

BISC 102 Humans and Their Environment Syllabus Spring 2019

Instructors

Dale Kiefer <kiefer@usc.edu>

Office: AHF M235

Office hours: Tu 11-12:00 Th 11-12:30

TAs Zach Evans

evansz@usc.edu

James Moffett <jmoffett@usc.edu>

Office: AHF 204

Texts Wizard and Prophet by Charles C Mann

Office hours: Tu 11-12:00 Th 11-12:30

Ecobeaker/Evobeaker BISC 102 Custom, Meir

Lectures ZHS 159 Tues,Thur 9:30-10:50

SimUText

Overview:

This 4-unit general education class will provide a comprehensive introduction to the science (particularly biological science) that describes how humans interact with the natural world. There is a strong focus on explaining how basic biological principles help us understand what constrains the overall carrying capacity of our planet and why we should be concerned about its sustainability.

Learning Objectives:

At the end of the course, students will:

- Understand how principals of ecology are useful in studying environmental problems
- Have hands-on experience using models based on principles learned in class to determine outcomes for various environmental scenarios.
- Understand how to make informed decisions as a voter or community leader about complex topics like genetically modified organisms (GMOs) and nuclear energy
- Understand how to find accurate, factual information about science and avoid biased and erroneous content
- Understand what peer review is and how it works
- Understand the basics of Population Dynamics for humans and natural communities
- Learn about the importance of natural services in contributing to the sustainability of human and natural ecosystems
- Be able to think critically about how experimental evidence answers a scientific question

Course Policies

Policy on Re-grading Exams

If you feel that an error was made in the grading of an exam, you need to do the following:

1) Check the answer key with your TA, 2) Prepare a printed statement explaining why you feel your grade was incorrect, and 3) Submit your printed statement and your original exam to your TA within one week of the time the exam was returned to you. The TA will either handle the re-grade or consult with the professors. The entire exam will 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).

Policy on Missed Mid term exams

No make-up lecture exams will be given in this course. You may be excused from an exam in the event of a documented illness, emergency, or other serious problem beyond your control. No other excuses for missing exams will be accepted. If you miss an exam for a legitimate reason, and wish to ask for an accommodation, you should proceed as follows. Within 48 hours of the missed exam, send an email to the TA a request that you be excused. In the case of illness, this request must include either an official letter from your doctor stating that you were too sick to take the exam, or your doctor's name and contact information with permission for us to contact the doctor for a limited discussion of your condition. If you see a doctor at the USC Engemann Student Health Center, you will need to download, sign, and submit an "Authorization for Disclosure of Medical Information" to give us permission to speak to your doctor. This form can be found at:

<https://engemannshc.usc.edu/files/2012/11/Authorizationfor-Disclosure-of-Medical-Information-Professors-Limited-Discussion.pdf>. Note that neither you nor the doctor need tell us the nature of your illness. If you miss an exam for non-illness related reasons, you must provide similarly convincing documentation of the emergency to the TA within a week. If we judge your excuse to be valid, we will give you a grade for the missed exam equal to the average of your grades for the equivalent exams that you did take. Except in extraordinary circumstances, we will make accommodations for only one missed mid term exam. If your excuse is judged not to be valid, or you do not provide it within the allotted time, you will receive a score of zero for the missed exam.

If you miss the final exam and have provided a valid medical excuse to the TA within 48 hours of the exam time, a final course grade of Incomplete (IN) will be recorded and you will be permitted to take a make-up final exam during the following semester.

Policy on Missed Pop Quizzes

No make-up lecture quizzes will be given in this course. You may be excused from a pop quiz only in the event of a documented illness.

Extra Credit

No extra credit will be given for special projects, etc.

Impairments Affecting Your Performance

Students occasionally encounter difficulties that affect their academic performance, such as illness, accidents, bereavement, depression, anxiety, learning disabilities, and other problems. If you encounter such difficulties, please bring them to the attention of one of the instructors. We can refer you to

sources of help and may be able to offer accommodations. All such discussions will be confidential. Please seek help as soon as you feel your performance is being affected.

Students with Disabilities

Students requesting academic accommodations based on a disability are required to register with the Office of Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Be sure that the letter is delivered to the Laboratory Manager as early in the semester as possible, preferably by January 29, 2016. DSP is located in STU 301 and is open from 8:30 a.m. to 5:00 p.m., Monday through Friday. Their telephone number is 213-7400776. If a student's approved accommodation is limited to extra time on examinations, the teaching staff of BISC 102 will provide the accommodation. For any other accommodation, such as a private room, reader or a scribe, students must make prior arrangements with the DSP office 2 weeks before the exam date. For more information please visit the following website:
http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html.

Statement on Academic Integrity

The instructors in this course strongly support the ethics of academic integrity. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. Scampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00: <http://web-app.usc.edu/scampus/1100-behavior-violating-university-standards-and-appropriate-sanctions/>, while the recommended sanctions are located in Appendix A. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: <http://www.usc.edu/student-affairs/SJACS/>.

Course Website

Students are responsible for logging onto Blackboard (<https://blackboard.usc.edu>) and checking the course website on a regular basis. Postings on Blackboard will be an official source for announcements, course materials, lecture notes, score postings and general discussions. Lecture quizzes will also be completed on Blackboard. Midterm exam scores 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 your scores on Blackboard weekly.

DATE	LECTURE	LECTURE R	READING	LAB*
14-Jan	Ecological Footprint: Wizard vs. Prophet	Kiefer	Mann 1	No labs first week.
16-Jan	Introduction to Anthropogenic Planet	Kiefer	Star Dust & Dung Beetles	
21-Jan	Stars and Beetles	Kiefer	Lucretius	My Foot Print.org
23-Jan	Origins of Life	Kiefer	Selections from Life Ascending	
28-Jan	Human Evolution	Kiefer	Harari "Sapiens Slides"	ST Isle Royale
30-Jan	Human Evolution: Cultural Revolutions	Kiefer		
4-Feb	Population Dynamics and Human Population	Kiefer	ST Ecosystem Ecology 1- 5	ST Population Growth 1, 2, 3
6-Feb	Ecosystem Structure and Function	Kiefer		
11-Feb	Genetics	Kiefer	ST Evolution Sections 1, 2	ST Evolution Sections 3,4
13-Feb	Population Genetics	Kiefer		
18-Feb	Darwin's Theory	Kiefer	TBD	Darwian Snails & Mendelian Pigs
20-Feb	MID TERM EXAM 1	Kiefer		
25-Feb	The Selfish Gene 1	Kiefer	Reading: Dawkins Selfish Gene	Class Debate on Selfish Gene
27-Feb	The Selfish Gene 2	Kiefer		
3-Mar	Evolutionary Stable Strategies	Kiefer	Brown Plan B; Nowak Super Cooperators	Hyperion Treatment Plant
5-Mar	Prophet Speaks: Conservation & Cooperation	Kiefer		
10-Mar	Easter Island: Carrying capacity in micro	Moffett	Mann 3 and 4	Presentation of Class Papers
12-Mar	Green Revolution	Moffett		
17-Mar	Spring Break			
19-Mar	Spring Break			
24-Mar	High Tech Food	Moffett	Mann 4	Presentation of Class Papers
26-Mar	MID TERM EXAM 2	Moffett		
31-Mar	GMOs	Moffett	Mann 7	ST Nutrient Cycles 1,2,3
2-Apr	Nutrient Cycles	Moffett		
7-Apr	Climate Change 1	Moffett	ST Climate Change 1, 2	ST Climate Change 3,4
9-Apr	Climate Change 2	Moffett		
14-Apr	Water	Moffett	Mann 5	ST Biogeography 1, 2
16-Apr	Water Pollution	Moffett		
21-Apr	Energy and Carrying Capacity	Moffett	Mann 6	TBD
23-Apr	Water Pollution	Moffett		Debate/Board Game
28-Apr	Wizard vs Prophet a recap	Moffett	Mann 8,9, 10	ST Biogeography 1, 2
30-Apr	Wizard Speaks: Future and You	Moffett		
9-May	Midterm Exam 3 8-10 AM			
	Grading: 3 Midterms - 100 each, pop quizzes-75 total, lab participation-30, lab assignments-15 each, final paper-50, presentation-50			

