

BIOL 545 Principles of Animal Communication Syllabus

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Dr. Michael Smith

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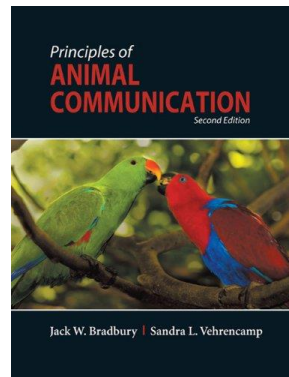
Office phone: 270-745-2405

Biology Dept. Office phone: 270-745-3696

Office Hours: Since this is an online class, I can be contacted via email (preferred) or phone, but you are welcome to set an appointment to come by my office as well if you are on campus.

E-mail: michael.smith1@wku.edu

Required textbook: Principles of Animal Communication, 2nd Edition, by Jack Bradbury and Sandra Vehrencamp, ISBN 0-87893-100-7



Course overview: This course examines how animals communicate one with another and why they do it the way they do. The types of communication signals (modalities) we will discuss include sound (acoustic), light (visual), chemicals (olfactory or gustatory), and electric fields (electroreception). We will then discuss how these signals are optimized and how they evolved. Even though we are not covering every chapter of our textbook, you will need to read about a chapter every two days to keep up with the material.

Course objectives:

This course fulfills 3 graduate hours of elective requirement towards a M.S. degree at WKU. Specific objectives of the course are to:

- Develop a conceptual framework for studying animal communication
- Gain an appreciation of the interdisciplinary and complex nature of studying animal communication
- Demonstrate knowledge of principles of animal communication, including theories and concepts that explain observations and make predictions

Learning outcomes:

Students who successfully complete this course will be able to:

- Describe all the communication modalities of animals
- Explain how characteristics of communication evolved

- Discuss the underlying physical mechanisms of signal propagation and reception
- Utilize sound analysis software to analyze acoustic signals
- Find resources in the primary literature to study animal communication
- Prepare a professional PowerPoint presentation.

Tentative Lecture/Exam Schedule:

Chapters:

Week 1: Signals and Sound

Ch. 1-3

Week 2: Visual and Chemical Signals

Ch. 4-5

Week 3: Short Range Modalities, Decisions and Signal Evolution

Ch. 6-8, 10

Midterm:

due Dec 29

Final Exam:

due Jan 14

Lectures: Since this is a Web-based course, there will not be any synchronous lectures *per se*. I will post PowerPoint lectures and lecture notes for each chapter on Blackboard under “Course Documents”. These notes should be used as an outline and guide for understanding the readings in the textbook.

Assignments: There will be four assignments for the course. Each will be worth 25 points. The description and due dates for each assignment can be found under the “Assignments” folder in Blackboard.

Presentation: Students will prepare a thorough 25 slide PowerPoint presentation on an approved animal communication topic. These presentations will be shared with the rest of the class (100 points). Final exam questions will come from these presentations.

Exam Format: Since this is a Web-based course, the exams will be an (you will be given 5 days to complete the test) “open-book” format that emphasizes problem solving and integration of the understanding of processes and concepts. Thus, most questions will be essay, short-answer, and problem solving. There will be one 150-point midterm and one 150-point final exam.

ACADEMIC MISCONDUCT: Dishonesty on exams, or written assignments (see WKU's plagiarism statement below) will result in a failing grade for the class. Cheating (completing an assignment for someone else, allowing someone else to copy your assignment, copying and pasting from internet sources or elsewhere when you have not been instructed that this is acceptable, etc.) on online assignments will be tracked by computer. Cheating will not be tolerated.

WKU'S PLAGIARISM DEFINITION: "To represent written work taken from another source as one's own is plagiarism. Plagiarism is a serious offense. The academic work of a student must be his/her own. One must give any author credit for source material borrowed from him/her. To lift content directly from a source without giving credit is a flagrant act. To present a borrowed passage without reference to the source after having changed a few words is also plagiarism."

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT:

Due to the Family Educational Rights and Privacy Act ([FERPA](#)), if you are 18 years old or older, I cannot discuss your grades, etc. with your parents.

GRADING: There will be a total of 500 points possible in this course, consisting of some variation of.....

- 100 pts. – Class assignments (4 X 25 points)
- 100 pts. – Student PowerPoint presentation
- 150 pts. – Midterm exam
- 150 pts. – Final exam
- **Total = 500 pts.**

Final course grades will be determined on the following percentage scale (to determine your final grade divide your total points achieved for the entire semester by 500, then multiple by 100 to get your percentage grade):

Grading Scale:		
90-100%	A	Outstanding
80-89%	B	Above average
70-79%	C	Average
60-69%	D	Below Average
Below 60%	F	Failing

WITHDRAWALS AND AUDITS: If you wish to audit or withdraw from the course you should do so by the dates mandated by the University. Be sure you are aware of these dates because credit for the course will not be changed to an audit after the university designated time. You also cannot drop the class or change to Audit or Withdraw after the designated time. Be aware that IT IS YOUR RESPONSIBILITY TO DROP THE CLASS. Do not assume that I will do this for you. University policy states, "Students who, without previous arrangement with the instructor or department, fail to attend the first two class meetings of a course meeting multiple times per week or the first meeting of a class that meets one time per week MAY be dropped from the course; however, students are responsible for officially dropping any course for which they have enrolled."

Ceasing to participate in the class does not activate the drop, withdrawal, or incomplete grade processes. You must submit the appropriate forms for each by the published deadlines to end your enrollment in this class. Failure to complete the appropriate forms may result in a failing grade for this course.

DISABILITY ACCOMODATIONS: "Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Student Accessibility Resource Center (SARC) (<https://www.wku.edu/sarc/>). Their telephone number is (270) 745-5004. Please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from SARC."

Note that if you require accommodations, you may be required to take exams at another location. You will need to make arrangements with me at the beginning of the semester to take your exams at a location, such as SARC, in order to receive your accommodations. If at any time during the semester you want to change your testing arrangements, you must see me at least 3 days prior to the upcoming exam date. If you need extra time on assignments, you must make arrangements with me PRIOR TO THE DUE DATE of the assignment.

NOTE: This syllabus is tentative and may need to be changed due to COVID-19 or other circumstances. Students would be informed ahead of time of any potential changes via email and Blackboard announcements.