Instructor: Dr. Lynn B. Martin
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Office: SCA 130
Office hours: Tuesdays 3:30-4:30

Course objectives:
The majority of our understanding of animal immune systems comes from molecular and cellular research on animals in unnatural, controlled laboratory conditions. The goal of this class is to highlight discoveries in the field of ecological immunology. This discipline merges evolutionary ecology and classic immunology to understand how organisms resist or endure diseases, wounds and cancer in their natural environments.

Text:
Required:
2) Ecoimmunology readings booklet (available from ProCopy)

Recommended:
Murphy, Travers and Wolport, Immunobiology, 7th Edition, Garland,

Grading:
Grant proposal 100 points
Literature critiques (4) 50 points each
Class presentation 100 points
Class participation 50 points
Final exam 100 points
Total 500 points

Grading scale: (No plusses/minus)
A – 90 and above; B – 89-80; C – 80-79; D – 69-60; F – 59 and below
No extra credit will be given and grades will not be curved.

Attendance: USF policy mandates that you attend the first class or be dropped from the roster. Other class attendance is at your discretion; however, tardiness will not be accepted. You will not be allowed to attend a class if you arrive >5 minutes late.

NOTE: Last day to drop course with grade of “W” is October 30, 2010.
Research proposal

Topic due: September 30, 2010
Draft due to peers: November 9, 2010
Round table discussion of drafts: November 18, 2010
Final proposal due: November 30, 2010

One of the most important activities you will conduct as a scientist will be grant writing. For this reason, you will conceive and write a short proposal to test an ecoimmunological hypothesis based on class readings and discussion. Your proposal should follow the guidelines of the AOU Student Research Awards, but it need NOT be on birds: http://www.aou.org/awards/research/. Pay particular attention to the “Application Format” section, but do not submit a budget or CV.

By September 30, you should have formalized your hypothesis so that your reading is directed. This means that you should start reading now. Also, by September 29, you should decide whether you intend to compete for a slot to join my research group. In brief, you will have the opportunity to test your hypothesis, or a variant of it, if a) your proposal entails immune function in house sparrows, ii) you qualify for and can commit to 3h research credit in my lab in Spring 2011, and iii) you earn an A or B in the present class. Please see me as soon as you decide to partake in this opportunity.

References: On the first day of class, you will receive help with literature searches, which will be integral to a good proposal as you must use references from primary literature, not Wikipedia or the like. If need be, please ask librarians for additional help, but do so well in advance of deadlines! You should also choose your literature reviews to cover papers important to your proposal.

When you cite a reference, use the formats below. The final paper should include at least 10 references. The bibliography is NOT included in the page limit.


Literature critiques (due date: various)

Four times during the semester, you will turn in a one paragraph summary of a paper in ecological immunology that you read. The topic is up to you, but you should consider selecting papers that you will use in the proposal. Each critique should identify the hypothesis or study intention, explain the main result, identify any shortcomings, and place the discovery in the broad ecoimmunological context. You MUST limit your text to ½ page of text, Arial 10, single-spacing, 1” margins. You must identify the paper using the citation format for references in the review paper above and submit them to me by email before class on the day they are due. You will be evaluated on how concisely and accurately you summarize the paper.
**Student presentations**  
*(due date: various)*

On Thursdays later in the semester, groups of 2-3 students will lead a discussion of 1-2 papers from the primary literature relevant to the lecture topic the prior Tuesday. You must choose papers and have them approved and submitted electronically to me 2 weeks prior to presentation.

**Steps:**
1. Choose a date/topic by **August 31**
2. Choose 1-2 papers that cover your topic, have them approved by me, and send me an electronic copy.
3. Give your presentation
   - 1/3 class: review the paper in PowerPoint format
   - 2/3 class: generate discussion of the paper and related topics

You will be evaluated on the quality of the presentation (2/3) and the discussion you lead thereafter (1/3). All individuals in your group will receive the same grade, so it will be your responsibility to ensure that your peers carry their share of the workload (please consult with me well in advance if this becomes an issue). Under no circumstances will an absence on the day of your presentation be excused; you will receive a ‘0’ if you miss it. Once your date is selected, it cannot be changed. A rubric will be provided to you before the first presentation so you can see in detail what will be evaluated.

**Student participation**  
*(due date: various)*

Participation in discussions will be integral to learning in the class (1/10 of your grade). For this reason, you will be awarded points based on your involvement in discussions. Points will be earned as you ask questions about the presented material, make suggestions about future directions, and critique ideas in the literature or those of your peers or me. Scores will be posted on BlackBoard soon after each discussion, but points will not be negotiable. Note that you will be evaluated on the quality and quantity of your contributions. If you have concerns about your points, discuss this with me early. This activity has the potential to help or hurt your grade depending on your effort.

**Final exam**  
*(due date: December 9)*

Your final exam will be cover material from the entire class and will include multiple choice, fill-in-the-blank, short answer, essay and other question types. In particular, interpretation of figures and tables from the primary literature will be important, many of which you will not have seen previously. The exam will be given to you on the last day of class (Dec. 2), and you will have until December 9th to submit to SafeAssign. I will post grades and exams on BlackBoard once graded.
Other important notes:
1. Students who anticipate missing class due to a religious observance must submit notification in writing by the third class. Other absences are not excusable and NO LATE ASSIGNMENTS WILL BE ACCEPTED.

2. The content of the course is the sole property of the instructor and may not be reproduced or distributed in any form for sale.

3. Assignment due dates and lecture content are subject to change, so your attendance is critical. Be prepared to take notes yourself, instead of relying on my PowerPoints.

4. S-U grades must be negotiated in writing within the first three weeks of the term.

5. An “I” grade indicates incomplete course work and may only be awarded when only a small portion of coursework is incomplete and when the student otherwise has a passing grade. A Biology department “Incomplete Grade Contract” must be completed before the “I” grade is given.

6. No cell phones, PDAs, or other electronic devices except laptop computers are allowed in the classroom. Any use of these devices or abuse of computers is grounds for dismissal from the class that day; second offenses will result in permanent dismissal.

7. Disruption of academic process is an act by a student in a classroom or teaching environment which in the reasonable estimation of a faculty member: i) distracts attention from the academic material (e.g., persistent, disrespectful or abusive disruptions), or ii: presents danger to the health, safety or well-being of class participants. These acts will not be tolerated.

8. Uncollected assignments will not be retained longer than 90 days from the due date. Grades cannot be disputed beyond 90 days from their assignment.

9. Academic dishonesty will not be tolerated and you will be held to all academic policies and standards of the USF. Any form of cheating is academic dishonesty. ‘Cheating’ is defined by the University as (1) unauthorized granting or receiving of aid during the prescribed period of a course-graded exercise (students may not consult written materials such as notes or books, may not look at the paper of another student, nor consult orally with any other student taking the same test); (2) a student’s asking another person to take an examination for or in place of him/her; (3) taking an examination for or in place of another student; (4) stealing visual concepts, such as drawings, sketches, diagrams, musical programs and scores, graphs, maps, etc., and presenting them as one’s own; (5) stealing, borrowing, buying, or disseminating tests, answer keys, other examination materials, research papers, creative papers, speeches, other graded assignments, text or phrases from websites, etc., except as officially authorized; (6) stealing or copying of computer programs and presenting them as one’s own. Engaging in plagiarism is academic dishonesty, even though a student may plagiarize without any intent to be dishonest. ‘Plagiarism’ is defined by the University as literary theft, consisting of the unattributed quotation of the exact words of a published text, or the unattributed borrowing of original ideas by paraphrase from a published text. Plagiarism detection software (e.g., SafeAssign) may be used on your assignments.
10. No make-ups or extensions will be made without a valid excuse. If you believe you are entitled to an extension, you must make your case within 2 days of the assignment due date. Otherwise, you will earn a "0" for that assignment. Valid excuses include medical emergencies (individual or immediate family only), legal (accident or court case; individual only), or funerary (immediate family only). Reasons for requesting a make-up must relate specifically to the time period of the missed coursework. Reasons for requesting a make-up must be documented in writing by an involved professional. The instructor retains the right to make additional inquiries concerning the documentation. The instructor retains the right to give a make-up that is different in exact content and/or style than the missed coursework. A staff member is not permitted to administer a make-up. Chronic attendance problems for reasons beyond a student’s control may warrant withdrawal from the course. You should see the Undergraduate Program Assistant for information concerning late withdrawals and refund of fees.

11. In the event of an emergency, it may be necessary for USF to suspend normal operations. During this time, USF may opt to continue delivery of instruction through methods that include but are not limited to: Blackboard, Elluminate, Skype, and email messaging and/or an alternate schedule. It’s the responsibility of the student to monitor Blackboard site for each class for course specific communication, and the main USF, College, and department websites, emails, and MoBull messages for important general information.