
LIFE SCIENCES 15

LIFE: CONCEPTS AND ISSUES



SPRING 2007

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lecture meets: Tuesdays and Thursdays, 11am - 12:15pm, LaKretz 110

REQUIRED READINGS

Mean Genes by Terry Burnham and Jay Phelan. Penguin Books. (*mg*)
Essential Biology with Physiology, 2nd Edition, by Campbell, Reece, & Simon. (*eb*)
www.Prep-U.com - a web site with multiple choice questions on biology

COURSE REQUIREMENTS

- 154 • **Section**
Weekly quiz (taken from the problem set; 8 quizzes @ 12pts each; lowest score dropped = 84 pts total), Debate (40 pts), Participation (30 pts)
- 30 • **Prep-U Assignments** (two, each worth 15 points; taken during weeks 4 and 10)
- 150 • **Midterm Exam**
- 200 • **Final Exam** (comprehensive)
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- 534 • **Total Points Possible**

PREP-U

To help you prepare for the exams, you will be using the website www.Prep-U.com. for practice with multiple choice questions. You also will take two 15-point assignments using Prep-U. The first, which will help you with the midterm, must be taken sometime during Week 4. The second, which will help you with the final exam, must be taken sometime during Week 10. Some questions on the exams will be taken directly from Prep-U. Your username for www.Prep-U.com is your email address and your password is the last three digits of your UCLA i.d.

EXAMS

There are two exams in this class, one midterm and one final. The midterm is given in class on Tuesday of week 5 (May 1st). It will cover material from the lectures and readings through Thursday, April 26th and discussion section material through Week 4. The exam will include multiple-choice and short-answer questions. The final exam is comprehensive but will emphasize material covered after the midterm.

Makeup exams and quizzes are not given. If you are unable to take an examination or have an illness or other emergency, you are responsible for contacting the Life Science Core Office (LS Building, Room 2305, 825-6614) before the examination. You are required to have written verification regarding the illness or emergency. If you feel that an error was made in the grading of your exam, submit your exam with a typed, detailed explanation of the error to the Life Sciences Core Office by Friday of the week following the exam.

THE LIFE SCIENCES CORE OFFICE

For any administrative and scheduling problems relating to this course, please go to the Life Sciences Core Office in Life Sci. Bldg., room 2305, 825-6614.

DISCUSSION SECTION AND PROBLEM SETS

Each week there will be a problem set distributed during class. This will include a brief discussion of a topic with some short answer problems. You will not turn in your answers to the problem set but they will be useful in helping you prepare for the exams and the weekly quizzes.

Discussion section meets once a week for two hours. At the beginning of section, there will be a quiz. This quiz will be one of the problems from the problem set (possibly in a *very* slightly altered form). Missed quizzes cannot be made up. No exceptions.

In five of the section meetings there will also be a debate. You will take part directly in one debate during the quarter. During the first week of discussion section, your TA will give you more details on the logistics of the debates.

WEEK	DATE	DISCUSSION SECTION TOPIC / PROBLEM SET
1	Apr. 2-6	Science as a way of figuring things out (<i>no problem set, no quiz</i>)
2	Apr. 9-13	Natural selection (<i>PSet 1</i>) Prep-U topic: Evolutionary Processes
3	Apr. 16-20	Genes and DNA (<i>PSet 2</i>) Prep-U topic: Mendelian Genetics <i>Debate topic:</i> Genetic screening for all known diseases should be mandatory.
4	Apr. 23-27	Kin selection (<i>PSet 3</i>) Prep-U Assignment 1 due. <i>Debate topic:</i> Cultural, not genetic, causes are the basis of human conflict.
5	Apr./May 30-4	The chemistry of living things (<i>PSet 4</i>) Prep-U topic: Chemistry of Life
6	May 7-11	Nutrition and health (<i>PSet 5</i>) Prep-U topic: Nutrition & Digestion <i>Debate topic:</i> Human sexual behavior is largely determined by evolution.
7	May 14-18	The biology of gender differences (<i>PSet 6</i>) Prep-U topic: Sex, Repro. & Devel. <i>Debate:</i> We should improve the quality of the human genome as much as possible.
8	May 21-25	<i>No problem set. No section meeting</i>
9	May/June 28-1	Brain functioning (<i>PSet 7</i>) Prep-U topic: Nervous System <i>Debate topic:</i> Technology has been more of a detriment than a benefit to society.
10	June 4-8	Industrial societies (<i>PSet 8</i>) Prep-U Assignment 2 due.

LECTURE SCHEDULE FOR LS15

WEEK/READING	DATE	LECTURE TOPIC
1	April 3 T	1. Science as a religion
<i>eb: 1</i>	April 5 Th	2. Darwin's dangerous idea
<i>mg: 1; eb: 13</i>		
2	April 10 T	3. Nurturing nature: the power of culture
<i>eb: 8,9</i>	April 12 Th	4. What did Mendel discover?
3	April 17 T	5. Modern genetics and biotechnology
<i>eb: 12</i>	April 19 Th	6. Kindness to our kin
<i>mg: 10,11</i>		
4	April 24 T	7. Unexpected conflict, unexpected cooperation
	April 26 Th	8. Friend and foe are fluid categories
5	May 1 T	9. Exam
<i>mg: 2,3; eb: 3</i>	May 3 Th	10. Proteins, carbs, and fats: the molecules of life
6	May 8 T	11. Extracting fuel from food: digestion
<i>eb: 22</i>	May 10 Th	12. Nutrition and health
7	May 15 T	13. The trouble with testosterone: hormones and sex differences
<i>mg: 7; eb: 25</i>	May 17 Th	14. Eggs are big, sperm are small, and men are dogs
<i>mg: 8,9; eb: 26</i>		
8	May 22 T	15. Polygamy and monogamy among the animals
<i>mg: 4</i>	May 24 Th	16. Neurons and brains
9	May 29 T	17. Sensory systems and our connection to the external world
<i>eb: 27</i>	May 31 Th	18. Why are drugs so good? Caffeine: a case study
10	June 5 T	19. Flourishing in our alien, industrial environment
<i>mg: 5,6</i>	June 7 Th	20. Culture at its best? Technology's influence on our biology
<i>mg:12</i>		

Wednesday, June 13

Final Examination

11:30am - 2:30pm