EEBL 604 - Ecosystem Ecology

Day: TR  Time: TBD (75 min.)  Location: TBD  Number of Credits: 01 Credit

Instructors:
(even years)  Dr. Rusty A. Feagin  Department of Ecosystem Science & Mgmt.
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Office hours: by appointment

(odd years)  Dr. Brad Wilcox  Department of Ecosystem Science & Mgmt.
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Office hours: by appointment

E-mail will be the primary means of communication for the course. Go to ecampus.tamu.edu for course materials.

Course prerequisites: Graduate classification.

Course description: This final component of the fall semester portion of the Core Sequence in Ecology & Evolutionary Biology examines the flow of materials, energy, and information between ecosystems, and the geographic structure in which ecosystems are embedded globally. The major focus of the course will be the integrative nature of spatial and temporal processes acting across ecosystem units. Readings will be drawn from contemporary reviews and the primary literature.

Course requirements:
• Attend all lectures. Absences for previously scheduled activities will only be excused if they are communicated well in advance, and are a university-authorized excuse. If you have not discussed an absence with the instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See the Graduate Student Handbook for more details on university-authorized excuses.
• Read all required material and participate actively in discussions. Each day, one or more students will be responsible for leading discussion on the day’s topic and should come prepared with pertinent points.
• A short, take-home, open-book exam to be submitted the day after the last lecture; answer four questions clearly and concisely in about 20 min each. Late exams will not be accepted.

Course goals: The goal of this course is to provide a sophisticated understanding of ecosystem flow and structure, from landscape to global scales.

Grading: Letter grades will be assigned based as follows: leading in-class discussion: 25%; active participation: 25%; short, take-home essay exam: 50%.

Grade scale: 90-100 A; 80-89 B; 70-79 C; 60-69 D; < 60 F

LECTURES AND REQUIRED READINGS

1. Biogeochemical Cycles: Water
   (Reading: Durack et al. 2012)
2. Biogeochemical Cycles: Carbon and Nitrogen
   (Reading: Trumper et al. 2009; Galloway et al. 2005)
3. Trophic Interactions
   (Reading: Estes et al. 2011)
4. Landscape Ecology
   (Reading: Forman 1995)
5. Macroecology and Biogeography
   (Reading: Rosenzweig 1995, Brown & Maurer 1989)
6. Global Ecology
   (Reading: Lovelock et al. 1973)

Take-home essay exam due by email at 4 pm the day after lecture 6.

Americans with Disabilities Act (ADA): The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu.
Readings List:

Rosenzweig, M.L. Species diversity in space and time. Chapter 1. Cambridge U Press.