

PCB 6046 Advanced Ecology, Fall 2024

Where & When: Tues & Thur 10:30 – 11:50, Rm. 415 Biology
Instructor: Dave Jenkins, Rm. 111B Biology
Web Page: <https://sciences.ucf.edu/biology/d4lab/advanced-ecology/>
Zoom link: 221 297 8950
Office hours: By appointment - email: david.jenkins@ucf.edu

We will grapple with a major ecological idea that is also relevant to societies and global climate change. We will approach the idea skeptically, in order to evaluate its strengths and weaknesses, with the goal to find ways to work with it in the future. The course is based on readings (freely-available pdfs) and discussions. You must read assigned material *before* coming to class.

Performance Evaluation

Exams 1 & 2	33.0 % each
Discussion Leadership & Participation	34.0
Grade scale: A = 90-100, B = 80-89.9, C = 70-79.9, D = 60-69.9, F ≤ 59.9	

Midterms and Final Exam: Your grade is based on your participation in class and two take-home essay exams (see schedule below). Exam questions will require you to think, analyze information, apply what you have learned from the readings & discussions, and write as a cogent scientist. ***Allow time to edit your writing before submitting!***

Discussion Leadership & Participation: You will help lead discussions on scheduled papers, with another student. Your role will be scheduled in advance, and I can help as needed. Read in advance, be organized, and think up provocative questions or approaches to get people talking. Participation in a class like this is obviously essential.

Suggestions:

- Budget your time to read sometimes dense papers – ***these are not light reading.***
- Take notes while reading. Ask questions while reading and write them down.
- Question authority.
- Expect me to try to get you talking and thinking. Perhaps by being outrageous.
- ***Talk, ask questions, answer questions.*** That helps you form ideas, helps others form new ideas, and see where confusion reigns.

Other Business:

1. Attendance is important for your learning, but is not counted in your grade. Participation is.
2. You are expected to abide by the UCF rules for student conduct
<https://scai.sdes.ucf.edu/student-rules-of-conduct/>
3. Plagiarism = a grade of zero for the course. It is easy to avoid this penalty with the following process:
 - (a) Read the papers. Take notes. Mark up the papers.
 - (b) Write your own words to answer questions. Where needed, add a placeholder to flag a needed citation (I use XXX).
 - (c) Then look up papers to ensure that what you wrote is legit, and cite them at the XXX. If you cannot legit back it up, re-write.
 - (d) Edit, edit, edit. This takes time. It helps to walk away and then come back to edit.
 - (e) DO NOT use AI to help you with this process because it:
 - i. is unlikely to dive deep enough into this arcane subject.
 - ii. can hallucinate.
 - iii. borders on plagiarism and/or copyright problems (<https://is.gd/ySdWam>).
 - iv. show only what a computer “thinks,” then edited by you or more software. I want to know what YOU think.
4. All UCF syllabus statements as may apply to this course are hereby invoked. See
<https://policies.ucf.edu/documents/4-403.pdf>
<https://fctl.ucf.edu/teaching-resources/course-design/syllabus-statements/>.
5. All reasonable accommodations will be made for disabilities documented through the Office of Student Disability Services (SRC 132; 407-823-2371). Please talk to me.
6. I reserve the option to adjust the rules, schedule, and grading system as outlined in this syllabus as needed to maintain the best possible educational integrity of the course. Any such changes will be announced and revised syllabi will be distributed.

COURSE SCHEDULE (SUBJECT TO CHANGES)

Class Dates	Readings to Discuss	Driver	
Aug 20, 22	Course Intro Milkoreit et al. 2018	Dave	Dave
Aug 27, 29	Holling 1973; Donohue et al. 2016 Noy-Meir 1975, May 1977	Dave	Dave
Sep 3, 5	Nystrom et al. 2000; Scheffer et al. 2001 Beisner et al. 2003; Scheffer & Carpenter 2003		
Sep 10, 12	Riekerk et al. 2004; Schröder et al. 2005 Diaz & Rosenberg 2008; Mumby 2009		
Sep 17, 19	Suding & Hobbs 2009; Lenton 2011 Barnosky et al. 2012; Dai et al. 2012		
Sep 24, 26	Scheffer et al. 2012; Hughes et al. 2013 Brook et al. 2013; Mac Nally et al. 2014		
Oct 1, 3	Steffen et al. 2015; Huang et al. 2015 Fletcher et al. 2014; Capon et al. 2015; EXAM 1		
Oct 8, 10	EXAM 1 DUE ; Selkoe et al. 2015 van Nes et al. 2016; Connell et al. 2017	Dave	
Oct 15, 17	Jassey et al. 2017; Moore 2018 Montoya et al. 2018; Latty & Dakos 2019		
Oct 22, 24	Hillebrand et al. 2020; Möllmann et al. 2021 Taylor & Rising 2021; Dietz et al. 2021		
Oct 29, 31	Heinze et al. 2021; Suz et al. 2021 Kéfi et al. 2022; Doughty et al. 2023		
Nov 5, 7	Gillaranz et al. 2022; Blöcker et al. 2023 Davidson et al. 2023; Creel et al. 2023		
Nov 12, 14	Hernández et al. 2023; Carrier-Belleau et al. 2023 Oro et al. 2023; Shengli et al. 2023		
Nov 19, 21	Bellamy 2023; Wunderling et al. 2024 Su et al. 2024; Flores et al. 2024		
Nov 26	Wrap-up & EXAM 2 TO YOU	Dave	
Dec 3, <u>5</u>	FINALS WEEK – EXAM 2 DUE DEC 5	-----	