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2018

### Zero Textbook Cost Syllabus for ENV 1003 (Fundamentals of Ecology-lecture)

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*CUNY Bernard M Baruch College*

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## ENV 1003: Fundamentals of Ecology (9009)

Fall 2018

### *Lecture*

Mondays and Wednesdays 11:10 AM –12.00 PM

*Recitation (check your schedule with recitation instructor)*

**Lecture instructor:** Mukesh, Ph.D.

Office:

Office Hours: Over e-mails and in lecture halls

E-mail:

### Course Description:

**FROM REGISTRAR:** Fundamentals of Ecology explores ecological characteristics and ecosystem processes through an evolutionary context. The course will demonstrate the interdisciplinary nature of the field of ecology by highlighting its significance to current environmental issues and the interconnectedness of the environment around us.

**From me:** This course introduces students to basic concepts of ecology through lectures, discussion, and hands-on activities.

### Course Objectives (Learning Goals)

- 1) Students will be introduced to the processes controlling and linking the dynamics of individuals, populations, communities, and ecosystems and be able to **describe** these processes and **explain** links among them.
- 2) Students will be able to **apply** this information in **discussing** the impacts of human and natural change on ecological communities.
- 3) Students will be able to use mathematical and conceptual models to **predict** impacts of change on behavior, populations, communities, and ecosystems.

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 discussion activities.

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

**Readings:** You will have readings assigned from the course website and possibly other material. **Material from these assignments may appear on the exams even though it may NOT be covered in lecture.**

**Discussions:** We will discuss the relevance of course topics to contemporary events as they occur and through directed readings.



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**Recitation:** Recitation is a chance to review and expand on concepts that are introduced in lecture. You'll engage in discussions with your instructor and classmates on articles from various venues, be able to ask questions about homework and exams, and learn more about science and ecology.

**Grades earned in recitation will count towards your overall grade.**

**Course Materials and Tools: Note:** Lecture and lab (ENV 1004) are part of the new zero-textbook initiative at CUNY. Primary course material (text links, lecture slides) is available at

[https://sites.google.com/view/env10031004.](https://sites.google.com/view/env10031004)

Material is viewable from desktop, laptop, or mobile devices. Other assigned material (articles, papers) will be freely available from CUNY. We'll discuss finding articles in class. You should not have to purchase any resources, so let me know if you need help finding items.

Assignments will be posted and submitted via Blackboard. It is the student's responsibility to check the course website on a regular basis for new assignments. **All assignments will be submitted or facilitated (e.g., discussions) via Blackboard; assignments will not be accepted via email.**

**Additional Course Materials:** A laptop (or suitable internet device) will be needed for homework and classwork activities.

### Lecture Assignments

**Exams (2):** Exams will cover the assigned readings and class material up to the day of the exam (i.e, the second exam will be cumulative).

**Homework and Classwork:** Classwork will take place in class and homework will be assigned through Blackboard. These may include short quizzes on required readings, short responses to papers, 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. At least 2 days will be given to submit any homework assignments (note: these may be focused on upcoming lectures).

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

Exams		
Lecture Exam I:		20%
Lecture Exam II:		30%
Homework Assignments		25%
Classwork (Recitation discussions)		25%
<b>Course Total:</b>		<b>100%</b>

### 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				

**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.

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.**

**Make up exams and late assignments:** If you are ill, please do not come to class.

**Exams:** **Make up exams will not be given;** instead, the grade earned on the final exam will replace the missed exam. **Completion of the final exam is required to pass the course.**

**Do not plagiarize homework using websites like studyblue (read academic integrity below).**

**Homework and Classwork:** Late homework and classwork **will not** be accepted.

**Attendance policy:** Students are responsible for material covered during class. Attendance may be included in grading via in-class discussions or activities which cannot be made up.

**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:** I 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 my discretion. 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:** I 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:

- My 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 I will **fairly** evaluate your progress in this area through the methods noted above. I will **respect** your time and effort by attempting to start on time, promptly respond to emails and grade assignments (less than 1 week from receipt), being available for help, and attempting to make class as engaging and relevant as possible. I will regularly seek feedback in these areas through short surveys.
- 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 I 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/)**

## Schedule 1003L: Fundamentals of Ecology

Date	Lecture Topic	Recitation Topic
8/27/2018 (M)	Welcome	Introductions
8/29/ 2018 (W)	Welcome	<b>Science Communication</b>
9/3/ 2018 (M)	<b>BARUCH CLOSED</b>	<b>BARUCH CLOSED</b>
9/5/2018 (W)	<b>Physical Environment</b>	Lecture Questions
9/10/2018 (M)	<b>BARUCH CLOSED</b>	<b>BARUCH CLOSED</b>
9/12/2018 (W)	<b>Physical Environment</b>	Lecture Questions
9/17/2018 (M)	<b>Physical Environment</b>	Shenandoah
9/19/2018 (W)	<b>BARUCH CLOSED</b>	<b>BARUCH CLOSED</b>
9/24/2018 (M)	<b>Physical Environment/Biomes</b>	HW Review (Introduction, Physical Environment)
9/26/2018 (W)	<b>Biomes</b>	Plant Intelligence (Evolution/Biomes)
10/1/2018 (M)	<b>Evolution</b>	Lecture Questions
10/3/2018 (W)	<b>Evolution</b>	Sterile Banana (Population Dynamics/Evolution)
10/8/2018 (M)	<b>BARUCH CLOSED</b>	<b>BARUCH CLOSED</b>
10/10/ 2018 (W)	<b>Population Dynamics</b>	HW Review (Biomes, Evolution)
10/15/ 2018 (M)	<b>Population Dynamics</b>	Exam Review
10/17/ 2018 (W)	<b>Exam</b>	Lecture Questions
10/22/ 2018 (M)	<b>Population Dynamics</b>	HW Review (Population Dynamics)
10/24, 2018 (W)	<b>Population Dynamics</b>	Lecture Questions
10/29, 2018 (M)	<b>Species Interactions</b>	Discuss Unusual Species Interactions and Assign Presentations
10/31, 2018 (W)	<b>Species Interactions</b>	Presentations on Unusual Species Interactions
11/ 5, 2018 (M)	<b>Species Interactions</b>	Presentations on Unusual Species Interactions
11/ 7, 2018 (W)	<b>Species Interactions</b>	Presentations on Unusual Species Interactions
11/ 12, 2018 (M)	<b>Species Interactions</b>	Presentations on Unusual Species Interactions
11/ 14, 2018 (W)	<b>Community Ecology</b>	Yellowstone Wolf Assignment Review
11/19/ 2018 (M)	<b>Community Ecology</b>	HW Review (Species Interactions, Community Ecology)
11/ 21/2018 (W)	<b>Biogeography</b>	Lecture Questions
11/ 26/ 2018 (M)	<b>Biogeography</b>	Math Review
11/ 28/ 2018 (W)	<b>Ecosystem Ecology</b>	HW Review (Ecosystem Ecology, Biogeography)
12/3/ 2018 (M)	<b>Ecosystem Ecology</b>	Lecture Questions
12/5/ 2018 (W)	<b>Conservation &amp; Management</b>	Conservation Paper
12/10/ 2018 (M)	<b>Conservation &amp; Management</b>	HW Review( Conservation and Management)
12/ 12/ 2018 (W)	<b>Review/Catch-Up</b>	<b>Exam Review</b>

**This is tentative schedule, may change if need arises**