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### Zero Textbook Cost Syllabus for ENV 1004 (Fundamentals of Ecology-lab)

Rebecca Kulp

*CUNY Bernard M Baruch College*

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## ENV 1004: Fundamentals of Ecological Research (STRA 54080)

Fall 2018

*3 credit course*

Tuesday, Thursdays 3:55 - 6:55 PM

**ENV1004 Instructor:** Rebecca Kulp, PhD

Office Hours: Tuesday, Thursdays 2-3 pm and by appointments

E-mail:

### Course Description:

**FROM REGISTRAR:** Fundamentals of Ecological Research is a hands-on course designed to teach students the basic concepts and methodologies used in the field of ecology. The significance of ecological research to current environmental issues, both local and global, will be stressed throughout the course.

**From the instructor:** This course introduces students to basic concepts and tools used in ecological research through hands-on activities, complementing and expanding materials from ENV 1003. Field trips to educational sites are required.

### Course Objectives (Learning Goals)

- 1) Students will be able to use mathematical and conceptual models to **predict** impacts of change on behavior, populations, communities, and ecosystems.
- 2) Students will be able to properly **utilize** basic experimental tools (e.g. microscopes, reagents) and techniques (e.g., mark-recapture method).
- 3) Students will be able to **describe** the scientific process, **develop** and **test** hypotheses, and **differentiate** between dependent and independent variables.

All of the above concepts will be considered in relationship to the management and restoration of natural resources in the New York area and beyond. By the end of this course, you should be able **discuss** the complex linkages among biotic and abiotic factors that impact natural communities, **explain** how these factors may be measured, and **predict** impacts of change.

### Course Structure: The course will consist of a mixture of lecture and lab activities.

**Lectures:** Lab introductions will parallel and supplement the material in the required readings. That is, some parts of the introductions will elaborate on material presented on the course website, whereas other parts will consist of novel material that is not covered on the site.

**Lab and field activities** will consist of activities that expose you to tools and issues faced by ecologists. These will range from handling and analyzing existing data sets to collecting information on biodiversity. You will also be responsible for visiting three off-campus locations related to ecology.

**Lab Manual Readings:** Prior to the first day of each new laboratory topic, you are required to read the information on each lab page of the online Lab Manual (located on the course website). You are not required to read the material on every link. I will direct you to links that I expect you to read vs links that are supplemental material. You will be giving a **prelab assignment on Blackboard** that is



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based off of the required reading. **Material from these assignments may appear on the exams even though it may NOT be covered in lecture.**

**Course Materials and Tools Note:** This is a zero-textbook course and part of the new zero-textbook initiative at CUNY. All resources are freely available from CUNY or other sources. Please let me know if you need help finding these resources. You should not have to purchase any resources.

All material (text links, lecture slides) is available @ <https://sites.google.com/view/env10031004>. Material is viewable from desktop, laptop, or mobile devices.

**Additional Course Materials:** A laptop (or suitable internet device) will be needed for completing lab coursework and homework assignments. I have underlined the days on which it is recommended you bring a laptop to lab [in the ENV1004 schedule](#). If you do not own a laptop, the University has a [laptop loan](#) program.

### **Laboratory Coursework**

**Laboratory Exams (2):** Exams will cover the assigned readings up to the day of the exam (i.e, the exams will be cumulative). **The second exam grade will replace the grade from the first exam if that benefits the student.**

**Laboratory Homework and Classwork:** Classwork will take place in class; homework may include specific activities assigned through Blackboard or assignments related to class labs. These may include short quizzes on required readings, short responses to papers, lab follow-up or preview questions, etc. **Attempts will be made to announce homework in class, but assignments and due dates announced via Blackboard are considered final and over-ride any other information unless otherwise noted in writing.** It is the student's responsibility to check Blackboard for new assignments.

**In general, the prelab assignment will be due before class starts on the first day of a new lab topic and the postlab assignment will be due one week after the last day of the a given lab. Attendance is mandatory for every day on a given lab topic for a student to have their postlab assignment graded.**

**Laboratory Report:** 1 properly formatted lab report will be due. Details will be posted on Blackboard and announced in class.

**Group Presentation:** 1 group presentation will be made. Details will be posted on Blackboard and announced in class. **Attendance is mandatory on both the day of the presentation and the preparation day for a student to receive a group presentation grade ([see ENV1004 schedule](#)).**

**Field Trip Reflections:** You will be required to complete three field trip exercises (Bronx Zoo; American Museum of Natural History; New York Botanical Garden) on your own time once during the semester in lieu of classroom laboratory activities ([see ENV1004 schedule](#)).

### ***Blackboard assignment submission policies***

All assignments will be submitted or facilitated via Blackboard; assignments will **not** be accepted via email.

**Nothing** submitted past the deadline will be graded (see the course policies on late assignments below for further details)

**Attempts will be made to announce assignments and due dates in class, but any announcements posted via Blackboard are considered final and override any other information unless otherwise noted in writing.** It is the student's responsibility to check Blackboard for new assignments.

Blackboard will give you a notification if an assignment was submitted correctly. Assignments submitted after the deadline will be marked late and will not be graded.

Students can view their grade under Tools on the Blackboard website. If you would like to view the breakdown of your grade or any comments associated with a written assignment, then click on the grade value in the "My Grades" tool option. If you do not see a number/letter grade in an area on Blackboard, then follow [this link](#) of what it might mean.

The CUNY Blackboard site sometimes becomes unavailable due to regular maintenance. It is the student's responsibility to pay attention to the CUNY Blackboard-based announcements on their Blackboard home page.

**Evaluation and Workload: These determine the grade you earn for the course.**

Laboratory Exam I: **20%**

Laboratory Exam II: **30%**

Lab Assignments:

-Laboratory Homework and Classwork 32%

-Field Trip Reflections 12%

-Laboratory Report 3%

-Group Presentation 3%

*Lab Assignment Total:* **50%**

Course Total: **100%**

**The second exam (i.e. Final exam) grade will replace the grade from the first (i.e. Midterm exam) if that benefits the student.**

**The lowest grade from the Laboratory Homework and Classwork category will be dropped, and the remaining assignments will be equally weighted to represent 32% of grade.**

**The Lab Assignments and due dates may change during the semester, depending on the class's progress. For the most up-to-date list of assignments refer to the "[List of Lab Assignments](#)" also linked on Blackboard.**

**Grading Scale (%):**

A	93-100	A-	90-92.9		
B+	87.1-89.9	B	83-87	B-	80-82.9
C+	77.1-79.9	C	73-77	C-	70-72.9
D+	65-69.9	D	60-64.9		
F	0-59.9				

See the "[Possible Grades Calculations](#)" for an example of grade breakdown for an A-, B-, and C-.

**Course Policies:**

**These policies are based on ideas of fairness and respect.**

**Grading Policies:** Final course grades are non-negotiable and will **NOT** be curved or rounded in any way. Grades for individual assignments may or may not be curved depending on the class results. If a curve is instituted, the lecture instructor will determine a fair and reasonable curve which will be applied to each individual's grade.

Grade changes will be made only to correct clerical errors. **Complaints about grades on individual assignments must be submitted in writing within a week following the return of the relevant assignment. Only reasonable and well-justified complaints will be considered.**

**Attendance policy:** Lab courses are designed as hands-on experiences that cannot be replicated via other learning methods. For this reason, attendance will be taken for each lab section, and attendance is a prerequisite for turning in lab-related activities.

If a student is observing a religious holiday on a day we are meeting, then the student needs to notify the laboratory instructor within the first week of class to have the opportunity to make up any missed work.

If a student is ill, they should not come to class. The student is able to miss one lab without a doctor's note, and still be able to turn in an associated postlab assignment. However, a doctor's note is needed to excuse the student from in-class work on the second day they were ill and unable to come to class to be able to hand-in the associated postlab assignment.

Religious observance and/or a doctor's note **will not** excuse students from handing in laboratory assignments on the day they are due, since students will be given ample notice on when assignments are due.

**Missed Exams:** Make-up exams will not be given for the midterm or final. If the midterm is missed, then the grade earned on the final exam will be scaled to the midterm grade. Because of this, the final exam grade may also replace the midterm exam grade if that benefits a student. **Completion of the final exam is required to pass the course.**

**Late Homework and Classwork:** Late homework and classwork **will not** be accepted. Since it will not be graded, the student will be unable to access the graded attempt via Blackboard and will have to come to office hours to discuss any questions.

**Lab report:** Late papers will receive a 20% reduction in grade per day.

**Disability or crisis issues:** Students with disabilities may receive assistance and reasonable accommodations to enable them to participate fully and equally in courses at Baruch College. To establish the accommodations appropriate for each student, please alert your instructor to your needs and contact the Office of Services for Students with Disabilities. For more information contact Lillian Shmulevich, Assistant Director of this office in B2271 or at (646) 3124590.

If a major issue arises during the semester (family death, accident, etc.) please let me, the Departmental office, (506, 17 Lexington Avenue Building) or the Student Affairs office (deanofstudents@baruch.cuny.edu, 646-312-4570) know so efforts can be made to aid you during this time.

**Academic Integrity:** The instructors fully support Baruch College's policy on Academic Honesty, which states, in part:

**"Academic dishonesty is unacceptable and will not be tolerated.** Cheating, forgery, plagiarism and collusion in dishonest acts undermine the college's educational mission and the students' personal and intellectual growth. Baruch students are expected to bear individual responsibility for their work, to learn the rules and definitions that underlie the practice of academic integrity, and to uphold its ideals. Ignorance of the rules is not an acceptable excuse for disobeying them. Any student who attempts to compromise or devalue the academic process will be sanctioned. "

Academic sanctions in this class will range from a D or F on the section or assignment to a D or F in this course and are at the discretion of the instructors. A report of suspected academic dishonesty will be sent to the Office of the Dean of Students. Additional information and definitions can be found at [http://www.baruch.cuny.edu/academic/academic\\_honesty.html](http://www.baruch.cuny.edu/academic/academic_honesty.html)

**Personal responsibilities and class etiquette:** The instructors understand everyone's time is valuable and that you (or someone) are (is) paying for you to pursue a higher education degree, which marks you as having achieved a goal. In light of this:

- The instructors' responsibility and goal is ***to guide students, as active learners, in becoming critical thinkers who can evaluate and assimilate material from across the spectrum of biology and connect it to other disciplines and their everyday life.*** We will accomplish this through class activities, and will **fairly** evaluate your progress in this area through the methods noted above. We will **respect** your time and effort by attempting to start on time, promptly respond to emails (within 48 hours) and grade assignments (less than 1 week from receipt), being available for help through office hour or directly before/after class, and attempting to make class as engaging and relevant as possible. We will regularly seek feedback in these areas through short surveys administered through Blackboard.
- Your responsibility is to be an active, engaged student who does not detract from class activities. **We will utilize an inverted classroom or discussion-based approach as much as possible, so we expect you to arrive prepared for class.** Please arrive on time and plan to stay *engaged* for the entire class. Take part in discussions, ask questions as needed, and stay off personal devices (phones, facebook, etc). **Distracting activities will be noted and, if continued, will lead to a dismissal from class. All work you submit in any form must be your own or properly attributed.**

### **Additional Information: Environmental Sciences at Baruch College**

**Biological Sciences Major:** The Department of Natural Sciences offers a major in biological sciences that allow students to choose from a diversity of courses. Following an introductory series of courses focused on building a firm foundation in the natural sciences (biology, chemistry, physics, genetics) and math, students can choose from a range of elective courses and may focus on courses related to environmental science, ecology, and conservation and sustainability.

**Tier III minor in Environmental Sustainability:** The Department of Natural Sciences offers a minor in environmental sustainability for students that wish to pursue general intellectual interests or specific career objectives. For example, business students may improve their marketability with knowledge of current issues in environmental sustainability, and public affairs or pre-law students may gain knowledge for future specialization in environmental law or policy. For the environmental sustainability Tier III minor, students take two environmentally-themed, interdisciplinary courses at the 3000 level or above followed by the capstone course, ENV 4900—Topics in Environmental Science.

*The Arts and Sciences Ad Hoc Major in Natural Science Areas:* It is also possible to design an ad hoc major that combines ENV courses with additional sciences and courses in other fields. Please inquire for more information.

**More information on getting involved in research and classes is available @**  
[https://blogs.baruch.cuny.edu/environmentalscience/join\\_us/](https://blogs.baruch.cuny.edu/environmentalscience/join_us/)

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