

**Dr. Patrick Slavin**  
**BIO 131-01 Environmental Science Laboratory**  
**Parker 138, Friday, Noon – 1:50 pm**  
**Fall, 2008**

**SYLLABUS**  
(subject to change)

Week 1. August 29	Introduction. Course Objectives. Review of Syllabus. Laboratory safety. Explanation of students' power point presentations. Lab 1. Basic Concepts in Science.
Week 2. September 5	Populations I. Mathematical Models – Population and Growth Limitation
Week 3. September 12	Populations II. Constructing a Life Table.
Week 4. September 19	NO LAB
Week 5 September 26	Measuring Species Diversity
Week 6. October 3	Field Trip. Rutgers Pinelands Research Station.
Week 7. October 10	Global Positioning Systems
Week 8. October 17	Geographic Information Systems
Week 9. October 24	Water Chemistry
Week 10. October 31	Water Pollution I. <i>E. coli</i>
Week 11 November 7	Water Pollution II. Gas Chromatography (Mt. Laurel)
Week 12 November 14	Field Trip. TBA
Week 13 November 21	Students' Power Point Presentations
Week 14	Holiday
Week 15 December 5	Students' Power Point Presentations

Final Exam: Date and Time to be Announced

N.B. There is no text or Lab Book for this course. Printed material will be handed out ahead of the Lab.

### **Grading**

Students will be expected to participate in all eleven laboratory experiments, demonstrations and field trips. Questions regarding each of these lab activities must be answered in a written report and turned in to the instructor the following week. Each completed and correct report counts for 6% of the grade for a total of 66 points. Submission of a late report will result in the subtraction of one point for each week that the report is late. Students should save a copy of each report on the computer.

Each student will also be expected to give a 10-minute Power Point presentation to the class at the end of the semester. This presentation will account for 14 % of the grade. Students must select one of the following topics for his or her presentation by the first week in October and obtain the consent of the instructor so that no two students are giving the same presentation. Each student must choose among the following topics:

Current world Population Trends	Invasive Species	Global Warming
Trends in Biodiversity	World Forest Resources	Genetically Modified Crops
World (or U.S.) Soil Resources	Current U.S. Forest Policy	Sustainability of Fossil Fuels
Ocean Resources	Solar Energy	Wind Energy
Nuclear Power	Indoor Air Pollution	Waste Water Treatment
Hazardous Waste	El Nino	Acid Rain
Alternatives to Pesticides	Individual pollutants (e.g. mercury, asbestos, etc.)	
Ocean "Dead Zones"	Stratospheric Ozone Depletion	Water Supply Problems
Thermal Pollution	Wildlife Conservation	Hydrogen Fuel

The remaining 20 % of the grade will come from a final exam that will cover the content of the laboratory activities, the equipment and instrumentation, and the relationship between the lab activity and current environmental problems.

### **Grades**

A = 90 – 100  
B+ = 85 – 89  
B = 80 – 84  
C+ = 75 – 79  
C = 70 – 74  
D = 60 – 69  
F = < 60

X - An X grade will be given only if the student is receiving a C or better at the time of the contract.

**Attendance** will be taken before every class. It is the student's responsibility to obtain material from missed classes.

Instructor:  
Patrick Slavin  
Office: 331 J Parker Center  
BCC telephone extension: 1371  
Email: [pslavin@bcc.edu](mailto:pslavin@bcc.edu)

### **Office Hours:**

Monday/Wednesday/Friday - Parker 331J, 9 – 10 am  
Tuesday/Thursday - Laurel Hall, 11 - Noon