

ENV BC1001 Introduction to Environmental Science

Course Introduction

Peter Bower
pb119@columbia.edu
(212) 854-3589
Office Hours:
M,W 2:30-3:30 & F 9-10
(by appointment only)

Laboratory:
Dr. Joe Liddicoat (4/7089)
jliddico@barnard.edu
Ms. Diane Dittrick (4/5783)
ddittrick@barnard.edu

Class Meetings: MW 11:00 AM to 12:15 PM
Lecture: 202 Altschul Lab: 616 Altschul

Online Application for Brownfield Action Seminar
<http://www.barnard.edu/brownfield>

Intro

Syllabus

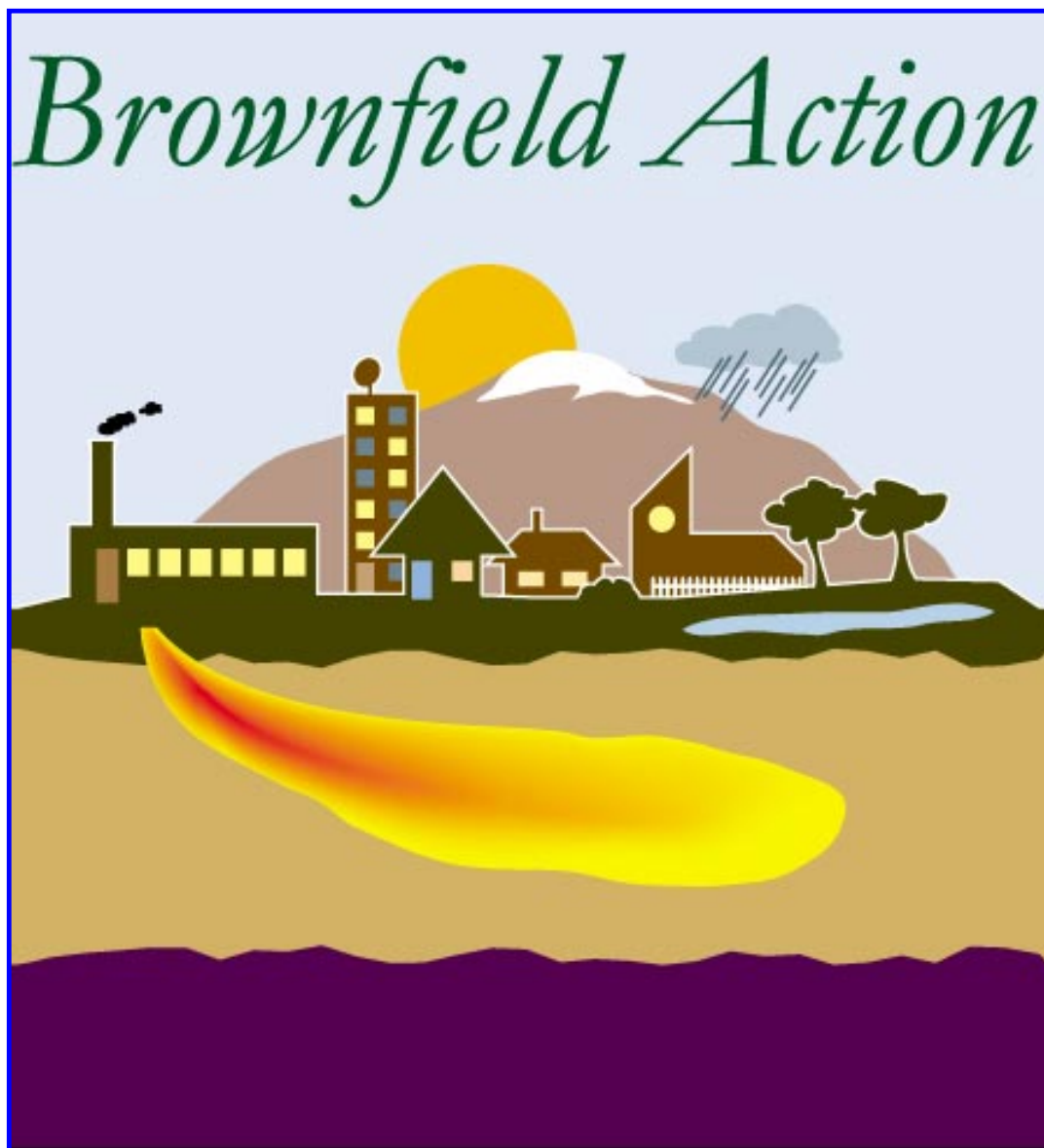
Requirements

Bulletin Board

Web Resources

Dir. of Classes

LibraryWeb



Info Menu

[Brownfield Action Support](#)

Course Description:

Physical processes of the environment and their interaction with human development, industrialization, and pollution. Special emphasis on environmental site assessments, brownfields, groundwater pollution, toxics, radionuclides, and human health including a reading of Rachel Carson's *Silent Spring* and Jonathan Harr's *Civil Action*.

Prerequisites:

Passing grade on Quantitative Reasoning test or equivalent. Enrollment limited. BC 1001 required to take 1002. Students must sign up for lab sections in 404 Altschul during the program-planning period of the previous term.

Intro

Syllabus

Requirements

Bulletin Board

Web Resources

Dir. of Classes

LibraryWeb

Class Schedule

WEEK OF (M-F):	LECTURE# (Day/Date)	LAB#:
September 2 - 6	W/4th	no lab
September 9 - 13	M/9th W/11th - T1	1
September 16 - 20	M/16th W/18th - T2	2
September 23 - 27	M/23th W/25th - T3	3
Sept. 30 - Oct. 4	M/30th W/2nd - T4	4
October 7 - 11	M/7th W/9th - T5	5
October 14 - 18	M/14th W/16th - T6	6
October 21 - 25	M/21st W/23rd - T7	7
October 28 - November 1	M/28th W/30th - T8	8
November 4 - 8	Nov. 4th & 5th = Academic Holidays ----- W/6th	9 (Lab week #9 begins W, Nov. 6th and ends Tu, Nov. 12th)
November 11 - 15	M/11th - T9 W/13th	9-10 (Lab week #10 begins W, Nov. 13th and ends Tu, Nov. 19th)
November 18 - 22	M/18th - T10 W/20th	10-11 (Lab week #11 begins W, Nov. 20th and ends Tu, Nov. 26th)
November 25 - 29	M/25th - T11 -----*	11 *(No lecture and no lab on W, Nov 27th) Thanksgiving Holidays (Nov. 28 - Dec.1)
December 2 - 6	M/2nd W/4th	12
December 9 - 13	M/9th -- T12 -- Last day of class (W/11th - 4 PM = Deadline for all work)	
Dec. 10, 11, & 12	Reading Days	
Dec. 13- 20	Final Exam - M/16th	

Info Menu

ENV BC1001 Introduction to Environmental Science

Course Requirements

The Honor Code and Academic Integrity

The Barnard Honor Code (established in 1912) reads:

We, the students of Barnard College, do hereby resolve to uphold the honor of the College by refraining from every form of dishonesty in our academic life. We consider it dishonest to ask for, give, or receive help in examinations, quizzes, or to use in them any papers or books in any manner not authorized by the instructor, or to present oral or written work that is not entirely our own, except in such way as may be approved by the instructor. We pledge to do all that is in our power to create a spirit of honesty and honor for its own sake.

The Honor Code governs all aspects of academic work. If a violation should arise, it will be reported to the Dean of Studies for appropriate action. Honor Board Guidelines on the procedures for implementing the Honor System and acting on charges of dishonesty can be found in the Student Handbook. Remember that Barnard students reaffirm their acceptance of the Honor Code by signing their registration form. Columbia students commit themselves to the Honor Code upon registering for a Barnard course.

Because the Honor Code is not entirely specific and contains qualifications and exceptions, such as "authorized by the instructor" or "approved by the instructor", please read the attached summary of "What behaviors constitute academic dishonesty?"

What behaviors constitute academic dishonesty?

- **Cheating on examinations, quizzes, tests, or other assignments:** the giving of assistance to another or the receiving of assistance from another person, another examination paper, other written material, or any source not explicitly permitted by the instructor, is cheating. Thus, you may not look at another's paper or answers; you may not show your paper or answers to another or leave your paper or answers around for others to look at; and, you may not verbally read or reveal your answers to another in any way. It is also cheating to have access, without the instructor's approval, to examination, quiz, or test questions prior to the administration of the examination, quiz, or test.

- **Plagiarism:** the submission or presentation of ideas or work in any form that are not

Intro

Syllabus

Requirements

Bulletin Board

Web Resources

Dir. of Classes

LibraryWeb

Info Menu

one's own without appropriate acknowledgement of the source(s). Even with the acknowledgement, close paraphrasing can constitute plagiarism. You may quote the work of others if properly attributed. Close paraphrasing also requires attribution; close paraphrasing is, however, a gray area on a slippery slope, and the slope tends to become steeper and more slippery with the length of the paraphrase.

- **Submission of the same work for more than one course** without the explicit permission of the instructors involved.
- **Falsification or misrepresentation of data in any coursework.**
- **Altering, defacing, or concealing library materials.**
- **Participating in the academic dishonesty of another student** by offering assistance or advice that encourages such behavior.
- **Misrepresentation of one's state of health or personal situation** to gain deferrals of examinations or extensions of academic deadlines.
- **Forgery of a signature** on any document or form related to a student's academic life -- including the adviser's signature on a program, drop/withdrawal slip, or petition.

Except for the above I encourage and expect students to share and work together, to ask questions, and to receive help from instructors and other students. Admittedly, there are gray areas but these gray areas will not be an issue if the intent of the foregoing is understood. If there are any questions about the foregoing, it is prudent to ask your instructor for clarification.

Required Texts and Materials:

1. *Silent Spring* by Rachel Carson
 2. *Civil Action* by Jonathan Harr
 3. *Nuclides and Isotopes* (15th ed.), Walker et al., General Electric Co.
 4. *Barron's Law Dictionary*
 5. *Bantam Medical Dictionary*
 6. scientific calculator (to be brought to each lecture and laboratory)
 7. ruler, protractor, compass, right triangle
 8. #4 pencil, gum eraser, set of colored pencils
-

Grading: Grades will be assigned according to performance on twelve tests (each having equal weight and constituting 48% of the final grade) and one comprehensive final exam (17%). Read *Make-up Tests* and *Test Procedures* below. Performance in the laboratory will constitute the remaining 35% of the final grade (read *The Laboratory*, *Laboratory Quiz Procedure*, and *Make-up Laboratories* below). The final grade may also be affected by attendance in the laboratory (read *Laboratory Attendance* below). For those students taking the lecture only, the final grade will be determined from performance on twelve tests (84%) and one final exam (16%).

Paying attention, taking good notes, and the ability to follow instructions are simple skills that are a key to success in this course. Application of these skills requires both good attendance as well as punctuality. The pace of the semester is unremitting, but not ruthless. Assignments and instructions come inexorably and, if not attended to, can suddenly assume the form of a tsunami.

All grades will be based on a scale of 100 with A+ = 97.00-100, A = 93.00-96.99, A- = 90.00-92.99, B+ = 87.00-89.99, B = 83.00-86.99, B- = 80.00-82.99, C+ = 77.00-79.99, C = 73.00-76.99, C- = 70.00-72.99, D = 60.00-69.99, and F = 59.99 or less.

Definition of Grades:

A+= Rare performance. Reserved for exceptional achievement.

A = Excellent work. Outstanding achievement.

A- = Excellent work that exceeds course expectations.

B+= Very good work. Solid achievement (expected of Barnard/Columbia undergraduates) that meets all course expectations.

B = Good work. Acceptable achievement that meets almost all course expectations.

B- = Satisfactory work. Acceptable achievement that meets major course expectations.

C+= Fair achievement just above that which is minimally acceptable.

C = Fair achievement but only minimally acceptable.

C- = Barely acceptable achievement.

D = Very low performance. Unsatisfactory work. Lowest achievement to still allow for a passing grade. This grade may not be counted toward the major or minor option.

F = Failure.

Consult the Barnard or Columbia College Catalogs or the Registrar's Office for other

information about grading, including: the definitions of other letter grades, pass/D/fail option, incompletes, and calculation of GPA.

Summary of Grading for Course

Course Requirement	% of Final Grade
I. Lecture	60
A. 12 Tests (each = 3%)	36
B. Comprehensive Final Exam	24
2. Laboratory	40
A. 12 Quizzes (the 10 best are each = 0.5%)	5
B. Brownfield Investigation (12 laboratories)	35
3. Adjustments for Absence or Lateness	

Test Procedures: Tests will be given at the beginning of the lecture period. The test will be handed out but no one may begin work until told to do so. You will have 15 minutes to work on the test. No writing is allowed after you are told that the "time is up." Anyone who continues to write (no matter what the reason) will be given a zero for the test. If you are late to class, you will have less time to complete the test. If you miss the test or the class, you will be given a zero for the test.

Make-up Tests: No make-up test will be given without advance notification of at least one week before any absence due to religious observance. Otherwise, no make-up test will be given except for bonafide emergencies or illness. Except in the most unusual circumstances advance notification is required. A letter from your Academic Dean or your doctor is required before the scheduling of any make-up test. If permission to make-up a test has been received, it should be rescheduled as soon as possible.

The Laboratory: On Wednesday, September 4th, students will select their laboratory section. September 10-14 is the first full week that students report to the laboratory in

616 Altschul. Students must report to their assigned laboratory section. Be sure to be on time because attendance is taken promptly at the beginning of class (9:10 A.M. or 1:10 P.M.) and is immediately followed by a short quiz. Deadlines for assignments will be strictly observed. Grades for late work are subject to a maximum 30% reduction at the instructor's discretion.

Laboratory Sections: All student work (exams, quizzes, and other assignments) must have the student's name and laboratory section at the top of each page. The sections, days, and times are listed below:

Section	Day	Time	Section	Day	Time
1	Mon	1:10 - 4:00 PM	5	Thurs	9:10 - 12:00 AM
2	Tues	9:10 - 12:00 AM	6	Thurs	1:10 - 4:00 PM
3	Tues	1:10 - 4:00 PM	7	Fri	9:10 - 12:00 AM
4	Wed	1:10 - 4:00 PM	8	Fri	1:10 - 4:00 PM

Changing Laboratory Section: Students must report to their assigned laboratory section unless they have applied for and received authorization to change their section. Application to change a laboratory section may be made by phone, e-mail, or in person to either Joe Liddicoat or Diane Dittrick. Students must continue to attend their assigned laboratory section until they have been given authorization to change.

Laboratory Quiz Procedure: The Honor Code is strictly applied to all quizzes. Quizzes will be given at the beginning of every laboratory period. The quiz will be handed out but no one may begin work until told to do so. You will have 10 minutes to work on the quiz. No writing is allowed after you are told that the "time is up." Anyone who continues to write (no matter what the reason) will be given a zero for the quiz. Anyone late to the laboratory will have less than 10 minutes to complete the quiz. Lateness to the laboratory by more than 10 minutes will result in a zero for the quiz. There are twelve laboratory quizzes in all with the ten best scores constituting 10% of the final laboratory grade (or 5% of course grade). You are required to bring your scientific calculator to each laboratory session.

Make-up Laboratories: No make-up laboratories (including laboratory quizzes) will be given without advance notification of at least one week before any absence due to religious observance. Otherwise, no make-up laboratories will be given except for bonafide emergencies or illness. Except in the most unusual circumstances advance notification is required. A letter from your Academic Dean or your doctor is required before the scheduling of any make-up test. If permission to make-up a laboratory or laboratory quiz has been received, it should be rescheduled as soon as possible.

Laboratory Attendance: Failure to attend or complete the work of three laboratories will result in automatic failure for the course. Each of the first two absences from the laboratory will result in a zero. Lateness to the laboratory by more than 10 minutes on three occasions is the equivalent of one absence.

Procedure for Handling Questions and Complaints About the Grading of Tests, Quizzes, and Other Assignments:

If you have a question or complaint concerning the grading of your work, you must detail the question or complaint in writing. Attach this written question or complaint to the test, quiz or other assignment and give it to Prof. Bower directly or leave it in his mailbox in the Environmental Science Department. Once your question or complaint has been reviewed, your work will be returned to you with an explanation of the action taken. At this time if there are still questions, the issues may be discussed. Under no circumstances will a discussion about grading take place prior to above mentioned review, and no review will take place unless the problem or complaint is put in writing. Your laboratory instructors and teaching assistants have also been instructed not to discuss questions and complaints about grading with students. Remember! Put it in writing!



Classroom Etiquette: Every few years the behavior of several students compels me to remind

the whole class of what may seem obvious to most:

- a) talking during lecture is inconsiderate and disconcerting to me as well as to those trying to listen, think, and take notes;
 - b) it is rude to walk in front of class (between the lectern and the lecturer) after class has begun; if you come in late (after 11:00 A.M.), enter on the upper (3rd floor) level; quietly proceed to take a seat in the back (upper) half of the room;
 - c) and, always turn off your cell-phone and/or beeper before you enter the lecture hall or the laboratory.
-

Teaching Assistants: Teaching Assistants (TAs) are Barnard undergraduates, often Environmental Science majors, who assist the Laboratory Instructors during weekly

laboratories. Under the supervision of the Laboratory Instructor they also provide assistance to students during the laboratory. Except by prior arrangement and permission of the Laboratory Instructor or Lecturer students are not to meet or discuss the course with TAs. All questions and concerns about the course should be addressed directly to the Laboratory Instructors or to the Lecturer.

For Brownfield Action (BfA), in which teams of two students will form their own environmental consulting company, students will receive specific written instructions concerning the relationship between BfA and the Honor Code.