Ecology Core, EEB 509, Spring 2017
Hesler 427, 2:30-4:30 pm Monday & Wednesday

Course Organizer: Randy Small (431 Hesler Biology; 974-6207; rsmall@utk.edu)
Course Instructors:

Joe Bailey	jbaile29@utk.edu
Nina Fefferman	nfefferm@utk.edu
Jim Fordyce	jfordyce@utk.edu
Jen Schweitzer	jschweit@utk.edu
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The EEB graduate ecology and evolutionary biology CORE is intended to provide a rigorous introduction to current knowledge in key areas of evolution and ecology. Successful completion of this two semester course should bring you to a level of sophistication that allows you to read and critically evaluate the current literature, and to discuss both ecological and evolutionary topics with visiting speakers and (ultimately) search committees and potential employers.

This course is not intended to teach you everything you need to know about ecology. Instead, we hope to help you develop a foundation of knowledge and confidence upon which to build the specialized knowledge needed for your individual research program and the breadth of knowledge needed to participate in academic science. We also hope that the course and the topics discussed may lead to new collaborations.

Objectives:

By the end of this course you should have a working knowledge of foundational papers and the current state of the field in the areas of Population & Evolutionary Ecology; Community Ecology; Ecosystem Ecology; and Global Change Ecology. Additionally, for each of these conceptual areas you will be introduced to mathematical models that have contributed to our understanding of these areas.

Format:

This course covers a series of modules that represent major conceptual areas within ecology. The course will include a combination of lectures, discussions, in-class exercises and/or homework led by EEB faculty members. A strong emphasis will be placed on independent reading. Several papers for each module will be made available to students via the course BlackBoard site. These papers will include both classic 'foundation' papers and modern 'frontiers' on the topic. Some of these papers will be discussed in class, but not necessarily all. Students are expected to have read and studied all papers prior to coming to class. We strongly suggest that you form a reading group to discuss the papers outside of class time.

Assessment:

Your grade in the course will be determined by your **preparation** for, and **participation** in class discussions and assignments. Additionally, each student will prepare a mini-review paper on a topic closely related to your proposed dissertation research and a 15-minute presentation on the same topic.

Participation/Homework	**50%**
Mini-review paper	**25%**
Presentation	**25%**

Process & timeline for min-review paper (limit of 1500 words, ~ 4-5 pages double spaced)

1/30 Submit 1 paragraph description of topic + list of 5 recent and relevant references. Have approved by Randy.

2/13 Submit review outline: bullet point list of topics to be covered; list of a minimum of 20 recent (within last 5 years) references that will be cited. Peer review of outline.

3/20 Submit 1st draft of review. Peer review of drafts.

3/27 Group discussion about Review drafts w/ Joe Bailey.

4/26 Submit final draft of review.

Day & Date	Topic	Instructor
W 1/11	Course Intro	Small
M 1/16	NO CLASS - MLK Day	
W 1/18	History of Ecology	Simberloff
M 1/23	History of Ecology	Simberloff
W 1/25	Evolutionary & Population Ecology	Fordyce
M 1/30	Evolutionary & Population Ecology	Fordyce
W 2/1	Evolutionary & Population Ecology	Fordyce
M 2/6	Evolutionary & Population Ecology	Fordyce
W 2/8	Models in Evolutionary & Population Ecology	Fefferman
M 2/13	Community Ecology	Simberloff
W 2/15	Community Ecology	Simberloff
M 2/20	Community Ecology	Simberloff
W 2/22	Models in Community Ecology	Fefferman
M 2/27	Ecosystem Ecology	Schweitzer
W 3/1	Ecosystem Ecology	Schweitzer
M 3/6	Ecosystem Ecology	Schweitzer
W 3/8	Ecosystem Ecology	Schweitzer
M 3/13	NO CLASS - Spring Break	
W 3/15	NO CLASS - Spring Break	
M 3/20	Ecosystem Ecology	Schweitzer
W 3/22	Models in Ecosystem Ecology	Fefferman
M 3/27	Mini-Review Paper check-in	Bailey
W 3/29	Global Change	Bailey
M 4/3	Global Change	Bailey
W 4/5	Global Change	Bailey
M 4/10	Global Change	Bailey
W 4/12	Models in Global Change	Fefferman
M 4/17	Work on Review Paper & Presentation	
W 4/19	Work on Review Paper & Presentation	
M 4/24	Work on Review Paper & Presentation	
W 4/26	Student Talks	