EEB 426 – Plant-Animal Interactions (Spring 2017)
3 credit hours
M, W, F, 12:20-1:10 PM, 488 Dabney

Instructors:
Dr. Charles Kwit
ckwit@utk.edu, 865-974-9793
G51C McCord Hall (Ag Campus)
Office Hours: Thursdays 10:00 AM – 12:00 PM, or by appointment

Chelsea Miller
cmill107@vols.utk.edu
318 Hesler
Office Hours: Fridays 11:00-Noon, or by appointment

Course Description
Introduction to the evolutionary and ecological aspects of interactions between plants and animals, including herbivory, pollination, and seed dispersal. Emphasis is on historical development of the field, discussions of primary literature, design of experiments, and writing.

Student Learning Outcomes
Course
By the end of this course, students will:
- Demonstrate knowledge of the historical development of concepts and theories related to ecological interactions among plants and animals
- Explain current concepts of co-evolutionary interactions among plants and animals
- Apply ecological knowledge and concepts to current issues in conservation of biodiversity
- Develop scientific reading, writing, and information gathering skills, especially as they pertain to plant-animal interactions

Biology major
Students seeking a degree in Biological Sciences (whether the concentration is in Biochemistry, Cellular, and Molecular Biology, Ecology and Evolutionary Biology, or Microbiology) are expected to be able to do the following* by the time they graduate:

Explain and provide examples of each the five big ideas in Biology, using their knowledge of biological concepts gained from their course of study:
- **Evolution**: Populations of organisms and their cellular components have changed over time through both selective and non-selective evolutionary processes.

- **Structure and Function**: All living systems (organisms, ecosystems, etc.) are made of structural components whose arrangement determines the function of the systems.
- **Information Flow and Storage**: Information (DNA, for example) and signals are used and exchanged within and among organisms to direct their functioning.
- **Transformations of Energy and Matter**: All living things acquire, use, and release and cycle matter and energy for cellular / organismal functioning.
- **Systems**: Living systems are interconnected, and they interact and influence each other on multiple levels.

  These biological concepts are more fully explained in the AAAS / NSF report "Vision and Change in Undergraduate Biology Education" (visionandchange.org)

Demonstrate the ability to perform the following scientific practices:
- Formulate empirically-testable hypotheses
- Interpret visual representations (figures and diagrams)
- Evaluate data and come to a conclusion (with evidence) (formulate an argument)

*** Student ability to achieve these learning objectives will be tested periodically as part of their departmental requirements.**

Technology: While in class, keep all electronic devices (especially smartphones) out of sight. The use of laptops in class will be discussed the first week of class. **During exams and quizzes, any electronic device seen on your desk or within sight will result in a grade of zero**.

Support for learning

REQUIRED Texts and Materials: Provided by instructors via Blackboard or through the UT Libraries website.

Herrera, C.M., and O. Pellmyr (Eds.). 2002. Plant-animal interactions: an evolutionary approach. Wiley-Blackwell. (e-book available for free via UTK Library's website)

Blackboard site: Go to "Online@UT" to login to Blackboard. The lecture site will be used regularly for communication and posting lecture syllabus, extra readings, assignments, course grades, etc.

Communications:
- You need to regularly check your utk e-mail account for weekly announcements related to this course. If you are not receiving those e-mails, there is something wrong with your account!

- If you need to meet and can't make office hours, please use your UTK e-mail (spam filters may exclude other addresses) to schedule a meeting.
- I am happy to answer your e-mail questions, but allow up to 24 hours for a response. Also, once I leave the office I may not check my e-mail until the following workday, or the first day back after a weekend.

Student Assessment

Students will earn points through a variety of assessments:

5 points for each meeting (38 [of 40] x 5 pts):	190
5 50-pt exams:	250
12 Weekly group-led (2 students) presentations/quizzes*	150
Mini-review proposals and reports**	200
Just to be nice	10
Total	800

*Student leaders will pose 1 5-pt quiz question; the instructors will pose an additional 5-pt quiz question. This tallies to 110 pts. The additional 40 pts will be affiliated with lead-students' ability to facilitate a short discussion on the doled out/presented material.

**Half of the points will be associated with your own written work for your own report. The other half will be affiliated with reviews of other students' materials

Exams / Quiz / Assignment Policies:

- NO make-up for in-class assignments will be given.
  - Written assignments turned in after the due date will lose 25% of the points per 24 hours after the deadline.
- NO make-up exams or quizzes will be given without a valid excuse (e.g., family emergency, medical emergency, etc). The excuse MUST be documented.
  - **VERY IMPORTANT**: If you are going to miss an exam, you MUST contact me prior to the start of the exam. Send me an e-mail, call, leave a note on my door – whatever – and make sure you include your e-mail AND a phone number where I can contact you.
  - Make-up exams may be short answer, fill-in-the-blank, or essay and will be scheduled at the instructor's convenience and by their permission only.
- NO make-up for student-led presentations will be given.
- All work should be done independently (unless group work is permitted, and then you may ONLY work within your group on the assignment); plagiarism software will be used to check written assignments for copying from classmates or other sources. **Plagiarism will result in stiff penalties – please see section below.**

Final letter grades will be determined by the total percentage of 800 possible points accumulated as follows:

A	93 – 100%	C	73 – 76%
A-	90 – 92%	C-	70 – 72%
B+	87 – 89%	D+	67 – 69%
B	83 – 86%	D	63 – 66%
B-	80 – 82%	D-	60 – 62%
C+	77 – 79%	F	<60%

Extra Credit?
There is no extra credit in this course.

Tentative Schedule

Pollination
- 1/11
- 1/13 NHF-trial run

- 1/16 MLK HOLIDAY
- 1/18
- 1/20 NHF1 (Yang, Kingsley)

- 1/23
- 1/25
- 1/27 NHF2 (Powers, Gifford)

- 1/30 EXAM 1

Herbivory
- 2/1
- 2/3 NHF3 (Louangaphay, Lockyer)

- 2/6
- 2/8
- 2/10 NHF4 (Meek, Brandt)

Granivory
- 2/13
- 2/15
- 2/17 NHF5 (Williams, LeBreux)

- 2/20 EXAM 2

Seed dispersal
- 2/22
- 2/24 NHF6 (Moreno, Duckett)

- 2/27

3/1
3/3 NHF7 (Overdorf, Scalf)

3/6
3/8 EXAM 3
Plant-Microbial interactions (plant pathogens, endophytes, mycorrhizae)
3/10

3/13-3/17 SPRING BREAK

3/20
3/22
3/24 NHF8 (Lawhorn, Neild)

Carnivory
3/27
3/29 NHF9 (Crone, Dodd)
3/31 *

4/3
4/5
4/7 NHF10 (Clevenger, Miller)

4/10 EXAM 4
Myrmecophily and other >2 party systems
4/12
4/14 SPRING RECESS

4/17
4/19
4/21 NHF11 (Haga, Dorris)

4/24
4/26
4/28 NHF12 (Snyder, Ibraheem)

Final Exam (Take-home): due on or before 5/8, 2:30 PM (as per Registrar final exam time)

Academic integrity:
Academic dishonesty of any sort will not be tolerated. Plagiarism includes the copying of phrases, portions of sentences or the main ideas from ANYONE (including a classmate) on ANY work submitted for a grade (exams, assignments, quizzes, etc). Academic dishonesty also includes assisting other students on quizzes or exams.

You are expected to abide by The University of Tennessee honor statement in Biology and in all of your university activities as pledged in the honor code:

"An essential feature of the University of Tennessee, Knoxville, is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity."

(*2014-2015 Undergraduate Catalog*)

Depending on the offence, penalties for academic dishonesty range from a minimum of a zero for the assignment, to an F for the course, to the filing of formal academic dishonesty charges seeking dismissal from The University of Tennessee. These choices are at the discretion of the instructor, and can occur in either the lecture or the discussion portion of the class.

You should be familiar with the requisites of academic honesty and what constitutes academic dishonesty as outlined in the UT Undergraduate Catalog (http://catalog.utk.edu/).

Other information

Disability Services: If you need course adaptations or accommodations because of a documented disability, please contact me privately to discuss your needs. If you have questions or concerns about disabilities or emergency information to share, please contact Disability Services: 2227 Dunford Hall; 974-6807; Email: ods@utk.edu; Website: http://ods.utk.edu/).

Academic Assistance:

Tutoring: The Division of Biology does not offer tutoring services. Contact the Student Success Center and the Academic Support Unit of The Office of Minority Student Affairs for information about tutoring opportunities.

- **Student Success Center:** The comprehensive source for information, services, and resources to assist your success at UT: http://studentsuccess.utk.edu
    - 812 Volunteer Boulevard, Greve Hall, room 324
    - 865 974-6641, Email: studentsuccess@utk.edu

Technical Assistance:

Blackboard or general information technology assistance:

- Help Desk: 865 974 9900 (M – F, 8:00 – 5:00)
- OIT Walk-In Help Desk: Commons, 2nd floor Hodges Library

Counseling Center: http://counselingcenter.utk.edu/

1800 Volunteer Boulevard
865 974-2196, Email: counselingcenter@utk.edu

OTHER RESOURCES FOR STUDENTS:

- One Stop: http://onestop.utk.edu (start here for any question you have)
- Undergraduate Catalogs: http://catalog.utk.edu (Listing of academic programs, courses, and policies)
- Hilltopics: http://dos.utk.edu/hilltopics (Campus and academic policies, procedures and standards of conduct)
- Course Timetable: https://bannerssb.utk.edu/kbanpr/bwckschd.p_disp_dyn_sched (Schedule of classes)
- Academic Planning: http://www.utk.edu/advising (Advising resources, course requirements, and major guides)
- Library: http://www.lib.utk.edu (Access to library resources, databases, course reserves, and services)
- Career Services: http://career.utk.edu (Career counseling and resources; HIRE-A-VOL job search system)
- Student Success Center: http://studentsuccess.utk.edu

Important Dates

January 20 - Last Day to Final Register, Add, Change Grading Options or Drop without a "W"

January 24 - Last Day to Adjust Hours for Financial Aid Awarding

April 4 - Last Day to Drop with a “W”

April 28 - Total Withdrawal from the University Deadline