

CEDAR CREST COLLEGE
BIO 111 Laboratory, Concepts in Ecology and Environmental Issues
A Syllabus of Operational Policies, Procedures and Schedule
Fall 2009

I. Laboratory Section: _____

Your Instructor: _____

Instructor's Contact Information: _____

Instructor's Availability: _____

II. Course Description: This laboratory component of BIO 111 complements and reinforces the ecological and environmental topics covered in lecture. Through an experiential and experimental approach, you will explore scientific concepts, ecological design, environmental issues, their application to human existence and the impact of the environmental concerns and problems to our own well being.

III. Course Objectives:

Upon completion of BIO 111 lab, students will be able to:

- ◆ Use their senses and science equipment to observe, classify, compare and measure.
- ◆ Gain an appreciation for plant and animal biodiversity.
- ◆ Hypothesize and make predictions with experimental design
- ◆ Collect and analyze data from a from directed research activities.
- ◆ Identify the major components of an ecosystem and its interconnections.
- ◆ Investigate environmental issues of air, water, soil, population and *Search for the Perfect Planet* by using their acquired skills, tools and powers of observations.

IV. Learning Outcomes/Assessment:

- ◆ Students will demonstrate critical thinking, scientific reasoning, qualitative and quantitative reasoning skills in their measurement and analysis of environmental components.
Assessment: Practical exams, laboratory exercises, laboratory reports.
- ◆ Students will develop the ability to communicate clearly and effectively through the written word.
Assessment: Laboratory reports.
- ◆ Students will demonstrate the application of the scientific method through the observational studies, design and analysis of the effects of human activity on the environment.
Assessment: Laboratory exercises and laboratory reports.
- ◆ Students will analyze and interpret empirical data through group and class discussion of studies involving population, food chains and environmental pollution.
Assessment: Laboratory exercises and laboratory reports and practical exams.
- ◆ Students will apply their knowledge of environmental quality standards and testing procedures to determine the environmental health of an unknown planet.
Assessment: Laboratory exercise 10- *The Search for The Perfect Planet* and an oral presentation.

V. **Materials:**

Kayhart, M., Yaschur Sproule, D. 2009. 8th Ed. *Concepts in Ecology and Environmental Issues, BIO 111 Laboratory Manual for Cedar Crest College*. Dolmar Bio, LLP.

VI. **Policies:**

Attendance: Attendance during your regularly scheduled lab is **mandatory**. Any laboratory absence *on non-test days* must meet 2 prerequisites for any accommodation: (1) contact your professor with an email or telephone message BEFORE the end of the laboratory period (2) verification from the Dean of Students Office. This constitutes a **documented absence**. Extended illnesses or absences must be reported through the Dean's office. Failure to comply with #'s 1 and 2 above will result in a **ZERO** for that lab day. All zeroes will be averaged into your final laboratory report grade. In the event of a documented absence, you are still responsible for any missed lab material. Your instructor will discuss with you strategies necessary to complete the missed laboratory work.

Any laboratory absence *on test days* also requires a **documented absence** (as noted above) however, you will receive an *incomplete grade* for the course providing your overall average is a C- or higher for 75% of the course. The lab test will be completed within the time period in accordance with the college catalog and at the discretionary time of your instructor or the laboratory coordinator, Mrs. Malitsch. However, an undocumented absence during a lab test will result in a ZERO for that test.

Tardiness will be penalized at the discretion of the laboratory professor. Do not report for another section lab class or lab practical test unannounced. An automatic penalty (10% for a regular lab class, ZERO-on a test day) will be earned. If you arrive late for a test, you will forfeit that time for completion of the test.

Laboratory Work and Assignments:

All of the laboratory exercises allow for teamwork, some will even require teams of students to problem-solve. Therefore, everyone expects each member of the team to be prepared, follow instructions, participate in the activities with enthusiasm and share accurate results. Failure to participate as a team member will result in a zero for the uncooperative team member.

Laboratory reports are due at the end of class or unless otherwise directed, *stapled and in order*. Lab reports handed in late (after class) will be penalized 10% per day. All lab reports will be returned by the instructor. These lab reports should be studied for the lab practical tests.

Laboratory Tests:

There will be 2 non-cumulative laboratory tests consisting of *traditional objective questions* and a *practical section* where lab skills and observational knowledge will be evaluated. **Lab Test Study Guides** will be handed out prior to each test. There is no laboratory final exam. Follow the lab schedule for the 2 test dates. *Test Etiquette* applies which means that only your answers, and not comments or unnecessary drawings, should be written on the test.

Grading: The laboratory component comprises 1/3 of your final course grade.
Calculation of your lab grade: 60% of the average of 2 tests + Exercise 9
40% of the average of the Lab Reports

Cedar Crest College: The professors within the Department of Biological Sciences support the campus-wide policies as described in the *Student Handbook*.

We fully support the Cedar Crest College *Honor Code, Academic Standards of Integrity and the Classroom Protocol Code* as stated in the *Student Handbook*. Cheating will result in a zero for the test/assignment. If necessary, violations should be brought to the attention of the instructor. Depending upon the infractions regarding classroom protocol, violations may also result in removal from class and be formally addressed by the appropriate individuals: Dr. Carol Pulham (Provost), Dr. John Cigliano (Chair), Dr. Denise O'Neill (Acting Dean of Students), Christine Nowik (Director of Academic Services), and the Honor and Judicial Board. We must respect the rights of others in this learning environment. Disruptive and disrespectful behavior jeopardizes the learning environment and the safety of students and will not be tolerated in lab. Security will be notified if necessary. *Each student should read the codes and abide by them throughout the course*

We fully support the College's policy on plagiarism as described in the Student Handbook. Based on the severity of the offense, students will be required to redo an assignment or get an F for the assignment. Cases will be reported to the Provost as necessary.

Students with documented disabilities who may need academic accommodations should discuss these needs with their professors during the first two weeks of class. Students with disabilities who wish to request accommodations should contact the advising center.

VII. General Procedures and Need to Know:

- ◆ All students must have CCC email for any course communication. Check it regularly.
- ◆ Be prompt for lab; tardiness will be penalized.
- ◆ Place your backpacks under the table; hang jackets in the hallway.
- ◆ Food and beverages (including anything bottled) are not allowed in lab.
- ◆ Due to the hazards in lab and abiding by the classroom protocol code establishing a learning environment for all registered students, children are not permitted to be in the lab.
- ◆ Cell phone, digital cameras and other technological devices are not permitted in lab.
- ◆ Return materials to the designated areas.
- ◆ Report all breakage to the instructor
- ◆ Use bleach spray to clean the lab tables after each exercise. Wash your hands frequently.
- ◆ Push the stools under the tables when leaving.
- ◆ **Participate with strong teamwork.**
- ◆ Whatever you do not understand, ASK.
- ◆ For your studying pleasure, the SC Building Hours are:
Sun. – Fri. 7AM – 10PM; Sat. 7 AM – 6PM

VIII. Lab Schedule:

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Aug. 24	Aug. 25	Aug. 26	Aug. 27	Aug. 28	Aug. 29
Ex. 1 Observation	Ex. 1 Observation				
Aug. 31	Sept. 1	Sept. 2	Sept. 3	Sept. 4	Sept. 5
Ex. 2 Tools/Measurements, 29-40	Ex. 2 Tools/Measurements, 29-40				
Sept. 7	Sept. 8	Sept. 9	Sept. 10	Sept. 11	Sept. 12
Labor day NO LAB	Ex. 2, part 2 41-47				
Sept. 14	Sept. 15	Sept. 16	Sept. 17	Sept. 18	Sept. 19
Ex. 2, part 2 41-47	Ex. 3 Environmental Pollution				
Sept. 21	Sept. 22	Sept. 23	Sept. 24	Sept. 25	Sept. 26
Ex. 3 Environmental Pollution	Ex. 4 Biological Diversity- Plants Arboretum Tour				
Sept. 28	Sept. 29	Sept. 30	Oct. 1	Oct. 2	Oct. 3
Ex. 4 Biological Diversity- Plants Arboretum Tour	Ex. 4 Biological Diversity-Animals Lehigh Valley Zoo				
Oct. 5	Oct. 6	Oct. 7	Oct. 8	Oct. 9	Oct. 10
Ex. 4 Biological Diversity-Animals Lehigh Valley Zoo	Ex. 5 Abiotic Environmental Components, 81-88				
Oct. 12	Oct. 13	Oct. 14	Oct. 15	Oct. 16	Oct. 17
FALL BREAK	FALL BREAK				
Oct. 19	Oct. 20	Oct. 21	Oct. 22	Oct. 23	Oct. 24
Ex. 5 Abiotic Environmental Components, 81-88	<u>TEST #1</u> Ex. 5 Abiotic Environmental Components, 89-91 Set-up Ex. 8			NO CLASSES- President's Inauguration	
Oct. 26	Oct. 27	Oct. 28	Oct. 29	Oct. 30	Oct. 31
<u>TEST #1</u> Ex. 5 Abiotic Environmental Components, 89-91 Set-up Ex. 8	Ex. 6 Nature's Organizing Principle/Invention				
Nov. 2	Nov. 3	Nov. 4	Nov. 5	Nov. 6	Nov. 7
Ex. 6 Nature's Organizing Principle/Invention	Ex. 7 Nature's Operating Principles				

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Nov. 9 Ex. 7 Nature's Operating Principles	Nov. 10 Ex. 8 Population Analysis	Nov. 11	Nov. 12	Nov. 13	Nov. 14
Nov. 16 Ex. 8 Population Analysis	Nov. 17 <u>TEST #2</u>	Nov. 18	Nov. 19	Nov. 20	Nov. 21
Nov. 23 <u>TEST # 2</u>	Nov. 24 NO LAB	Nov. 25	Nov. 26 Happy Thanksgiving	Nov. 27	Nov. 28
Nov. 30 Ex. 9 Perfect Planet	Dec. 1 Ex. 9 Perfect Planet	Dec. 2	Dec. 3	Dec. 4	Dec. 5
Dec. 7 NO LAB	Dec. 8 No Lab Friday Schedule				

Follow this lab Schedule. No excuses for not knowing your lab days.

Note: For the first week, August 24/25, the lab cycles Monday and Tuesday; after Labor Day (September 7), the lab cycles Tuesday then Monday. No labs on October 12 and 13 = Fall Break. For the Tuesday-Monday cycle, Exercise 5, part 1 will straddle the week of Fall break. The lab continues to cycle Tuesday then Monday until Nov. 30, and then the lab returns to the Monday - Tuesday cycle. There is no final exam in lab.