

NORTH CENTRAL TEXAS COLLEGE

COURSE SYLLABUS

<i>Course Title:</i>	BIOL 2406 Environmental Biology				
<i>Course Prefix & Number:</i>	Biol 2406	<i>Section Number:</i>	340	<i>Semester/Year:</i>	SP 2018
<i>Semester Credit Hours:</i>		<i>Lecture Hours:</i>		<i>Lab Hours:</i>	
<i>Course Description (NCTC Catalog):</i> Principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research.					
<i>Course Prerequisite(s):</i>					
<i>Required or Recommended Course Materials:</i> <i>Principles of Environmental Science 8th</i> , Cunningham ISBN 9780078036071					

INSTRUCTOR INFORMATION

<i>Name of Instructor:</i>	Jessica Sharp
<i>Campus/Office Location:</i>	
<i>Telephone Number:</i>	
<i>E-mail Address:</i>	jsharp@nctc.edu or Canvas course email

OFFICE HOURS

<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>
Online	Online	Online	Online	Online

STUDENT LEARNING OUTCOMES (From Academic Course Guide Manual/Workforce Education Course Manual/NCTC Catalog

At the successful completion of this course the student will be able to:

Lecture Learning Outcomes	
	<ol style="list-style-type: none"> 1. Explain the structure and impact of biogeochemical cycles. 2. Describe energy transformations across trophic levels. 3. Illustrate abiotic/biotic interactions and symbiotic relationships. 4. Identify various types of natural resources, human impact on these resources, and common resource management practices. 5. Quantify and analyze the impact of lifestyle on the environment. 6. Depict evolutionary trends and adaptations to environmental changes.

7. Describe environmental hazards and risks and the social and economic ramifications.
8. Describe ecological and statistical techniques and approaches used in the study of environmental biology.

Lab Learning Outcomes

Upon successful completion of this course, students will:

1. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
2. Use critical thinking and scientific problem solving to make informed decisions in the laboratory.
3. Communicate effectively the results of scientific investigations.
4. Explain the structure and impact of biogeochemical cycles.
5. Describe energy transformations across trophic levels.
6. Illustrate abiotic/biotic interactions and symbiotic relationships.
7. Identify various types of natural resources, human impact on these resources, and common resource management practices.
8. Quantify and analyze the impact of lifestyle on the environment.
9. Depict evolutionary trends and adaptations to environmental changes.
10. Describe environmental hazards and risks and the social and economic ramifications.
11. Describe ecological and statistical techniques and approaches used in the study of environmental biology.

GRADING CRITERIA

<i># of Graded Course Elements</i>	<i>Graded Course Elements</i>	<i>Percentage or Point Values</i>
2	Exams	28%
12	Lecture Quizzes	29%
13	Lab quizzes/discussions	27%
1	Greenbuilt town project	15%

COURSE SUBJECT OUTLINE (Major Assignments, Due Dates, and Grading Criteria)

2 Exams	100 and 86 points each	= 186 points
12 lecture quizzes	At 15 points each	= 180 points
13 lab assignments	At 15 points each	= 195 points
1 project	At 100 points	= 100 points
	Total possible points	= 661 points

A = 661 - 592 points B = 526 - 591 points C = 460- 525 points D =395- 459 points
F = <395 points

ATTENDANCE POLICY

Regular and punctual attendance is expected of all students in all classes for which they have registered. All absences are considered to be unauthorized unless the student is absent due to illness or emergencies as determined by the instructor. It is the student responsibility to provide documentation as to the emergency for approval and judgement by the faculty member.

Approved college sponsored activities are the only absences for which a student should not be held liable and only when provided by a college official ahead of the absence. Valid reasons for absence, however, do not relieve the student of the responsibility for making up required work. Students will not be allowed to make up an examination missed due to absence unless they have reasons acceptable to the instructor. A student who is compelled to be absent when a test is given should petition the instructor, in advance if possible, for permission to postpone the exam. Student will be dropped from a class by the Registrar upon recommendation of the instructor who feels the student has been justifiably absent or tardy a sufficient number of times to preclude meeting the course's objectives. Persistent, unjustified absences from classes or laboratories will be considered sufficient cause for College officials to drop a student from the rolls of the College. From Board Policy FC (LOCAL)

Last day to withdraw from a course with a "W" is April 5, 2018.

DISABILITY SERVICES (Office for Students with Disabilities)

The Office for Students with Disabilities (OSD) provides support services for students with disabilities, students enrolled in technical areas of study, and students who are classified as special populations (i.e. single parents).

Support services for students with disabilities might include appropriate and reasonable accommodations, or they may be in the form of personal counseling, academic counseling, career counseling, etc. Furthermore, OSD Counselors work with students to encourage self-advocacy and promote empowerment. The Counselors also provides resource information, disability-related information, and adaptive technology for students who qualify.

If you feel you have needs for services that the institution provides, please reach out to either Wayne Smith (940) 498-6207 or Yvonne Sandman (940) 668-3300. Alternative students may stop by Room 170 in Corinth or Room 111 in Gainesville.

CORE CURRICULUM FOUNDATIONAL COMPONENT AREA (For classes in the Core)

☐	Communication		
☐	Mathematics	☐	Government/Political Science
☐	Life and Physical Science	☐	Social and Behavioral Sciences
☐	Language, Philosophy & Culture	☐	Component Area Option
☐	Creative Arts		
☐	American History		

REQUIRED CORE OBJECTIVES (For classes in the Core)

☐	Critical Thinking	☐	Teamwork
☐	Communication	☐	Personal Responsibility
☐	Empirical and Quantitative	☐	Social Responsibility

COURSE TYPE

☐	Academic General Education Course (from ACGM but not in NCTC Core)
---	--------------------------------------------------------------------

<i>Other Pertinent Information</i>	This is very important: please be responsible for adding up your own points that you earn throughout the semester. Sometimes the gradebook can be unreliable. I try to fix problems as soon as they arise, but many times, after adding in zeros to a grade, this changes your points or % in the course. The best way to not be surprised at your grade at the end of the semester, is to take a record of your own points for the semester. You add them up and divide them by how many points you could have earned so far in this course. This is so important to know!
-------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- ☐ Academic NCTC Core Curriculum Course
- ☐ WECM Course

STUDENT HANDBOOK

Students are expected to follow all rules and regulations found in the student handbook and published online.

ACADEMIC DISHONESTY

Scholastic dishonesty shall include, but is not limited to cheating, plagiarism, academic falsification, intellectual property dishonesty, academic dishonesty facilitation and collusion. Faculty members may document and bring charges against a student who is engaged in or is suspected to be engaged in academic dishonesty. See Student Handbook, "Student Rights & Responsibilities: Student Conduct ([FLB(LOCAL)])".

Consequences for academic dishonesty may include:

- 1) zeros on assignments
- 2) withdrawal from course

This is very important: Please be responsible for adding up your own points that you earn

Name of Chair/Coordinator:	Dr. Lisa Bellows
Office Location:	Gainesville Science Building Office 408
Telephone Number:	940-668-4252
E-mail Address:	lbellows@nctc.edu

throughout the semester. Sometimes the gradebook can be misrepresenting. I try to fix problems as soon as they arise, but many times, after adding in zeros to a grade, this changes your points or % in the course. The best way to not be surprised at your grade at the end of the semester, is to take a record of your own points for the semester. You add them up and divide them by how many points you could have earned so far in this course. This is so important to know!

QUESTIONS, CONCERNS, or COMPLAINTS

****Read the ACCOUNCEMENTS each week. I will tell you of any changes and what content to concentrate on. I will also announce what is due each week. Here is your semester listed below. There are 15 weeks and two exams. All quizzes, both lecture and lab quizzes or discussions, are 15 pts each, unless otherwise noted.**

***Exams only cover the online lecture notes that go with each lesson. Labs are not tested on exams.**

Calendar for course	Weekly Schedule of Lecture & Lab *The Weekly Quizzes are always due the Monday night of the last date of the week by midnight. No exceptions.		
		Date	Chapters/quiz Due
			Lab& lab quizzes Due
	Lesson 1 (January 16-January 22)	Chapter 1 Understanding our Environment; Chapter 1 quiz	Rachel Carson Lab; lab quiz 1
	Lesson 2 (January 23 - January 29)	Chapter 2: Environmental Systems and Chapter 2 quiz	Lab 2 – Plant ID lab outside - using a dichotomous key
	Lessons 3 and 4 (January 30 - February 5) *You get 2 weeks for this module	Chapter 3: Species Populations, Interactions, and Communities and Chapter 3 quiz - 30 pts	Lab 3 – Evolution NPR discussion Lab 4: Evolution lab
	Lesson 5 (February 6 - 12)	Chapter 4: Human Populations Lab and Chapter 4 quiz	Lab 5 - Population lab looking at histograms
	Exam 1: Chapters 1 to 4 Wednesday, February 21st	10am to midnight open time frame	Exam covers Chapters 1 to 4
	Lesson 6: (February 13 - 19)	Chapter 5: Water Biomes sections, pages 103 to the end (Marine Ecosystems to the end of the chapter) and Chapter 5 quiz	Lab 6: Water biomes
	Lesson 7 (February 20-26)	Chapter 6: Environmental conservation and	Lab 7: Ecobarons PPT about the book titled "Ecobarons" and

		Chapter 6 quiz	Discussion forum on this topic	
	Lesson 8 (February 27 - March 5)	Chapter on Water part 1; Read all notes and powerpoint slides 1- 49	Lab 8: Eutrophication Lab Quiz on Eutrophication lab	
	Lesson 9 (March 6 - 12)	Chapter on Water Part II ; Study PPT slides 50-84 Water part II quiz	Lab 9 : study the virtual tour of WWTP and then take the quiz	
	Lesson 10 (March 13 - 26) *2 weeks for this lesson since its Spring Break	Chapter 13: Solid and Hazardous Waste; Chapter 13 quiz	Lab 10: Watch and take notes on all the online landfill video tours in lab folder; quiz on landfills	
	Lesson11 (March 27 - April 2)	Chapter 7: Food and Agriculture	Lab 11: Environmental Nutrition and Precycling discussion forum	
	Lesson 12 (April 3 - 9)	Chapter 12: Energy part 1: "old energy"; Chapter 12 part1 Quiz	Lab 12: Global warming lab: slideshow/NPR news	
	Lesson 13 (April 10 -16)	Chapter 12 part II: Renewables and take the Quiz	Lab13: Wind Energy lab and lab quiz	
	Lesson 14: (April 17 - 30)	Greenbuilding Lecture and work on your town	Greenbuilding Project is your lab and Project is due by midnight April 30th. Upload your video/photo into the drop box	

	Lesson 15: (May 1 - 7) Complete the course Quiz and Essay & Study for Exam 2	Essay will be an environmental topic and quiz will be about what you have learned from the entire course	Turn in your essay and complete the quiz	
	Exam 2: Covers all content after lesson 5	Exam 2 is from 10am to midnight open time frame	Wednesday, May 9th	