

Meeting time and place: 5:00 – 6:50 PM, Mondays, BSC 2202

Instructor: Jim Loughry

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General course description: This is a seminar course involving in-depth examination of current issues in ecology and evolution. Educational outcomes associated with this course include numbers 1 and 2 as specified by the VSU Biology Department for its Master's program, and general outcomes numbers 3, 4, 5, and 7 as specified by the University.

Required books: None

2021 Seminar Topics:

A. Peer Review

One essential skill of a professional scientist is the ability to evaluate the efforts of others. However, all too often very little formal training is provided that would allow one to learn how to do this. During the first half of the semester, a week in advance of each class meeting I will provide all of you with a manuscript that I have been asked to review in the past. At the next class meeting, one of you will lead a discussion of the strengths and weaknesses of this paper. However, be aware that **all** of you are expected to contribute. After the class has met each week, I will provide the official reviews of the paper so you can see how your critiques compare to those of the real reviewers. Thus, by the end of the first half of the semester you will have learned a great deal about how to review scientific literature.

B. Pick a Topic

In the second half of the semester, each of you will lead a discussion of a published, peer-reviewed paper that you find particularly interesting. Because this course is titled “Special Topics in Ecology and Evolution”, the paper you choose must have some connection/relevance to these areas of biology. If you need help identifying a suitable paper you should consider browsing the table of contents of any of the following journals: *American Naturalist*, *Animal Behaviour*, *Biological Reviews*, *Ecology*, *Evolution*, *Oikos*, *Proceedings of the Royal Society (Series B)*, *the Quarterly Review of Biology*, *Trends in Ecology and Evolution*, among others; some taxon-specific journals (e.g., the *Journal of Mammalogy* etc.) also may have good papers to consider. You must have the paper you wish to discuss approved by me no later than **NOON, Thursday, March 4**. Failure to do so will result in the loss of one letter grade from your final grade.

Completion of the course requires the following:

1. Discussion Leader: As described above, each of you will lead two discussions during the semester, one involving the review of a manuscript that I have provided to you, and one covering a paper of your choosing. Each of these presentations is worth 100 points.

2. Review Paper: Each of you must write a review paper about the topic you choose to present during the second half of the semester. All papers must be turned in by **5 PM, Monday, April 26**. Papers must be written in the style of a journal article (the *Quarterly Review of Biology* and *Annual Review of Ecology and Systematics* provide excellent models) and be exhaustive reviews of the subject. One critical part of this paper will be to provide an extensive bibliography of the literature pertaining to your topic. This paper is worth 100 points.

3. Peer-review: You will provide a 1-2 page critique of a subset of the review papers submitted. Each paper will be reviewed by 2 other members of the class, using the reviewing skills you developed during the first half of the semester. As the last part of your reviews, you must assign a numerical grade to each paper, based on a maximum total of 50 points. All reviews of all papers are due no later than **NOON, Wednesday, May 5**. I will then send each of you all the reviews of your paper and its averaged reviewer score (individual point scores will remain anonymous). I will also evaluate the quality of the peer reviews you submit and assign you a score for them based on a maximum of 50 points.

4. Participation: Seminars are about discussion. Thus, it is critical that each of you actively participate. Consequently, a portion of your grade (50 points) will be based on your contributions to each week's discussion.

Grading: Grades will be based on a total of 400 points as described below. In addition, you need to be aware that there is a punitive attendance policy. The seminar requires active participation by all of you. So, if you are not here, the class will suffer dramatically. Consequently, for each unexcused absence you will lose one letter grade off your final grade.

1. Discussion Leader (100 points each)	200 points
2. Review Paper	
Averaged reviewer scores	50 points
My score of your paper	50 points
Total	100 points
3. Peer reviews	50 points
4. General participation:	50 points
Total	400 points

Evaluating the above is admittedly subjective. I will start the seminar assuming everyone has an A. So long as you do your job, that will not change. However, if you don't show up or don't participate, then your grade will start to fall. Final grades will be based on the following point totals:

- A = 360 - 400
- B = 320 - 359
- C = 280 - 319
- D = 240 - 279

BIOL 7900 Course Schedule

Every student in the class will lead the discussion twice. Specific dates for each of you will be determined during the first class meeting, with the stipulation that the four people who have done this before will do their peer review discussions before any of the new people do. Dates for the second set of presentations are wide open and will be filled on a first-come, first-serve basis.

Month	Date	Discussion Leader
January	11	Organizational Meeting
	18	MLK HOLIDAY; NO CLASS
	25	Crews, Hector, Lamb or Le
February	1	Crews, Hector, Lamb or Le
	8	Crews, Hector, Lamb or Le
	15	Crews, Hector, Lamb or Le
	22	Burch, Craft, or Taylor
March	1	Burch, Craft, or Taylor
	8	Burch, Craft, or Taylor
	15	Student 1
	22	Student 2
	29	Student 3
April	5	Student 4
	12	Student 5
	19	Student 6
	26	Student 7