Syllabus: Advanced Ecology

16:215:601

COURSE CONTACTS

Graduate Program Director, Rachael Winfree, 609-954-0440 (cell), rwinfree@rutgers.edu
Graduate Program Coordinator: Shaneika Nelson, s.nelson@sebs.rutgers.edu

MEETING TIME AND PLACE: Offered every Fall semester. Fall 2025: 8:30am - 11:30am Thursday mornings, ENR 145

CREDITS: 3

COURSE DESCRIPTION: Advanced Ecology provides an overview of key sub-fields in ecology, with each class taught by a different faculty member from the EE grad program. Faculty will assign up to 30 pages of reading from books, peer reviewed papers, and/or online sources for each class. Students should come to class prepared to discuss the assigned readings, and should ask at least three questions/comments during class discussion. At the end of the course, there will be a written final exam, with faculty members contributing and grading exam questions covering the content of their class.

LEARNING GOALS: Students will gain a broad, graduate-level understanding of important areas of ecology. Students will practice reading the primary scientific literature, articulating comments and questions about key concepts, and writing on scientific topics concisely and effectively. A primary goal of the course is to provide a more standardized basis for qualifying exam preparation. The course will also cover selected topics in scientific ethics and professional development.

COURSE WEB SITE: All course content including the final exam will be provided through Canvas.

BOOK TO PURCHASE: For the Ethics & Professional Development classes we will use Hofmann, A.H. 2022. Scientific Writing and Communication, 5th edition. Oxford University Press. There are many editions of this book and it's probably fine to use an older edition, if for example you can borrow that from a lab-mate, as the editions seem reasonably similar. All other readings will be made available as pdfs on Canvas.

CLASS MEETINGS - TOPICS BY DATE

Sept 4: Intro to EE grad program | Rachael Winfree and Shaneika Nelson
Sept 11: Rachael Winfree | Biodiversity
Sept 18: Peter Morin | Community ecology
Sept 25: John Wiedenmann | Marine ecology and fisheries
Oct 2: Max Haggblom | Microbial ecology
Oct 9: Erin Sauer | Disease ecology
Oct 16: Rachael Winfree | Peer review process

Oct 23: Barbara O'Neill | Financial literacy
Oct 30: Rick Lathrop | Landscape ecology
Nov 6: Rachael Winfree | Writing grant proposals
Nov 13: Joanna Burger | Animal behavior
Nov 20: Julie Lockwood | Climate change
Nov 25, TUESDAY: Myla Aronson | Urban ecology
Dec 4: Juan Bonachela | Theoretical ecology
Dec 11: Final exam, usual time and place

ASSESSMENT

50% class discussion
Includes asking at least three well-thought-out questions in each class
50% final exam
The final exam will be scheduled during the final exams period. Final will be in person, closed book/notes, and entirely short answer/essay. Students are allowed to bring in one page (double sided) of hand written notes to use for reference during the exam. Final exam will be taken on Canvas so bring your fully charged laptop. No online access (other than the Canvas exam itself) is allowed during the exam; that is, no use of the posted course readings, Google, Wikipedia, or Chat GPT is permitted.

ACADEMIC INTEGRITY

Learning the norms of citation, giving credit, fairly representing your own work, etc., is an important part of becoming a scholar, as is developing your own skills in reading, reasoning, and writing without the assistance of AI. Thus, there is no use of AI allowed in this course, for either writing assistance or for information summary. For academic integrity generally, please read the Rutgers policy and don't hesitate to ask for advice if you find situations that are unclear. http://nbacademicintegrity.rutgers.edu/home/academic-integrity-policy/

ACCESSIBILITY

If any material in the course is inaccessible to you due to a confirmed disability, please contact the instructor for alternative ways to access the material and learn the content.