University of Southern Maine, Department of Environmental Science

G4061 **ESP 102K Fundamentals of Environmental Science, Laboratory**
Fall 2004 Syllabus **1 credit**

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Office hours: T/TH: 10:30-11:30 AM; M: 9:30-11:00 AM. TH 2-4 PM, & by arrangement
Meetings: Tuesday, 1:00-4:00 PM, ES Lab, Room 111, Bailey Hall

Text: The laboratory activities are from Wagner and Sanford, *Laboratory Manual for Environmental Science* (Wiley & Sons, in press). If the book is not out yet and in the book store, then we will post the relevant labs on the Blackboard web site.

Writing Course Link: As part of encouraging the student's development as a writer this course is linked with English 100C College Writing. Diana Hacker, *A Writer's Reference*, 5th Edition, Bedford: Boston, is the suggested reference and writing guide.

On-line support: This course has a Blackboard site for the laboratory activities, a guide to writing laboratory reports, announcements, discussions and other course support activities. All students are expected to access this site and use it. The following link presents a quick guide for students new to Blackboard: http://www.learn.maine.edu/crs/bb5_guide.html

Introduction: This laboratory section accompanies ESP 101, a multi- and interdisciplinary lecture course surveying major environmental concepts, issues, and controversies. It is the introductory core laboratory course for Environmental Science majors as well as for the Environmental Science & Policy minor. As a survey course, it covers a lot of material at the expense of detailed examinations of any one issue or concept. However, it is necessarily broad and supports an integrated approach to basic environmental literacy from a scientific perspective. Students are expected to participate actively in course discussions, field trips, and all lab activities.

Course Objectives:

1. Be able to demonstrate and describe the scientific method and laboratory procedures used in setting up and conducting basic environmental science experiments.

2. Be able to locate basic environmental science reference materials in libraries, laboratories, on the Internet, and in the field.

3. Be able to recognize and explain the relevance of your findings in environmental science

experiments and research. For example, what are the national and global implications of the results; does one person make a difference; or are there enough resources to adequately supply human and non-humans means based on calculations?

Laboratory Schedule (may change depending on lab materials, weather, & the Whims of Fate)

Date		Topic
Aug	31	Environmental awareness
Sep	7	Science and the media
	14	Law of tolerance (or Dowsing for water)
	21	Aquatic species diversity
	28	Human survivorship changes
Oct	5	Environmental Assessment and Project Planning: Desktop Research
	12	**No Class**
	19	Soil characteristics and management
	26	Energy conservation (or Life cycle assessment)
Nov	2	Toxicity testing
	9	Air quality and automobiles (or Environmental site inspection)
	16	Indoor air quality
	23	**No class**
	30	Environmental risk ranking
Dec	7	Urban ecosystems

Attendance is required. If you miss more than three labs you will not pass the course.
Come to lab prepared for the activities. Bring a calculator, lab notebook, and lab manual to each lab. Please leave the laboratory and equipment clean and squared away. Be sure to offer to help clean-up and to check in with the instructor before you leave (this is part of what is expected in course participation). If you have to miss a lab meeting and want to attend another lab section you must have the permission of both instructors—there is limited space and students are expected to stay with their registered section.

Integrity and civics: In accordance with USM policy (and basic decency), students are expected to do their own work and not appropriate or plagiarize the works of others. Proper behavior is expected in the lab and in the field at all times. Be sure to turn off cell phones.

Project 100: This course is participating in Project 100, a program designed to support students in CORE and introductory level courses. Project 100 provides a process early in the semester for identifying students who may benefit from academic assistance. There are a number of support services and tools available at USM to help students achieve academic success. By providing

this early assessment of your progress, we can discuss which of these academic support services best meets your needs. This information will also be shared with your academic advisor (a good person for you to know and work closely with). If you have questions or concerns about your academic performance at any time throughout the semester please do not hesitate to contact me.

Adaptations: The Americans with Disabilities Act of 1992 mandates the elimination of discrimination against persons with disabilities. If you need course adaptations or accommodations because of disability please contact the Office for Students with Disabilities, 2nd floor Luther Bonney Hall (780-4706; TTY 780- 4395)

Grades: 90% of the course grade is based on the lab assignments and 10% is on participation. The lab assignments are graded on three categories: completeness, organization, and critical thinking. We use a scale of 1 to 10. The lab grade for the write-ups includes behavior and learning demonstrated in the field/lab. I will use the following guide in determining grades.
A: *Excellent work. Aggregate 9 to 10 grade on lab write-ups and participation. Shows quality writing, research, and analytical skills. Superior documentation. No significant errors or flaws.*
A-: *This is essentially a high B with an average of 8.7-8.9.*
B+: *Good work, with an average of 8.5 to 8.6.*
B: *Good work. 8.0 to 8.4 average. Good writing, research, analytical skills. Good reports, well-organized. Work shows good development of ideas and thorough support of analyses.*
B-: Acceptable work, average of 7.7-7.9.
C+: Acceptable work, Average of 7.5-7.6
C: *Acceptable or Average. 7.0 to 7.4 on labs. Acceptable college-level writing and analytical skills. Demonstrates reasonable organization and clarity.*
C-: *Marginal work. 6.8- 6.9 aggregate average performance on exams and other evaluations.*
D: *Marginal work. Average of 6.5-6.7. Meets minimal requirements to not fail the course. Record of poor attendance (missing more than three classes). Unacceptable for credit in ESP major.*
F: *Below 6.5.*

Assignments: The assignments from each lab are due the following week by the end of the lab period, except for the lab in which you experiment with seed toxicity, which is due in two weeks. One letter grade on the assignment will be deducted for each day the assignment is late if the assignment is accepted (late work is at your own risk). Specific requirements for each write-up will be covered at the beginning of each lab. You are expected to have read the lab assignment and materials and bring them to the lab session. The lab instructor will not have extra copies of the lab handout. See the text or Blackboard for lab write-up requirements and advice.

Fieldwork: You are responsible for arriving on time for lab. Please dress appropriately for field trips (warm clothing, no open-toed shoes, etc); to do otherwise jeopardizes your grade for the lab.