This handout contains:
1. The course syllabus
2. The study information sheet for the research study associated with Bio 9G
3. The lecture outline for Lecture 1

Please print at least the lecture outline for Tuesday’s class.

The Course Syllabus

Instructor Information
Dr. Adrienne Williams
Lecturer, Ecology and Evolutionary Biology
1202 NatSci 1
Office Hours: Tuesday 12-1pm and by appointment
adrienne.williams@uci.edu

TA and Discussion Leader:
Eric Britt
eebrit@uci.edu
Graduate student, Ecology and Evolutionary Biology
Discussions Tuesday 11am and Wednesday 9am in HSLH 200

Course Goals:
1. To understand the mechanisms of several human physiological systems
2. To see the relevance of physiology in "real life"
3. To learn techniques to study any new material

Course Requirements:
1. You must participate during lecture. This requires you to be on time and prepared with your clicker, note cards, and any note-taking printouts. You must also be willing to participate in small group activities or demonstrations as led by the instructor.

2. You should not be a distraction in lecture. Please do not talk, eat, come late or leave early. You may not use any device for texting, email, videos, games, music or any other media that is not directly relevant to the current lecture material. Devices used inappropriately may be confiscated, you may be asked to leave, or you may not be given credit for the day's assignment if you make it difficult for the other students or the instructor to fully participate in the class. Lectures may be audiotaped for personal use only. Videotaping by students is not permitted.

3. This course will abide by UCI's Academic Honesty policy, which does not allow cheating, dishonest conduct, plagiarism, or collusion. Please see the UCI Academic Senate definitions of these terms: http://www.senate.uci.edu/senateweb/9_IrvineManual/3ASMAppendices/Appendix08.html. Academic dishonesty can result in a failing grade for the course, and a letter can be placed in your academic file. It is up to you to understand the definitions of academic dishonesty. Even unintentional infractions will result in a zero grade for an assignment.

4. You must have internet access and a printer at home. You are expected to daily check your UCI email and have access to the UCI EEE web pages. You will often have handouts to print and bring to class.
Grading:

There will be clicker participation, class card participation, midterms, a comprehensive final exam, and an "out-of-class activity" in this course. These will be weighted as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clicker participation</td>
<td>10</td>
</tr>
<tr>
<td>Class cards</td>
<td>20</td>
</tr>
<tr>
<td>Out-of-class Activity</td>
<td>20</td>
</tr>
<tr>
<td>Midterm 1</td>
<td>40</td>
</tr>
<tr>
<td>Midterm 2</td>
<td>40</td>
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<tr>
<td>Final exam</td>
<td>70</td>
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</tbody>
</table>

Total 200 points

Clicker Participation: In order to receive the clicker points, you must register your clicker here and use it at least 10 times during the quarter. It is YOUR responsibility to get your clicker to work. Ask for help if you need it. If you use the clicker less than 10 times or never register it, you get 0 points for clicker participation. You are welcome to borrow a friend's clicker for the entire quarter, but you must register it to yourself. You may NOT click in for someone else, or ask someone else to click in for you. If you are spotted with two clickers, both will be taken from you and not returned, and you and the other clicker owner will lose 10 points from the course. See academic dishonesty, above.

Class Cards: The class cards will usually be turned in on 3x5 index cards, so you must keep a few with you each day. Obviously, the answers I ask for will be really short! In order to receive full credit, you must turn in thoughtful, original, legible work 70% of the times I give an assignment. Cards turned in with poor effort or seriously wrong answers will not receive credit.

- >70% of class cards = 20 points
- 40-69% = 10 points
- below 40% = 0 points

A card turned in after the time of collection will not be accepted. You may NOT fill out and turn in a card for someone else, or ask someone else to fill out a card for you. See academic dishonesty, above.

Out-of-Class Activities (choose one)
You will be able to earn 20 points outside of class for processing and thinking about the material. You have four options to gain these points:

1. Regular Discussion: If you are most interested in learning the concepts, you may attend the weekly discussions held by the course TA, Eric Britt. These are offered on Tuesday at 11am and Wednesday at 9am in HSLH 200. If you PARTICIPATE in discussion at least 7 weeks during the quarter (working in groups, working at the board, answering questions, etc), then you will earn 20 points.

2. Demonstration Discussion: Are you a three-dimensional thinker? Or do you like to work with computers? We have room for 15 students to take a special discussion on Wednesday at 12 noon in 1202 NatSci I. You will be working with a BioSci Peer Tutor (Thomas Kemmerly) and you will be able to build physical or computer models of the things we are learning about in lecture. Physical models can be built out of PVC pipe, plastic connector toys, beads and string, cardboard, or whatever else you can find. Computer models will be built with Powerpoint, animated with motion paths, and recorded as movies with Camtasia. We will help you figure out the biology! The first 15 students who contact Thomas at tkemmerly@uci.edu will be given a spot in the discussion. Participation for 7 weeks will provide you with 20 points.

3. Class Blog and Wiki: I will have a class blog (http://bio9g.blogspot.com/) where I post interesting articles or links about physiology and health. You can choose to comment on any of the posts. If you provide at least one comment a week for seven weeks, you will earn 20 points. Multiple comments in one week do not count, but you are welcome to post whenever you want if you have something to say. The
comments must be thoughtful and include your interpretation of the material, plus your own link to related information. We will also be setting up a class wiki (a web page anyone can edit). You can post useful information there as well to meet your 7 weeks of comments.

4. Online Quizzes: If the discussions or blog don't appeal to you, you can take online quizzes the night before each lecture. They will be fully multiple choice and will cover material from the previous lecture. The quizzes are provided through EEE, and you need an internet connection to take them. Once you begin a quiz, you will have a limited amount of time to complete it. You must get at least half the questions correct to get credit for the quiz, and you must complete at least one quiz for 7 weeks to get the full 20 points. You must take the quiz BY YOURSELF. Having someone else take the quiz for you or with you is academically dishonest, see above.

Points for out-of-class activities

<table>
<thead>
<tr>
<th>Participation</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 or more weeks</td>
<td>20</td>
</tr>
<tr>
<td>5-6 weeks participation</td>
<td>10</td>
</tr>
<tr>
<td>less than 5 weeks</td>
<td>0</td>
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</table>

A final comment - all students may participate in all of the activities above (except the demo discussion, which has a size limit). But you need to tell us which one you are doing for credit.

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**Exams**

The midterm exams will be multiple choice and will cover only the lecture material before each exam. The final exam will be comprehensive and multiple choice.

I reserve the right to adjust the scores of the exams up if the mean and highest scores are too low.

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**Final Grades**

Final grades will be awarded based upon a **straight scale** as shown here:

Grading:  
A+ ≥ 96.5 > A ≥ 93.5 > A- ≥ 90 B+ ≥ 86.5 > B ≥ 83.5 > B- ≥ 80 C+ ≥ 76.5 > C ≥ 73.5 > C- ≥ 70 > D ≥ 60 > F

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**Adding and Dropping**

All adds and drops shall be done through WebReg. I will not sign any add, drop or P/NP cards. If you add after the first day of class, you cannot make up any missed participation work.

**You must drop by the end of Week 2** if you intend to drop at all. Students who decide they do not want to take the course but fail to drop it will receive an F, even if they do not take any exams or otherwise participate.

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**Making up Missed Work:**

You may not make up any participation work. If you lose your clicker, you will need to replace it, re-register it, and inform me that you have done so. You don't need to click in every day or turn in every assignment to receive full credit, so that should cover any sickness or emergency.

The ONLY reasons for which a make-up midterm or final exam will be considered are a personal medical emergency (a doctor's note clearly outlining the your situation, along with your name and the date of the emergency will be required for verification) or a death in the immediate family (a note from the funeral home or doctor will be required). If your emergency prevents you from taking a makeup within 48 hours of the exam, you will receive an incomplete in the course.

Make-up exams will NOT be considered for a minor illness, religious holiday, car breakdown, family emergency, major freeway snarl or other occurrences of daily life. If you miss an exam for any reason that does not qualify for a make-up, you will get a zero on that exam.
University of California, Irvine  
Study Information Sheet

*Bio 9G: Effect of Enrichment, Assessment, and Study Activities on Student Attitude and Success*

**RESEARCH TEAM**  
**Lead Researcher:**  
Dr. Adrienne Williams, Lecturer, Research Specialist  
Department of Ecology and Evolutionary Biology  
Department of Developmental and Cell Biology  
adrienne.williams@uci.edu  
(949) 824-0586

**Other Researchers:**  
Dr. Diane O’Dowd, Professor  
Department of Developmental and Cell Biology  
dkodowd@uci.edu  
(949) 824-4562

Eric Britt, Graduate Student  
Department of Ecology and Evolutionary Biology  
ebritt@uci.edu  
(949) 824-4585

- As part of producing the best possible Bio 9G course, we will be measuring how much teaching techniques can improve student attitude and success in a large lecture course. The research procedures involves only the use of different teaching techniques that will occur in both lecture and discussion section throughout the quarter. We will be occasionally videotaping these teaching procedures, and you may be visible as part of the group responses.

- The only data that will be collected from you are surveys about your experiences in the course, your clicker and class card responses, and your exam grades. These data will only be used to calculate average responses. No personal or identifiable information will be ever published or available outside of this course or research project.

- The only foreseeable discomfort associated with the study is the same invasion of your privacy associated with your participation in a regular class. There are no direct benefits to you from participation in the study. However, this study may better help us know how to improve student learning, student satisfaction, and faculty satisfaction while teaching large lecture classes.

- Inclusion of your data in our published results is voluntary. If you do not wish to have your data included, please contact Eric Britt at ebritt@uci.edu. Your decision to include or remove your data will not affect your grade in the course. There is no cost to you for participating. You may refuse to participate or discontinue your involvement at any time without penalty. We will not be analyzing these data until after final grades have been submitted. All published data will be aggregate means from multiple students.
• You will not be paid for your participation in this research.

• All research data collected will be stored securely and confidentially. Any videotape containing your image will only be used as a demonstration of our teaching techniques.

• The research team, authorized UCI personnel, the study sponsor (if applicable), and regulatory entities such as the FDA, may have access to your study records to protect your safety and welfare. Any information derived from this research project that personally identifies you will not be voluntarily released or disclosed by these entities without your separate consent, except as specifically required by law.

• You must be 18 years old in order to participate in this project. If you are under 18 as of today, please also contact Eric Britt; you must opt out of the data collection.

• If you do not wish to be videotaped, please sit in the back two rows of the lecture hall, and we will keep you out of the video frame. If you have any other concerns about videotaping, please contact Eric Britt and we will work to accommodate you.

• If you have any comments, concerns, or questions regarding the conduct of this research please contact the researchers listed at the top of this form.

• If you are unable to reach the researchers listed at the top of the form and have general questions, or you have concerns or complaints about the research, or questions about your rights as a research subject, please contact UCI’s Office of Research Administration by phone, (949) 824-6662, by e-mail at IRB@rgs.uci.edu or at University Tower - 4199 Campus Drive, Suite 300, Irvine, CA 92697-7600.

(The final version with the IRB verification may be downloaded from the class web page after April 3, 2007)

http://eee.uci.edu/07s/05396/
Lecture Materials

1. Anatomy of the Heart
2. Heart Valves

- **Atrioventricular Valve**
  - Open (ventricle relaxed)
  - Closed (ventricle contracted)

- **Aortic Semilunar Valve**
  - Open (ventricle contracted)
  - Closed (ventricle relaxed)
3. Blood flow through the Heart: