SEMESTER AT SEA COURSE SYLLABUS

Colorado State University, Academic Partner

Voyage:	Spring 2020
Discipline:	Natural Resources
Course Number and Title:	NR 120A Environmental Conservation
Division:	Lower
Faculty Name:	Dr. Brett M. Johnson
Semester Credit Hours:	3

Prerequisites: None

COURSE DESCRIPTION

Environmental issues arise from interactions between human society and the natural world. These interactions can degrade the natural world, which can deprive current and future generations of the natural resources and ecosystem services upon which humanity depends. This introductory environmental science course explores some of the world's most pressing environmental issues (e.g., population growth, biodiversity loss, invasive species, pollution, overfishing, and climate change). We'll also examine solutions that can contribute to environmental sustainability. Special emphasis will be placed on marine and coastal environments encountered along the voyage. In anticipation of each port, we will focus on a critical environmental conservation issue relevant to that nation. By the end of the course students will become informed and critical thinkers regarding environmental change, human society, and the sustainability of natural resources from local to global scales.

LEARNING OBJECTIVES

1. Provide an opportunity for students to learn about critical, contemporary global environmental conservation issues;
2. Introduce students to ecological concepts that provide a foundation for understanding present and future environmental conservation issues;
3. Help students learn to think critically about information they receive regarding environmental conservation;
4. Provide a foundation for students to appraise their own ecological footprint and environmental worldview.

REQUIRED TEXTBOOKS

AUTHOR: Michael Slattery
TITLE: Contemporary Environmental Issues
PUBLISHER: Kendall Hunt

ISBN: 9781524980733 (print), 9781524984083 (eBook)
DATE/EDITION: 2019/5th edition

TOPICAL OUTLINE OF COURSE

Depart Ensenada, Mexico — January 4

B1—January 7: Welcome to the Anthropocene
Reading: Slattery, Chapter 1

B2—January 9: Science, Values, and Environmentalism
Reading: Lackey 2016, Wittemyer et al. 2018

B3—January 11: Biodiversity Loss; Case study: the Hawaiian Islands
Reading: Slattery, Chapter 8

Honolulu, Hawaii, USA — January 12

Reflection & Study Day — January 13 (No Class)

B4—January 15: Plastic Pollution
Reading: Seltenrich 2015

International Date Line Crossing — January 16 (Lost Day)

B5—January 18: Global Climate Change
Reading: Slattery, Chapter 6

Study Day — January 19 (No Class)

B6—January 21: Overfishing
Reading: Scheffer et al. 2005

B7—January 23: Overfishing; Case study: Seafood Sustainability in Japan

Kobe, Japan — January 24-28

B8—January 30: Air Pollution; Case study: Air Quality in China
Reading: Slattery, Chapter 4

Shanghai, China — January 31 – February 5

B9—February 7: Kobe and Shanghai debrief and discussion; field class insights, independent field assignment progress reports

B10—February 9: River Conservation; Case Study: Mekong River

Ho Chi Minh City — February 10-15

Community Programming — February 17 (No Class)

B11—February 18: Deforestation; Case study: Palm Oil in Malaysia
Reading: Slattery, Chapter 7

Port Klang/Kuala Lumpur, Malaysia — February 19-24

B12—February 26: Fundamentals of Population Growth
Reading: Slattery, Chapter 2

B13—February 28: MIDTERM EXAM

Cochin, India — February 29 – March 5

Community Programming — March 7 (No Class)

B14—March 8: Food Security and the Environment
Reading: Slattery, Chapter 2

B15—March 10: Climate Change and the Oceans; Impacts to island nations
Reading: Slattery, Chapter 6

Port Louis, Mauritius — March 11

B16—March 13: Coral Reef Conservation
Reading: MacNeil et al. 2015

B17—March 15: Non-Point Source Pollution
Reading: Silliman and Angelini 2012

B18—March 17: The Water Crisis; Case study: Water Scarcity in South Africa
Reading: Slattery, Chapter 10

Cape Town, South Africa — March 18-23

B19—March 25: Powering our Planet
Reading: Slattery, Chapter 3

Study Day — March 26 (No Class)

B20—March 28: Contaminants and Bioaccumulation
Reading: Carson 1962, Chapters 1-3

Tema, Ghana — March 30-31
Takoradi, Ghana — April 1-3

B21—April 4: Invasive Species
Reading: TBD

B22—April 6: There is No Planet B
Reading: Slattery, Chapter 11

B23—April 8: Student presentations: Independent Field Assignment
Assignment: Field Assignment final report due.

B24—April 10: Student presentations: Independent Field Assignment

Casablanca, Morocco — April 11-14

Study Day — April 15 (No Class)

B25—April 17: FINAL EXAM

Arrive Amsterdam, The Netherlands — April 20

FIELD WORK

Semester at Sea® field experiences allow for an unparalleled opportunity to compare, contrast, and synthesize the different cultures and countries encountered over the course of the voyage. In addition to the one field class, students will complete independent field assignments that span multiple countries.

Field Class

The field class for this course is on **Friday, 24 January 2020 in Kobe, Japan**.

Field Class attendance is mandatory for all students enrolled in this course. Do not book individual travel plans or a Semester at Sea sponsored trip on the day of your field class. Field Classes constitute at least 20% of the contact hours for each course and are developed and led by the instructor.

Title: Aquatic Conservation and Seafood Sustainability in Japan

Description: Seafood is central to Japanese society- its culture, economy and way of life. But worldwide the sources of seafood, fishes and other aquatic organisms, are under intense exploitation by humans. In this field class students will become more aware of the importance of seafood to societies and the issues surrounding sustaining those societal benefits. We will visit Awaji Island Marine Research and Teaching Center, followed by visit to a local fish market near the Port of Kobe. The trip will conclude at a Kobe seafood restaurant where students can make sustainable choices for their meal.

Objectives: 1) learn about aquatic conservation in Japan, 2) experience the role of seafood in Japanese daily life, 3) understand Japanese attitudes and preferences around marine conservation and seafood sustainability, 4) make informed choices of sustainable seafood.

Assignment and evaluation: The field class is worth 20% of your overall course grade and there will be no partial credit or makeup assignment if you miss the field class. 75% of the grade for the field class will be based on participation, behavior, and cooperation with instructor, guide and host instructions. 25% of the grade will be based on a written, 500-word field trip report in which you describe a) three things that you found most interesting about the field trip, b) what you learned about making sustainable seafood choices as a consumer, and c) how the field trip deepened your appreciation for the tradeoffs and complexity of environmental conservation issues. The field class report will be due at 0800 on 31 January.

Independent Field Assignment

Students will work in small groups to prepare a slide show to present to the class at the end of the course and submit an accompanying final report (one per group). Each group will choose one of the lecture topics (for example, biodiversity loss, climate change, pollution, etc.) and prepare a slide show/photo essay using photographs they took during their visits to at least three ports of call.

The slide show and report will be evaluated on how well they convey the severity, complexity and societal tradeoffs involved in environmental conservation issues and demonstrate command of the course material by linking field observations to course issues and concepts. The final report will be 500--1,000 words and will be due at 1110 on 8 April. More detailed instructions will be provided in class.

METHODS OF EVALUATION

Come to class having read the assigned reading or watched the assigned video(s)- there will be a short quiz on these assignments at the start of class. Note that each of the five components of your course grade are weighted equally so don't slack off on any of them.

1. Field class (mandatory)
   a. Participation, behavior 15%
   b. Field trip report 5%
2. Independent field assignment
   a. Slide show presentation 10%
   b. Final report 10%
3. Midterm exam 20%
4. Final exam 20%
5. Quizzes, homework 20%

TOTAL 100%

GRADING SCALE

The following Grading Scale is utilized for student evaluation. Pass/Fail is not an option for Semester at Sea® coursework. Note that C-, D+ and D- grades are also not assigned on Semester at Sea® in accordance with the grading system at Colorado State University (the SAS partner institution).

Pluses and minuses are awarded as follows on a 100% scale:

Excellent	Good	Satisfactory/Poor	Failing
97-100%: A+	87-89%: B+	77-79%: C+	Less than 60%: F
93-96%: A	83-86%: B	70-76%: C	
90-92%: A-	80-82%: B-	60-69%: D	

ATTENDANCE/ENGAGEMENT IN THE ACADEMIC PROGRAM

Attendance in all Semester at Sea® classes, including the Field Class, is mandatory. Students must inform their instructors prior to any unanticipated absence and take the initiative to make up missed work in a timely fashion. Instructors must make reasonable efforts to enable students to make up work which must be accomplished under the instructor's supervision (e.g., examinations, laboratories). In the event of a conflict in regard to this policy, individuals may appeal using established CSU procedures.

LEARNING ACCOMMODATIONS

Semester at Sea® provides academic accommodations for students with diagnosed learning disabilities, in accordance with ADA guidelines. Students who will need accommodations in a class, should contact ISE to discuss their individual needs. Any accommodation must be discussed in a timely manner prior to implementation.

A letter from students' home institutions verifying the accommodations received on their home campuses (dated within the last three years) is required before any accommodation is provided on the ship. Students must submit verification of accommodations to academic@isevoyages.org as soon as possible, but no later than two months prior to the voyage. More details can be found within the **Course Registration Packet**, as posted to the Courses and Field Classes page no later than one month prior to registration.

STUDENT CONDUCT CODE

The foundation of a university is truth and knowledge, each of which relies in a fundamental manner upon academic integrity and is diminished significantly by academic misconduct. Academic integrity is conceptualized as doing and taking credit for one's own work. A pervasive attitude promoting academic integrity enhances the sense of community and adds value to the educational process. All within the University are affected by the cooperative

commitment to academic integrity. All Semester at Sea® courses adhere to this Academic Integrity Policy and Student Conduct Code.

Depending on the nature of the assignment or exam, the faculty member may require a written declaration of the following honor pledge: "I have not given, received, or used any unauthorized assistance on this exam/assignment."

RESERVE BOOKS FOR THE LIBRARY

None

FILMS

None

ELECTRONIC COURSE MATERIALS

AUTHOR:	Lackey, R. T.
ARTICLE/CHAPTER TITLE:	Keep science and scientists credible: avoid stealth policy advocacy.
JOURNAL/BOOK TITLE:	Bulletin of the Ecological Society of Australia
VOLUME:	46(3)
DATE:	2016
PAGES:	14-15

AUTHOR:	Wittemyer, G., J. Berger, K. R. Crooks, B. R. Noon, L. Pejchar, S. E. Reed, and J. A. Savidge
ARTICLE/CHAPTER TITLE:	To advocate or not is no longer the question: paths to enhance scientific engagement.
JOURNAL/BOOK TITLE:	BioScience
VOLUME:	68(1)
DATE:	2018
PAGES:	13-14

AUTHOR:	Seltenrich, N.
ARTICLE/CHAPTER TITLE:	New link in the food chain? Marine plastic pollution and seafood safety
JOURNAL/BOOK TITLE:	Environmental Health Perspectives
VOLUME:	123(2)
DATE:	2015
PAGES:	A34-A41

AUTHOR:	Scheffer, M., S. Carpenter, and B. de Young.
ARTICLE/CHAPTER TITLE:	Cascading effects of overfishing marine systems

JOURNAL/BOOK TITLE: Trends in Ecology and Evolution
VOLUME: (20)11
DATE: 2005
PAGES: 579-581

AUTHOR: MacNeil, M. A., et al.
ARTICLE/CHAPTER TITLE: Recovery potential of the world's coral reef fishes
JOURNAL/BOOK TITLE: Nature
VOLUME: 520
DATE: 2015
PAGES: 341-344

AUTHOR: Silliman, B. R. and C. Angelini
ARTICLE/CHAPTER TITLE: Trophic cascades across diverse plant ecosystems
JOURNAL/BOOK TITLE: Nature Education Knowledge
VOLUME: 3(10)
DATE: 2012
PAGES: 44

AUTHOR: Carson, R.
ARTICLE/CHAPTER TITLE: Chapter 1: A fable for tomorrow death
JOURNAL/BOOK TITLE: Silent Spring
VOLUME: n/a
DATE: 1962
PAGES: 1-3

AUTHOR: Carson, R.
ARTICLE/CHAPTER TITLE: Chapter 2: Obligation to endure
JOURNAL/BOOK TITLE: Silent Spring
VOLUME: n/a
DATE: 1962
PAGES: 4-13

AUTHOR: Carson, R.
ARTICLE/CHAPTER TITLE: Chapter 3: Elixirs of death
JOURNAL/BOOK TITLE: Silent Spring
VOLUME: n/a
DATE: 1962
PAGES: 15-37

ADDITIONAL RESOURCES

None