

# BIO 213 – PRINCIPLES of STRUCTURE & FUNCTION

## Course Syllabus: Spring 2005

**Instructors:** Dr Angela Brown  
**Office:** Rm 353A, LSS  
**Phone:** 885-6494

Dr Martina Ederer  
Rm 164A  
885- 2037

**e-mail:** [abrown@uidaho.edu](mailto:abrown@uidaho.edu) [ederer@uidaho.edu](mailto:ederer@uidaho.edu)

**Office Hours:** Wed: 8:30 – 9:30am  
Wed: 12:30 – 1:30pm  
and by appointment

Mon: 12:30 – 1:30pm  
Wed: 12:30 – 1:30pm  
and by appointment

**Lectures:** MWF, 11:30 –12:20; LSS 277

**Labs:** Sec 01: TUES 8:30 – 11:20  
Sec 02: TUES 11:30 – 2:20  
Sec 03: TUES 2:30 – 5:20  
Sec 04: WED 1:30 – 4:20  
Sec 05: THURS 9:30 – 12:20  
Sec 06: THURS 1:30 – 4:20

All Labs in LSS, Room 361

*You may only attend the section for which you are registered.*

**Textbooks:** **Biology**, 6<sup>th</sup> edition, 2002. Campbell & Reece.  
Benjamin Cummings

**Customized Lab Manual for BIO 213** – Biology in the Laboratory 3e;  
Helms, Helms, Kosinski & Cummings

### ***Course Description:***

In BIO 115 the fundamental concepts of life were studied at the cellular level. BIO 116 surveyed the appearance of different organisms and how they evolved over time. In BIO 213 we are going to build on your knowledge from those courses and examine many of the physiological similarities/differences that exist between plants and animals. Most research efforts have focused on flowering plants and vertebrates and this course will do likewise. You may (or may not) have previously considered that plants and animals often faced similar challenges as they were presented with different environments over time. In order to survive, these organisms evolved physiological adaptations that allow them to overcome these challenges. Some of the adaptations that we will examine in BIO 213 include (but are not limited to):- internal transport and gas exchange systems; nutrition; reproduction and embryo development; cellular communication and defense systems. We will discuss similarities and also the diversity among the adaptations found in different organisms.

*Class Notes/ Announcements/ Past Exams* can be found on the student drive:

U:\STC-CLASS-Students.Moscow.ui\CLASSES\BIOL\BIO 213

This site can only be accessed from campus (instructions attached). If you are having difficulty finding the site, talk to me about it. It's useful for you to have access to this site even if you are not using the lecture notes.

**GRADING:**

- |                                  |       |
|----------------------------------|-------|
| • 4 lecture exams (100 pts each) | 400   |
| • Comprehensive exam (optional)  | (100) |
| • Presentation                   | 100   |
| • 10 Lab quizzes (10 pts each)   | 100   |
| • 2 Lab Exams (100 pts each)     | 200   |

TOTAL	800
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**Lecture exams** may consist of fill in the blank, matching, short answer or multiple choice questions. Multiple choice questions will be answered on scantron sheets. You are required to take exams 1 – 4; if you are unhappy with your grade in any of these exams you may take the comprehensive exam and replace the low grade.

**Lab quizzes** will cover material from the lab given the previous week.

**Lab exams** will be mostly practical where you will be presented with material that you have been exposed to in the lab and asked questions similar to those in quizzes and the lab manual.

*It is important to grasp new terms and their meaning as they are introduced to you. Testing your understanding of new terminology will be a component of both the lecture exams and lab quizzes.*

**Lecture presentation** will be in Powerpoint format and presented during your assigned lab time. Further details will be given in lab.

***Calculate Your Grade:***

There will be no curving of scores. Letter grades are awarded based on the following scale

A	90 – 100%
B	80 – 89.9%
C	70 – 79.9%
D	60 – 69.9%
F	0 – 59.9%

Keep track of your grades on the sheet provided. You can calculate your grade at any time during the semester by using the following formula:

$$\frac{\text{Total \# points earned}}{\text{Total possible points (so far)}} \times 100 = \text{your current \%}$$

If you are unsure of how to calculate your grade, the instructors or TAs will be happy to show you.

**Absence from exams and lab sessions** will *only be excused for reasons of illness, family emergency or conflict with an official University function*. Missed lecture exams will be taken the day of the final exam; the comprehensive exam will be taken in lieu of the missed exam. Lab exams cannot be made up. If you will be absent or are sick on the day of a lab exam notify your instructor *as soon as possible* to make alternative arrangements. Missed lab sessions, will be rescheduled at the discretion of the instructor or TA. **Absence from three or more labs may result in you failing this course.**

#### DATES TO REMEMBER:

Friday, FEB 11	EXAM # 1
Wednesday, MARCH 9	EXAM # 2
Friday, APRIL 8	EXAM # 3
Wednesday, MAY 10	EXAM # 4 (10:00 – 11:00am) COMPREHENSIVE EXAM (11:00 – NOON)
FEB 28 – MARCH 4	LAB EXAM #1
APRIL 25 – 29	LAB EXAM #2
MARCH 7 – 11	Student Presentations (during lab period)
MAY 2 – 6	Student Presentations (during lab period)

#### *Academic Dishonesty:*

Unfortunately, recent events obligate us to include the following written warning. **Acts of cheating or plagiarism in this class will not be tolerated. It will result in zero points for that assignment and may ultimately result in you failing this class.** *All persons involved will be held accountable.*

Cheating refers to the acquisition of answers to test questions in a dishonest fashion.

Plagiarism is defined as i) the representation of another students work as your own, in its entirety or with slight changing of word, ii) the use of writing from published sources without citing the author(s) or iii) downloading material from the internet and presenting it as your own work.

Please, *think about the consequences*, before giving fellow students the opportunity to copy your work!

*UI Faculty-Staff Handbook*: [its.uidaho.edu/fsh/2300.html](http://its.uidaho.edu/fsh/2300.html) outlines the expected code of conduct for students at the University of Idaho. Article II addresses academic honesty of students.

### ***Web Sites of Interest:***

*Text book companion*: [www.campbellbiology.com](http://www.campbellbiology.com) is a web site with chapter tests and other learning aides which accompanies your text book

*College Physics for Students of Biology and Chemistry*: [www.rwc.uc.edu/koehler/biophys/text.html](http://www.rwc.uc.edu/koehler/biophys/text.html) is a hyper-textbook describing underlying physical forces in biological systems

*The National Arboretum*: [www.ars-grin.gov/na/index.html](http://www.ars-grin.gov/na/index.html) is the home page of the national arboretum in Washington DC. It has links to plant related topics and research projects

*American Society Plant Biologists*: [aspb.org](http://aspb.org) is the home page for the American Society of Plant Biologists (used to be American Society of Plant Physiologists). It has many links to plant related resources, jobs, current research *etc.*

Please let me know if you find other sites that may be of interest to other students or instructors and I will post them on the class site.

### ***Withdrawal from Course:***

Students withdrawing from the course need to have their drop form dated no later than January 26, 2005 for a full refund of laboratory fees. Students who withdraw after that date will forfeit their refund.

### ***Final Thoughts:***

As with any new language that you learn, *you need to be aware of the correct spelling and definition of terms*. This will become a new language for many of you and we suggest that you keep a section of your notebook specifically to list new terms and become familiar with their spelling, definition and how to apply them. We look forward to working with you throughout the semester. If you are having difficulties with the lecture material or the lab studies please visit with an instructor or teaching assistant – the sooner you visit the better your chance of success. If you have a personal grievance or think of something more general about the course that the whole class can benefit from please let me know. Let's remedy the problem rather than have it ferment all semester. We are here to help you succeed and enjoy learning about the principles behind the structure and function of biological systems!

Angela P. Brown  
Martina Ederer