Carrion Ecology & Evolution
WIS ####
Spring 2018

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Required Text: Carrion Ecology, Evolution and their applications, Edited by M. Eric Benbow, Jeffery K. Tomberlin and Aaron M. Tarone

Course Overview
Carrion Ecology and Evolution includes a range of organisms including molecular, bacterial, fungal, invertebrate, and vertebrate communities. Intra & interspecific interactions related to population biology, community ecology, & processes that manifest into habitats and ecosystems will be addressed. A multidisciplinary view of organisms will provide the basis for understanding decomposition.

Course Objectives:
At the successful completion of this course, students should be able to

1. Explain the processes and mechanisms of death of vertebrate carrion.
2. Define carrion ecology and evolution and explain where these areas of biology fit into the biological hierarchy, and within spatial and temporal scales.
3. Identify and discuss ecological mechanisms of carrion decomposition within various habitats.
4. Explain the evolutionary ecology of carrion decomposition in terms of population and microbial genetics.
5. Design and analyze a field study in carrion ecology.
6. List and explain the types of interactions between and among species and the ecological and evolutionary effects of these interactions on carrion decomposition.
7. Outline the different terrestrial, aquatic and interkingdom ecological interactions of carrion decomposition and provide examples of the species involved in these interactions.
8. Articulate the applications of carrion decomposition from management and conservation perspectives but also from a forensic viewpoint.
9. Explain the frontiers to carrion ecology and evolution and where the field will be in the future.
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| Section III | Ch. 16: Carrion and Dung Mimicry in Plants  
|            | Ch. 19: Microbiome Studies of Carrion Decomposition  
|            | Ch. 20: Interkingdom Ecological Interactions of Carrion Decomposition  
|            | **Discussion Questions**  
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| Section III | Ch. 21: Ecology of African Carrion  
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| Section IV: Applications of Carrion Decomposition | Ch. 22: Carrion Communities as Indicators of Fisheries, Wildlife Management and Conservation  
|            | Ch. 23: Composting as a Method for Carrion Disposal in Livestock Production.  
|            | **Discussion Questions**  
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| Section IV | Human and Wildlife Decomposition and Forensics  
|            | **Outside Reading: Huffman/Wallace Chapter**  
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| Course Wrap-up & FINAL EXAM Week of: | **Field Study Assignment Due**  
|            | Final Exam |

**Getting Started:**
To get started, briefly introduce yourself via the discussion board located in the left-hand menu on the homepage of the course. Once you have responded to the Introduction you will then go to the first module. Read through the course content and any required reading listed in the module introduction. Do not hesitate to contact your instructor at any time if you need guidance; if you are unsure about the focus of the assignment; if you have assignment questions or questions relating to the course content. If you don't tell us you need help, we can't help you!

**Revision and Notes:**
As you go through the semester, keep copies of important emails, bulletins and assignments you may use for revision as these will be purged from the course at the end of the semester. We recommend you make a copy of the course modules since this will be the only access you will get to these materials. We will not be able to provide you with copies of course content once the course is removed from your account.

**Course Assignments:**
This class consists of a large amount of material. You will not be required to remember everything, it is only an introductory course, but many topics will be introduced. Each week there will be either discussion questions or a short project assigned emphasizing what I feel are the most important aspects of that week's lessons. Please participate in the online
discussions/projects as I may provide extra credit for exemplary participation to students needing additional points.

Two examinations, a midterm and a final, will be multiple choice and open-book and the use of the assigned module readings, lecture notes, and the module lectures (which will remain accessible until after the last examination) is permitted. There will also be four quizzes given throughout the semester, which are also “open-note”. Your grade will consist of the discussion questions, quizzes, midterm, and final.

**Assignment Deadlines:**
Please review the information regarding the policy for missed deadlines in the section on Instructional Policies. In some courses content modules may be released before the scheduled calendar date to help those who need to work ahead because of work commitments, court appearances, and work related travel. If a module is released ahead of time, the deadline for the assignment and exam will remain the same as it is on the course calendar.

**Communication:**
Course Email, not the discussion board, should always be used contact the faculty or staff if you have a problem of a personal nature. If you are having technical problems with the course content (downloads, etc) or you are unable to access your course interface, please contact us directly, and please don’t spend hours trying to get something to work as this will only lead to frustration. We don't want any of you to be offline for any length of time. Contact us as soon as you can so we can check it out and help you. If you are experiencing difficulty with your access to course email then please email your course instructor directly via regular email. In that email, make sure you give your name and the name of your course. Please respond to all emails from your instructor or TA. When we email you we are usually contacting you because we want to help you. If you have a question about your grade, an exam, or assignment question, please email us and we’ll be happy to help you.

**Bulletin Board:**
The course bulletin board can be used to post content related questions and assignment materials when necessary. Please ask me questions any time; I am here to help you. Please do not use the community forum to ask specific questions about your current course content, assignments etc. It's VERY important that you read all the discussion bulletins that have been posted. I will use this site to post important information relating to content or exam changes, deadlines etc. Since postings can accumulate quickly, please login each day to stay on top of these postings or you may miss important information. Please make sure you don’t post assignments that are supposed to be submitted to the assignment drop box. If you accidentally do, email me as soon as you can and I’ll delete it for you.

**Campus Helping Resources:**
Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university’s counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled
students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- **University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575**
  - www.counseling.ufl.edu/cwc/
  - Counseling Services
  - Groups and Workshops
  - Outreach and Consultation
  - Self-Help Library
  - Wellness Coaching
- **U Matter We Care**, www.umatter.ufl.edu/
- **Career Resource Center, First Floor JWRU, 392-1601**, www.crc.ufl.edu/

**Student Complaints:**
- Residential Course: [https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf)
- Online Course: [http://www.distance.ufl.edu/student-complaint-process](http://www.distance.ufl.edu/student-complaint-process)

**Software Use:** All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

**Grading:**

**Quizzes:** There will be 9 quizzes throughout the semester. Each quiz is worth 15 points and will consist of multiple choice questions pertaining to the previous three chapters. Five questions will be addressed per chapter. Quiz grade = 135 points.

**Exams:** There will be two exams, a midterm and a final. The exams will each consist of 20 multiple choice questions worth 2 points each and a short essay worth 10 points for a total of 50 points per exam. The Instructor will email the exams to the students directly. The students will have one week (until the following Wednesday) to answer the exam and email their answer sheet back to the Instructor. The exams will be open book and the students may use the readings and their notes from the lectures. The Instructor will grade the exams and email the results to the individual students. Exams are worth a total of 100 points. There will be no curve.

**Participation:** Students are expected to participate in all bulletin board discussions. Participation is worth 50 points. Failure to participate in any one bulletin board discussion will result in a 25% deduction from the participation grade for each failure to participate. Being present or signed onto discussion is not enough.

**Book Critique:** (Please note, that is before the student takes the midterm exam) At the beginning of the course, each student will have read, Bernd Heinrich’s Life Everlasting. Each student should have participated in the bulletin board discussion regarding the book. Each student is also expected to submit before the Midterm exam * Please note, that is before the
student takes the midterm exam a one page critique of Life Everlasting. The critique should include responses to the following questions:

1) Which aspects of the book were new to you and why?
2) Which aspects of the book should have been more developed and why?
3) If Bernd Heinrich were to write a sequel, what should it be titled and why and would be the focus of the book?

Field Study Design: Each participant will be asked to design a research study proposal on any topic covered or not covered in the textbook. The students will be expected to develop a hypothesis driven study based on an experimental question of interest. This paper will consist of 5 pages that will be given at the end of Section I and due the last week of class, worth 50 points.

Point Assignments:
Quizzes = 135 points total (39% of total)
Exams = 100 points total (50 points/exam) (29% of total)
Participation = 50 points (14% of total)
Book Critique = 15 points (4% of total)
Field Study Design = 50 points (14% of total)

Total for the Course: 350 points

Any score that is 0.5 or higher will be rounded up to the next whole number, e.g., 89.5 = 90%

Grades will be assigned as follows:
100-93%  A
92-90%  A-
89-87%  B+
86-83%  B
82-80%  B-
79-77%  C+
76-73%  C
72-70%  C-
69-67%  D+
66-63%  D
62-60%  D-
<60% and below = E

Makeup Policy:
Make up assignments are not usually given, but may be at the discretion of the course instructor after evaluation of the circumstances leading to the request. Make up exams will be typically 3-5 essay questions.
Additional information regarding make-ups can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx
**Grade Changes:**
Grades will be changed only when a grading error has been made. If you think an error has been made, you should email the instructor as soon as possible. Your entire assignment will then be re-graded.

**Additional information on the University of Florida Grades and Grading Policies may be found at:** [https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx](https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx)

**Instructional Policy:**
This course is part of the distance education program at the University of Florida. Instead of traditional lecture format, the medium for communication between course instructors, teaching assistants and students will be via WebCT VISTA, a user friendly Web-based classroom management tool, and the World Wide Web.

**Attendance:** Students must participate in the bulletin board discussions, and are required to visit the course website daily for important updates and bulletins. Additional information regarding attendance/absences can be found at: [https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx](https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx)

**Class Participation:** Students are expected to constructively join in bulletin board discussions with appropriate preparation, to post interesting and relevant information on the class bulletin board, and to interact professionally with their classmates.

**Performance Expectations:** Students are expected to produce quality work of a standard comparable to any graduate level didactic course. Bulletin postings and discussions must be legible, constructive and appropriate. Students are required to think for themselves and will be expected to complete assignments that require the application of logic and reasoning skills when the answer may not be found in a book or the course notes.

**Academic Honesty:** As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary
action. For more information regarding the Student Honor Code, please see: 

**Plagiarism:** Plagiarism includes any attempt to take credit for another person’s work. This includes quoting directly from a book or web site, without crediting the source. Sources should always be referenced, a link to the website added, or quotation marks placed around the material. However, we expect more than simply cutting and pasting in this graduate level course. Students are expected to review, evaluate and comment on material they research, rather than simply copying relevant material. Your work will be graded accordingly.

**Assignments:** While we understand that our students have other work and personal commitments, we expect every effort to be made to meet these deadlines. If for some reason, because of circumstances beyond your control, you are unable to meet an assignment deadline, students should e-mail the professor and explain the situation in advance. Being consistently late in submitting assignments disrupts the discussion of topics on the bulletin board and will therefore result in loss of marks for that assignment up to a full letter grade. If you email us we will work with you around the deadline. If you have outstanding assignments at the end of the semester we will send you a follow up email as a reminder and as a means to determine your plans for completion. If you do not respond to us before the final day of classes you will be assigned a grade based on the completed assignments.

**Incomplete grades:** Under special circumstances, if a student is unable to finish a course before the end of the semester we may be able to assign an incomplete grade. An incomplete grade is a non punitive grade assigned at the discretion of the course instructor. In this course an incomplete grade may be assigned if 1/3rd or more of the course assignments have been completed and if the student has remained in communication with TA’s and instructors throughout the course, or has made an effort to request an incomplete grade. If an incomplete grade is assigned, outstanding assignments must be completed by the end of the next semester. If the assignments are not completed in this time you will be assigned a grade based on the completed assignments.

**Online Course Evaluation Process:** Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results.

**Drop Dates:** consult the UF Calendar of Critical Dates at http://www.forensicscience.ufl.edu/Students/Dates.asp
Students must inform us that they are withdrawing from a course to ensure appropriate tuition reimbursement. Deleting yourself from the course roster does not officially withdraw you from a course.

**Important Dates:**
For Assignment deadlines - see the course Calendar in WebCT.
For other important dates, consult the UF Calendar of Critical Dates and [http://www.registrar.ufl.edu/](http://www.registrar.ufl.edu/)

**Services for Students with Disabilities:**
The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

0001 Reid Hall, 352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)