

Spokane Falls Community College
Life Sciences Department
Summer 2007

ECOL 101 Environ. Science XX XX:XX XM to XX:XX XM Bldg XX, Rm XXX
Environ. Sci. Lab XX XX:XX XM to XX:XX XM Bldg 8, Rm 133

Instructor: Dr. Scott L. Rollins
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Office Hours: XXXX or by appointment

Textbooks: *Environment: The Science Behind the Stories*
by J. Withgott and S. Brennan

Textbooks: *Quantitative Reasoning and the Environment*
by G. Langkamp and J. Hull

Course Description This course will focus on the basic concepts of ecology, including ecosystem structure and function, energy flow, biochemical cycles, limiting factors, population dynamics and community interactions. Emphasis is placed on the use of the scientific method to investigate man's current environmental problems and to propose possible solutions. Meets A.A. degree lab science requirement.

Learning Outcomes The primary goals of the course is for you to ...

- Use and interperate numbers that describe scientific issues
- Inperperate and develop discrete models
- Use and understand statistics that summarize and display data
- Be able to interpret and evaluate the relevance and accuracy of environmental information from a scientific perspective
- Understand how the scientific method is applied to environmental problems
- Communicate scientific information in written and oral forms

Autonomy and Responsibility You are all adults, responsible for your own learning. This means that I will approach this class under the assumption that I cannot simply *transfer* knowledge to you through a lecture where you passively listen to a summary of the textbook. This assumption is based on a substantial body of research in education that suggests this is not the most effective way to learn. Learning will require work on your part, beyond taking notes during class. It also means that if you have done well in this class, you've earned it. This is not an easy class and grades are not *given*, they are *earned*.

Along with the responsibility for your own learning, comes the freedom to make your own choices as adults. I want you to be here because you *want* to be here, not because I require you to be here. You need not provide excuses for missing class. If something comes up and you feel that you need to miss a lecture class, that is your decision to make (note that this will not be the case for labs—see below); however, you must also be willing to live with any consequences of this decision. There are no *make-ups* and you are responsible for getting any missed lecture material or announcements from your classmates. Furthermore, *if you receive financial aid or receive assistance from the Veterans' Affairs Office, I am required to report lack of attendance.*

Performance Evaluation Your performance in this class will primarily be assessed using written exams. Dates for these “Celebrations of Knowledge” are noted in the course schedule, but are subject to change. Doing well will require more than simple memorization. Many questions are specifically written to test your ability to analyze/apply/think with the new information you have learned and are not based on simple recall.

Exams may be rescheduled for individual students *prior* to the exam date if arrangements with the instructor have been made *in writing*. Arrangements will only be made for reasonable excuses discussed *well in advance* (e.g., if you are in a wedding or have a family reunion, let me know the first week of class). If rescheduling is agreed upon by student and instructor, a different test than the one given to the class may be administered. If an exam is missed due to an emergency, written documentation must be provided, including but not limited to doctors' notes and death certificates. In these cases, an alternative exam may be administered or a waiver may be provided. Absences due to school sponsored events such as athletic games should be arranged at the beginning of the quarter and will require written notice from your coach/instructor. You will receive a zero for missed assignments or exams if I receive notice less than 1 week in advance.

Assigned Reading To get the most out of this class, it will be necessary to complete the assigned reading *before* class. Much of the material covered in this course builds upon previous material. You will fall behind quickly if you do not keep up with the reading. Class discussions and assignments will follow the assumption that you have read the assigned material before class.

Bonus Points Voluntary activities or assignments may be provided that allow you to earn bonus points. This is the only extra credit that will be offered. I will not give any opportunities to earn extra credit points to individual students that were not offered to the entire class, nor will I give opportunities to change your grade at the end of the term.

Lab Labs will involve hands-on work in groups of 2-4 students and we will be conducting a class research project. For these reasons, you will be *required* to attend lab. Chronic absence will result in grade reductions or failure of this course. Course grades will be adjusted as follows for missed labs:

Absences will require written documentation, including but not limited to doctor's notes or death certificates. A lab notebook documenting your daily work and reflections, along with a group research paper will be used to evaluate your performance in the laboratory portion of this course. You must pass both lab and lecture to pass this course. Your lab grad will be reduced proportional to the number of labs that you miss.

Health Condition or Disability Accommodations Any student who, because of a health condition or disability, may require accommodations in order to effectively participate in this class should contact me after class and contact Disability Support Services in Building 17, Room 201. Phone 509-533-4166 (DSS). Information about a disability or health condition will be regarded as confidential.

Grade Policy Grades will be based upon 4 midterm exams, each worth 150 points; a final exam, worth 100 points; a lab notebook, worth 150 points; and a group research paper, worth 150 points.

Points	Percentage	Letter Grade	Numeric Grade
930-1000	93-100%	A	4.0
900-929	90-92%	A-	3.7
870-899	87-89%	B+	3.4
830-869	83-86%	B	3.1
800-829	80-82%	B-	2.8
770-799	77-79%	C+	2.5
730-769	73-76%	C	2.2
700-729	70-72%	C-	1.9
670-699	67-69%	D+	1.5
630-669	63-66%	D	1.2
600-629	60-62%	D-	0.9
< 600	< 60%	F	0.0

Academic Integrity and Honesty Cheating and plagiarism will not be tolerated and may result in severe academic sanctions, including but not limited to a zero on the exam or assignment or failure of this course.

Appropriate Classroom Behavior Everyone in this class deserves to be treated with respect. Respect the learning of others by turning off your cell phone and your iPod, showing up to class on time, and listening while others are talking. If for some reason you need to leave class early or show up late, sit near the door to minimize your disruption. It is VERY important that everyone in this class feel comfortable asking/answering questions during class. I will treat your questions/responses with respect and expect all other students to do the same. Disrespectful behavior, excessive talking out-of-turn, inappropriate physical contact, threats of violence, and abusive language will not be tolerated.

Due Dates Due dates on required work and bonus assignments are not flexible. Due dates will be given in writing. You are responsible for keeping track of due dates.

Field Trip ...

Lecture and Reading Schedule ¹

Introductions and Environmental Science, Ch. 1	March 31
Env. Sociology, Philosophy, and Economics, Ch. 2 and 3	April 2
Matter, Energy, and Information in Biology, Ch. 4	April 7 and 9
Toxicology and Environmental Health, Ch. 14	April 14
Water Quality in the Inland Northwest, Ch. 17	April 16
Population Ecology, Ch. 5	April 21 and 23
Community Ecology, Ch. 6	April 28 and 30
Ecosystem Ecology, Ch. 7	May 5 and 7
Human Populations, Ch. 8	May 12
Agriculture, Ch. 9	May 14
Agriculture, Biotechnology, and Food, Ch. 10	May 19
Biodiversity and Conservation, Ch. 11	May 21
Holiday–No Class	May 26
Resource Management, Ch. 12	May 28
Air Pollution, Ch. 17	June 2
Fossil Fuels, Ch. 19	June 4
Energy Alternatives, Ch. 20 and 21	June 9

Lab Schedule ²

Microscopes	April 1
Methods of Measurement	April 3
Species Interactions	April 8
Lead Toxicology	April 10
Lead Toxicology	April 15
Population Growth	April 17
Population Growth	April 22
Sampling Streams and Rivers	April 24
Water Chemistry	April 29
Species Interactions	May 1
Identifying Organisms in Streams and Rivers	May 6
Group Lab Research	May 8
Group Lab Research	May 13
Group Lab Research	May 15
	May 20
	May 22
	May 27
	May 29
	June 3
Group Presentations	June 5

¹The lecture schedule is tentative and subject to change.

²The lab schedule is tentative and subject to change.