# COLLOQUIUM IN TERRESTRIAL BIOGEOSCIENCE

GRS 719
Fall 2013

**Instructor:** Lucy Hutyra
Department of Earth & Environment, CAS 429C

**Office Hours:** Monday 10:00 - 12:00

**Lecture Time:** Seminars: Wednesday 3:30-4:30 pm in STO 442
Discussions: TBD

## Objective

The objective of this course is to introduce graduate students to the diversity of research being done in the field of biogeosciences. By participating in this seminar course, students will gain depth and breadth in their graduate education. The inclusion of distinguished-speaker seminars will not only expose students to some of the brightest minds in the field, but also help the students develop a professional network beyond that which they will gain at Boston University.

## Biogeoscience Seminars

On Wednesday of each week throughout the semester, students will be required to attend a 45-minute talk followed by a 15-minute question-and-answer session. The week prior, the colloquium organizer, with the help of the speaker, will assign a paper to be read in advance of the lecture. The assigned reading will focus on the "state-of-the-science" for that field, providing background for the upcoming presentation and allowing students to ask well-informed questions.

## Discussions

The graduate students will meet with the Professor on a weekly basis. The topic of discussion will be the seminar and the pre-assigned paper.
Students will be required to keep a written log of the answers to each of the following questions in a notebook for every paper the student has read throughout the semester:

1. What are the goals of the study or the question being addressed?
2. Why is this research question important?
3. What are the experimental design and methods used to answer this question?
4. What are the papers major findings, conclusions, and implications?
5. What are the paper's major shortcomings?

The objective of this activity is to help students learn how to read the scientific literature and how to organize their thoughts. Students will hand in this notebook at the end of the semester. The written log will be worth 20 points or 10% of the overall grade. Each student will be a discussion "leader" for one of the assigned papers. The discussion leader will be responsible for synthesizing Points 1 – 5 above for each paper. A general discussion, moderated by the Professor, will follow.

**Required Text:** None. Readings from the primary literature, assigned.

**Website:** Documents will be posted to Blackboard

## Course Requirements:

1. Attend all seminars and discussions
2. Read all assigned papers
3. Discussion leader
4. Active participation in discussions

## Grading:

| | |
|---|---|
| 1. Attendance at weekly seminar and discussion | 50 Points |
| 2. Preparedness and Regularity of Participation in seminar and discussion | 50 Points |
| 3. Ability to Synthesize Information and Generate Points for Discussion<br>*- includes a written log (see below)* | 50 Points |
| 4. Ability to lead a discussion | 50 Points |
| Total | 200 Points |

## Independence of Work and Academic Conduct

The discussion of papers and the content of the notebooks are expected to reflect a student's individual contribution. While students are free to discuss papers in advance of class, the students must complete their own notebooks and bring their own opinions to class. Questions of independence should be addressed directly to the Colloquium organizer. The student is also referred to the College of Arts and Sciences Academic Conduct policy that can be found at: http://www.bu.edu/academics/files/2011/08/AcademicConductCode.pdf

| Discussion Date (Seminar Date) | Topic & Guest Speaker | Student Leading Discussion |
|---|---|---|
| September 6 | NO CLASS | NO CLASS |
| September 13 | Introduction | Lucy Hutyra (intro) |
| September 20 (September 25) | Josef Kellndofer (biomass remote sensing) | |
| September 27 (October 2) | Jon Levy (air quality & public health) | |
| October 4 (October 9) | Tristan Quaife (Dynamic Vegetation Models) | |
| October 11 (October 16) | NO SPEAKER | |
| October 18 (October 23) | Mark Friedl (Phenology) | |
| October 25 (October 30) | Julie Shoemaker (Wetland methane) | |
| November 1 (November 6) | Eric Kort (Atmos remote sensing) | |
| November 8 (November 14, Thursday) | Alan Yeakley (Urban hydrology) | |
| November 15 (November 20) | Noelle Selin (Mercury) | |
| November 22 (December 4) | Nadine Unger (Climate modeling) | |
| November 29 | NO DISCUSSION | NO DISCUSSION |
| December 6 | NO SPEAKER | Lucy Hutyra (wrap-up) |