

Meeting times and places:

Class time: 5:00 - 6:50 PM, Wednesdays, BSC 2202

Science Seminar: 12:45-1:45 PM, Tuesdays, BSC 1023

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Office hours: 9:00 – 11:00 AM Wednesdays or any other time by appointment

General course description: This is the capstone course for your undergraduate degree. As such, you need to prove that you are ready to become a professional biologist. Specifically, you will (1) attend and evaluate scientific presentations; (2) develop a research paper on some topic in biology, and (3) present your findings to the class. You must also take the Major Fields test to demonstrate your knowledge of biology content. Educational outcomes associated with this course include numbers 1-5 as specified by the VSU Biology Department, and general outcomes numbers 4, 5 and 7 as specified by the University.

1. Science Seminar: You must attend each of the seminar presentations during the semester, schedule to be announced. Prior to the start of each seminar you must see me in order to get an evaluation sheet that you will fill out about the seminar. The completed form must be returned to me at the end of the seminar. Each evaluation is worth 10 points. In addition, you must ask at least one question of a speaker during the semester. This question is worth 20 points, and you must write the question you asked and the speaker's answer on the evaluation form. Three important warnings: (1) No evaluation forms will be handed out once the seminar has started. So, if you get there late, you will not receive credit for attending that seminar. (2) Disruptive behavior during the seminar (talking, texting, surfing the web, etc.) will not be tolerated. I will not accept evaluation forms from anyone causing problems during a seminar. (3) Trivial questions of the speaker (e.g., what's your favorite color?) will not be counted.

Be aware that VSU policy is that missing 20% of a class results in automatic failure of that course. Thus, in the present case, if you are absent from 20% of the seminars, you will receive a grade of Unsatisfactory for this course.

2. Research Paper: Each of you must write a review paper about some topic in biology. This time around I have decided that these will be scientific biographies. At the end of the syllabus is a list of names of very prominent individuals who have made important contributions in biology. Some are still alive, some are not. You must select one person from this list and write a paper

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. The research paper is worth a total of 175 points; the grading rubric by which it will be evaluated is as follows:

- (1) Initial bibliography: 1 point for each peer-reviewed publication, to a maximum of 25
- (2) Complete rough draft of paper: 50 points, allocated as follows:
 - Bibliography: 1 point for each peer-reviewed publication, to a maximum of 25
 - Content: 15 points

Grading: Grades will be based on a total of at least 275 points as described below. I cannot be

BIOL 4900 Course Schedule

| Month | Day | Classroom activity |
|-----------|-----|---|
| August | 15 | Organizational meeting |
| | 22 | Work on research paper |
| | 29 | Perils of plagiarism; How to write a research paper |
| September | 5 | Initial bibliography due |
| | 12 | Work on research paper |
| | 19 | Rough draft of paper due |
| | 26 | Work on research paper |
| October | 3 | Research paper due Oct. 3; Initial attempt at Major Fields test must be completed by Oct. 4 |
| | 10 | Set presentation schedule |
| | 17 | Work on presentation |
| | 24 | Class presentations #1 (n = 4) |
| | 31 | Class presentations #2 (n = 4) |
| November | 7 | Class presentations #3 (n = 4) |
| | 14 | Class presentations #4 (n = 4) |
| | 21 | THANKSGIVING; NO CLASS |
| | 28 | Class presentations #5 (n = 4) |

Subjects for a scientific biography:

1. Jeanne Altmann
2. John Avise
3. Daniel Blumstein
4. C. Sue Carter
5. Sarah K. Collinge
6. Francis Crick
7. Richard Dawkins
8. Stephen Jay Gould
9. Peter & Rosemary Grant
10. William D. Hamilton
11. Sarah Hrdy
12. Rob Knight
13. Richard Lenski
14. Peter Marler
15. Svante Pääbo
16. Beth Shapiro
17. Andrew Sih
18. Michael Tomasello
19. J. Craig Venter
20. Edward O. Wilson