University Studies Review of BIOL 117 Human Biology

Original University Studies Proposal: http://course1.winona.edu/lreuter/117us/us117.htm

Original Course Syllabus: http://course1.winona.edu/lreuter/117us/index2002.htm

Current Course Syllabus: http://course1.winona.edu/lreuter/117us/index.htm

Changes of current course syllabus, relative to original course syllabus

1) The textbook used in this course has changed, depending on who is teaching the course, but has remained an introductory textbook for human biology which broadly deals with the biology of humans and implications to health and other issues affecting society.

2) Group projects have remained a significant part of this University Studies course. The group project assignments have changed from semester to semester, based on the topics which are being concurrently considered. For a list of past and current group projects, see http://course1.winona.edu/lreuter/117us/group/index.htm.

3) Other aspects of the course and course syllabus, such as an opportunity to write and “extra credit” paper on some aspect of human biology as it relates to themselves or their intended career, have remained unchanged or have undergone minor change.
University Studies Course Approval:

Department or Program: Biology

Course Number: BIOL 117

Number of Credits: 3

Course Title: Human Biology

Catalog Description: An introductory study of the anatomy, physiology, development and heredity of the human for students who are not majoring in biology. Lecture only. Grade only. Offered each semester.

This is an existing course that has previously been approved by A2C2: Yes

This is a new course proposal: No.
(If this is a new course proposal, the WSU Curriculum Approval Form must also be completed as in the process prescribed by WSU Regulation 3-4.)

Department contact Person for this course: Lawrence A. Reuter

Email: LReuter@vax2.winona.msus.edu

A2C2 requires 55 copies of the proposal

The proposed course is designed to satisfy the requirements in (select one area only):

Course Requirements:

A. Basic Skills:
   1. College Reading and Writing
   2. Oral Communication ___
   3. Mathematics ___
   4. Physical Development and Wellness ___

B. Arts & Sciences Core:
   1. Humanities ___
   2. Natural Sciences X
   3. Social Science ___
   4. Fine & Performing Arts ___

C. Unity and Diversity:
   1. Critical Analysis ___
   2. Science and Social Policy
3. a. Global Perspectives
   b. Multicultural Perspectives

4. a. Contemporary Citizenship
   b. Democratic Institutions

D. Flagged Courses
1. Writing
2. Oral
3. a. Mathematics/Statistics
   b. Critical analysis

Approval/Disapproval Recommendations

Department Recommendation: Approved Yes Disapproved Date 22 Sept 2000

Dean's Recommendation: Approved Yes Disapproved Date 31 Oct 2000

USS Recommendation: Approved Yes Disapproved Date 29 Nov 2000

A2C2 Recommendation: Approved Disapproved Date

Faculty Senate Recommendation: Approved Disapproved Date

Academic Vice President's Recommendation: Approved Disapproved Date

President's Decision: Approved Disapproved Date

Material Submitted for Course Approval

Overview of BIOL 117 Human Biology

BIOL 117 Human Biology has several purposes. The intent is to simultaneously satisfy the needs of students with respect to the University Studies Program goals while yet providing enough anatomical and physiological detail for pre-law students who are interested in knowing the parts and functions of the human body, and for psychology majors and social work students who desire a better than average background in the disease and aging and social correlates of human biology. In addition, most everyone is interested in obtaining a knowledge of the structure of the human body and how the human body works and what goes wrong and gives rise to disease. Thus, these aspects are provided central focus in this course.

The course begins with a definition of human biology and a consideration of what it means to be human, how humans think, why humans think, and how all this is related to science and art. Approximately the first week is used to cover the concepts science, social science, natural science, inductive reasoning,
deductive reasoning, "the scientific method", and other methods used for science. These topics remain throughout the course by a review of the history of how we came to know different aspects of anatomy and physiology. However, the later parts of the course also convey specific knowledge about the parts or the human body and the functions of these parts. This course not only presents a body of knowledge, but it also includes discussion and methods of how new knowledge is added to the existing body of knowledge.

This course is taught with an enrollment of up to 180 students in a large auditorium, such as ST103 or PA201. Usually the course enrollment has been about 110 to 130 during the past few years. In order to keep students focused and on task, tests are given every second week. Tests involve both subjective multiple choice, critical analysis multiple choice and short answer essay questions. Because tests are more often than most of my courses, and because this frequency could reduce the amount of time available for discussion and presentation of subject mater, the tests are limited to half of class period. The shortened test provides the addition benefit of my being able to grade all tests and return them at the ensuing lecture period. On weeks alternating with test, students have assigned group activities for half of the class period. Each group has five to eight members, depending on class size, and each group selects group leader, a group recorder, and a group presenter.

During the first week groups are left to form freely. After the first test, individual are assigned to groups in a way which insures that each group will have members from all parts of the class grade spectrum. This is done with the belief that good students need to know how to deal with the limitations of others, and that other students can learn from the successful approaches of others. Thus, the groups are regulated: individual work is written in advance and shared with each other member of the group before discussion begins. Group discussion is regulated by the group leader, who ensures that each member has chances to speak, while the others listen. Members are allowed to change their written contributions to correct for mistakes before presenting the written work to the instructor for grading. The roles of group leader, group recorder, and group presenter are recast every two weeks - to those who have not yet performed such a role.

In course evaluations, students have indicated that they feel the group activities are very valuable. Some group activities involve outside investigative work. Some group activities involve ethical issues. Some group activities are straight forward. Students learn from one another in their discussions. Students learn that it is much harder to listen closely to others than to speak within a group. I do not grade students on their performance within the group setting. However, if a group reporter (or proxy) does not report when called upon, the entire group loses points! The larger class setting is a rare opportunity for students to introduce themselves to a large group, to learn new skills for large groups and to gain practice speaking to a larger group in an auditorium without fear of grade reprisal. In addition, they learn human biology.

**Course Syllabus Link for BIOL 117 Human Biology**

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<td>1 Understand scientific approaches</td>
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1. **Requirements and learning activities that promote students’ abilities to understand how scientists approach and solve problems in the natural sciences.**

Initially, students learn the history of science and the thought process of science from their required readings and by attending lectures. They are then forced to abstract and project their learning. This is especially done through group activities and discussion of group activities. For example, the first group activity requires each student to independently demonstrate that they know "the scientific method" by writing an outline of a problem which is solved by "the scientific method" and giving a coordinated example for each part of "the scientific method". Next, the independent examples are exchanged with each other member of an in class group and critically read by each other. Oral critique and discussion within the group follows. Students are allowed to amend and emend their original writings to reflect new understandings (which are turned in to the instructor at the end of the class period and graded by the next class period). Each class group also shares its best example of "the scientific method" to the rest of the class, where the instructor and the rest of the class critiques and validates the example. Perhaps the most learning occurs in this group activity when mistakes are made, discovered, and then corrected. This often happens when students present an example that lacks an adequate control, or chooses and example which tries to measure "best" or an example which otherwise does not map to "the scientific method".

2. **Requirements and learning activities that promote students’ abilities to apply those methods to solve problems that arise in the natural sciences.**

Required readings and lectures provide methods and examples of how scientists have view the world and how they have applied the methods of science to solve problems. Perhaps the greatest application of science to solve problems comes when students prepare written answers to questions posed for groups activities. For example, one group of students are asked to answer "Imagine that you are a bacterial parasite. What must you do to invade a human body?", and a cognate group of students are asked to answer "Imagine that you are the immune system of a human body. What must you do to protect yourself from a bacterial parasite?". The two groups are brought into class room discussion at the same time in a debate style presentation, and the rest of the class is asked to evaluate whether the bacteria group or the immune group "won". Principles of how we protect ourselves from parasites are solidified and it becomes abundantly clear that often parasites "win", especially in their final assault on an older body! Also, a number of the questions on my course assessment examinations require that students use their biological knowledge to "solve" for the correct response. Examples of previous examinations for this course may be found at ["http://bio.winona.msus.edu/reuter/117us/117s/117tstgr.htm"].
3. **Requirements and learning activities that promote students’ abilities to use inductive reasoning, mathematics, or statistics to solve problems in natural science.**

   Required readings, lectures, group activities, class room discussion, and examinations apply as in the answer to question 2, above. However, the most relevant group activity is that of the two-point discrimination which is explained at [http://bio.winona.msus.edu/reuter/117us/group/005/w15ga.htm](http://bio.winona.msus.edu/reuter/117us/group/005/w15ga.htm). After measuring and collecting their data during a class room group activity, students enter their data into an anonymous class data bank using a WWW form. From here, students are able to download all the class data from the completed class WWW data bank, import the data into an Excel spreadsheet, sort their data appropriately, and perform elementary statistics and data analysis. The results of their analysis is then presented in class and compared to the analysis completed in class as a demonstration by the instructor. (Currently, many students without computers are WOWed when they see how fast and simple it is to use Excel to answer a question!)

4. **Requirements and learning activities that promote students’ abilities to engage in independent and collaborative learning.**

   Certainly, performing the required readings and attentively attending lectures promotes students' abilities to engage in independent and collaborative learning. However, the most important part of the course for this goal is fostered by the independent preparation for group activities and the collaborative learning stimulated by the group activities. Also, independent and collaborative learning is stimulated by my making prior tests available on the web for study purposes, and too, independent and collaborative learning is stimulated when I reveal "promised" questions that will be on the next examination. (This I know from answering questions of the class in review sessions, before examinations.)

5. **Requirements and learning activities that promote students’ abilities to identify, find, and use the tools of information science as it relates to natural science.**

   For the beginning part of this course, which focuses on the methods of science, I find virtually all introductory human biology text book to be inadequate. Thus, I supplement and provide information from other sources for lecture. In addition, students are encouraged to read about the methods of science from other sources, especially the relevant parts of their social science texts and mathematics texts, to gain a perspective of how similar the different disciplines cover the same subject matter. Proper prior preparation for some of our class group activities requires that students go beyond the text. For example, see the group activities on renal related diseases, which requires that students search for additional information on symptoms of renal-related diseases and how the kidney is involved in these diseases. However, most of the new knowledge for this course is contained in the text book.
6. Requirements and learning activities that promote students’ abilities to critically evaluate both source and content of scientific information.

All parts of the course - required readings, lectures, preparation for group activities, group activities, class room discussion, and preparation for examinations - promote students' abilities to critically evaluate both source and content of scientific information. The most relevant part of the course for activity involves students writing independently in preparation for group activities and students partaking in the ensuing class room discussion. Also, examples of bad scientific reasoning, often from tabloids and newspapers, and sometimes from weekly news journals are brought to the attention of the class for discussion when the topics are relevant the subject matter of the course unit.

7. Requirements and learning activities that promote students’ abilities to recognize and correct scientific misconceptions.

All parts of the course - required readings, lectures, preparation for group activities, group activities, class room discussion, and preparation for examinations - promote students' abilities to recognize and correct scientific misconceptions. The most relevant parts of the course in which the instructor becomes aware of students' misconceptions is during discussion, the correcting of group assignment homework and, of course, the evaluation of examinations. These problems with misconceptions are then discussed at the beginning of classes during our open question, review, and review of examination sessions. Certain topics always bring forth misconceptions. For example, the ideas of evolution, development, creation, that bone is living, that the mind is closely related to the function of the brain, etc., etc. Although these misconceptions are addressed in the text reading and again in lecture, I find that often class questions and answers and discussion is a good way to address many of these misconceptions. To promote freer discussion of deeply-seated, emotionally-charged misconceptions, next fall semester I plan to make use of an anonymous web discussion forum.
BIOLOGY 0408-117-01 - HUMAN BIOLOGY

Session: Spring Semester 2001-2002
Tuesdays, Thursdays: 8:00am - 9:20am: 120 Pasteur Hall: Main Campus

Catalog Description: An introductory study of the anatomy, physiology, development and heredity of the human for students who are not majoring in biology. Lecture only. Grade only. Offered each semester.

This course is a University Studies Course. Successful completion of this course satisfies 3 semester hours of the Arts & Sciences Core: Natural Science (without lab) category.

Text Book: Sylvia S. Mader - Human Biology, current or previous edition. Mader's Human Biology Home Page

Instructor: L.A. Reuter (office: PA 214) Office Hours

Prior Tests and Class Grades

Make-Up tests are now ready! Make an appointment during office hours.

A special essay question for the final test:

Describe relationships between reproduction, development and cancer.

In-Class Group Activities

1. From time-to-time, expect group activities that aid learning.
2. The group activities will consist of working in small groups of approximately 5 or 6 students.
3. The members of each group will be assigned by the instructor.
4. Each group will select a group Leader, a group Recorder, and a group Presenter.
   - The leader's tasks are to maintain a semblance of order within the group, to set the agenda for the group, to make sure that each member of the group is able to speak on each issue, and to regulate the group such that only one member of the group speaks in turn, while the other group members listen.
   - The recorder's tasks are to record the important points of each member's thoughts and to organize the collective thoughts of the group.
   - The presenter's task is to present the recorded summary to the rest of the class when called upon by the instructor.
   - The work and record of individual group members will be inspected and assigned points by the instructor.
5. The group activities will result in points for each group member that will total for the semester to an amount that could change a member's course grade by one letter. If a group fails to present its summary to the class, the individuals of that group will lose their points for that group activity.
6. Grades for group work will be based primarily on the individual work which was presented to the group and completed during class discussion. This individual work must be submitted to the instructor immediately after class discussion for full credit. Late work will be accepted for up to four days past the due date. Late work will lose 1/5 of total points for each day beyond the due date.

Follow this link for Group Activity Assignments:

Lecture Tests and Final Examination:

1. Expect tests to consist of about equal portions of essay questions (or short-answer essay questions) and questions with multiple-choice answers. (Examples of essay questions and expected answers will be given during lectures. See above for examples of prior test questions.)
2. Expect tests to be given on alternate Thursdays. (Any topics which have not yet been covered in lecture will be moved to the next later test.)
3. If the room is crowded, there will be different versions of each test.
4. Tests will not be given early. Make-up tests will be delayed until after the last drop-day of the quarter, unless the test has not yet been returned to the class and the instructor agrees that your reason for missing the test was excusable.
5. No chewing or talking during tests. No caps/hats with forward-facing bills/rims.
6. Tests are designed to assess individual performance based on prior learning. Those who use systems of conduct for contrary purposes (i.e., cheaters, assistant cheaters, et cetera) will receive a grade of F.
7. All of the points from all of your lecture tests will be summed to yield your "Total Lecture Points". Your "Total Lecture Points" will be multiplied by a factor to result in the possible points for lecture tests to become 2/3 of the total possible course points.
8. The points accrued on your final examination will be multiplied by a factor to result in the possible points from the final examination to become 1/3 of the total possible course points.

Course grades:

1. Prior to assigning grades for the course (and "estimated grades" after each test), the points for each component will be adjusted by multiplying by a factor which results in the median scores of the top five percent of the class to become 100%. (Although I have rarely had to in the past, I reserve the right to use a different factor in case the demonstrated learning and understanding of the subject material by the entire class is abnormally elevated [or lacking].)
2. Letter grades will be assigned as follows:
   A == 88.75% to 100+%
   B == 77.50% to 88.75%
   C == 66.25% to 77.50%
   D == 55.00% to 66.25%
   F == 00.00% to 55.00%
3. Letter grades may be amended upwards by approximately one-third of a letter. For example, a D+ could be raised to a C- as a result of an appropriate amount and quality of approved "Extra Credit".
4. "Extra Credit" projects are not a required part of this course. In order to be accepted (and allow time for reading and writing), "Extra Credit" topics must be discussed with the instructor and a two-step outline approved by the instructor before mid-term day. The dated and signed outline must be included as an appendix to the final written report.

CENTRAL THEMES WHICH WILL BE PRESENT IN MANY LECTURES:

1. Biological solutions to the prerequisites of life
2. The structure and function of the human body
3. Disease or "abnormal problems" of structure and function
4. Changes as a function of aging / genetics / evolution

**THIS IS A UNIVERSITY STUDIES CORE COURSE IN THE ARTS & SCIENCES: NATURAL SCIENCE CATEGORY.**
The following learning outcomes of the University Studies Natural Science courses are mapped below to the parts of the Human Biology syllabus where they are most predominantly embraced.

Requirements and learning activities that promote students’ abilities to:
- a. understand how scientists approach and solve problems in the natural sciences,
- b. apply those methods to solve problems that arise in the natural sciences,
- c. use inductive reasoning, mathematics, or statistics to solve problems in natural science,
- d. engage in independent and collaborative learning,
- e. identify, find, and use the tools of information science as it relates to natural science,
- f. critically evaluate both source and content of scientific information, and
- g. recognize and correct scientific misconceptions.

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WSU Biology Department Home Page
BIOLOGY 0408-117-01 - HUMAN BIOLOGY  ID: 000487

Session: Spring Semester 2008-2009
Tuesdays, Thursdays: 8:00am - 9:20am: 120 Science Laboratory Center: Main Campus

Catalog Description: An introductory study of the anatomy, physiology, development and heredity of the human for students who are not majoring in biology. Lecture only. Grade only. Offered each semester.

This course is a University Studies Course. Successful completion of this course satisfies 3 semester hours of the Arts & Sciences Core: Natural Science (without lab) category.

ISBN: 0-8053-9427-3 (pbk.)
Publisher: Pearson Benjamin Cummings

This text is also available as:

1) a three-hole punched book (to lighten your back-pack loads) and

2) as an e-book (~50% less than a printed copy; see: http://www.pearsonhighered.com/educator/academic/product/0,3110,0321547608,00.html).

Pearson Benjamin Cummings Human Biology Concepts and Current Issues URL:

Instructor: L.A. Reuter (office: PA 217)
Office Hours

Prior Tests and Class Grades

Special Notes:
Extension for 1st Group Projects: Turn in data analysis on Thurs 22 Jan during class.

In-Class Group Activities
1. From time-to-time, expect group activities that aid learning.
2. In general, group activities will consist of first working independently on a problem and then sharing your insights, approach, etc. with others while working in small groups of approximately 7 students.
3. After the second week of class, members of each group will be assigned by the instructor.
4. Each group will select a group Leader, a group Recorder, and a group Presenter.
   - The leader's tasks are to maintain a semblance of order within the group, to set the agenda for the group, to make sure that each member of the group is able to speak on each issue, and to regulate the group such that only one member of the group speaks in turn, while the other group members listen.
   - The recorder's tasks are to record the important points of each member's thoughts and to organize the collective thoughts of the group.
   - The presenter's task is to present the recorded summary prepared by the group recorder to the rest of the class when called upon by the instructor.
   - The work and record of individual group members will be inspected and assigned points by the instructor.
5. The group activities will result in points for each group member that will total for the semester to an amount that could change a member's course grade by one letter.
6. If a group fails to present its summary to the class, all of the individuals belonging to that group will lose their points for that group activity.
7. Grades for group activities will be based primarily on the individual work which was prepared before class, then presented to the group during a class and completed/updated during class discussion.
8. This individual work must be submitted to the instructor immediately after class discussion for full credit.
9. The format of work submitted to the instructor must
   - be typed on a single 8.5" X 11" sheet of paper using at least 0.5" margins and size 12 font to allow easy reading,
   - have text lines double or triple spaced to easily allow hand written comment, deletions, additions or other changes of text,
   - have the student author's name in the upper left corner, followed on the next lines by the number of the group and the title of group activity, and the dates written and submitted. These identification lines should be single spaced.
10. Two objectives of group activities is to promote learning while honing effective group interaction skills. If you are unable to present for a group activity and wish to submit work for credit, you must show evidence in writing that you effectively communicated with and contributed to the group. Normally, this can be accomplished by communicating your individual work before class to the members of your group via email, with a copy to the instructor, followed by special written report to the instructor at the beginning of the next class session showing that you have interactively communicated with a majority of your group. Late work will lose 1/5 of total points for each day beyond the due date.

Follow this link for Group Activity Assignments:

Lecture Tests and Final Examination:

1. Expect tests to consist of about equal portions of essay questions (or short-answer essay questions) and questions with multiple-choice answers. (Examples of essay questions and expected answers will be given during lectures. See above for examples of prior test questions.)
2. Expect tests to be given on alternate Thursdays. (Any topics which have not yet been covered in lecture will be moved to the next later test.)
3. If the room is crowded, there will be different versions of each test.
4. Tests will not be given early. Make-up tests will be delayed until after the last drop-day of the semester, unless the test has not yet been returned to the class and the instructor agrees that your reason for missing the test was excusable.
5. No chewing or talking during tests. No caps/hats with forward-facing bills/rims.
6. Tests are designed to assess individual performance based on prior learning. Those who use systems of conduct for contrary purposes (i.e., cheaters, assistant cheaters, et cetera) will receive a grade of F.
7. All of the points from all of your lecture tests and group projects will be summed to yield your "Total Lecture Points". Your "Total Lecture Points" will be multiplied by a factor to result in the possible points for lecture tests to become 2/3 of the total possible course points.
8. The points accrued on your final examination will be multiplied by a factor to result in the possible points from the final examination to become 1/3 of the total possible course points.

Course grades:

1. Prior to assigning grades for the course (and "estimated grades" after each test), the points for each component will be adjusted by multiplying by a factor which results in the median scores of the top five percent of the class to become 100%. (Although I have rarely had to in the past, I reserve the right to use a different factor in case the demonstrated learning and understanding of the subject material by the entire class is abnormally elevated [or lacking].)

2. Letter grades will be assigned as follows:
   
   A == 88.75% to 100%
   B == 77.50% to 88.75%
   C == 66.25% to 77.50%
   D == 55.00% to 66.25%
   F == 00.00% to 55.00%

3. Letter grades may be amended upwards by approximately one-third of a letter. For example, a D+ could be raised to a C- as a result of an appropriate amount and quality of approved "Extra Credit".

4. "Extra Credit" projects are not a required part of this course. In order to be accepted (and allow time for reading and writing), "Extra Credit" topics must be discussed with the instructor and a two-step outline approved by the instructor before mid-term day. The dated and signed outline must be included as an appendix to the final written report.

Central themes which will be present in many lectures:

1. Biological solutions to the prerequisites of life
2. The structure and function of the human body
3. Disease or "abnormal problems" of structure and function
4. Changes as a function of aging / genetics / evolution
5. Human impacts, human interactions, and human reactions regarding our world

This is a University Studies Core Course in the Arts & Sciences: Natural Science category.

The following learning outcomes of the University Studies Natural Science courses are mapped below to the parts of the Human Biology syllabus where they are most predominantly embraced. A copy of the original University Studies proposal for this course can be found here.

Requirements and learning activities that promote students’ abilities to:

a.. understand how scientists approach and solve problems in the natural sciences,
b. apply those methods to solve problems that arise in the natural sciences,
c. use inductive reasoning, mathematics, or statistics to solve problems in natural science,
d. engage in independent and collaborative learning,
e. identify, find, and use the tools of information science as it relates to natural science,
f. critically evaluate both source and content of scientific information, and
g. recognize and correct scientific misconceptions.

http://course1.winona.edu/lreuter/117us/index.htm
<table>
<thead>
<tr>
<th>Week (Summer Session)</th>
<th>Week (Regular Session)</th>
<th>Monday</th>
<th>Topic</th>
<th>Text Chapters (secure site with <a href="mailto:user@winona.edu">user@winona.edu</a>)</th>
<th>University Studies Components</th>
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<tbody>
<tr>
<td>1</td>
<td>Jan 12</td>
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<td>Introduction to course</td>
<td>1, 2, 3</td>
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<td>Human Biology, Science, Society?</td>
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<td>a, b, c, d, e, f, g</td>
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<td>2 (Test Week!)</td>
<td>Jan 19</td>
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<td>Chemistry of Living Things</td>
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<td>Cells: Organization and Communication</td>
<td>3</td>
<td>a, b, c, f, g</td>
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<td>3</td>
<td>Jan 26</td>
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<td>From Cells to Organ Systems</td>
<td>4</td>
<td>a, f, g</td>
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<td>Feb 2</td>
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<td>The Skeletal System</td>
<td>5</td>
<td>a, f, g</td>
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<td>The Muscular System</td>
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<td>4 (Test Week!)</td>
<td>Feb 9</td>
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<td>Blood</td>
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<td>Feb 16</td>
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<td>Immune System</td>
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<td>a, b, c, f, g</td>
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<td>Respiratory System</td>
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<td>5</td>
<td>Feb 23</td>
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<td>Nervous system</td>
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<td>a, f, g</td>
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<td>Nervous system</td>
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<td>a, b, c, d, e, f, g</td>
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<td>6 (Test Week!)</td>
<td>Mar 2</td>
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<td>Sleep, Eat, Meditate, Plan and Scurry back</td>
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<td>7</td>
<td>Mar 9</td>
<td></td>
<td>Sensory Mechanisms</td>
<td>12</td>
<td>a, f, g</td>
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<td>Endocrine System</td>
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<td>a, b, c, f, g</td>
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<td>8 (A Break!)</td>
<td>Mar 16</td>
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<td>Endocrine System</td>
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<td>Digestive System</td>
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<td>9 (Test Week!)</td>
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<td>Urinary System</td>
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<td>Reproductive Systems</td>
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<td>Reproductive Systems</td>
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<td>11 (Test Week!)</td>
<td>Apr 6</td>
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<td>Cancer</td>
<td>18</td>
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<td>Genetics and Inheritance</td>
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<td>DNA Technology</td>
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<td>Evolution</td>
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<td>Ecosystems and Populations</td>
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<td>Apr 27</td>
<td>Human Impacts</td>
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<td>May 4</td>
<td>FINAL TEST (3:30PM - 5:30PM Wed, 6 May 2009)</td>
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Please bring a narrow 100-count Scantron; 50 ea side.