## **Animal Biology (Biology 1110)**

**Professor:** Dr. Janice M. Hughes

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Office Hours: TBA

Office hours by appointment are available and encouraged.

Contacting me by email is best.

**Lab Technician:** Mrs. Barb Barnes

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#### **Textbooks:**

Required Manuals: Animal Biology Laboratory Manual. 2015.

Animal Biology Lecture Manual. 2015.

Textbook: Van DeGraff's Photographic Atlas for the Zoological

Laboratory, 7<sup>th</sup> edition. 2013. Adams and Crawley. Morton.

If you would like to buy another reference book, I suggest that you purchase one of the following. Used copies are available on the internet at affordable prices.

Zoology. Miller and Harley. McGraw-Hill.

Integrated Principles of Zoology. Hickman et al. McGraw-Hill.

## **Marking Scheme: Lectures**

The lecture component of this course comprises 60% of the overall course grade. There are two midterm tests worth 20% each, but only the midterm with the highest mark will count towards your final grade.

| Midterm Test 1 | Origins through Nematodes                  | 20% |
|----------------|--|-----|
| Midterm Test 2 | Molluscs through Introduction to Chordates | 20% |
| Final Exam     | Fishes through Mammals                     | 40% |

The tests and exams are NOT cumulative.

The duration of the mid-term tests is 1 hour.

The duration of the final exam is 2 hours.

If you miss a midterm test due to illness, you must (1) inform me by email within 24 hours of the scheduled test time, and (2) provide a doctor's note within 7 days of the missed test that explains your absence. Otherwise, you will not be able to write a make-up test. Athletes who will miss a midterm test due to out-of-town competitions must provide a letter or email from their coach in advance that clearly shows the dates of their competitions. No other excuses (e.g., vacations, car trouble, sleeping in, or non-university related activities) for missing tests or exams will be accepted.

<u>DO NOT make travel arrangements until after the final exam schedule comes out!</u> There have been years when the Animal Biology final exam was scheduled on the last day of the exam period. I cannot change the date of the final exam.

## **Marking Scheme: Labs**

The lab component of this course comprises 40% of the overall course grade. There are two lab exams worth 15% each. There are 6 lab quizzes worth 10% total; only the best 5 of 6 quiz marks will count towards your final grade.

| Lab Exam 1  | Based on Labs 1 to 4       | 15% |
|-------------|----------------------------|-----|
| Lab Exam 2  | Based on Labs 5 to 8       | 15% |
| Lab Quizzes | See lab manual for details | 10% |

The exams are <u>NOT</u> cumulative. See the lab manual for more information about lab quizzes and exams. There are also 3 potential bonus marks that can be earned during the labs. See the lab manual for more information about bonus marks.

### **Important Dates:**

Labs start on the week of January 12.
Study week occurs from Monday, February 16 to Friday, February 20.
The final exam will be held during the exam period from April 10 to 23.

# **SCHEDULE OF LECTURE TOPICS**

Please note that the following schedule is subject to slight changes (not in the order of the topics but in the dates on which they will occur).

| Jan<br>Jan | 7<br>9   | Introduction to the Course Origins of Life                                    |
|------------|----------|---|
| Jan<br>Jan | 14<br>16 | Evolution/Classification Animal Body Plans/Reproduction                       |
| Jan<br>Jan | 21<br>23 | Sponges (Porifera)/Radiate Animals (Cnidaria) Flatworms (Platyhelminthes)     |
| Jan<br>Jan | 28<br>30 | Roundworms (Nematodes)<br>Molluscs (Mollusca)                                 |
| Feb<br>Feb | 4<br>6   | Segmented Worms (Annelida) <b>Test 1</b> – Origins through Nematodes          |
| Feb<br>Feb | 11<br>13 | Arthropods – Chelicerata<br>Arthropods – Crustacea/Myriapoda                  |
|            |          | Study week  |
| Feb<br>Feb | 25<br>27 | Arthropods – Insects (Hexapoda)<br>Echinoderms/Introduction to Chordates      |
| Mar<br>Mar | 4<br>6   | Cartilaginous Fishes (Chondrichthyes)<br>Bony Fishes (Osteichthyes)           |
| Mar<br>Mar | 11<br>13 | Amphibians (Lissamphibia) <b>Test 2</b> – Molluscs through Intro to Chordates |
| Mar<br>Mar | 18<br>20 | Reptiles (Reptilia)<br>Reptiles (Reptilia)                                    |

| Mar | 25 | Birds (Aves)               |
|-----|----|----------------------------|
| Mar | 27 | Birds (Aves)               |
|     |    |                            |
| Apr | 1  | Mammals (Mammalia)         |
| Apr | 3  | <b>Good Friday Holiday</b> |
| -   |    | •                          |
| Apr | 7  | Mammals (Mammalia)         |
|     |    |                            |

# **SCHEDULE OF LAB TOPICS**

| Jan        | 6/8   | No lab   |
|------------|-------|--|
| Jan        | 13/15 | Reproduction and Development   |
| Jan        | 20/22 | Protista, Porifera, and Cnidaria (Lab Quiz 1)                                      |
| Jan        | 27/29 | "Worms" and Mollusca (Lab Quiz 2)  |
| Feb        | 3/5   | Arthropoda 1: Chelicerata and Crustacea (Lab Quiz 3)                               |
| Feb        | 10/12 | <b>Lab Exam 1</b> – Labs 1 to 4  |
|            |       |  |
|            |       | Study Week   |
| Feb        | 24/26 | Study Week Arthropoda 2: Myriapoda and Insects                                     |
| Feb<br>Mar | ·     |  |
|            | ·     | Arthropoda 2: Myriapoda and Insects  |
| Mar        | 3/5   | Arthropoda 2: Myriapoda and Insects  Echinodermata and Protochordates (Lab Quiz 4) |