalized 5 points per day late.

Policy on Missed Lecture Exams and Lab activities:

UNPLANNED ABSENCES: You may be excused in the event of a documented illness or emergency as outlined by university policy, with notification to the TA or Instructor team **within 48 hours**. An invalid excuse, or the excuse turned in late, will result in a score of zero for the activity missed. If you miss the final examination and have provided a valid medical excuse within 72 hours of the examination time, a

final course grade of incomplete (IN) will be recorded, and you will be permitted to take a make-up final examination during the following semester.

PLANNED ABSENCES: Students who wish to miss an examination or lab activity for observance of a religious holy day should be aware of the University's policy on such absences, published at <https://orl.usc.edu/life/calendar/absences/>. If the absence is approved as determined by the USC Office of Religious Life, a reasonable accommodation will be provided. If you have any anticipated exam date conflicts due to athletic schedules or religious holidays see an instructor by WEEK 2 of the course.

Statement on Academic Conduct and Support Systems

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. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, policy.usc.edu/scientific-misconduct.

Support Systems:

Student Health Counseling Services - (213) 740-7711 – 24/7 on call
engemannshc.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

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) 740-4900 – 24/7 on call
engemannshc.usc.edu/rsvp

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED) / Title IX - (213) 740-5086
equity.usc.edu, titleix.usc.edu

Information about how to get help or help a survivor of harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following protected characteristics: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy,

veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations.

Bias Assessment Response and Support - (213) 740-2421

studentaffairs.usc.edu/bias-assessment-response-support

Avenue to report incidents of bias, hate crimes, and microaggressions for appropriate investigation and response.

The Office of Disability Services and Programs - (213) 740-0776

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 Support and Advocacy - (213) 821-4710

studentaffairs.usc.edu/ssa

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

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, 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

Non-emergency assistance or information.