

1.) DATE: 2/26/2014	2.) COMMUNITY COLLEGE: Pima Community College
3.) COURSE PROPOSED: Prefix: BIO Number: 105 Title: ENVIRONMENTAL BIOLOGY Credits: 4	
CROSS LISTED WITH: Prefix: Number: ; Prefix: Number: ; Prefix: Number: ;	
Prefix: Number: ; Prefix: Number: ; Prefix: Number: ;	
4.) COMMUNITY COLLEGE INITIATOR: ASU Transfer Systems Development PHONE:	
7-2424 FAX:	
ELIGIBILITY: Courses must have a current Course Equivalency Guide (CEG) evaluation. Courses evaluated as NT (non-transferable) are not eligible for the General Studies Program.	
MANDATORY REVIEW:	
<input type="checkbox"/> The above specified course is undergoing Mandatory Review for the following Core or Awareness Area (only one area is permitted; if a course meets more than one Core or Awareness Area, please submit a separate Mandatory Review Cover Form for each Area).	
POLICY: The General Studies Council (GSC-T) Policies and Procedures requires the review of previously approved community college courses every five years, to verify that they continue to meet the requirements of Core or Awareness Areas already assigned to these courses. This review is also necessary as the General Studies program evolves.	
AREA(S) PROPOSED COURSE WILL SERVE: A course may be proposed for more than one core or awareness area. Although a course may satisfy a core area requirement and an awareness area requirement concurrently, a course may not be used to satisfy requirements in two core or awareness areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirements and the major program of study.	
5.) PLEASE SELECT EITHER A CORE AREA OR AN AWARENESS AREA:	
Core Areas: Natural Sciences (SG) Awareness Areas: Select awareness area...	
6.) On a separate sheet, please provide a description of how the course meets the specific criteria in the area for which the course is being proposed.	
7.) DOCUMENTATION REQUIRED	
<input checked="" type="checkbox"/> Course Description	
<input checked="" type="checkbox"/> Course Syllabus	
<input checked="" type="checkbox"/> Criteria Checklist for the area	
<input checked="" type="checkbox"/> Table of Contents from the textbook required and/or list of required readings/books	
<input checked="" type="checkbox"/> Description of how course meets criteria as stated in item 6.	
8.) THIS COURSE CURRENTLY TRANSFERS TO ASU AS:	
<input type="checkbox"/> DEC prefix	
<input checked="" type="checkbox"/> Elective	
Current General Studies designation(s): NONE	
Effective date: 2014 Fall Course Equivalency Guide	
Is this a multi-section course? <input type="checkbox"/> yes <input type="checkbox"/> no	
Is it governed by a common syllabus? <input type="checkbox"/> yes <input type="checkbox"/> no	
Chair/Director:	Chair/Director Signature:

AGSC Action: Date action taken: Approved Disapproved

Effective Date:

Arizona State University Criteria Checklist for

NATURAL SCIENCES [SQ/SG]

Rationale and Objectives

In a relatively short time in the history of civilized societies, humankind moved from what was essentially an agrarian population into an industrial age, which in recent years has been profoundly shaped by such scientific and technological advances as genetic engineering, the computer, and space exploration. Our history of irrepressible ingenuity makes a compelling case for a future that will be even more profoundly influenced by science and technology. It is imperative that we react expeditiously and effectively to the problems and the promise that these advances create. We must ensure that technological change is directed to the benefit of society and that it will promote human dignity and values. Success in achieving this goal will depend upon the insight and knowledge of political and public opinion leaders, and the scientific enlightenment of educated citizens. To a significant degree, the ability of these individuals to understand the nature of the issues and the alternative courses of action will be determined by the quality of science presented at the nation's institutions of higher learning.

The recommendation of at least one laboratory course that includes a substantial introduction to the fundamental behavior of matter and energy in physical or biological systems derives from a number of considerations. First, all physical and biological phenomena have at their roots the fundamental principles governing the behavior of matter and energy. These principles have been shown over a period of time to be a value in reliably predicting and rationalizing a broad range of phenomena. Unless the lines to these roots are established, our understanding of the broader range of the sciences, and other fields upon which these sciences impinge, will be impaired. Second, because these fundamental principles have been experimentally established beyond reasonable doubt, the essentials of the scientific method can be clearly and coherently revealed by their study. Third, the study of the behavior of matter and energy illustrates the usefulness of mathematics in precisely describing and rationalizing certain physical phenomena, and the expressiveness of mathematical equation.

10/1989

REV: 1/1991, 3/1991, 1/2000, 10/2008

Proposer: Please complete the following sections and attach appropriate documentation.

ASU--[SQ] CRITERIA			
I. - FOR ALL <i>QUANTITATIVE</i> [SQ] NATURAL SCIENCES CORE AREA COURSES, THE FOLLOWING ARE CRITICAL CRITERIA AND MUST BE MET:			
YES	NO		Identify Documentation Submitted
<input type="checkbox"/>	<input type="checkbox"/>	A. Course emphasizes the mastery of basic scientific principles and concepts.	
<input type="checkbox"/>	<input type="checkbox"/>	B. Addresses knowledge of scientific method.	
<input type="checkbox"/>	<input type="checkbox"/>	C. Includes coverage of the methods of scientific inquiry that characterize the particular discipline.	
<input type="checkbox"/>	<input type="checkbox"/>	D. Addresses potential for uncertainty in scientific inquiry.	
<input type="checkbox"/>	<input type="checkbox"/>	E. Illustrates the usefulness of mathematics in scientific description and reasoning.	
<input type="checkbox"/>	<input type="checkbox"/>	F. Includes weekly laboratory and/or field sessions that provide hands-on exposure to scientific phenomena and methodology in the discipline, and enhance the learning of course material.	
<input type="checkbox"/>	<input type="checkbox"/>	G. Students submit written reports of laboratory experiments for constructive evaluation by the instructor.	
<input type="checkbox"/>	<input type="checkbox"/>	H. Course is general or introductory in nature, ordinarily at lower-division level; not a course with great depth or specificity.	
II. - AT LEAST ONE OF THE FOLLOWING ADDITIONAL CRITERIA MUST BE MET WITHIN THE CONTEXT OF THE COURSE:			
<input type="checkbox"/>	<input type="checkbox"/>	A. Stresses understanding of the nature of basic scientific issues.	
<input type="checkbox"/>	<input type="checkbox"/>	B. Develops appreciation of the scope and reality of limitations in scientific capabilities.	
<input type="checkbox"/>	<input type="checkbox"/>	C. Discusses costs (time, human, financial) and risks of scientific inquiry.	
NOTE: CRITERIA FOR [SG] COURSES BEGIN ON PAGE 4.			

III. - [SQ] COURSES MUST ALSO MEET THESE ADDITIONAL CRITERIA:			
YES	NO		Identify Documentation Submitted
<input type="checkbox"/>	<input type="checkbox"/>	A. Provides a substantial, quantitative introduction to fundamental principles governing behavior of matter and energy, in physical or biological systems.	
		B. Includes a college-level treatment of some of the following topics (check all that apply below):	
<input type="checkbox"/>	<input type="checkbox"/>	a. Atomic and molecular structure	
<input type="checkbox"/>	<input type="checkbox"/>	b. Electrical processes	
<input type="checkbox"/>	<input type="checkbox"/>	c. Chemical processes	
<input type="checkbox"/>	<input type="checkbox"/>	d. Elementary thermodynamics	
<input type="checkbox"/>	<input type="checkbox"/>	e. Electromagnetics	
<input type="checkbox"/>	<input type="checkbox"/>	f. Dynamics and mechanics	
[SQ] REQUIREMENTS CANNOT BE MET BY COURSES:			
<ul style="list-style-type: none"> • Presenting a qualitative survey of a discipline. • Focusing on the impact of science on social, economic, or environmental issues. • Focusing on a specific or limiting but in-depth theme suitable for upper-division majors. 			

Proposer: Please complete the following section and attach appropriate documentation.

ASU--[SG] CRITERIA			
I. - FOR ALL GENERAL [SG] NATURAL SCIENCES CORE AREA COURSES, THE FOLLOWING ARE CRITICAL CRITERIA AND MUST BE MET:			
YES	NO		Identify Documentation Submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Course emphasizes the mastery of basic scientific principles and concepts.	Course syllabus and outline
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Addresses knowledge of scientific method.	Course syllabus and outline
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Includes coverage of the methods of scientific inquiry that characterize the particular discipline.	Course syllabus and outline
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Addresses potential for uncertainty in scientific inquiry.	Course syllabus and outline
<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. Illustrates the usefulness of mathematics in scientific description and reasoning.	Course syllabus and outline
<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. Includes weekly laboratory and/or field sessions that provide hands-on exposure to scientific phenomena and methodology in the discipline, and enhance the learning of course material.	Course syllabus and outline
<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. Students submit written reports of laboratory experiments for constructive evaluation by the instructor.	Course syllabus and outline
<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. Course is general or introductory in nature, ordinarily at lower-division level; not a course with great depth or specificity.	Course syllabus and outline
II. - AT LEAST ONE OF THE ADDITIONAL CRITERIA THAT MUST BE MET WITHIN THE CONTEXT OF THE COURSE:			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	A. Stresses understanding of the nature of basic scientific issues.	Course syllabus and outline
<input checked="" type="checkbox"/>	<input type="checkbox"/>	B. Develops appreciation of the scope and reality of limitations in scientific capabilities.	Course syllabus and outline
<input type="checkbox"/>	<input checked="" type="checkbox"/>	C. Discusses costs (time, human, financial) and risks of scientific inquiry.	

[SG] REQUIREMENTS CANNOT BE MET BY COURSES:	
	<ul style="list-style-type: none">• Presenting a qualitative survey of a discipline.
	<ul style="list-style-type: none">• Focusing on the impact of science on social, economic, or environmental issues.
	<ul style="list-style-type: none">• Focusing on a specific or limiting but in-depth theme suitable for upper-division majors.

Course Prefix	Number	Title	Designation
BIO	105IN	ENVIRONMENTAL BIOLOGY	SG

Explain in detail which student activities correspond to the **specific** designation criteria. Please use the following organizer to explain how the criteria are being met.

Criteria (from checksheet)	How course meets spirit (contextualize specific examples in next column)	Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)
I a-d: Course emphasizes mastery of basic scientific principles, addresses knowledge of scientific method, includes coverage of method of scientific inquiry, addresses potential for uncertainty in scientific inquiry.	This course describes and applies ecological principles of how the earth functions and the human impact on the environment as well as evaluates the scientific basis of environmental issues.	Modules II and III of course syllabus and outline
I e-h: Illustrates usefulness of mathematics in scientific description and reasoning. Includes weekly laboratory and/or field sessions; submits written reports of laboratory experiments. Course is intro level.	Course analyzes potential solution to current environmental issues, provides skills for life-long learning, critical examination relative to environmental biology. Laboratories and field sessions to stimulate learning through hands-on experience.	Modules III and IV of course syllabus and outline
II a and b: Stresses understanding of the nature of basic scientific issues; develops appreciation of the scope and reality of limitations in scientific capabilities.	Focus placed on the fundamentals of ecology and their relevance to human impact on natural ecosystems. Examines causes and solutions to environmental issues.	Modules I and II of course syllabus and outline.

Course Content Form

PIMA COMMUNITY COLLEGE

Classification: Transfer

Start Term: 201010

BIO 105IN Environmental Biology

Initiator: N. Schmidt

Credit Hours: 4.00

Campus: Downtown

Lecture Periods: 3.00

Date: 12/15/2008

Lab Periods: 3.00

Description:

Fundamentals of ecology and their relevance to human impact on natural ecosystems. Includes ecosystem structure and function, population dynamics, and human impacts on air, water, land, and biodiversity.

Information: IN designates an integrated lecture/lab combination.

Performance Objectives:

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

1. Describe ecological principles of how the Earth functions.
2. Apply ecological principles and the human impact on the environment.
3. Evaluate scientific basis of environmental issues.
4. Describe possible causes and analyze potential solutions to current environmental issues.
5. Demonstrate skills necessary for life-long learning, critical examination, and personal decisions relative to environmental biology.
6. Perform activities to demonstrate improvement in the general education goals of oral communication, written communication, and critical thinking.

Outline:

- I. Environmental Biology
 - A. Science
 - B. Scientific method
- II. How the Earth Works
 - A. Plate tectonics
 - B. Climate and biomes
 - C. Ecology
 1. Ecosystem components
 2. Energy flow and biogeochemical cycling
 3. Natural selection and evolution
 4. Population and community ecology
- III. Humans on Earth
 - A. History
 - B. Population
 - C. Economics and politics
- IV. Human Impacts
 - A. Biodiversity
 1. Description and importance
 2. Impacts upon and management
 - B. Water
 1. Resources
 2. Uses and management
 - C. Land

1. Soil
 2. Food
 3. Land and waste management
- D. Air
1. Air pollution
 2. Energy use, impacts, and conservation
- E. Global Climate Impacts
1. Global climate change
 2. Ozone depletion
 3. Acid deposition

BIO 105: ENVIRONMENTAL BIOLOGY

Fall 2013 Syllabus (subject to change)

CRN 11131 (MW 8:40-11:20 am) and CRN 11298 (MW 11:40-2:20)

Instructor: Brad Fiero

Office: Tortolita E-207 | Phone: 206-6897 | E-mail: bfiero@pima.edu

Office Hours: MW 2:30 pm – 3:30 pm; TTh 1:00 pm – 2:30 pm. Also by appointment.

Texts: *Environmental Science*, 1st ed, 2013. Houtman, Karr, Interlandi
Environmental Biology Lab Manual [required] Get from bookstore or class homepage.
Class Web Site (<http://wc.pima.edu/~bfiero/bio105/>): includes much of the syllabus including scoring rubrics, information on plagiarism and how to cite sources, my "fail-safe study technique," tips for PowerPoint presentations, assignments (and samples), and a lot more.
MyPima (<https://mypima.pima.edu/>): contains PowerPoints

Description: Fundamentals of ecology and their relevance to human impact on natural ecosystems. Includes ecosystem structure and function, population dynamics, and human impacts on air, water, land, and biodiversity.

Course Objectives: Upon completion of this course, the student will be able to:

1. Synthesize ecological principles into an understanding of how the Earth functions.
2. Apply ecological principles to understand human impact on the environment.
3. Evaluate scientific basis of environmental issues.
4. Describe possible causes and analyze potential solutions to current environmental issues.
5. Demonstrate skills necessary for life-long learning, critical examination, and personal decisions relative to environmental biology.

Philosophy of Class: I want this course to be interesting, applicable, and challenging for you. I hope each of you is successful in this class, and I will enjoy meeting you outside of class to help you in your progress toward success. But learning is something you do and requires active participation and effort.

Grading System: Based on percentage of total accumulated points from both lecture and lab.

Evaluation:	Points:	Percent of Total Points:
Quizzes	350 pts (10 @ 35 pts)	35%
Activities	150 pts (3 @ 50 pts)	15%
Labs	500 pts (7 @ variable)	50%
Environmental Biology Event	Makeup/extra credit (35 pts)	
Optional Comprehensive Final Exam	Makeup/extra credit (50 pts)*	
Total Points:	1000 pts	100%

* The Final Exam has 100 points. Every point you get above 50 on the Final is how many makeup/extra credit points you add to your class point total. For example, if you get a 90 on the Final Exam, then you get 40 points (90-50) added to your total points.

Final Grade:

A	=	90 - 100%	=	900 - 1000 points
B	=	80 - 89%	=	800 - 899 points
C	=	70 - 79%	=	700 - 799 points
D	=	60 - 69%	=	600 - 699 points
F	=	Below 60%	=	000 - 599 points

POLICIES

- Attendance Policy:** You are expected to arrive to class on time and actively participate each class period. Tardies and absences usually result in lost points. Field trips, quizzes, and other class activities begin at the start of class and may be missed if you do not arrive to class on time. Quizzes are given out at the beginning of class time and must be completed in the time allotted (usually 10-30 minutes but may be more or less). If you miss all or a portion of a class, then you are solely responsible for obtaining missed class materials. Complete attendance is mandatory during all group meetings and presentations; otherwise points will be forfeited. Because of insurance limitations, non-registered visitors are not allowed at class sessions or on field trips.
- Make-up and Late Work Policy:** Quizzes cannot be made up. No make-ups or late work accepted unless otherwise stated (see Rubrics online); however, most work may be turned in early when you know you have to miss a class. All work is due at or before the beginning of class unless otherwise noted. I suggest emailing your work to me early enough to receive a confirmation email from me. Email problems are not an acceptable excuse. Note: the Final Exam serves as make up/extra credit. If you are going to miss or have missed a class, please see instructor as soon as possible.
- Group Projects:** It is important that clear communication occurs between group members, and that expectations of each member are clear to all, and that all members fulfill what is expected of them on time. Each member of a group will be graded independently. Each in-class group meeting missed may result in one or more points missed.
- Rebuttal System:** If you think you were graded unfairly (or erroneously) on an assignment or quiz, please turn in a written explanation (rebuttal) with your graded assignment/quiz to me within two weeks. I will write a response and return it to you. An appointment can be set up if you disagree with the resolution.
- Scholastic Ethic:** You are expected to abide by the College's Student Code of Conduct (http://www.pima.edu/studenterv/studentcode/index_shtm). Breaches in scholastic ethic (e.g. cheating and plagiarism [see <http://wc.pima.edu/~bfiero/plagrsm.htm>]) will be dealt with severely. Cheating includes using an electronic device during a quiz.
- Be Courteous:** Every student is expected to contribute to a positive, distraction-free learning environment. No use of cell phones, laptops, or other electronics in class except with instructor permission (points may be lost for infractions). No talking while the instructor or another student is talking to the class. In general, please be respectful of other students and the educational process.
- Withdrawal (W):** Students who fail to attend the first class or fail to attend 3 consecutive classes without notifying the instructor may be withdrawn. If you decide you cannot continue in class, then officially withdraw by the official deadline. If you wish to receive a grade of "W" after the withdrawal date, please request this in writing to the instructor by the first day of final exam week; however, granting a grade of "W" is up to the discretion of the instructor.
- Incomplete (I):** Given only when a student has missed 20% or less of the course material for a reason acceptable to the instructor. Eligibility for an incomplete requires earned grades that average "C" or above at the time of request.
- Posting of Grades:** Grades will be posted anonymously using a "secret code" supplied by the student. In addition, grades may be sent by email. If you do not wish your grades to be posted or emailed, please inform the instructor.
- Americans with Disabilities Act:** Pima Community College is committed to providing accommodations for qualified individuals with disabilities in a timely and effective manner. To request a reasonable accommodation, students must be registered with the campus Disabled Student Resources (DSR) office. Accommodations will be made based on eligibility determined by Disabled Student Resources. Services can be requested at any time during the semester. Requesting services well in advance will help to ensure that resources are available when needed. Please contact a DSR office at 206-6688 or DSRhelp@pima.edu.
- Mandatory Reporting Statement.** Please be advised that, as a faculty member of Pima Community College, I am required by law (A.R.S. §13-3620), to report, upon reasonable belief, any situation that may indicate that a minor (defined as someone under the age of 18) has been the victim of child abuse (including physical injury and/or sexual conduct). This duty also includes the obligation to report any previous abuse of a minor, regardless of the current age of the victim to the College's Department of Public Safety (DPS).

Bio 105 Environmental Biology Grade Tracking Sheet

Quizzes (350 pts): 10 highest @ 35 pts each = 35% of final grade

Quiz 1 _____	Quiz 8 _____
Quiz 2 _____	Quiz 9 _____
Quiz 3 _____	Quiz 10 _____
Quiz 4 _____	Quiz 11 _____
Quiz 5 _____	Quiz 12 _____
Quiz 6 _____	Quiz 13 _____
Quiz 7 _____	

Total of 10 highest Quizzes _____

Activities = 150 pts. = 15% of final grade

Website Review (50)	_____
Easter's End (50)	_____
Ecological Footprint (50)	_____

Total Activities _____

Laboratories = 500 pts. = 50% of final grade

Desert Ecology Lab (170)	_____
• Question (5)	_____
• Draft Proposal (10)	_____
• Proposal (30)	_____
• Data Collection 1&2 (40)	_____
• Data Analysis (10)	_____
• Data Tables (25)	_____
• In Class Group Work (10)	_____
• Presentation (40)	_____
Water Public Hearing (70)	_____
• In Class Group Work (20)	_____
• Public Hearing (50)	_____
Fish Banks Lab (35)	_____
Waste Water Treatment Plant (35)	_____
Field Trip (35)	_____
Home Ecosystem Lab (120)	_____
• Group Outline (10)	_____
• Data Analysis (10)	_____
• Home Data (50)	_____
• Home Individual Outline (10)	_____
• Presentation (40)	_____
Land Use Simulation Lab (35)	_____

Total Labs _____

Environmental Biology Event = 35 pts. extra

Makeup/Extra Credit _____

Optional Final Exam (100) All points above 50 are added to total

Amt Final Adds _____

Total Points:

Grand Total _____

FINAL GRADE:

A	=	900 – 1000 points
B	=	800 – 899 points
C	=	700 – 799 points
D	=	600 – 699 points
F	=	000 – 599 points

BIO 105: ENVIRONMENTAL BIOLOGY
FALL 2013 (11131/11298) MW TENTATIVE SCHEDULE

Day	Date	LECTURES	LABS	QUIZZES/ACTIVITIES
Wed	8/28	Introduction		Assign Website Review Topics
Mon	9/2	HOLIDAY		
W	9/4	Science (Ch 2)	Desert Eco Lab (DEL): Introduction	
Mon	9/9	Social Traps (Ch 1)		Quiz 1: Science.
W	9/11	Plate Tectonics (not in book)	DEL: Research Question (5)	
Mon	9/16	Earth's Climate (not in book)	DEL: Proposal Draft (10)	Quiz 2: Social Traps and Plate Tectonics
W	9/18	Earth's Climate (not in book)	DEL: Proposal Due (30)	
Mon	9/23	Ecosystem Ecology (Ch 6)	DEL: Data Collection (20)	Quiz 3: Earth's Climate
W	9/25	Population Ecology (Ch7)	DEL: Data Collection (20)	
Mon	9/30	Community Ecology (Ch 8)	DEL: Data Analysis (10)	Quiz 4: Ecosystem and Population Ecology
W	10/2	Natural Selection (Ch 10)	DEL: Data Due (25)	Eco Footprint Intro
Mon	10/7	Biodiversity (Ch 9-11)	DEL: Group Prep (10)	Quiz 5: Community Ecology and Natural Selection
W	10/9			
Mon	10/14	Human Populations (Ch 4)	WPH: Group Prep (5)	Quiz 6: Biodiversity and Public Hearing Tips
W	10/16	Human Populations (Ch 4)	WPH: Group Prep (5)	
Mon	10/21	Environmental Economics (Ch 5)	WPH: Group Prep (5)	Quiz 7: Human Populations
W	10/23		Fish Banks Lab (35) (Ch 13-14)	

Number in parentheses following each activity indicates the activity's point value.

FALL 2013 (11131/11298) MW TENTATIVE SCHEDULE (continued)

Day	Date	LECTURES	LABS	ACTIVITIES
Mon	10/28	Soil (Ch 12)	WPH: Group Prep (5)	Quiz 8: Environmental Economics and Fish Banks
W	10/30			
Mon	11/4	Water Resources (Ch 15-16)	Home Eco Lab: Introduction	Quiz 9: Soil and Public Hearing
W	11/6		Waste Water Field Trip (35)	
Mon	11/11	HOLIDAY		
W	11/13	Food (Ch 18)	Home Eco Group Outline (10)	Quiz 10: Water
Mon	11/18	Air Pollution (Ch 21)	Home Eco Data Analysis (10)	Quiz 11: Food
W	11/20		Home Eco Data (50) Field Trip (35)	
Mon	11/25	Ozone Depletion and Acid Deposition (Ch 2)		Quiz 12: Air Pollution and Field Trip
W	11/27	Climate Change (Ch 22)	Home Ecosystem Individual Outline due (10)	
Mon	12/2		Home Ecosystem Presentations	Quiz 13: Ozone, Acid Dep., and Climate Change
W	12/4			
Mon	12/9		Land Use Simulation (35)	
W	12/11	Review		
Mon	12/16	Final Exam (optional)		

Number in parentheses following each lab and activity indicates its point value.

Website Review Topics

Environmental News | Environmental Organizations (non-govt) | Environmental Agencies (govt)
 Tucson Environmental Info | Science | Social Traps | Plate Tectonics | Carbon Cycle
 Population Ecology | Evolution | Endangered Species | Introduced Species | Desert Ecology
 Human Population Growth/Control | Environmental Economics | Overfishing | Soil
 Central Arizona Project (CAP) | Water Use | Water Pollution | World Food Resources | Air Pollution
 Ozone Depletion | Acid Deposition | Global Warming | Energy Use/Conservation
 Alternative Energy Sources | Solid Waste | Recycling