Zool 420G: Biology of Aging Spring 2015

ONLINE COURSE

Instructor: Dr. Jeff Engel
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Email: je-engel@wiu.edu (put "Aging" in subject line) or email me through WesternOnline.
I will check email at least once per day.
You may also email me through WesternOnline.
Office: Waggoner 359 (if I am not there, try my laboratory, Waggoner 373)
Office Hours: M 10:00–11:30, T 12:00–1:00, W 10:00–11:30, and by appointment or drop-in / call-in
Skype Hours: M 8–9 pm, Sat 8–9 am. My Skype ID is jeff.engel100

Course Web Site: WesternOnline

ABOUT THIS COURSE:

Catalog description: Introduction to the nature and theories of aging. A study of the processes involved at the molecular, cellular, organ, and organismal levels of development and the changes that occur with time. Relationships between aging and immunity, neoplasia, and systems integration are explored. Emphasis on humans. Prerequisite: BIOL 100 and 101 or BOT 200 (C grade or better) and ZOOL 200 (C grade or better)

Goals and objectives: Students will be able to:
• describe changes in human physiology, as well as diseases, that occur with age
• explain mechanisms of aging at cellular and organismal levels
• explain genetic and evolutionary theories of aging
• describe demographic and experimental methods for studying aging

Online courses present unique challenges. You will have more responsibility for staying aware of deadlines. Be aware that an online course usually takes as much time as a face-to-face course, but without the structure of scheduled class times, you will have to manage your time carefully.

COURSE MATERIALS:

Student resources linked from: www.garlandscience.com/product/isbn/9780815342137

GRADING AND ASSESSMENTS:

Grading:

7 modules: 30 points each (210 points total for the semester)
Each module includes: 1 text/lecture review quiz (10 points)
1 reading discussion forum (10 points)
1 exam (10 points)*

* 1st module will have Introductions discussion forum instead of exam

Undergrad grading scale will be: 93−100% = A 90−92.99% = A−
87−89.99% = B+ 83−86.99% = B 80−82.99% = B−
77−79.99% = C+ 73−76.99% = C 70−72.99% = C−
67−69.99% = D+ 63−66.99% = D 60−62.99% = D− 59.99% or less = F

Graduate students will be graded on a 90-80-70-60% scale.

Graduate students will earn the G credit by writing a term paper. This paper will be 5–10 pages in length about some topic in Biology of Aging approved by the instructor, based on at least 5 primary research journal articles published in the last 10 years. The paper will be typed in proper scientific format (Biology Department Thesis Guide or APA). It will be due on Sunday, April 26.
ACTIVITIES:

**Text/Lecture Review Quiz** is an open-book quiz to prompt you for main points of the text and “lectures” (online PowerPoints.) For long chapters it will be broken into two quizzes. The total points will be 10, regardless of how many questions there are. These quizzes can be taken twice. It is expected that most students will get nearly perfect scores if they allow enough time for the quizzes.

**Discussion Forums** are online forums for you to comment on assigned articles. You will start a thread to post an original comment (guidelines will be provided for each reading). Then (except for the Introductions forum) you will respond to at least one other student’s post or response. For full credit your response should bring in new ideas, synthesize information, present a new insight or relate the original post to your own experience.

**Exams** will consist of essay questions or problems to be solved and submitted to a dropbox.

**Module Schedule** is basically as follows:

**Week 1:**
- Begin reading textbook and online PowerPoints or other “lecture” material
- *Saturday midnight:* Exam about previous module is due
- *Sunday midnight:* first Text/Lecture Review Quiz is due (if quiz is in two parts)

**Week 2:**
- Continue reading textbook and online PowerPoints or other “lecture” material
- Read assigned article
- *Wednesday midnight:* initial post on Discussion Forum is due
- *Saturday midnight:* response posting on Discussion Forum is due
- *Sunday midnight:* Text/Lecture Review Quiz is due (or part 2 is due)
- Start Exam on this module, due the following Saturday at midnight

Due dates are deadlines, but you should try to submit all work well before these deadlines. Late work will receive half credit up to 1 week late, no credit after that.

Two modules will vary from this pattern: Module 1 will have two online forums and no exam, and Module 2 will be 3 weeks long. Details will be provided on WesternOnline.

**ADDITIONAL RESOURCES AND SUPPORT:**

**Study Skills Seminars** are offered are offered weekly at Memorial Hall - Conference Room 124. Get the schedule at [www.wiu.edu/student_services/ucc/programs/studyskills.php](http://www.wiu.edu/student_services/ucc/programs/studyskills.php)

More tips for study and time management are at [www.wiu.edu/student_services/ucc/resources/](http://www.wiu.edu/student_services/ucc/resources/) and [www.wiu.edu/users/ccss/study_skills/](http://www.wiu.edu/users/ccss/study_skills/).

**Disability Resource Center** offers various kinds of support for note taking, exams, etc. to qualified students. They are at 117 Seale Hall, 298-2512, and on the Web at:
[www.wiu.edu/student_services/disability_resource_center/](http://www.wiu.edu/student_services/disability_resource_center/)

**Accommodations:** In accordance with University policy and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. For the instructor to provide the proper accommodation(s) you must obtain documentation of the need for an accommodation through Disability Resource Center (DRC) and provide it to the instructor. It is imperative that you take the initiative to bring such needs to the instructor's attention, as he/she is not legally permitted to inquire about such particular needs of students. Students who may require special assistance in emergency evacuations (i.e. fire, tornado, etc.) should contact the instructor as to the most appropriate procedures to follow in such an emergency. Contact Disability Resource Center (DRC) at 298-2512 for additional services.
ACADEMIC CONDUCT:

It is the student’s responsibility to be familiar with the information (including required forms, definitions, and time lines) contained in the following university web sites. Each student should access these web sites and carefully read the information they contain. Your instructors will hold you responsible for knowing this information. If you have questions about any of the information contained in the web sites, ask your instructor.

- Students’ Rights and Responsibilities: http://www.wiu.edu/provost/students.php
- University Final Exam Policy: http://www.wiu.edu/policies/fi
- Grade Appeal Policy: http://www.wiu.edu/policies/gradeapp.php

Academic dishonesty, including but not limited to plagiarism, cheating, or lying, will be penalized in accordance with university policy. Penalties may include failing the course or expulsion from the university. You should assume that collaborating with other students on class work IS NOT allowed unless permission is given explicitly. If in doubt, ask your instructor! Please review the following policy of the WIU Department of Biological Sciences:

Definition of Plagiarism

The faculty of the Department of Biological Sciences subscribe to a definition of plagiarism as expressed by V. E. McMillan in Writing Papers in the Biological Sciences (Bedford/St. Martin’s Press, New York, pg 16)

“Plagiarism is the theft of someone else’s words, work, or ideas. It includes such acts as (1) turning in a friend’s paper and saying it is yours; (2) using another person’s data or ideas without acknowledgement; (3) copying an author’s exact words and putting them in your paper without quotation marks; and (4) using wording that is very similar to that of the original source but passing it off as entirely your own even while acknowledging the source.”

This includes information in textbooks or laboratory manuals, honors and masters theses, all writing assignments, and images. The faculty of the Department attempt to monitor student writing assignments (essay exams, papers, laboratory reports, and other writing assignments or exercises) for incidence of plagiarism. If plagiarism is found, the faculty will discuss the situation with the student and indicate to the student the penalty for this academic dishonesty. Potential penalties include those cited in the academic dishonesty section of the WIU web page, http://www.wiu.edu/policies/acintegrity.php.
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<th>Module</th>
<th>Weeks</th>
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<tr>
<td>1</td>
<td>1–2 (Jan. 20)</td>
<td>Introduction</td>
<td>Chapter 1</td>
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<td>2</td>
<td>3–5 (Feb. 2)</td>
<td>Physiology of Human Aging</td>
<td>Chapter 8</td>
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<td>3</td>
<td>6–7 (Feb. 23)</td>
<td>Age-Related Diseases in Humans</td>
<td>Chapter 9</td>
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<td>4</td>
<td>8–9 (Mar. 9)</td>
<td>Measuring Biological Aging</td>
<td>Chapter 2</td>
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<td><em>Spring Break, March 16–20, is between weeks 8 &amp; 9</em></td>
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<td>5</td>
<td>10–11 (Mar. 30)</td>
<td>Evolutionary Theories of Aging; Cellular Aging</td>
<td>Chapters 3 &amp; 4</td>
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<td>6</td>
<td>12–13 (Apr. 13)</td>
<td>Genetics of Longevity</td>
<td>Chapter 5</td>
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<td><strong>Graduate Paper is due Sunday, April 26</strong></td>
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<td>7</td>
<td>14–15 (Apr. 27)</td>
<td>Human Longevity; Modulating Human Aging</td>
<td>Chapters 7 &amp; 10</td>
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The exam for Module 7 will be due at midnight on Saturday, May 16 (end of Finals Week)

*The above schedule is tentative and all aspects, including exam times, are subject to change with notice.*