

Biology 441/541: Animal Behavior  
Spring semester, 2003  
Dr. Kerry S. Kilburn

**OFFICE AND OFFICE HOURS:**

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Home page: <http://www.lions.odu.edu/~kkilburn/home.htm>  
Office hours: TR 10:30 - 12:00 and by appointment

**TEXT(REQUIRED):**

Alcock, J. *Animal Behavior: An Evolutionary Approach* 6e.

**OTHER MATERIALS AND RESOURCES:**

Readings from the technical literature other outside materials will be required throughout the semester and will be provided as hard copy or via the internet.

The course homepage (<http://www.lions.odu.edu/~kkilburn/nbvhome.htm>) has links to specific course materials (lecture notes, syllabus, study guides), assigned readings, sites that provide supplementary information for class material, etc. I encourage you to bookmark this page and check it regularly.

**COURSE DESCRIPTION AND OBJECTIVES:**

This course will provide you with an introduction to the major facets of the study of animal behavior, with special attention to its evolution and ecological significance. In addition to identifying major patterns and processes of animal behavior, we will discuss the observational and experimental techniques used to study behavior and explore the major conceptual models guiding past and current research in this field.

A combination of traditional lecture, group discussions, and formal presentations will allow you to develop and hone a variety of skills at a level appropriate for advanced undergraduates and beginning graduate students.

**EVALUATION:**

Your grade in this course will be determined by your performance on a series of lecture examinations, recitation activities, a research project, and a partially cumulative final examination.

**Lecture exams** will be taken at the Learning Assessment Lab (aka "testing center") in the Gornto building (adjacent to the library). Each exam will consist of primarily of a short answer, and essay questions; some objective questions may be included. Three exams, worth 100 points each, will be given on the dates indicated unless I inform you otherwise. The low score will be dropped, and **no** make-up exams will be given.

**Recitation** will be used primarily to discuss technical papers; participation is worth 100 points, with full points awarded to students who actively contribute to the discussions. All students are expected to read and critically evaluate papers before coming to class.

The **research project**, worth 100 points, will consist of a written grant proposal and formal class presentation and will allow you to demonstrate your understanding of current issues and research methods. The written proposal will follow standard National Science Foundations guidelines; a minimum of 10 primary references must be used. The oral presentation will be 10 minutes long with 3 minutes for questions from the audience. The presentation is worth 25 points and the written paper is worth 75 points. Further information, including a complete schedule, will be provided within the first two weeks of class.

The **final exam** will be given on **Friday, 2 May, at 8:30 a.m.** in the regular classroom. The final will be worth 100 points and **may not** be used as your low score to be dropped. Its format will be the same as that of the lecture exams and it will include a combination of new material and material from previous exams.

**Graduate students** taking the course for 500 or 600-level credit will be expected to perform additional and higher-quality work than will undergraduates. All students taking the course for graduate credit will be required to complete an extra essay question on each exam and will be required to provide a minimum of 15 primary references for the research project. Their written work will also be more critically assessed. Students taking the course for 600-level credit will, in addition, be required to lead one paper discussion in recitation and prepare one formal classroom lecture on a topic to be decided with my assistance.

## **GRADING:**

Point distribution:

Exams (3 @ 100 pts, low score dropped)	200 pts.
Recitation activities	100
Research proposal (25 + 75)	100
Final exam (1 @ 100 pts)	100
Total (400- & 500-level students)	500 pts.
Paper discussion	50 pts.
<u>Classroom lecture</u>	<u>100</u>
Total (600-level students)	650 pts.

Your grade will be based on the following scale:

90 - 100% = A	60 - 69.9% = D
80 - 89.9% = B	below 60% = F
70 - 79.9% = C	

I do not grade on a curve, nor do I provide extra-credit assignments. I may elect to make adjustments to scores on some exams if I find that such action is necessary to keep exams fair and reasonable. If you receive an anomalously low score on a single exam, I reserve the right to weight that exam less heavily than I do other exams. If, at the end of the semester, your grade falls on a “borderline”, I reserve the right (but do not guarantee) to take improvement, effort, and class participation into account in determining your final grade. In keeping with University regulations, grades of Incomplete (I) will be given only in exceptional circumstances beyond the student’s control (such as illness or injury), and only after the student has completed 80% or more of the course requirements.

**MISSED EXAMS AND LATE ASSIGNMENTS:**

No makeup lecture exams will be given. Written assignments will be penalized 5 points for every calendar day after the due date. The final exam may be made up only in the event of a legitimate problem (illness, family emergency, or inability to travel due to weather), and only if you notify me within 24 hours of the scheduled exam date and time.

**ATTENDANCE:**

Attendance will not be monitored except during recitation. However, repeated absences are very likely to affect your learning and, consequently, your grade. You are responsible for all material (including announcements) presented in class whether you are present or not.

**HONOR CODE:**

By taking this course, you agree to adhere to Old Dominion University’s honor code. Infractions, including cheating on exams and/or providing information about exam contents to other students, will not be tolerated and will be dealt with according to University policy. Any assignments requiring library research must be completed by the student or by the student working with appropriate library personnel. Any use of commercial research services will constitute a violation of course regulations and will result in a score of 0 for the assignment in question.

**EXPECTATIONS:**

This is a rigorous, challenging, information-rich course. To do well, you will need to master a wealth of information ranging from specific vocabulary to key hypotheses and theories. Exams will assess not only your factual recall, but your understanding of major concepts, your ability to apply concepts to novel situations, and your ability to organize and express your thoughts clearly and concisely. You should, therefore, plan on spending a minimum of 9-12 hours per week preparing for this class. That time should include skimming each section of the text before it’s covered in class; studying lecture material; re-reading text material in depth; preparing questions over any material with which you need additional help; and doing any outside reading that may be required. Note, however, that your grade is based on performance, not on how many hours you spend studying.

You are responsible for keeping your own record of your performance in the class and for contacting me promptly if you need help improving it. Waiting until the week before the final to ask “how can I pass the class?” is NOT a formula for success.

As this is a senior-level course, I will expect you to be responsible for all material from the chapters we cover, even if that material is not directly addressed in lecture. I will announce any exceptions to that policy in class.

### **HELPFUL HINTS:**

For most students, the best way to maximize academic performance is to develop a consistent, regular program of preparation, review, and study and to **STICK WITH IT**. That means setting aside specific times each week to “preview” upcoming material from the text and to review previous material from the text and lecture. With a regular, consistent study program, test preparation becomes much more effective and much less traumatic.

Although none of the strategies included here will guarantee your success in the course, they have proven helpful to many of my students in a variety of classes. You might consider trying several of the following until you work out the study style that works best for you.

1. Tape the lectures and listen to them in the car, at home, etc. for review.
2. Ask questions in class. Don't be shy; I can't help if you don't ask for it!
3. Rewrite your lecture notes, filling in details and concepts from the text.
4. Ask questions in class. The only “dumb” question is the one that isn't asked.
5. Test yourself by making up questions and answering them aloud or in writing.
6. Ask questions in class. Your classmates will thank you for it!
7. Use flash cards to study vocabulary whenever you've got a few minutes.
8. Study in a group; take turns explaining material to each other.
9. Ask questions as soon as something seems unclear.
10. Come to office hours any time you have a question or want help reviewing.
11. Don't wait until the last minute to ask for help.

### **IF YOU ARE EXPERIENCING DIFFICULTY:**

If you are having any difficulty -- whether it's with specific course content or with anything else I can help with -- please don't hesitate to let me know. And do so as soon as the problem arises -- telling me the week before the final that “I need help studying”, or asking me after the last midterm “what do I need to do to pass the class” is NOT a recipe for success! Remember also that you have access to a variety of student services on campus; I'm more than willing to help you locate those as necessary.

### **IF YOU HAVE ANY SPECIAL NEEDS:**

Please inform me as soon as possible of any special needs, especially for testing, you might have.

## CHANGES:

I reserve the right to make reasonable changes to the syllabus following timely notification of the students.

## CONFLICTS

If you feel you are having a conflict with me, you should let me know so that we may resolve it promptly. If you are not satisfied that I have resolved the problem appropriately, you may request that the issue be presented to the Department Chair for further arbitration. You are responsible for notifying me and/or requesting the Chair's assistance in a timely fashion.

## TENTATIVE SCHEDULE

Date	Lecture Topic	Ch.
1/13	An evolutionary approach to animal behavior	1
1/120	(no class on Monday) Proximate causes of behavior	2
1/27	Development of behavior - genes	3
2/3	Development of behavior - environment <b>**EXAM 1 Monday 2/10</b>	4
2/10	The control of behavior: neural mechanisms; The control of behavior: organizing mechanisms	5, 6
2/17	Historical analysis - communication	7
2/24	Adaptational analysis of behavior - communication	8
3/3	The comparative method - response to predators <b>**EXAM 2 Friday Thursday 3/6</b>	9
3/10	<b>Spring break - no classes</b>	
3/17	Optimality theory - foraging	10
3/24	Evolutionary stable strategies - where to live	11
3/31	The evolution of mating systems	13
4/7	Mating systems, continued	14
4/14	Sociality <b>**EXAM 3 Monday 4/14</b>	15
4/21	Evolution of human behavior	16
4/28	Last class	
<b>Final exam Friday 2 May 8:30 a.m.</b>		