Spring, 2014

# BIOLOGY 206: CELLULAR & ORGANISMIC BIOLOGY II

Mondays, Wednesdays, and Fridays 1:30 am - 2:20 pm
Eiben Hall, Room 202

Professor: Dr. Frederique Kandel
E-mail: frederique.kandel@adjunct.chaminade.edu (Best way to reach me)
Office Number: 808-739-8373 (Shared office number)
Office: Henry Hall, Room 123C
Office Hours: by appointment

**Please use your "chaminade.edu" account for all email communications to me**.

Textbook: *Biology:* A Custom Edition for Chaminade University, based on: Campbell Biology, 9e Reece et al. Menlo Park: Benjamin Cummings.

Homework will require an access to the Mastering Biology website. Details on how to establish you mastering account will be provided in class.

**Course Overview:**
This course explores biodiversity and covers basic biological principles, anatomy and physiology of Eukaryotes: protists, plants, fungi and animals.

**Course Goals:**
1. To present basic concepts and principles of biology for use in present and future courses.
2. To prepare the student to continue into advanced biology or related fields, such as biochemistry.
3. To help the student on their road to becoming a competent and educated professional.
4. To examine and analyze specific content areas, such as evolution, genetics, and physiology.
5. To study the organisms included in the botanical and zoological fields emphasizing Hawaiian flora and fauna.

**Objectives for Students:** At the completion of the course you, the student, will be able to do the following:

- ✓ Identify biological structures, such as organs, and understand their anatomy and physiology.
- ✓ Use anatomy and physiology terminology.
- ✓ Identify representative flora and fauna, especially of Hawaii.
- ✓ Understand the diversity of organisms, their evolution, and phylogeny.
- ✓ Understand how organism systems are related to each other and cellular level processes.
- ✓ Understand ecological relationships between organisms and environments.

**Lectures:**
1. Class time is 50 minutes in duration, three times weekly for 15 weeks.
2. Lecture topics are listed in the course outline. Consult the outline for exam dates and holidays.
3. Adjustments may be made to the lecture outline, such as changes in exam dates, or assignments as needed.

**Grade Determination:**

- Separate grades will be given for lecture and laboratory.

- The lecture grade will be determined in the following manner:

| | | |
|---|---|---|
| 1st lecture exam | 100 points | A ≥90% |
| 2nd lecture exam | 100 points | B = 80-89% |
| Cumulative Final exam | 150 points | C = 70-79% |
| Homework/assignments | 100 points | D = 60-69% |
| Participation/attendance | 50 points | F ≤59.9% |
| Total Possible | 500 points | |

Note: Any exam that the student fails to complete at the expected time can be made up only with a valid reason to be determined by the instructor. The exam may be different from the exam taken by the other students.

The homework assignments are intended to motivate you to keep up with the material. and will also give you a sense of the types of questions found on the exams. We will be covering a lot of material at a somewhat accelerated pace.
I encourage you to review the material from the previous lecture before class and come prepared with questions you may have on what was covered.

**Class Policies:**

- Attendance is ***mandatory*** for each lecture and laboratory. Attendance will be monitored. Attendance for laboratory is especially important and unexcused absences for both lecture and laboratory will result in *grade penalties* to be determined by the instructor.

- All excused absences will require a paper-based (either typed or hand-written, not email) request for excused absence. The note must include an explanation of the reason for not being in class, the date or dates of the absences, an acknowledgment of the material missed, and a signature by the student. Supporting materials such as a doctor's note may be included as supporting evidence but the personal note acknowledging the missed material is still required. Excused absences will be noted in the grade book and quizzes given that day will not be counted for or against the student. Missed exams will have to be made up.

- Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from the CUH Counseling Center (Dr. June Yasuhara; phone 735-4845) by the end of week three of the class, in order for the instructor to plan accordingly. Failure to provide written documentation will prevent your instructor from making the necessary accommodations. Please refer any questions to the Dean of Students and review the procedures at **http://www.chaminade.edu/student_life/sss/counseling_services.php**.

- Academic dishonesty including cheating, plagiarism, and other serious offenses will not be tolerated. Appropriate action will be taken.

- Electronic devices: The use of cellular phones/text messaging is prohibited while in class. Laptops may be used to take notes but are not to be used for other purposes such as web browsing, text messaging, or working on anything else not related to class. This is a university-wide policy and the use of such devices during lecture time is disrespectful to the lecturer and neighboring students.

# BIOLOGY 206 CELLULAR & ORGANISMIC BIOLOGY II

Spring, 2014 **Course Outline**

| Week | Class | Date | Lecture topic | Chapter |
|---|---|---|---|---|
| 1 | 1 | 1/13/14 | Introduction: Syllabus and course outline, History of Life on Earth | 1 |
| | 2 | 1/15/14 | Origins of Life on Earth, | 1 |
| | 3 | 1/17/14 | Origins of Life on Earth, | 1 |
| 2 | 1/20/14 Martin Luther King, Jr. Day - "Nonviolence is a powerful and just weapon. which cuts without wounding and ennobles the man who wields it. It is a sword that heals." | | | |
| | 4 | 1/22/14 | Phylogeny | 2 |
| | 5 | 1/24/14 | Phylogeny/Protists | 2/3 |
| 3 | 6 | 1/27/14 | Protists contd | 3 |
| | 7 | 1/29/14 | Plant Diversity I: How Plants Colonized Land | 4 |
| | 8 | 1/31/14 | Plant Diversity I: How Plants Colonized Land | 4 |
| 4 | 9 | 2/3/14 | Plant Diversity II: The Evolution of Seed Plants | 4/5 |
| | 10 | 2/5/14 | Plant Diversity II: The Evolution of Seed Plants | 5 |
| | 11 | 2/7/14 | Plant Diversity II: The Evolution of Seed Plants | 5 |
| 5 | 12 | 2/10/14 | F fungi/ | 6 |
| | 13 | 2/12/14 | Fungi contd | 6 |
| | 14 | 2/14/14 | Animal Diversity: Overview | 7 |
| 6 | 2/17/14 Presidents Day - “The best way to enhance freedom in other lands is to demonstrate here that our democratic system is worthy of emulation.” | | | |
| | 15 | 2/19/14 | **Exam #1** | |
| | 16 | 2/21/14 | Animal Diversity I: Invertebrates | 8 |
| 7 | 17 | 2/24/14 | Animal Diversity I: Invertebrates | 8 |
| | 18 | 2/26/14 | Animal Diversity I: Invertebrates | 8 |
| | 19 | 2/28/14 | Animal Diversity II: Vertebrates | 9 |
| 8 | 20 | 3/3/14 | Animal Diversity II: Vertebrates | 9 |
| | 21 | 3/5/14 | Animal Diversity II: Vertebrates | 9 |
| | 22 | 3/7/14 | Animal Diversity II: Vertebrates | 9 |
| 9 | 23 | 3/10/14 | Finish Vertebrates/Start Animal Form and Function | 9 |
| | 24 | 3/12/14 | Animal Form and Function | 9/15 |

| | | | | |
|---|---|---|---|---|
| | 25 | 3/14/14 | Animal Form and Function | 15 |
| 10 | 26 | 3/17/14 | Animal Nutrition | 16 |
| | 27 | 3/19/14 | Animal Nutrition | 16 |
| | 28 | 3/21/14 | Circulation and Gas Exchange | 17 |
| SB | 3/24<br>3/26 – Spring Break<br>3/28 | | | |
| 11 | 29 | 3/31/14 | **Exam #2** | |
| | 30 | 4/2/14 | Circulation and Gas Exchange | 17 |
| | 31 | 4/4/14 | Finish Circ/Immune System | 17/18 |
| 12 | 32 | 4/7/14 | Immune System | 17/18 |
| | 33 | 4/9/14 | Osmoregulation and Excretion | 19 |
| | 34 | 4/11/14 | Osmoregulation and Excretion | 19 |
| 13 | 35 | 4/14/14 | Hormones and the Endocrine System | 20 |
| | 36 | 4/16/14 | Hormones and the Endocrine System | 20 |
| | 37 | 4/18/14 | Hormones and the Endocrine System | 20 |
| 14 | 38 | 4/21/14 | Animal Reproduction | 21 |
| | 39 | 4/23/14 | Animal Reproduction | 21 |
| | 40 | 4/25/14 | Neurons, Synapses, and Signaling | 23 |
| 15 | 41 | 4/28/14 | Neurons, Synapses, and Signaling | 23 |
| | 42 | 4/30/14 | Muscular System | 24 |
| | 43 | 5/2/14 | Muscular System | 24 |
| **Final Exam: Wednesday, May 7, 2014 11:00 – 1:00 PM** | | | | |