SYLLABUS: BIOL 321. General and Comparative Physiology Lecture: Fall 2015
Section 1, TR, 8:00 am - 9:15 am, SSMB 138

Instructor: Andrew Clark, Ph.D.
Office location: SSMB 148, or TBA
Office hours: Tuesday 10:00 am – 11:50 am, or by appointment
Email: clarkaj@cofc.edu
Mailbox: Biology Department Office, SSMB 231

Prerequisites:
BIOL 111/111L, 112/112L, 211/211D, 305; one year of chemistry (CHEM 111/111L, 112/112L)
CHEM 232 can be substituted for BIOL 211 and 305
MATH 250 (can be a co-requisite) or equivalent course in statistics (or instructor permission)

Textbook:
W. H. Freeman and Company, New York

Course goals:
To facilitate the development of your understanding on the functionalities of diverse animals, and the
complex but fascinating interrelationships that physiology has with morphology, ecology, and evolution.
As this knowledge develops, you should even be able to recognize the applicability of comparative
physiology to industry and medicine. While developing your fascination for animal function and scientific
discovery, this course also encourages you to embrace other academic disciplines that interface with
biology (e.g. physics, chemistry, and mathematics)

Access to course information:
Course announcements, additional reading material, and copies of PowerPoint lectures will be posted on
OAKS. PowerPoint lectures will be posted after lecture. Therefore, it is important to sign into OAKS and
check your email regularly.

Grading:
The lecture portion of BIOL 321 will account for 60% of your final BIOL 321 grade, and is based on the
points you earn on: three in-class exams (50%; 100 points per exam), six in-class quizzes (25%; 100
points total for quizzes), and one cumulative final exam (25%; 100 points for final exam)

Grade scale:
A (93-100%), A- (90-92%), B+ (88-89%), B (83-87%), B- (80-82%), C+ (78-79%), C (73-77%), C- (70-
72%), D+ (68-69%), D (63-67%), D- (60-62%), F (<60%).

Attendance:
You are expected to attend all lectures. A significant portion of my lectures will be delivered with a
chalkboard or whiteboard, which, unlike PowerPoint lectures, will not be posted on OAKS. If you miss a
lecture on the day of a quiz or exam due to serious unforeseen matters (e.g. a medical crisis), you must
provide an official excuse (e.g. an official note from a medical doctor) within five business days of the date
of your absence. An absence memo alone will not suffice. You are responsible for obtaining and learning
the material that you miss in lecture in the event of an absence.

Special needs:
If you need any special accommodations to complete the requirements for this course, please contact me
as soon as possible.

Exams & quizzes:
All exams will consist of multiple choice and short-answer (i.e. non-essay) questions, and will cover all
material from lecture, unless specified otherwise. The final exam will be cumulative. There will be six
quizzes in lecture, each of which will be timed (10 minutes).
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<thead>
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<th>Week</th>
<th>Topic</th>
<th>Chapters</th>
<th>Exams</th>
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<tr>
<td>1 (Aug 25 &amp; 27)</td>
<td>Clark Introduction</td>
<td>1-2 (pp. 3-40)</td>
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<td>2 (Sep 1 &amp; 3)</td>
<td>Clark Energy</td>
<td>3 (pp. 41-77)</td>
<td>Quiz 1 (Sep 3)</td>
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<td>3 (Sep 8 &amp; 10)</td>
<td>Clark Metabolism</td>
<td>17 (pp. 699-736)</td>
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<td>4 (Sep 15 &amp; 17)</td>
<td>Clark Membranes, channels, &amp; transport</td>
<td>4 (pp. 79-110)</td>
<td>Quiz 2 (Sep 15)</td>
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<td>5 (Sep 22 &amp; 24)</td>
<td>Clark Ionic &amp; osmotic balance</td>
<td>14 (pp. 579-630)</td>
<td>Exam 1 (Sep 24)</td>
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<td>6 (Sep 29 &amp; Oct 1)</td>
<td>Clark Circulation</td>
<td>12 (pp. 473-524)</td>
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<td>7 (Oct 6 &amp; 8)</td>
<td>Clark Gas exchange</td>
<td>13 (pp. 525-578)</td>
<td>Quiz 3 (Oct 8)</td>
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<td>8 (Oct 13 &amp; 15)</td>
<td>Clark Nervous system</td>
<td>5 (pp. 113-153)</td>
<td>Quiz 4 (Oct 15)</td>
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<td>9 (Oct 20 &amp; 22)</td>
<td>Clark FALL BREAK (No class on Oct 20);</td>
<td>7 (pp. 215-276)</td>
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<td>10 (Oct 27 &amp; 29)</td>
<td>Clark Sensory systems</td>
<td>7 (pp. 215-276)</td>
<td>Exam 2 (Oct 27)</td>
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<td>11 (Nov 3 &amp; 5)</td>
<td>Clark Musculoskeletal systems</td>
<td>10 (pp. 667-697)</td>
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<td>12 (Nov 10 &amp; 12)</td>
<td>Clark Locomotion</td>
<td>16 (pp. 667-697)</td>
<td>Quiz 5 (Nov 13)</td>
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<td>13 (Nov 17 &amp; 19)</td>
<td>Clark Feeding &amp; digestion</td>
<td>15 (pp. 631-666)</td>
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<td>14 (Nov 24 &amp; 26)</td>
<td>Clark THANKSGIVING HOLIDAY (No class on Nov 26)</td>
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<td>Exam 3 (Nov 24)</td>
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<td>15 (Dec 1 &amp; 3)</td>
<td>Clark Glands &amp; hormones</td>
<td>9 (pp. 301-360)</td>
<td>Quiz 6 (Dec 3)</td>
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Tuesday, Dec 15 (8am-11am) Final Exam

**Honor system and academic integrity**
Be familiar with the College of Charleston’s Honor System:

http://studentaffairs.cofc.edu/honor-system/

Any form of academic dishonesty will not be tolerated. Unauthorized collaboration between students (working together without permission), giving unauthorized assistance, copying from another student’s exam or quiz, and using an unauthorized study aid are forms of cheating. Any suspected instance of academic dishonesty will be referred to the Honor Board and can bear serious consequences (e.g. failure in the course plus expulsion).