

Biology 490 Senior Seminar: Sexual Behavior in Animals

Fall 2017

Class information is regularly posted at [Desire2Learn](#).

Course Overview:

Course Description: How is sexual behavior shaped by physiology, the physical environment, and social context? In this course, we investigate the physiology and behavioral ecology of sexual behavior across the animal kingdom. We explore these themes largely through assigned readings, discussions, and two forms of science writing (academic and popular). Topics include sexual conflict, courtship, mate choice, mating systems, mate competition, sexual strategies, cryptic female choice, sex roles and sex change, and nonprocreative sex.

Course Learning Objectives:

- Locate, critically read, synthesize, and discuss the primary literature dealing with multiple aspects of sexual behavior in animals
- Demonstrate the ability to write and orally present biological information that is articulate and grammatically correct with properly documented and organized ideas and data, appropriate to the specific audience
- Evaluate your own and others' written and oral communication skills by providing and applying useful feedback

Times: Mondays and Wednesdays 1:00-1:50 p.m. in CCC 320

Instructor: Sarah Jane Alger, Ph.D.
Office: TNR 439
Office hours: Wednesdays 2:00 -3:00 p.m. or by appointment
E-mail: salger@uwsp.edu
Phone: 346-2018 (Don't leave voice messages – Better to send an email)

Books:

- Hofmann, Angelika. (2013). Writing in the Biological Sciences. New York: Oxford University Press.
This is a guide to communicating science to professional audiences. We will use this as a reference when writing and revising our academic review papers.
- Bondar, Carin. (2010). The Nature of Human Nature. Lexington: Lulu.com (self-published).
This book is a collection of pop-science mini-essays on various animal behavior topics. We will incorporate these fun, 2-page stories into our readings (when topics relate) to generate discussion and to use as examples of science writing geared towards a public audience.
- Judson, Olivia. (2003). Dr. Tatiana's Sex Advice to All Creation. London: Vintage Books.
This book is a collection of articles written in the form of a sex advice column by Dr. Tatiana to a variety of species with some very interesting sex problems. We will incorporate these fun, 3-page articles into our readings (when topics relate) to generate discussion and to use as examples of science writing geared towards a public audience.

Articles:

Articles will form the basis of discussion classes. They vary in topic, depth and length and they will include both primary research articles and reviews. The reviews will also serve as examples for the academic review paper you will be writing.

Course Structure, Requirements and Grading:

Briefly, the topics and dates are as follows:*

Date	Topic	Readings*	Assignments*
Sep 6	Course overview and science communication	Handouts (on D2L)	
Sep 11	Demonstration discussion on sexual conflict 1	1 journal article	
Sep 13	Demonstration discussion on sexual conflict 2	1 pop-science article and 1 journal article	Paper topic due
Sep 18	Writing Workshop 1: Research tools (in ALB 316)		Paper thesis due
Sep 20	Writing Workshop 2: Research and writing techniques (in CCC 307)	<u>Writing in the Biological Sciences</u> chapters 2 and 10	Homework problems due
Sep 25	Practice discussion on courtship 1	1 pop-science article and 1 journal article	
Sep 27	Practice discussion on courtship 2	1 pop-science article and 1 journal article	
Oct 2	Practice discussion on mate choice 1	1 pop-science article and 1 journal article	
Oct 4	Practice discussion on mate choice 2	1 pop-science article and 1 journal article	
Oct 9	Writing Workshop 3: Writing a thesis and outline (in CCC 307)	Handouts (on D2L)	Paper thesis and outline due
Oct 11	Writing Workshop 4: Analyzing and refining a thesis and outline (in CCC 307)		Paper concept map due
Oct 16	Writing Workshop 5: Writing a <i>good</i> rough draft (in CCC 307)	<u>Writing in the Biological Sciences</u> chapters 3 and 4	Paper introduction due, homework problems due
Oct 18	Discussion on mating systems 1	1 pop-science article and 1 journal article	
Oct 23	Discussion on mating systems 2	2 journal articles	
Oct 25	Discussion on mate competition 1	1 pop-science article and 1 journal article	
Oct 30	Discussion on mate competition 2	2 journal articles	
Nov 1	Writing Workshop 6: The peer review process and organizational review (in CCC 307)	Handouts (on D2L)	Paper drafts due

Nov 6	Writing Workshop 7: Revising your writing (in TNR 356)	Handouts (on D2L)	
Nov 8	Discussion on alternative sexual strategies 1	1 pop-science article and 1 journal article	
Nov 13	Discussion on alternative sexual strategies 2	2 journal articles	
Nov 15	Discussion on cryptic female choice 1	1 pop-science article and 1 journal article	Peer reviews due
Nov 20	Discussion on cryptic female choice 2	2 journal articles	
Nov 22	Writing Workshop 8: Getting it done		
Nov 27	Pop-science presentations		Pop-science assignment due
Nov 29	Pop-science presentations and department evaluations		
Dec 4	Discussion on sex roles and sex change 1	1 pop-science article and 1 journal article	
Dec 6	Discussion on sex roles and sex change 2	2 journal articles	
Dec 11	Discussion on nonprocreative sex 1	1 pop-science article and 1 journal article	
Dec 13	Discussion on nonprocreative sex 2	1 pop-science article and 1 journal article	Final papers and responses to editor due

**Note: See the "Detailed Course Schedule and Discussion Topics" handout for details*

Discussion Leading and Class Participation:

Most classes will take the form of discussions of papers surrounding a common topic and each topic will be covered in two discussions. Everyone is expected to read all papers and comment or pose a question on *each paper*. Discussion leaders of each topic are expected to do a brief oral presentation to introduce their topic and make sure each paper is fully discussed in their two discussion periods.

Although you will not be expected to master every detail of the primary research articles, everyone should be able to answer the following questions about each:

- 1) What was the hypothesis? Briefly, what was the rationale for the hypothesis?
- 2) Briefly, what were the methods? Were they appropriate to address the hypothesis?
- 3) What were the major results and how did they relate to the hypothesis?
- 4) What was the conclusion? Do you believe the conclusion? Is there an alternative interpretation of the data the authors did not address? What further evidence would you like to see?
- 5) What were the major strengths and weaknesses of the paper?
- 6) How does this paper relate to other papers we've read? How does it relate to other work?

Discussion leaders should additionally be prepared to discuss/explain the following:

- 7) Explain the rationale *in detail*.
- 8) How does each technique used in the study generally work?

Note: This preparation may involve the use of outside sources and you are encouraged to prepare for discussion leading with your discussion-leading group.

Academic Review Paper and Peer Review:

Students will write a review paper on a topic of their choice. At least 6 primary, 2 secondary, and 1 tertiary reference must be used in writing the rough draft. Students will then peer-review drafts by two other students* and suggest an additional article to incorporate into each manuscript. Students will write a written response to the peer reviews and complete the final draft of their paper, incorporating at least 2 *additional* sources. The main goals of this assignment are to explore a topic of your choice in depth and communicate what you have learned about that topic. You will also gain skills in finding relevant resources, writing, and editing.

Note: Because students peer review each other's rough drafts for a grade, **late rough drafts will not be accepted.*

Comprehensive Exam:

Satisfactory completion of 490 courses requires the completion of the Biology Department's comprehensive exam. Test scores are used to compare class averages among various populations of biology majors to assess general student learning. Scores will not be made available to you nor your instructor and will have *no bearing on grades*. However, *your 490 grade will be withheld until the exam is taken*. The exam will take about 60 minutes and will be offered at the following times:

Dec 6 6:00 p.m. TNR 120

Dec 7 6:00 p.m. TNR 120

Please register for an exam time on the sign-up sheet with your instructor. If you cannot attend either of these examination times please contact Dr. Dan Graf (dan.graf@uwsp.edu) to schedule an alternative time.

Point Distribution:

Discussion Leadership	15 points
Discussion Participation	20 points
Pop-science Paper	15 points
Pop-science Presentation	5 points
Academic Paper Draft	15 points
Academic Paper Final	15 points
Peer Reviews	5 points each (two of them)
Homework	5 points

Total **100 points**

(*NOTE: each point is a percent of your grade)

Letter Grades:

	87-89.9% = B+	77-79.9% = C+	67-69.9% = D+
93-100% = A	83-86.9% = B	73-76.9% = C	60-66.9% = D
90-92.9% = A-	80-82.9% = B-	70-72.9% = C-	0-59.9% = F

Absence Policy and Accommodations:

Much of this class is based on discussions, which require your presence and participation. However, a single absence *from a discussion in which you are a participant* (i.e. not a Discussion Leader) will be excused for each student. If you need to miss a discussion in which you are a Discussion Leader, you must reschedule to lead a different discussion topic (i.e. two discussion periods) *prior to that discussion*. Once your single excused absence has been used up, **an absence or lack of participation in a discussion class you are not leading will result in a deduction of 2 points; An absence or lack of participation in a discussion class you are leading will result in a deduction of 3 points.** (Exceptions can be made in extraordinary cases: If you need to be absent for illness or personal reasons, please let me know in advance and I will try to be accommodating. I will keep any requests confidential.)

In compliance with the Americans with Disabilities Act, I will make every effort to honor requests for reasonable accommodations made by individuals with disabilities. If you have a disability and require accommodations, please register with the Disability and Assistive Technology Center (6th floor Learning Resource Center in Albertson Hall) and let me know as soon as possible. Requests for accommodation can be responded to most effectively if I receive the requests early in the semester. Such requests are confidential.

For more information about UWSP's policies with respect to the Americans with Disabilities Act (ADA), check here: <https://www.uwsp.edu/hr/Pages/Americans-with-Disabilities-Act.aspx>

You can also find more information on services provided at:

<http://www4.uwsp.edu/special/disability/>

UWSP Community Bill of Rights and Responsibilities:

UWSP values a safe, honest, respectful and inviting learning environment. A set of expectations for students and instructors, known as the Rights and Responsibilities document, is intended to help establish a positive living and learning environment. For more information go to

<https://www.uwsp.edu/acadaff/HLCSelfStudy/Community%20Rights%20and%20Responsibilities%202011.pdf>

Academic integrity is central to the mission of higher education in general and UWSP in particular. Academic dishonesty (cheating, plagiarism, etc.) is taken very seriously and will likely result in a failure (zero) for the assignment. For more information, see the UWSP "Student Academic Standards and Disciplinary Procedures" section of the Rights and Responsibilities document, Chapter 14, at the following site:

<https://www.uwsp.edu/acadaff/HLCSelfStudy/Community%20Rights%20and%20Responsibilities%202011.pdf>

Title IX:

Under several federal and state laws and according to several university guidelines, I am required to report acts of a criminal or offensive nature. This includes acts of sexual harassment and assault, bias and hate crimes, illicit drug use, and acts of violence. Any disclosure or description of these incidents – both current and in the past – may be reported to the Dean of Students office

(<http://www.uwsp.edu/dos/>) or the local authorities.

Emergency Preparedness:

In the event of a medical emergency, call 911 or use the nearest red emergency phone. Offer assistance if you are trained and willing to do so. Guide emergency responders to the victim.

In the event of a tornado warning, proceed to the lowest level interior room without window exposure or any of the hallways. Avoid wide-span rooms and buildings. For floor plans showing severe weather shelters, see <http://www.uwsp.edu/rmgt/Pages/em/procedures/other/floor-plans.aspx>.

In the event of a fire alarm, evacuate the building in a calm manner. Meet in the nearest parking lot. Notify me or emergency command personnel of any missing individuals.

In the event of an active shooter, your first priority should be to run and escape. Once you are safely out of range, call 911. If you are not confident that you can get out safely, then lock doors, turn off lights, spread out, hide, and remain quiet (turn your phone ringer and vibration off). Look around for potential weapons in case you will need to fight. If an active shooter enters the room and is aware of your presence and/or the presence of others, fight with everything you've got. Follow the instructions of emergency responders when they arrive.

For details on all emergency response plans at UW-Stevens Point, please view the Emergency Management Plan at www.uwsp.edu/rmgt.